

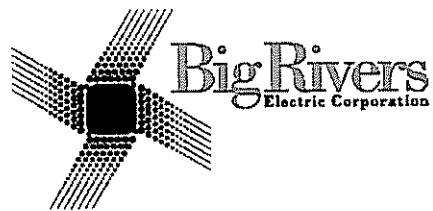
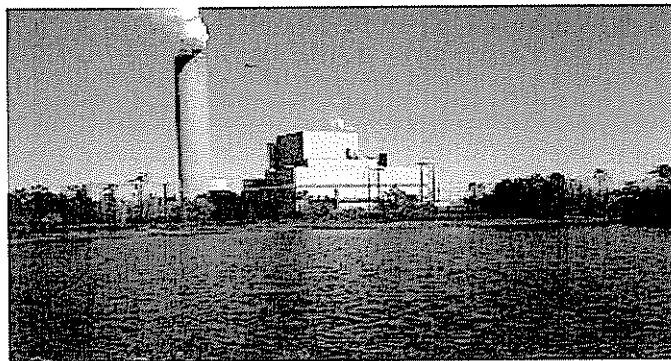
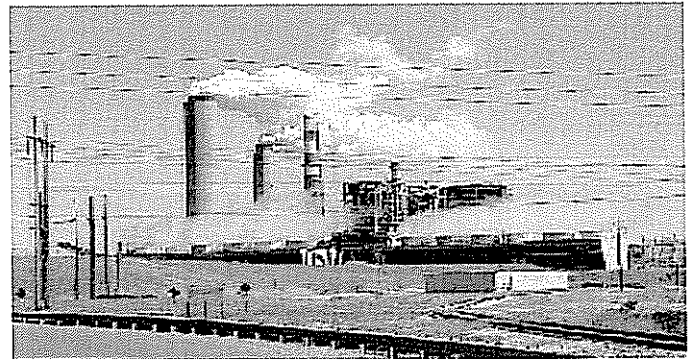
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PUBLIC SERVICE  
COMMISSION

**Big Rivers Electric Corporation  
Production Work Plan  
2009 – 2011**

**09/08 REVISION**



A Touchstone Energy® Cooperative



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## I. Executive Summary

This document is to provide a high level executive summary of the Big Rivers Electric Corporation Production Work Plan from 2009 through 2011. Big Rivers is expected to complete the unwind transaction with Eon-US and resume operation of the power plants during the fourth quarter of 2008. At the time of this publication the exact closing date is uncertain; therefore, this work plan will cover the years 2009 through 2011. For additional details please see the station specific work plans in sections IV, V and VI and the environmental compliance plan in section III.

### a) System Description:

The Big Rivers system consists of seven coal fired units of various size and vintage and one combustion turbine. Big Rivers also operates two coal fired units owned by Henderson Municipal Power and Light. Big Rivers operates these through an O&M cost sharing arrangement with HMP&L based approximately on dividing most fixed costs according to each entities share of capacity. The table below represents a brief description of the operating units:

Unit	Net Capacity	Commercialized	SO2 Control	NOx Control
Reid 1	65 MW	1966	None	None
Coleman 1	150 MW	1969	FGD Retrofit in 2006	Rotating Over-fired Air
Coleman 2	138 MW	1970	FGD Retrofit in 2006	Over-fired Air
Coleman 3	155 MW	1972	FGD Retrofit in 2006	Over-fired Air
Henderson 1	152 MW	1973	FGD Retrofit in 1995	SCR Retrofit in 2004
Henderson 2	158 MW	1974	FGD Retrofit in 1995	SCR Retrofit in 2004
Green 1	231 MW	1979	FGD	Coal Re-burn
Green 2	223 MW	1981	FGD	Coal Re-burn
Wilson 1	417 MW	1986	FGD	SCR Retrofit in 2004
Reid CT	65 MW	1976	None	None

The following table represents the Key Performance Indicators which support the Big Rivers Electric Strategic Plan. Meeting these KPI's is essential to allow the Big Rivers organization to achieve its North Start Metric.

<b>Big Rivers Electric 2009 - 2011 KPI's</b>				
	<b>UNITS</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Generation (Net of HMPL Share)</b>	MW hours	11,801,058	12,249,107	11,765,314
<b>RIIR</b>	# / 200,000 man hours	3.00%	3.00%	3.00%
<b>LTIR</b>	# / 200,000 man hours	0.63%	0.63%	0.63%
<b>EFOR</b>	% hours unplanned & unavailable	5.23%	5.23%	5.23%
<b>EAF</b>	% hours available including derates	88.34%	91.66%	88.94%
<b>Capacity Factor</b>	%	85.25%	88.31%	84.80%
<b>SO2 Compliance</b>	% of time in compliance	98.00%	98.00%	98.00%
<b>NOX Compliance</b>	% of time in compliance	98.00%	98.00%	98.00%
<b>Opacity/Particulate Compliance</b>	% of time in compliance	98.00%	98.00%	98.00%
<b>O &amp; M Expense</b>	\$	\$94,831,650	\$91,259,841	\$103,372,374
<b>Non-Labor</b>	\$	\$51,479,483	\$46,144,224	\$56,426,516
<b>Labor</b>	\$	\$43,352,166	\$45,115,617	\$46,945,858



**b) Safety:**

Safety will be a top priority at Big Rivers, as we maintain a zero tolerance for injury and continually improve our safety performance. The health and safety of our employees is one of our core values and our objective is to establish a culture that recognizes safe practices as the norm and rejects unsafe behaviors. Big Rivers will utilize a joint Safety Committee to provide leadership, conduct several monthly safety meetings and lead by example. Big Rivers will not tolerate negative behavior of our employees or construction workers toward safety. At Big Rivers every employee has the authority and obligation to immediately stop any work not being performed safely.

**Safety KPI:**

**Recordable Incident Rate:**

<u>2009</u>	<u>2010</u>	<u>2011</u>
3.0	3.0	3.0

(Excludes HLC)

<u>2009</u>	<u>2010</u>	<u>2011</u>
4.10	4.10	4.10

(Includes HLC)

**Lost Time Incident Rate:**

<u>2009</u>	<u>2010</u>	<u>2011</u>
.63	.63	.63

**c) Generation:**

During this planning period the Big Rivers system, including HMP&L will achieve an annual average of 12.659 million megawatt hours at an 86.1% capacity factor. Included in this generation plan is an annual average of 3,184 planned outage hours and 5,046 forced outage hours. The following table represents the annual net generation by unit:

<b>Unit</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Coleman 1	1,198,182	1,193,149	1,101,853
Coleman 2	1,111,046	1,039,520	1,100,508
Coleman 3	1,125,648	1,224,833	1,224,978
Reid 1	6,646	12,129	32,241
Henderson 1 - Gross	1,127,694	1,216,603	1,055,076
H1 - City Share	(343,368)	(370,440)	(321,257)
Henderson 1 - Net	784,325	846,163	733,819
Henderson 2 - Gross	1,270,579	1,183,889	1,251,666
H2 - City Share	(386,875)	(360,479)	(381,116)
Henderson 2 - Net	883,704	823,410	870,549
Green 1	1,956,029	1,800,443	1,949,916
Green 2	1,712,726	1,872,324	1,604,104
Wilson 1	3,018,776	3,432,875	3,140,591
Reid CT	3,975	4,262	6,755
<b>System Total Net</b>	<b>12,531,301</b>	<b>12,980,026</b>	<b>12,467,687</b>
<b>System Total Net of HMPL Share</b>	<b>11,801,058</b>	<b>12,249,107</b>	<b>11,765,314</b>

**d) Planned Outage Schedule**

Outage planning is an important part of the Big Rivers 2009 – 2011 work plan. The Big Rivers system performs scheduled outages as identified below:

Coleman units 1, 2, and 3

- FGD outages – 2 year interval
- Boiler and turbine valve outages – 3 year interval
- Turbine generator major inspections – 9 year interval

Wilson, Henderson 1, Henderson 2, Green 1 and Green 2

- Boiler outages – 2 year interval
- Turbine valve outages – 4 year interval
- Turbine generator major inspections – 8 year interval

The following table reflects the 2009 outage plan

<b>Unit</b>	<b>Start Date</b>	<b>End Date</b>	<b>Days</b>	<b>Hours</b>
HMPL 1	February 21, 2009	March 23, 2009	31	744
Green 2	March 28, 2009	April 29, 2009	33	792
Coleman 3	May, 2, 2009	June 2, 2009	32	768
Wilson	September 26, 2009	November 13, 2009	49	1176

**2009 Outages / Major Objectives**

**Henderson Unit 1, February 21, 2009 through March 23, 2009 (744 hours)**

- Boiler Inspection
  - Replace High Temperature Reheater
  - Replace Selected High Energy Pipe Hangers
  - Replace Selected Combustion Steam Coils
  - Replace Boiler Slag Grinders
  - Inspect Boiler Casing and Repair Gas Leaks
  - Replace Selected Boiler Soot blowers
  - Replace Wet bottom Drains
  - Replace Plant Phone & PA System
  - Inspect (NDE) Main Steam and Reheat Steam Piping

- Inspect (NDE) Selected Boiler Steam Collection Headers
- Turbine/Generator Inspection
  - Replace Cooling Tower Hot Water Distribution Deck
  - Re tube #5 Feed water Heater
- FGD/SCR Inspection
  - Replace WDPF, FGD, & SCR Controls
  - Replace Booster Fan Blade Erosion Covers
  - Clean ME Wash and Recycle Header Nozzles
  - Clean ME Panels, Reaction Tanks & Piping
  - Remove Catalyst Sample Logs
- Balance of Plant
  - Classify Mill Balls
  - Critical Motor PM's
  - Rebuild Selected 4160 Breakers
  - Fan and Ductwork Inspection Repair

**Green Unit 2, March 28, 2009 through April 29, 2009 (792 hours)**

- Boiler
  - Replace precipitator field (4th and 5th).
  - Replace fly ash hoppers.
  - Replace economizer expansion joints (2).
  - Replace west SH spray venturi.
  - Replace FD fan inlet vanes.
  - Replace air heater baskets.
  - Replace reheater tubes.
  - Replace DA trays.
  - Replace bottom ash controls.
  - Replace fly ash hopper isolation gates.
  - Replace boiler drains.
  - Replace steam coils (4).
  - Chemical clean boiler.
  - Repair wet bottom refractory.
  - Inspect and repair OHA/burner nozzles.
  - Inspect igniter rods and scanners.
  - Inspect boiler walls.
  - Inspect burners.
  - High energy pipe inspection.
  - Rebuild feed water and condensate control valves.
  - Inspect ID, FD, and PA bearings, shafts, and blades.
  - Inspect and repair air heater seals.
  - Repair precipitator outlet ducts.

- Inspect soot blowers.
- Turbine
  - Replace EH fluid.
  - Clean hydrogen and lube oil coolers.
  - Inspect 4160-480 volt breakers and repair.
  - Inspect voltage regulator and field breaker.
  - Turbine instrument inspection and calibration.
- Balance of Plant
  - Replace thickener rake drive.
  - Replace cooling tower deck.
  - Replace B water service pump.
  - Upgrade CEM's.
  - Replace coal handling controls.
  - Replace scrubber controls.
  - Replace mist eliminators.
  - Replace scrubber inlet ducts.
  - Replace cooling tower fan shrouds.
  - Precipitator and outer housing repairs.
  - Recondition mill motors.
  - Recondition recycle pump motors.
  - Clean scrubber reaction tank, headers, nozzles, and screens.
  - Inspect cooling tower structure, fan gear boxes, and pumps.

**Coleman Unit 3, May 2, 2009 through June 2, 2009 (768 hours)**

- Boiler
  - Inspection
  - Replace rear furnace deflector wall
  - Replace primary superheater
  - Sootblower replacement
  - Boiler tube overlay
  - Boiler chemical clean
  - Furnace scaffolding
  - Penthouse casing repair
  - Insulation and lagging repairs
  - Expansion joint replacement
  - Gas leak repairs
  - Fan inspections
- Turbine
  - Valve inspection
  - Replace condenser vacuum pump

- FGD
  - Maintenance inspection of all equipment that requires a FGD shutdown
  - Scaffold absorber
  - *Booster fan inspection and repair*
    - Replacement of C1 & C2 fan blades
  - Storage tank inspection and repair
  - Agitator inspection and replacement
    - Replacement of B and D blades
  - Recycle pump overhaul
  - Oxidation Air Blower inspection and PM
  - Limestone mill liner replacement
  - Motor PMs
  - Limestone mill liner replacement
  
- Balance of Plant
  - Replace A & B mill liners
  - Reclassify A & B mill balls
  - Precipitator controls replacement
  - Motor PMs
  - Replace cold end airheater baskets
  - "B:" side 4160 volt switch gear replacement
  - A and C 480 volt MCC replacement
  - Boiler feed pump overhaul

**Wilson Unit 1, September 26, 2009 through November 12, 2009 (1176 hours)**

- Boiler
  - Replace "B" platen superheat section
  - *Repair finishing superheat section*
  - Boiler high temperature header inspection
  - High Energy pipe inspection
  - Replace 12 burners
  - Replace precipitator outlet dampers
  - Chemical clean boiler
  - Perform condition assessment of Furnace area
  
- Turbine / Generator
  - HP turbine inspection
  - HP rotor blade replacement
  - Generator inspection
  - Test hardness of HP rotor to determine if replacement is needed
  
- FGD
  - Refurbish absorber modules

- Replace FGD inlet and outlet dampers
- Stack inspection and cleaning
- Replace recycle pump discharge valves
- Ductwork inspection and repairs

The following table reflects the 2010 outage plan

Unit	Start Date	End Date	Days	Hours
Wilson	February 27, 2010	March 5, 2010	7	168
Coleman 2	March 6, 2010	March 30, 2010	25	600
HMPL 2	April 3, 2010	April 23, 2010	21	504
Green 1	April 24, 2010	May 21, 2010	28	672
Reid 1	May 1, 2010	May 21, 2010	21	504

### 2010 Outages / Major Objectives

#### Wilson Unit 1, February 27, 2010 through March 5, 2010 (168 hours)

- Boiler
  - Open and inspect boiler
  - Wash airheaters
  - Inspect burners
  - Boiler valve replacement
- FGD
  - Open and inspect FGD
  - Stack cleaning

#### Coleman Unit 2, March 6, 2010 through March 30, 2010 (600 hours)

- Boiler
  - Replace reheater hot end
  - Install alloy weld overlay on waterwalls
  - Soot blower replacement
  - Chemical clean
  - Penthouse casing repair

- Insulation and lagging repair
- Expansion joint replacement
- FD fan housings, silencers and hoods replacement
- Turbine
  - Valve inspection
  - Replace condenser vacuum pump
  - Repair HP / IP steam seals
- Balance of Plant
  - 480 volt MCC replacement
  - Motor PM's
  - Boiler feed pump overhaul
  - Precipitator controls replacement

**Henderson Unit 2, April 3, 2010 through April 23, 2010 (504 hours)**

- Boiler Inspection
  - Replaced Selected High Energy Pipe Hangers
  - Replace Selected Combustion Steam Coils
  - Replace Boiler Slag Grinders
  - Replace Selected Boiler Soot Blowers
  - Inspect Boiler Casing and Repair Gas Leaks
  - Inspect (NDE) Main Steam and Reheat Steam Piping
  - Inspect (NDE) Selected Boiler Steam Collection Headers
  - Replace 480 Volt MCC
  - Replace River Intake 480 Volt MCC
- Turbine/Generator Inspection
  - Replace #6 Feedwater Heater
  - Install MOV's on Feedwater Heater Extraction Valves
- FGD/SCR Inspection
  - Replace Booster Fan Blade Erosion Covers
  - Clean ME Wash and Recycle Header Nozzles
  - Remove Catalyst Sample Logs
  - Clean Ammonia Injection Nozzles
- Balance of Plant
  - Classify Mill Balls
  - Perform Critical Motor PM's
  - Rebuild Selected 4160 Breakers
  - Fan and Ductwork Inspection and Repairs



**Green Unit 1, April 24, 2010 through May 21, 2010 (672 hours)**

- Boiler
  - Replace ash grinder.
  - Replace economizer expansion joint.
  - Replace FD fan inlet vanes.
  - Replace air heater baskets.
  - Inspect soot blowers.
  - Wet bottom refractory repair.
  - Inspect boiler walls.
  - High energy pipe inspection.
  - Inspect FD, PA and ID fan bearings, shafts, and blades.
  - Inspect and repair igniters and scanners.
  - Inspect and repair OFA burner nozzles.
- Turbine
  - Replace generator rectifier.
  - Replace voltage regulator.
  - Replace sequence of events recorder.
  - DCS power supply upgrade.
  - Inspect and test 4160/480 volt breakers.
  - Clean hydrogen lube oil and stator coolers.
- Balance of Plant
  - Replace precipitator field (1st and 2nd)
  - Replace scrubber Dupont.
  - Repair scrubber structural component.
  - Replace thickener rake drive.
  - Replace cooling tower deck.
  - Replace B service water pump.
  - Replace one slaker.
  - Replace USS transformer (Scrubber).
  - Clean scrubber reaction tank headers, nozzles, and screens.
  - Inspect cooling tower structure, fan gear boxes, and pumps.

The following table reflects the 2011 outage plan

Unit	Start Date	End Date	Days	Hours
Coleman 1	February 19, 2011	March 15, 2011	25	600
Green 2	March 19, 2011	May 6, 2011	49	1176
HMPL 1	May 7, 2011	June 24, 2011	49	1176
Wilson 1	September 3, 2011	September 30, 2011	28	672

**Coleman 1, February 19, 2011 through March 15, 2011 (25 days) 600 hour outage**

- Boiler
  - Inspection
  - Replace re-heater hot end
  - Boiler tube overlay
  - Boiler chemical clean
  - Penthouse casing repair
  - Insulation and lagging repair
  - Expansion joint replacement
  - Gas leak repairs
  - Fan inspections
  - FD fan housings, silencers and hoods replacement
  - Sootblower replacement
  - Drum enclosure replacement
- Turbine
  - Valve inspection
  - Replace condenser vacuum pump
  - Balance of Plant
  - 480 volt MCC replacement
  - Motor PM'S
  - Boiler feed pump overhaul
- FGD
  - Maintenance inspection of equipment that requires a FGD shutdown, etc
  - Scaffold absorber
  - Booster fan inspection & repair
  - Replace C3 blades
  - Storage tank inspection & repair
  - Agitator inspection & replacement
  - Replacement of A, C, and E blades
  - Recycle pump overhaul
  - Oxidation Air Blower inspection & PM
  - Motor PMs
  - Limestone mill liner replacement

**Green Unit 2, March 19, 2011 through May 6, 2011 (1176 hours)**

- Boiler
  - Precipitator repair.
  - Replace boiler drains.
  - Replace steam coils (4).
  - Repair wet bottom refractory.
  - Inspect and repair OHA/burner nozzles.
  - Inspect igniter rods and scanners.
  - Inspect boiler walls.
  - Inspect burners.
  - High energy pipe inspection.
  - Replace B ID fan shaft.
  - Replace ID fan dampers
  - Replace FD fan inlet vanes
  - Inspect and repair air heater seals.
  - Repair precipitator outlet ducts.
  - Inspect soot blowers.
  
- Turbine
  - Replace voltage regulator
  - Turbine / Generator overhaul
  - Replace Turbine packing (HP, IP & LP rows)
  - Replace Generator retaining rings
  
- Balance of Plant
  - Replace slaker and controls
  - Replace water plant controls.
  - Replace 7A Stacker
  - Replace A telescopic chute
  - Replace controls at dewatering plant
  - Recondition mill motors.
  - Recondition recycle pump motors.
  - Clean scrubber reaction tank, headers, nozzles, and screens.
  - Inspect cooling tower structure, fan gear boxes, and pumps.

**Henderson Unit 1, May 7, 2011 through June 24, 2011 (1176 hours)**

- Boiler Inspection
  - Replace Selected High Energy Pipe Hangers
  - Replace Selected Combustion Steam Coils
  - Replace Boiler Slag Grinders

- Inspect Boiler Casing and Repair Gas Leaks
- Replace Selected Boiler Soot blowers
- Replace Wet bottom Drains
- Replace Plant Phone & PA System
- Inspect (NDE) Main Steam and Reheat Steam Piping
- Inspect (NDE) Selected Boiler Steam Collection Headers
- Turbine/Generator Inspection
  - Replace Turbine Packing
  - Replace Cooling Tower Controls
  - Replace 480 volt MCC at Cooling Tower
- FGD/SCR Inspection
  - Replace Booster Fan Blade Erosion Covers
  - Clean ME Wash and Recycle Header Nozzles
  - Clean ME Panels, Reaction Tanks & Piping
  - Remove Catalyst Sample Logs
- Balance of Plant
  - Classify Mill Balls
  - Critical Motor PM's
  - Rebuild Selected 4160 Breakers
  - Fan and Ductwork Inspection Repair
  - Replace Burners
  - Stack Liner Replacement

**Wilson Unit 1, September 3, 2011 through September 30, 2011 (672 hours)**

- Boiler
  - Replace finishing superheat section
  - Replace 13 burners
  - Perform condition assessment of Furnace area
  - Continue high energy pipe inspection
  - Boiler high temperature header inspection
- Turbine / Generator
  - General L.P. crawl through inspection
  - Hydrogen, exciter and lube oil cooler cleaning
- FGD
  - FGD Refurbishment
  - Ductwork inspection and repairs
  - Replace FGD inlet and outlet dampers
  - Stack inspection and cleaning

**e) Fuel**

The Big Rivers system will burn a wide variety of fuel with qualities specific to each station. The system will consume approximately 6.3 million tons of fuel each year during this planning cycle. All fuel procurement activities will support the corporation's enterprise wide strategy for optimizing cost by analyzing the interactions among fuel quality, fuel cost, heat rate, outages, allowances and coal inventory. Each station has identified the minimum fuel quality required to meet the generation targets in this plan. All fuel purchases will meet or exceed the specific stations minimum fuel quality specifications. Big Rivers will utilize the existing WKE Petroleum Coke contracts for Green Station and Wilson Station. Green Station will utilize Pet Coke through 2009 and Wilson Station will utilize Pet Coke through 2010.

## **f) Environmental**

Environmental compliance will be achieved by utilizing the control equipment currently installed on the operating units. Air permit limitations vary and are specific to each station. Please refer to Section III, the environmental section of this work plan for more specific detail.

Eight of the nine units in the Big Rivers system have FGD's to manage SO<sub>2</sub> compliance. The Green and Coleman units FGD is capable of maintaining a 97% SO<sub>2</sub> removal rate. The HMP&L units FGD is capable of maintaining a 94% SO<sub>2</sub> removal rate and the Wilson unit FGD is capable of maintaining a 91% SO<sub>2</sub> removal rate.

The Nox control equipment consists of *Selective Catalytic Reduction (SCR)* on the Wilson and HMP&L units, rotating over fired air on Coleman 1, over fired air systems on Coleman units 2 and 3 and a proprietary re-burn system on Green units 1 and 2. Gas burners were installed on the Reid 1 unit; however, these burners have not been tested. The Wilson and HMP&L units 1 and 2 have SCR's that are capable of maintaining a 90% removal efficiency. The Coleman units will maintain a Nox emission rate of .31 lbs/Mbtu during the Ozone season and .33 lbs/Mbtu in the shoulder months. The Green units will maintain a Nox emission rate of .22 lbs/Mbtu during the Ozone season and .35 lbs/Mbtu in the shoulder months. The system will not be self sufficient during CAIR phase I or phase II as Nox allowance purchases will be required.

Water discharge is regulated under the National Pollutant Discharge Elimination System of permits. Kentucky has been granted authority by EPA to manage this program within the state under the KPDES permit process. Please refer to Section III for details of the complete compliance plan.

**g) Staffing**

Big Rivers will retain an experienced and dedicated work force to operate the plants with at least 70 percent being former BREC employees. Most of these 70 percent have an average of twenty plus years of experience.

The following table represents the plant headcounts excluding the support personnel assigned to the station (i.e.: budget analyst, safety specialist, procurement).

<b>Location</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Green	121	123	125	126
Reid/HMPL	101	102	103	104
Coleman	102	103	104	105
Wilson	99	100	101	102
HQ Construction/Engineering	4	4	4	4
VP Production and Admin Assistant	2	2	2	2
<b>Total</b>	<b>429</b>	<b>434</b>	<b>439</b>	<b>443</b>

Age demographics are a concern during this planning period as the average age of the work group is approaching fifty years of age. Five additional headcount per year is included in this work plan to address the aging work force issue.

## h) Assumptions

- Due to the relatively high prices of petroleum coke no new petroleum coke contracts will be executed. The existing petroleum coke contracts will be utilized at Wilson through the planning period and at Green through 2009.
- The Clean Air Interstate Rule (CAIR) is expected to take effect in 2011
  - The SCR's will run twelve months per year starting in 2011
  - The Mercury Legislation (Clean Air Mercury Rule) will take effect in 2010. Sorbent tube monitors will be utilized in the short term with the intention to utilize continuous monitoring after a more proven technology is available.
- Restoration of the Wilson FGD is incorporated in the existing work plan.
- There is no funding in this plan to address CO2 regulations.
- The impact of the Clean Water act 316(b) is still uncertain and there are no large outlays as a result of 316(b) requirements.
- Coal quality must meet or exceed the station specific minimum fuel quality specifications in order to meet the generation requirements.



**i) Key Issues**

- The SCRS will run twelve months per year beginning in 2011.
- The generating units will run at an 85 percent capacity factor.
- Structural painting will occur at Green Station during this planning period.
- There is no money budgeted in this plan to stress relieve the Wilson HP turbine rotor. If required a cost benefit analysis will be developed to determine the best course of action.

## II. Financials

The following tables represent the Big Rivers Electric Production Work Plan financial summary for the years 2009, 2010, and 2011. Following these tables is the Big Rivers Production Capital Plan by station. Please see the station specific work plans in sections IV, V and VI for additional detail.

2009 Financial Summary					
	Coleman	Green	Reid/HMPL*	Wilson	Total BREC
Generation	3,434,877	3,668,755	1,678,650	3,018,776	11,801,058
Planned Outage Hours	768	792	744	1176	3480
Forced Outage Hours	1927	578	2190	350	5046
EAF (%)	89.60%	92.26%	88.56%	82.58%	88.34%
EFOR (%)	7.35%	3.30%	7.85%	4.00%	5.23%
Capacity Factor (%)	88.51%	92.25%	75.96%	82.25%	85.25%
Non-Labor O&M (\$)	\$12,403,711	\$11,733,804	\$8,716,676	\$18,625,293	\$51,479,483
Non-Labor O&M (\$/MWhr)	\$3.61	\$3.20	\$5.19	\$6.17	\$4.36
G & A Support Labor (\$)					\$5,413,951
Production Labor (\$)	\$9,782,397	\$11,248,797	\$7,350,542	\$9,556,479	\$37,938,215
Production Labor (\$/MWh)	\$2.85	\$3.07	\$4.38	\$3.17	\$3.21
Capital (\$)	\$9,134,000	\$18,873,624	\$6,747,809	\$30,139,218	\$64,894,651
Capital (\$/MWh)	\$2.66	\$5.14	\$4.02	\$9.98	\$5.50
Fuel Burn (Tons)	1,669,468	2,061,602	785,355	1,476,213	5,992,639
Fuel Cost (\$)	\$92,154,521	\$69,269,880	\$35,529,002	\$60,096,560	\$257,049,964
Fuel Cost (\$/MWhr)	\$26.83	\$18.88	\$21.17	\$19.91	\$21.78
VOM Cost (\$)	\$5,647,979	\$16,261,352	\$9,024,687	\$10,894,190	\$41,828,207
VOM Cost (\$/MWhr)	\$1.64	\$4.43	\$5.38	\$3.61	\$3.54
Station O&M Cost (\$/MWh)	\$34.93	\$29.58	\$36.11	\$32.85	\$32.90
Total Station Cost (\$/MWh) (Including Capital)	\$37.59	\$34.72	\$40.13	\$42.84	\$38.40

\* NET of HMPL Share

2010 Financial Summary					
	Coleman	Green	Reid/HMPL*	Wilson	Total BREC
Generation	3,457,502	3,672,767	1,685,963	3,432,875	12,249,107
Planned Outage Hours	600	672	1008	168	2448
Forced Outage Hours	1927	578	2190	350	5046
EAF (%)	90.50%	92.80%	88.82%	94.08%	91.66%
EFOR (%)	7.35%	3.30%	7.85%	4.00%	5.23%
Capacity Factor (%)	89.10%	92.35%	76.21%	93.53%	88.31%
Non-Labor O&M (\$)	\$12,528,124	\$13,451,372	\$9,359,653	\$10,805,075	\$46,144,224
Non-Labor O&M (\$/MWhr)	\$3.62	\$3.66	\$5.55	\$3.15	\$3.77
A & G Support Labor					\$5,576,370
Production Labor (\$)	\$10,168,446	\$11,771,415	\$7,663,636	\$9,935,750	\$39,539,247
Production Labor (\$/MWh)	\$2.94	\$3.21	\$4.55	\$2.89	\$3.23
Capital (\$)	\$7,858,500	\$15,982,744	\$3,829,333	\$10,359,149	\$38,029,726
Capital (\$/MWh)	\$2.27	\$4.35	\$2.27	\$3.02	\$3.10
Fuel Burn (Tons)	1,676,381	2,029,182	786,073	1,678,323	6,169,959
Fuel Cost (\$)	\$95,620,686	\$82,790,615	\$47,558,129	\$65,622,441	\$291,591,871
Fuel Cost (\$/MWhr)	\$27.66	\$22.54	\$28.21	\$19.12	\$23.81
VOM Cost (\$)	\$5,800,326	\$17,488,948	\$9,522,706	\$12,323,770	\$45,135,750
VOM Cost (\$/MWhr)	\$1.68	\$4.76	\$5.65	\$3.59	\$3.68
<b>Total Station Cost (\$/MWh)</b>	<b>\$35.90</b>	<b>\$34.17</b>	<b>\$43.95</b>	<b>\$28.75</b>	<b>\$34.49</b>
<b>Total Station Cost (\$/MWh) (Including Capital)</b>	<b>\$38.17</b>	<b>\$38.52</b>	<b>\$46.22</b>	<b>\$31.77</b>	<b>\$37.59</b>

\* NET of HMPL Share

2011 Financial Summary					
	Coleman	Green	Reid/HMPL*	Wilson	Total BREC
Generation	3,427,339	3,554,020	1,643,365	3,140,591	11,765,314
Planned Outage Hours	600	1176	1176	672	3624
Forced Outage Hours	1927	578	2190	350	5046
EAF (%)	90.40%	92.80%	88.82%	94.09%	88.94%
EFOR (%)	7.34%	3.30%	7.85%	4.00%	5.23%
Capacity Factor (%)	88.99%	88.99%	62.63%	85.33%	84.80%
Non-Labor O&M (\$)	\$14,503,240	\$15,367,488	\$10,351,416	\$16,204,373	\$56,426,516
Non-Labor O&M (\$/MWhr)	\$4.23	\$4.32	\$6.30	\$5.16	\$4.80
A & G Support Labor					\$5,839,015
Production Labor (\$)	\$10,568,854	\$12,219,913	\$7,988,899	\$10,329,177	\$41,106,843
Production Labor (\$/MWh)	\$3.08	\$3.44	\$4.86	\$3.29	\$3.49
Capital (\$)	\$11,592,000	\$13,039,901	\$5,874,157	\$24,403,489	\$56,909,547
Capital (\$/MWh)	\$3.38	\$3.67	\$3.57	\$7.77	\$4.84
Fuel Burn (Tons)	1,668,623	1,962,306	755,452	1,545,319	5,931,700
Fuel Cost (\$)	\$97,864,824	\$85,948,905	\$48,779,126	\$62,199,036	\$294,791,892
Fuel Cost (\$/MWhr)	\$28.55	\$24.18	\$29.68	\$19.80	\$25.06
VOM Cost (\$)	\$6,022,441	\$18,184,072	\$11,020,367	\$14,334,346	\$49,561,225
VOM Cost (\$/MWhr)	\$1.76	\$5.12	\$6.71	\$4.56	\$4.21
<b>Total Station Cost (\$/MWh)</b>	<b>\$37.63</b>	<b>\$37.06</b>	<b>\$47.55</b>	<b>\$32.82</b>	<b>\$37.56</b>
<b>Total Station Cost (\$/MWh) (Including Capital)</b>	<b>\$41.01</b>	<b>\$40.73</b>	<b>\$51.12</b>	<b>\$40.59</b>	<b>\$42.40</b>

\* NET of HMPL Share

# Big Rivers Electric Cooperative

## 2009 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Share	Net Capital Budget
<b><u>Coleman Station</u></b>			
Misc Tools and Equipment	\$ 40,000	0	\$ 40,000
Misc Safety Equipment (8 SCBA's)	35,000	0	35,000
Misc Capital Projects	80,000	0	80,000
Coleman FGD Misc Pumps & Valves	125,000	0	125,000
C-1, C-2 Booster Fan Blades, 2 sets	467,000	0	467,000
Absorber Agitator Blades, B & D	65,000	0	65,000
C-3 Condenser Vacuum Pump Replacement	120,000	0	120,000
C-3 Deflector Wall Replacement	765,000	0	765,000
C-3 hot end primary tube replacement	1,920,000	0	1,920,000
C-3 Boiler Insulation	250,000	0	250,000
C-3 A Mill Liner Replacement with inlet auger	300,000	0	300,000
C-3 Soot Blower Replacement	100,000	0	100,000
C-3 A & B PA Fan Housing Replacement	300,000	0	300,000
C-3 PA Hot/Cold/Rating Damper Drivers	160,000	0	160,000
C-3 B Buss 4160v Switchgear Replacement	1,065,000	0	1,065,000
C-3 Slag Grinder Replacement	90,000	0	90,000
Capital Valve Replacement	100,000	0	100,000
Ash Sluice Pump	80,000	0	80,000
Circulating Water Pump	200,000	0	200,000
C-3 Expansion joints (4), air heater air side & gas side	270,000	0	270,000
Conveyor Belt Replacement	50,000	0	50,000
PI Server and SemAPI Replacement	20,000	0	20,000
Upgrade CEM's (hardware bypass stacks)	25,000	0	25,000
Purchase Conductor License (another client)	15,000	0	15,000
C3 DCS Sequence of Events (includes GPS Clock)	165,000	0	165,000
DMZ Server Replacement	15,000	0	15,000
Precipitator Controls/Kirk Key Upgrade	115,000	0	115,000
C3 monitor replacement including 40" alarm monitor	12,000	0	12,000
C3 DCS power supplies	70,000	0	70,000
Coal Handling flop gate 7, 9, and 11 replace	85,000	0	85,000
Replace number 1 and 17 belt scale	25,000	0	25,000
Barge Unloader Bucket	120,000	0	120,000
C-3 CEM Duct Gas Analyser	75,000	0	75,000
4160 Switchgear (2) Replacement for crusher house	65,000	0	65,000
Barge Unloader 480 Breaker Replacement	55,000	0	55,000
C-3 480 Volt MCC replacement (2)	160,000	0	160,000
C-3 DCS Controllers Replacement	65,000	0	65,000
Plant vibration monitoring replacement	65,000	0	65,000
Replace underground Natural Gas line	150,000	0	150,000
C3 Boiler Tube Weld Overlay	1,250,000	0	1,250,000
<b>Total Coleman Station</b>	<b>\$ 9,134,000</b>	<b>\$ -</b>	<b>\$ 9,134,000</b>
<b><u>Green Station / Central Machine Shop</u></b>			
CMS - Powermatic 20 Inch Drill Press	4,800	0	4,800
CMS - Vertical Band Saw	13,000	0	13,000
CMS - 8 inch vertical belt sander	4,000	0	4,000
GN - Plant Tools & Equipment	10,000	0	10,000
GN - Miscellaneous Capital Projects	100,000	0	100,000
GN - M S A 5-Star Multi-Gas Monitor	7,000	0	7,000
GN - Portable Gas Analyzer	12,500	0	12,500
GN - Tugboat Refurbishment	400,000	0	400,000
GN - Capital Valves	100,000	0	100,000
G2 - Supervisory Turbine Controls/ETS	185,000	0	185,000
G2 - Rpl Precipitator Field (4th & 5th Field)	1,000,000	0	1,000,000
GN - Conveyor Belts	80,000	0	80,000
G1 - Rpl Thickener Rake Drive	80,000	0	80,000
G2 - Rpl Thickener Rake Drive	80,000	0	80,000
GN - Bleed Pumps (Qty 2) (5&6 of 8)	90,000	0	90,000
G2 - Inlet Scrubber Operator	7,000	0	7,000

# Big Rivers Electric Cooperative

## 2009 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Share	Net Capital Budget
G2 - Flyash Hopper	1,100,000	0	1,100,000
G2 - Air Heater Gas Outlet Exp Joints	300,000	0	300,000
GN - Rpl Cooling Tower Deck	100,000	0	100,000
GN - Fire Water Pump Diesel	15,000	0	15,000
G1 - Mill Gearbox	300,000	0	300,000
G2 - Install West SH Spray Venturi	275,000	0	275,000
G2 - Rpl West SH Spray Attmp Venturi	45,000	0	45,000
GN - Ash Sluice Pump (2 of 3)	168,000	0	168,000
GN - Ash Seal Pump (2 of 3)	125,000	0	125,000
G2 - B Service Water Pump (3 of 4)	40,000	0	40,000
G2 - Air Heater Baskets	895,000	0	895,000
G2 - Reheater Tubes	1,050,000	0	1,050,000
G1 - IW Discharge Piping	75,000	0	75,000
GN - Upgrade CEMS and Reason code panel	75,000	0	75,000
GN - Rpl Coal Handling Controls	150,000	0	150,000
GN - Rpl PI Server & SemAPI	10,000	0	10,000
GN - Rpl DMZ Server	15,000	0	15,000
G2 - Rpl DA Trays	25,000	0	25,000
G2 - Scrubber Controls - I/O & HMI	475,000	0	475,000
G2 - Bottom Ash Controls	150,000	0	150,000
G2 - Rpl Mist Eliminators	425,000	0	425,000
G2 - Flyash Hopper Isolation Gate	38,000	0	38,000
G2 - Boiler Drains	250,000	0	250,000
G2 - A&B Scrubber Inlet Duct Replacement	750,000	0	750,000
GN - Slaker Water Pump (2 of 3)	75,000	0	75,000
G2 - Steam Coils(4)	75,000	0	75,000
GN - Cooling Tower Fan Shroud	216,000	0	216,000
GN - Landfill Downdrains	20,000	0	20,000
GN - Water Plant Sump Pumps (2)	30,000	0	30,000
GN - 6" Diesel Pump	50,000	0	50,000
G1 - Bottom Ash Controls - 2010 Project	16,000	0	16,000
G1 - Upgrade SOE Migrate to DCS	20,000	0	20,000
Green 2 Precip Repair	1,060,900	0	1,060,900
Green 1&2 FGD Rehab	4,243,600	0	4,243,600
Green 1&2 Paint Boiler, Precip & FGD	1,442,824	0	1,442,824
G2 - Weld Overlay	2,600,000	0	2,600,000
<b>Total Green Station / CMS</b>	<b>\$ 18,873,624</b>	<b>0 \$</b>	<b>18,873,624</b>

### Reid / HMPL Station II

RGH - Confined Space Training Trailer	15,000	1,715	13,285
RGH - HEPA Air Machines (2)	5,000	572	4,428
RGH - Panama Mine Bldg Roof	107,000	12,232	94,768
RGH - Heavy Equipment Bldg Roof	53,000	6,059	46,941
RGH - Used Front Endloader (Rpl 560 Loader)	0	0	0
RGH - Plant Sewage System	300,000	34,296	265,704
RH - Misc Capital Projects	100,000	25,199	74,801
RH - Misc Tools & Equipment	10,000	2,520	7,480
RH - Electric Wrench	5,000	1,260	3,740
RH - Passport Multi Gas	7,000	1,764	5,236
RH - Passport Ammonia	6,000	1,512	4,488
RH - Client & Monitors	20,000	5,040	14,960
RH - 4" Sump Pump & Hose (Moved from '08)	25,750	6,489	19,261
RH - Misc Capital Valves	90,000	22,679	67,321
RH - Misc Conveyor Belts	90,000	22,679	67,321
RH - Booth System Control Box	22,000	5,544	16,456
RH - Loop Calibrators (2)	4,000	1,008	2,992
RH - Plant Phone & PA New System	0	0	0

# Big Rivers Electric Cooperative

## 2009 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Share	Net Capital Budget
RH - Control Room Pressurizing Fans	35,000	8,820	26,180
RH - Water Plant Bldg Heat Improvements	25,000	6,300	18,700
H0 - DCS Engineering (Complete in 2010)	166,000	50,545	115,455
H0 - Rpl PI Server & SemAPI	10,000	3,045	6,955
H0 - Upgrade CEMs	30,000	9,135	20,865
H0 - Rpl Bleed Lines 8" (2)	200,000	60,897	139,103
H0 - Rpl Elevator Doors/Frames	100,000	30,449	69,551
H0 - Rpl Thickener Return Line 16"	200,000	60,897	139,103
H0 - Wetbottom Drains	300,000	91,346	208,654
H1 - Rpl WDPF FGD & SCR Controls	140,000	42,628	97,372
H1 - CCS Field Wiring & Devices	118,565	36,102	82,463
H1 - CCS Controls	461,435	140,501	320,934
H1 - Control Room	100,000	30,449	69,551
H1 - AH Inlet Expansion Joints (2)	160,000	48,718	111,282
H1 - Burner Deck Vent Fans	30,000	9,135	20,865
H1 - Cooling Tower Distribution Deck	200,000	60,897	139,103
H1 - FD Fan Outlet Damper A&B Rexa Drives	20,000	6,090	13,910
H1 - Feedwater Heater Emergency drain Valve	160,000	48,718	111,282
H1 - Hydrogen Purity Meters	22,000	6,699	15,301
H1 - Install Sootblower Power Disconnects	16,000	4,872	11,128
H1 - Rpl Mist Eliminator	175,000	53,285	121,715
H1 - Rpl Precip Hoppers (9-12) 4 total	250,000	76,122	173,878
H1 - Rpl Slag Grinders (2)	75,000	22,837	52,163
H1 - Rpl Sootblowers (20-23 of 23) 4 total	112,000	34,103	77,897
H1 - Rpl Wallblowers (8-10 of 24) 3 total	40,000	12,179	27,821
H1 - Rpl Temperature Reheater Tubes	1,400,000	306,943	1,093,057
H2 - Burner Deck Vent Fans	30,000	9,135	20,865
H2 - Rpl WDPF FGD & SCR Controls	60,000	18,269	41,731
H1 - High Energy Pipe Hangers	100,000	30,449	69,551
H1 - Rpl AH Steam Coils (2)	21,000	6,394	14,606
H2 - #6 HP Heater Re-tube	300,000	91,346	208,654
R1 - Rpl Reclaim Vent Fan	30,000	0	30,000
R1 - Stack Lighting	200,000	0	200,000
R1 - Upgrade CEMs	20,000	0	20,000
HMPL Stack Lighting	287,558	87,558	200,000
R-CT reliability study & upgrades	1,125,509	0	1,125,509
HMPL SCR Catalyst Replacement-additional \$ (net)	878,102	267,371	610,731
H Replace layer of catalyst	305,800	93,112	212,688
<b>Total Reid / HMPL Station #</b>	<b>\$ 8,763,719</b>	<b>\$ 2,015,910</b>	<b>\$ 6,747,809</b>

### Wilson Station

FGD #1 & 2 Concrete roof repairs & tile replacement	3,240,000	0	3,240,000
FGD #3 & 4 Concrete roof repairs & tile replacement	3,240,000	0	3,240,000
FGD Inlet Guillotine Damper Replacement (4 of 4)	1,734,900	0	1,734,900
FGD Outlet Guillotine Damper Replacement (4 of 4)	1,734,900	0	1,734,900
FGD Inlet transition modification clad C276 (4 of 4)	655,000	0	655,000
FGD Riser Duct	503,000	0	503,000
FGD Electrical Refurbishment (Phase 1 of 4)	300,000	0	300,000
FGD Guillotine Damper (milestone pmt)	270,000	0	270,000
FGD Inlet Duct & Turning Vanes Flow Distribution Improvements	235,996	0	235,996
FGD Inlet duct insulation and lagging	150,000	0	150,000
FGD Inlet Expansion Joint Replacement(4 of 4)	130,331	0	130,331
FGD Outlet Expansion Joint Replacement (4 of 4)	130,331	0	130,331
FGD Slurry circulation header & piping replacement (4 of 16)	127,200	0	127,200
FGD pump house replacement	125,000	0	125,000
FGD Stack Slurry Buildup	110,000	0	110,000
FGD Louver Damper	97,000	0	97,000

# Big Rivers Electric Cooperative

## 2009 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Share	Net Capital Budget
FGD #1,2,3,4 perforated plates installation	51,200	0	51,200
FGD pH measurement modification	50,000	0	50,000
FGD Misc controls and transmitters	40,000	0	40,000
FGD Recycle Pump Suction Valve Replacement (8)	280,000	0	280,000
FGD Slurry recirc motor replacements	112,000	0	112,000
FGD #4 Module ME panel replacement w/drain boxes	347,740	0	347,740
FGD Repl 3 absorber mist eliminator panels & mounting frames	1,250,000	0	1,250,000
FGD Repl mist eliminator piping & nozzles	470,000	0	470,000
Open Landfill	300,000	0	300,000
DCS Client computer replacement	35,000	0	35,000
#1 Flyash Blower - first and second stage	50,000	0	50,000
Capital Valves	100,000	0	100,000
Computer Room Floor for Halon system	80,000	0	80,000
Fire Hydrant replacements	50,000	0	50,000
Gravity Sand Filter replacement (1 of 3)	100,000	0	100,000
Magnetic Separator Replacement #4	52,000	0	52,000
Misc Capital	100,000	0	100,000
Misc Safety Equipment	50,000	0	50,000
Misc Tools	50,000	0	50,000
Plant Discharge Pump replacement No 14	40,000	0	40,000
Process Control System Replacement (3)	52,000	0	52,000
Replace 2 gasoline welders/2 electric welders	30,000	0	30,000
Replace 2 plant vehicles	30,000	0	30,000
Replace filtrate transfer pumps (4 of 4)	40,000	0	40,000
Replace Switchgear 480v breakers (5 per year, 18,000/breaker) - FGD/C	90,000	0	90,000
Reverse Osmosis Water Treatment System	450,000	0	450,000
Station air compressor, increase capacity (No 1 pump) 1 of 2	200,000	0	200,000
Turbine Driven Boiler Feed Pump Rotating Element replacement No 2	175,000	0	175,000
Waste water/impoundment pond pump replacement (4 of 6)	60,000	0	60,000
HVAC Replacement - CEMS trailer, SCR Nox trailer, Precip control room	75,000	0	75,000
Upgrade CEMS (IT)	20,000	0	20,000
Conveyor belt replacements (10-1 and 10-2)	235,000	0	235,000
Replace Wetbottom seal trough	650,000	0	650,000
Precip Outlet Guillotine Damper milestone payments (installation listed b	600,000	0	600,000
Primary Air Preheater Basket Replacement (2-sets of 2-Sets)	600,000	0	600,000
Tube Weld Overlay	450,000	0	450,000
Cooling Tower Fill Replacement, 4 cells	1,015,620	0	1,015,620
TR and Rapper Precip control replacement	300,000	0	300,000
Cooling tower fan replacement (#1, #6 & #9)	200,000	0	200,000
Cooling tower fan replacement (#2, #3 & #4)	200,000	0	200,000
PA Fan Silencers	130,000	0	130,000
Burner Scanner Replacement	100,000	0	100,000
BFPT Control Valve Positioners	90,000	0	90,000
B Platen Superheat replacement	1,500,000	0	1,500,000
Bed Replacement for the Drag Chain	150,000	0	150,000
Burner replacement (12 each)	650,000	0	650,000
Capital Valves	150,000	0	150,000
Drag Chain replacement	150,000	0	150,000
Expansion joints (units of property to be determined)	350,000	0	350,000
Precip Outlet Modulating Dampers (prepay listed separately) \$1.6m in tot	1,000,000	0	1,000,000
Replace 1st Stage Turbine Blades	1,500,000	0	1,500,000
Superheat Tube Replacement Section B (milestone payments)	600,000	0	600,000
Supervisory instruments, boiler feed pump turbines	205,000	0	205,000
Catalyst Regeneration	1,700,000	0	1,700,000
<b>Total Wilson Station</b>	<b>\$ 30,139,218</b>	<b>\$ -</b>	<b>\$ 30,139,218</b>
<b>Total Plants</b>	<b>\$ 66,910,561</b>	<b>\$ 2,015,910</b>	<b>\$ 64,894,651</b>



# Big Rivers Electric Cooperative

## 2010 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Portion	Net Capital Budget
<b><u>Coleman Station</u></b>			
Misc. Tools and Equipment	\$ 60,000	0	\$ 60,000
Misc. Safety Equipment	20,000	0	20,000
Misc. Capital Projects	100,000	0	100,000
Coleman FGD Misc. Pumps & Valves	125,000	0	125,000
FGD WWT replace PLC to DCS	15,000	0	15,000
Capital Valve Replacement	100,000	0	100,000
Ash Sluice Pump	125,000	0	125,000
C-2 Boiler Expansion Joint Replacement	250,000	0	250,000
C-2 #6 Feedwater Heater Tube Bundle Replacement	250,000	0	250,000
C-2 Boiler Insulation	250,000	0	250,000
C-2 Air Heater Hot End Basket Replacement	465,000	0	465,000
C-2 Hot Reheater Tube Replacement	1,981,000	0	1,981,000
CEMs Upgrade (FGD Stack)	90,000	0	90,000
Precipitator Inlet duct replacement	300,000	0	300,000
Circulating Water Pump Replacement	206,000	0	206,000
C-2 Soot Blower replacement & Control Panels	130,000	0	130,000
C-2 480 Volt MCC Replacement	165,000	0	165,000
C-2 Slag Grinder Replacement	95,000	0	95,000
A/C Replacement for C1 & C2 battery room	15,000	0	15,000
Conveyor Belt Replacement	50,000	0	50,000
C-2 Feed Water Discharge valve actuator replacement	50,000	0	50,000
C-2 CEM Duct Gas Analyzers Replacement	80,000	0	80,000
Replace DCS Communication Modules - CH	30,000	0	30,000
C-2 monitor replacement including 37" alarm monitor	12,000	0	12,000
C-2 DCS controller repl BRC 400	100,000	0	100,000
C-2 DCS power supplies replacement	76,000	0	76,000
C-2 feedwater bypass valve actuator	65,000	0	65,000
C-2 Vacuum Pump Replacement	125,000	0	125,000
C-2 Precipitator Controls Upgrade	125,000	0	125,000
C-3 Booster Fan Blades	233,500	0	233,500
Plant vibration monitoring replacement	70,000	0	70,000
C-2 FD fan housings, silencers & hoods	600,000	0	600,000
Replace Coal Handling Building	250,000	0	250,000
C2 Boiler Tube Weld Overlay	1,250,000	0	1,250,000
<b>Total Coleman Station</b>	<b>\$ 7,858,500</b>	<b>0</b>	<b>\$ 7,858,500</b>
<b><u>Green Station / Central Machine Shop</u></b>			
CMS - Bridgeport Series 1 Milling Machine	25,000	0	25,000
CMS - Rotary Air Compressor	38,000	0	38,000
CMS - 21 x 80 Inch Lathe with readouts	55,000	0	55,000
CMS - Scottsman 120 Ton Ironworker	22,000	0	22,000
GN - Plant Tools & Equipment	10,000	0	10,000
GN - Miscellaneous Capital Projects	100,000	0	100,000
GN - M.S.A. 5-Star Multi-Gas Monitor	7,000	0	7,000
GN - Automatic Electronic Defibrillator (1)	3,000	0	3,000
GN - Rpl Client Monitor	16,000	0	16,000
GN - Truck (Ops)	15,000	0	15,000
GN - D9R Bulldozer	1,000,000	0	1,000,000
GN - Capital Valves	100,000	0	100,000
GN - Reverse Osmosis System / Water Plant	750,000	0	750,000
G1 - Rpl Precipitator Field (1st & 2nd Field)	1,000,000	0	1,000,000
G1 - Generator Rectifier Replacement	300,000	0	300,000
G1 - Generator Voltage regulator	250,000	0	250,000

## Big Rivers Electric Cooperative 2010 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Portion	Net Capital Budget
G1 - Scrubber Dupont SO2 Inlet and Outlet Monitor	100,000	0	100,000
GN - Replace Fire Water Piping	40,000	0	40,000
GN - Conveyor Belts	80,000	0	80,000
G1 - Rpl Scrubber Structural component	750,000	0	750,000
GN - IU Building Component Replacements	600,000	0	600,000
G1 - Rpl Thickener Rake Drive	80,000	0	80,000
GN - Ash Clinker Grinder	65,000	0	65,000
G1 - Economizer Outlet Exp Joints	150,000	0	150,000
G1 - Rpl C/T Deck	100,000	0	100,000
GN - Fire Water Pump Electric (Pump only)	15,000	0	15,000
G1 - Rpl FD Fan Inlet Vanes	250,000	0	250,000
GN - Ash Sluice Pump	180,000	0	180,000
GN - Ash Seal Pump (3 of 3)	125,000	0	125,000
G1 - B Service Water Pump	40,000	0	40,000
G2 - Rpl & Relocate Boiler Drain Lines	110,000	0	110,000
G1 - Inlet Scrubber Operator	7,000	0	7,000
G1 - Upgrade SOE Migrate to DCS	180,000	0	180,000
G2 - Upgrade SOE Migrate to DCS	20,000	0	20,000
G1 - Air Heater Baskets	895,000	0	895,000
GN - Replace Slaker (1st of 8)	200,000	0	200,000
FGD - USS Transformer	100,000	0	100,000
GN - Slaker Water Pump (3 of 3)	75,000	0	75,000
G1 - Rpl Bottom Ash Controls (Due to Obsolescence)	150,000	0	150,000
G1 - Cold Reheat hangers (3 Sets)	50,000	0	50,000
G2 - Cooling Tower Screens	50,000	0	50,000
G1 - Hot Reheat hangers (3 Sets)	50,000	0	50,000
GN - IUCS Controls	15,000	0	15,000
GN - Water Plant Controls	25,000	0	25,000
GN - Landfill Downdrains	20,000	0	20,000
G1 - Main Steam Hangers (3 sets)	50,000	0	50,000
G1&2 Stack Lighting	120,000	0	120,000
G1 - Weld Overlay	2,000,000	0	2,000,000
Green 1 Precip Repair	1,092,727	0	1,092,727
Green 1&2 FGD Rehab	3,020,908	0	3,020,908
Green 1&2 Paint Boiler, Precip & FGD	1,486,109	0	1,486,109
<b>Total Green Station / CMS</b>	<b>\$ 15,982,744</b>	<b>0</b>	<b>\$ 15,982,744</b>

### Reid / HMPL Station

RGH - Stack Climbing Devices (2)	20,000	2,286	17,714
RGH - Rpl Panama Bldg External Sheeting	40,000	4,573	35,427
RH - Misc Capital Projects	100,000	25,199	74,801
RH - Misc Tools & Equipment	10,000	2,520	7,480
RH - Electric Welding Machine	5,000	1,260	3,740
RH - Client & Monitors	20,000	5,040	14,960
RH - 1 Ton Mtc Truck (Rpl S9 - 1990 Ford)	20,000	5,040	14,960
RH - Misc Capital Valves	90,000	22,679	67,321
RH - Misc Conveyor Belts	90,000	22,679	67,321
RH - "5A" Raw River Reclaim vent fans	25,000	6,300	18,700
RH - 480 Volt Welder	3,000	756	2,244
RH - Barge Unloader Bucket	70,000	17,639	52,361
RH - Rpl 480 Volt MCC	200,000	50,398	149,602
RH - Rpl River Intake 480 Volt MCC	100,000	25,199	74,801

## Big Rivers Electric Cooperative 2010 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Portion	Net Capital Budget
RH - Temperature Bath Calibrator	8,000	2,016	5,984
H0 - Rpl F1-F4 Building Heating Fans	200,000	60,897	139,103
H0 - DCS Engineering (Complete in 2010)	99,600	30,327	69,273
H2 - Rpl WDPF FGD & SCR Controls	90,000	27,404	62,596
H1 - Performance OPT Software	150,000	45,673	104,327
H0 - Rpl PLC Controls for Water Plant	20,000	6,090	13,910
H1 - Cooling Tower Controls	12,000	3,654	8,346
H1 - Feedwater Heater Level Controls	7,000	2,131	4,869
H1 - Precipitator Controls	3,000	913	2,087
H2 - Performance OPT Software	150,000	45,673	104,327
H2 - AH Outlet Expansion Joint	85,000	25,881	59,119
H2 - Burner Igniter Conversion	150,000	45,673	104,327
H2 - High Energy Pipe Hangers	35,000	10,657	24,343
H2 - Rpl Mist Eliminator	175,000	53,285	121,715
H2 - Rpl Precip Hoppers on #9-#12	200,000	60,897	139,103
H2 - Rpl Precip Outlet Duct to Bypass Stack Breeching	300,000	91,346	208,654
H2 - Rpl Slag Grinders (2)	75,000	22,837	52,163
H2 - Rpl Sootblowers (14-17 of 23) 4 total	115,000	35,016	79,984
H2 - Rpl Wallblowers (4-6 of 24) 3 total	48,000	14,615	33,385
H2 - Feedwater Heater Emergency Drain Valve	160,000	48,718	111,282
H2 - Voltage Regulator	175,000	53,285	121,715
H2 - Waterwall Overlay	1,000,000	363,375	636,625
H2 - #5 Heater Retube	300,000	91,346	208,654
H2 - Boiler to AH Breeching Expansion Joints (2)	160,000	48,718	111,282
H2 - Rpl AH Steam Coils (2)	20,000	6,090	13,910
R1 - Rpl AH Steam Coils (2) - Moved from 2009	20,000	0	20,000
HMPL SCR Catalyst Replacement	958,746	291,926	666,820
<b>Total Reid / HMPL Station II</b>	<b>\$ 5,509,346</b>	<b>\$ 1,680,013</b>	<b>\$ 3,829,333</b>

### Wilson Station

FGD #2 Module ME panel replacement w/drain boxes	347,740	0	347,740
FGD Slurry circulation header replacement (4 of 16)	139,920	0	139,920
FGD Slurry circulation header replacement (4 of 16)	139,920	0	139,920
FGD Electrical Refurbishment (Phase 2 of 4)	343,069	0	343,069
FGD Structural Improvements	2,425,000	0	2,425,000
FGD Repl 75 stack tension bands with 316L SS material	850,000	0	850,000
FGD Repl 4 dewatering filter drums incl vacuum skids & pumps	1,700,000	0	1,700,000
DCS Client computer replacement	35,000	0	35,000
Replace 2 plasma screens for control room	15,000	0	15,000
#2 Flyash blower - 1st and 2nd stage	50,000	0	50,000
Gravity Sand Filter Replacement (2 of 3)	100,000	0	100,000
Replace 480v Switchgear breakers (5 per year, 18,000/breaker)	100,000	0	100,000
Magnetic Separator Replacement #7-3	54,000	0	54,000
DMZ Server Replacement	6,000	0	6,000
Pi API Node Replacement	6,000	0	6,000
Misc Capital	100,000	0	100,000
Misc Safety Equipment	50,000	0	50,000
Misc Tools	50,000	0	50,000
Capital Valves	125,000	0	125,000
Station air compressor, increase capacity (No 2 pump) 2 of 2	200,000	0	200,000
Process Control System Replacement (3)	54,000	0	54,000

## Big Rivers Electric Cooperative 2010 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Portion	Net Capital Budget
Finishing Superheat Section replacement-milestone pmt	600,000	0	600,000
Replace Scanner fan	35,000	0	35,000
Replace solid waste area vacuum pump (2 of 3)	65,000	0	65,000
Site drainage pump	30,000	0	30,000
Bed Replacement for the Drag Chain	200,000	0	200,000
Make flue gas SO3 treat System permanent	1,138,500	0	1,138,500
Catalyst Regeneration	1,400,000	0	1,400,000
<b>Total Wilson Station</b>	<b>\$ 10,359,149</b>	<b>\$ -</b>	<b>\$ 10,359,149</b>
<b>Total Plants</b>	<b>\$ 39,709,739</b>	<b>\$ 1,680,013</b>	<b>\$ 38,029,726</b>

# Big Rivers Electric Cooperative

## 2011 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Portion	Net Capital Budget	
<b>Coleman Station</b>				
Misc Tools and Equipment	\$ 60,000	0	\$ 60,000	
Misc Safety Equipment	20,000	0	20,000	
Misc. Capital Projects	100,000	0	100,000	
Coleman FGD Misc. Pumps & Valves	125,000	0	125,000	
Capital Valve Replacement	100,000	0	100,000	
Ash Sluice Pump	150,000	0	150,000	
C-1 Boiler Expansion Joint Replacement	250,000	0	250,000	
C-1 Tube Replacement Hot Reheat Section	2,050,000	0	2,050,000	
Crusher Feeder Replacement	100,000	0	100,000	
C-1 Slag Grinder Replacement	100,000	0	100,000	
C-1 Boiler Insulation	250,000	0	250,000	
C-1 Boiler penthouse casing	150,000	0	150,000	
C-1 Drum Enclosure replacement	350,000	0	350,000	
C-1 Superheat Spray Header Replacement 1 upper 2 lower	750,000	0	750,000	
C-1 Critical Pipe System Hanger Replacements	40,000	0	40,000	
Conveyor Belt Replacement	80,000	0	80,000	
C-1 Hot/Cold/Rating Drive Replacement	180,000	0	180,000	
C-1 Replace ILS controls	180,000	0	180,000	
C-1 4160 V Motor replacements	160,000	0	160,000	
Operator HMI's move to new control room	300,000	0	300,000	
C-1 DCS controller repl BRC 400	100,000	0	100,000	
C1, C2, C3 and CH EWS replacement	20,000	0	20,000	
DCS FGD power supplies replacement	160,000	0	160,000	
FGD server client and EWS replacement	30,000	0	30,000	
Replace ILS Controls C3 (relay logic/motor starter)	20,000	0	20,000	
C-3 DAS upgrade	200,000	0	200,000	
C-1 monitor replacement including 37" alarm monitors	12,000	0	12,000	
Absorber Agitator Blades, A, C & E	120,000	0	120,000	
FGD waste water treatment replace PLC to DCS	135,000	0	135,000	
Sootblower & control panel Replacements	150,000	0	150,000	
Start Up 480v MCC Replacement (2)	150,000	0	150,000	
Boiler seal air piping replacement	150,000	0	150,000	
Limitorque Drive Replacement	50,000	0	50,000	
Precipitator inlet and outlet expansion joints	150,000	0	150,000	
New Control Room	1,500,000	0	1,500,000	
FGD Server, Client and EWS Replacement	30,000	0	30,000	
C-1 Vacuum Pump Replacement	130,000	0	130,000	
Circulating Water Pump Replacement	210,000	0	210,000	
Plant vibration monitoring replacement	75,000	0	75,000	
Diesel Generator Emergency Power FGD	200,000	0	200,000	
C-1 FD fan housings, silencers & hoods	620,000	0	620,000	
C-1 CEM Duct Gas Analysers Replacement	85,000	0	85,000	
C-1 Precipitator Inlet duct replacement	300,000	0	300,000	
C3 Boiler Tube Weld Overlay	1,250,000	0	1,250,000	Incr
ROFA Fan Replacement	250,000	0	250,000	Incr
<b>Total Coleman Station</b>	<b>\$ 11,592,000</b>	<b>\$ -</b>	<b>\$ 11,592,000</b>	
<b>Green Station / Central Machine Shop</b>				
CMS - Journal Squirrel	32,000	0	32,000	
CMS - Plasma Arc Machine	7,500	0	7,500	
GN - Plant Tools & Equipment	10,000	0	10,000	
GN - Miscellaneous Capital Projects	100,000	0	100,000	
GN - Gas Powered Welder (2)	7,500	0	7,500	
GN - Gradall Forktruck	150,000	0	150,000	
GN - High Voltage Insualtion Tester	6,000	0	6,000	
GN - Electric Conduit Bender	20,000	0	20,000	

# Big Rivers Electric Cooperative

## 2011 Capital Budget

Project Description	City of		Net Capital Budget
	Gross Capital Budget	Henderson Portion	
GN - Rpl Client Monitor	16,000	0	16,000
GN - Bobcat (Scrubbers)	35,000	0	35,000
GN - Ops Pneumatic Air Wrench (Right Angle Nut Runner)	5,000	0	5,000
GN - Replace 637 Scraper	350,000	0	350,000
GN - M S A. 5-Star Multi-Gas Monitor	7,000	0	7,000
GN - Clark Fork Truck (Mill Overhauls)	250,000	0	250,000
GN - Capital Valves	100,000	0	100,000
GN - Rpl Acid Pumps	35,000	0	35,000
GN - IUCS Controls	135,000	0	135,000
GN - CEM Umbilical Cord	90,000	0	90,000
GN - Barge Unloader Battery	15,000	0	15,000
GN - IUCS Battery	15,000	0	15,000
GN - Rpl 4160v Breakers	50,000	0	50,000
GN - Rpl 480v Breakers	50,000	0	50,000
GN - Station Batteries (60 Cells)	48,000	0	48,000
G1 - Stack Elevator Car	40,000	0	40,000
G1 - Battery Charger (2 of 2)	40,000	0	40,000
GN - Precipitator AVCs	100,000	0	100,000
GN - Conveyor Belts	85,000	0	85,000
GN - Additive Feed Pump	50,000	0	50,000
GN - Additive Supply Pump	50,000	0	50,000
GN - IU Filtrate Return Pump	15,000	0	15,000
GN - IU Filtrate Feed Pump	45,000	0	45,000
G2 - Upgrade SOE Migrate to DCS	180,000	0	180,000
G1 - D Coal Conveyor Drive Gearbox	75,000	0	75,000
G2 - C Coal Conveyor Drive Gearbox	75,000	0	75,000
GN - Reclaim Hopper (2 of 8)	200,000	0	200,000
GN - A Conveyor Telescopic Chute	200,000	0	200,000
GN - Rpl 7A Stacker	150,000	0	150,000
GN - Rpl Lime Silo Screws	200,000	0	200,000
G2 - ID Fan Outlet Dampers	200,000	0	200,000
GN - River Water Makeup Pump	180,000	0	180,000
GN - Ash Clinker Grinder	65,000	0	65,000
G2 - Bottom Ash Dog House (1st of 4)	50,000	0	50,000
GN - Flyash Pad Sump Pump	3,000	0	3,000
GN - Rpl Reaction Tank Agitator Gearbox	45,000	0	45,000
GN - Recycle Pumphouse Sump Pumps	5,000	0	5,000
GN - Cooling Tower Stationary Screens	50,000	0	50,000
GN - Rpl Outside CCW Lines	50,000	0	50,000
G2 - Replace Steam Coil Drain Tank	75,000	0	75,000
G2 - Steam Coils Banks (8)	80,000	0	80,000
GN - Rpl Bottom Ash Lines	50,000	0	50,000
G1 - Boiler Hoist	40,000	0	40,000
G2 - Boiler Hoist	40,000	0	40,000
G2 - Rpl & Relocate Boiler Drain Lines	600,000	0	600,000
G2 - Economizer Outlet Exp Joints	150,000	0	150,000
GN - Valve Operator Limitorque SMB 000 MOV	6,000	0	6,000
GN - Valve Operator Limitorque Type H Manual Operator	6,000	0	6,000
GN - Water Plant Controls	225,000	0	225,000
GN - Replace Slaker (2nd of 8)	220,000	0	220,000
GN - (SW) USS Transformer	100,000	0	100,000
G2 - DCS Power Supply Upgrade	150,000	0	150,000
G2 - Replace B ID Fan Shaft	550,000	0	550,000

# Big Rivers Electric Cooperative

## 2011 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Portion	Net Capital Budget	
GN - Upgrade OPM's to Performance Opt	150,000	0	150,000	
G2 - Voltage Regulator	200,000	0	200,000	
G2 - BRC 100 DCS Controller Upgrade	94,000	0	94,000	
G2 - Cold Reheat hangers (3 Sets)	50,000	0	50,000	
GN - Landfill Downdrains	20,000	0	20,000	
GN - Landfill Expansion	250,000	0	250,000	
G2 - Rpl FD Fan Inlet Vanes	250,000	0	250,000	
G2 - Hot Reheat hangers (3 Sets)	50,000	0	50,000	
G2 - Main Steam Hangers (3 sets)	50,000	0	50,000	
Green Unit 2 Precip Repair	1,125,509	0	1,125,509	Add
Green 1&2 FGD Rehab	2,251,018	0	2,251,018	Add
Green 1&2 Paint Boiler, Precip & FGD	1,530,692	0	1,530,692	Add
G2 - Turbine Packing HP-IP Rows (also LP)	318,270	0	318,270	
G2 - Generator Retaining Rings	721,412	0	721,412	
<b>Total Green Station</b>	<b>\$ 13,039,901</b>	<b>\$ -</b>	<b>\$ 13,039,901</b>	

### Reid / HMPL Station

RGH - Stack Climbing Devices (2)	20,000	2,286	17,714
RH - Misc Capital Projects	100,000	25,199	74,801
RH - Misc Tools & Equipment	10,000	2,520	7,480
RH - Client & Monitors	20,000	5,040	14,960
RH - Replace D8N with a D8T	600,000	151,194	448,806
RH - Rpl Band Saw	12,000	3,024	8,976
RH - Misc Capital Valves	90,000	22,679	67,321
RH - Misc Conveyor Belts	90,000	22,679	67,321
RH - Plant Phone & PA New System	650,000	163,793	486,207
RH - Rpl Silo Sump Pump Discharge Line	120,000	30,239	89,761
RH - Truck Hopper Vent Fan	25,000	6,300	18,700
RH - Rpl DI Water Plant Components	275,000	69,297	205,703
RH - Ground Resistance Tester	6,000	1,512	4,488
RH - Water Plant Heating System	25,000	6,300	18,700
RH - Rpl Barge Unloader Switching Center	100,000	25,199	74,801
H0 - CT Sump Pump (make-up pit)	12,000	3,654	8,346
H0 - Rpl PLC Controls for Water Plant	180,000	54,808	125,192
H1 - Cooling Tower Controls	113,000	34,407	78,593
H1 - Feedwater Heater Level Controls	68,000	20,705	47,295
H1 - Precipitator Controls	27,000	8,221	18,779
H1 - Burner Igniter Conversion	150,000	45,673	104,327
H1 - AH Outlet Expansion Joint	85,000	25,881	59,119
H1 - Economizer Outlet Expansion Joint	85,000	25,881	59,119
H1 - Rpl Slag Grinders (2)	75,000	22,837	52,163
H1 - Wet Bottom Vent Fans	25,000	7,612	17,388
H1 - Feedwater Heater Extraction MOV	160,000	48,718	111,282
H1 - Rpl Wallblowers (11-13 of 24) 3 total	50,000	15,224	34,776
H1 - Blading Replacement	125,000	38,061	86,939
H1 - Burner Replacement (added \$200K)	3,200,000	974,359	2,225,641
H1 - Nozzle Coating	100,000	30,449	69,551
H1 - Turbine packing HP-IP rows	125,000	38,061	86,939
H1 - High Energy Pipe Hangers	45,000	13,702	31,298
H1 - Addition of 480 Volt MCC's (1 ea)	200,000	60,897	139,103
H1 - Rpl 480V MCC at Cooling Tower	300,000	91,346	208,654
H1 - Transformer Deluge System	35,000	10,657	24,343

# Big Rivers Electric Cooperative

## 2011 Capital Budget

Project Description	Gross Capital Budget	City of Henderson Portion	Net Capital Budget
H1 - Rpl AH Steam Coils (2)	22,000	6,699	15,301
H1 - Install Servo Valve Isolation & Filter Block	50,000	15,224	34,776
H1 - Server Replacement	20,000	6,090	13,910
H1 - Catalyst Regeneration	737,000	224,407	512,593
H2 - Turbine Trip Block Upgrade	20,000	6,090	13,910
H2 - Cooling Tower Controls	12,000	3,654	8,346
H2 - Feedwater Heater Level Controls	7,000	2,131	4,869
H2 - Precipitator Controls	3,000	913	2,087
H2 - Wet Bottom Vent Fans	25,000	7,612	17,388
H2 - Loop Seal Vapor Extractor Frequency Drive	2,000	609	1,391
R1 - Rpl Boiler Roof	55,000	0	55,000
<b>Total Reid / HMPL Station II</b>	<b>\$ 8,256,000</b>	<b>\$ 2,381,843</b>	<b>\$ 5,874,157</b>

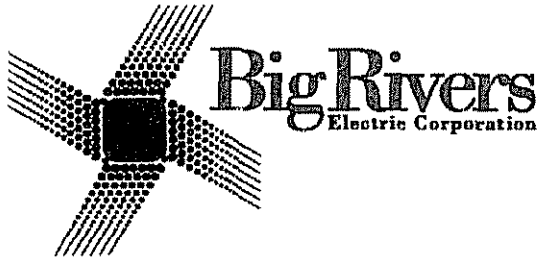
### Wilson Station

FGD Stack Restoration	50,000	0	50,000
FGD Slurry Circulation Piping. Replace (8 of 16)	139,920	0	139,920
FGD Slurry Circulation Header Replacement (4 of 16)	131,016	0	131,016
FGD Riser Duct	520,000	0	520,000
FGD Repair ductwork hot and wet sides	3,114,272	0	3,114,272
FGD PLC FGD/Flyash Control System Replacement	20,000	0	20,000
FGD Module Alloy roof nozzle penetrations (2 of 4)	764,904	0	764,904
FGD Inlet Duct & Turning Vanes Flow Distribution Improvements	235,996	0	235,996
FGD Structural Improvements	2,425,000	0	2,425,000
FGD Electrical Refurbishment (Phase 4 of 4) scope increase	550,000	0	550,000
FGD Electrical Refurbishment (Phase 3 of 4)	300,000	0	300,000
FGD #1 Module ME panel replacement w/drain boxes	347,740	0	347,740
FGD Inlet and outlet damper replacement 2 absorbers	1,200,000	0	1,200,000
Used Vehicles (2) for Maintenance	30,000	0	30,000
Spectrophotometer	10,000	0	10,000
Slurry Transfer Pump Replacement	50,000	0	50,000
Replace WW pond pumps (4)	60,000	0	60,000
Replace Plant Discharge pump	50,000	0	50,000
Replace 6 9kv feed to Fuels	500,000	0	500,000
Replace 6 9kv feed Ball Mill	325,000	0	325,000
Replace 480v Switchgear breakers	100,000	0	100,000
Product sump pump replacement (4 of 4)	140,000	0	140,000
Process Control Transmitter Replace (8)	54,000	0	54,000
DCS System Control Upgrades	600,000	0	600,000
Misc Tools	50,000	0	50,000
Misc Safety Equipment	50,000	0	50,000
Gravity Sand Filters (3 of 3)	120,000	0	120,000
Gear Reducer Replacement (UOP to be determined)	150,000	0	150,000
DCS Client computer replacement	35,000	0	35,000
Cooling Tower Fans Variable Frequency Drives (VFD)	250,000	0	250,000
Conveyor Belt Replacements (3-1, #2 Boom Conveyor, 7-3)	500,000	0	500,000
Co2 piping system	100,000	0	100,000
Blow down Sump pump replacement (3 of 3)	160,000	0	160,000
544 Loader	120,000	0	120,000
#3 Flyash blower - 1st and 2nd stage	60,000	0	60,000
Tube Weld Overlay (UOP TBD by 2010 inspection)	1,530,000	0	1,530,000
Supervisory instruments, ID, FD and PA Fans	205,000	0	205,000
Secondary Air Heater Baskets	950,000	0	950,000
Replace Scanner Air Fan	35,000	0	35,000
Remaining BTG Board Control Switches into DCS	125,000	0	125,000



**Big Rivers Electric Cooperative**  
**2011 Capital Budget**

<b>Project Description</b>	<b>Gross Capital Budget</b>	<b>City of Henderson Portion</b>	<b>Net Capital Budget</b>
Finishing Superheater replacement - Year 2	2,400,000	0	2,400,000
Expansion joints	475,000	0	475,000
Drag Chain replacement	150,000	0	150,000
Cooling tower fan replacement (#5, #7 & #8)	200,000	0	200,000
Capital Valves	125,000	0	125,000
Burner replacement - (15 each) Phase I of II	750,000	0	750,000
Burner Flame Scanners	100,000	0	100,000
Make flue gas SO3 treat System permanent	2,225,641	0	2,225,641
Catalyst Regeneration	1,820,000	0	1,820,000
<b>Total Wilson Station</b>	<b>\$ 24,403,489</b>	<b>0</b>	<b>\$ 24,403,489</b>
<b>Mercury Monitors</b>	<b>\$ 2,000,000</b>	<b>0</b>	<b>\$ 2,000,000</b>
<b>Total Plants</b>	<b>\$ 59,291,390</b>	<b>\$ 2,381,843</b>	<b>\$ 56,909,547</b>



**Big Rivers Electric Corporation  
Multi-pollutant Position Report and Proposed  
Compliance Plan  
(SO<sub>2</sub>, NO<sub>x</sub>, Hg)  
And  
Multi-Media Compliance Evaluation**

**FINAL**

A Touchstone Energy® Cooperative 

The Touchstone Energy logo is a stylized graphic of a person with arms raised, enclosed within a circular frame that resembles a sun or a globe.

Environmental and Technical Services  
*Version Date – June 6, 2008*  
*Updated and Modified – September 12, 2008*

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**Big Rivers Electric Corporation**  
**Multi-pollutant Position Report and Proposed Compliance Plan**  
**(SO<sub>2</sub>, NO<sub>x</sub>, Hg)**  
**And**  
**Multi-Media Compliance Evaluation**

Environmental and Technical Services  
June 6, 2008  
Updated and Modified September 12, 2008

**Author's Comment**

This plan as originally developed and written assumed the full implementation of the Clean Air Interstate Rule (CAIR) with the related reductions of Sulfur Dioxide (SO<sub>2</sub>) and Oxides of Nitrogen (NO<sub>x</sub>) in two phases; Phase I beginning in 2009 for NO<sub>x</sub> and in 2010 for SO<sub>2</sub> and Phase II beginning in 2015. The plan also assumed the full implementation of the Clean Air Mercury Rule (CAMR) with its related reductions in 2010 for Phase I and in 2018 for Phase II.

As a result of various legal actions, the United States Court of Appeals for the District of Columbia vacated the CAIR on July 11, 2008. The mandate finalizing this decision has not been issued by the Court as of this date. Additionally, the Court vacated the CAMR on Feb 8, 2008 and issued the mandate on March 14, 2008, finalizing the decision.

There has been considerable interest among various interested parties, including Congress, the States, Industry, and the Environmental Community, to consider short-term legislative options to restore some the benefits that were expected from implementation of this important pollution reduction mechanism.<sup>1</sup> Some of the alternatives being considered are:

- Legislation reinstating Phase I
  - Short Term (2 years or less)
  - Medium Term (4 – 5 years)
  - Long Term (until superseded by another program)
- Legislation reinstating full CAIR Requirements

With the uncertainty in future regulatory requirements, Big Rivers has modified its original plan and has assumed the implementation of a “New CAIR or CAIR-like” rule with Phase I starting in 2011 for both SO<sub>2</sub> and NO<sub>x</sub> requirements and Phase II starting in 2015. This new rule will be referred to as CAIR II in this document and will assume the same basic emission reduction requirements that would have occurred under the original CAIR requirements using a market based allowance strategy. Additionally, the plan assumes implementation of a mercury control rule, similar to CAMR, beginning with Phase I in 2011 and with Phase II in 2018. A new production cost model, which is dated 09/08/08, was run to reflect these updates.

**Big Rivers Electric Corporation**  
**Multi-pollutant Position Report and Proposed Compliance Plan**  
**(SO<sub>2</sub>, NO<sub>x</sub>, Hg)**  
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Environmental and Technical Services

June 6, 2008

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**Executive Summary**

**Station Description, Air Emissions Regulations and Units' Design**

**Coleman Station**

The Coleman Station is a multiple unit plant consisting of three coal-fired units designed to burn Illinois Basin coal. The units were commercialized in 1969, 1970 and 1972 respectively with a combined net output rating of 440 MW during Ozone Season and 443 MW during Non-Ozone Season. The Coleman Station is regulated as an existing station and must comply with the requirements contained in the Kentucky State Implementation Plan (SIP) for emissions of all regulated pollutants. The station was originally equipped with high efficiency electrostatic precipitators to control particulate emissions.

**Reid Station**

The Robert Reid Station is a multiple unit plant consisting of one coal-fired unit designed to burn Illinois Basin coal and/or natural gas and one combustion turbine with the ability to burn either fuel oil or natural gas. The units were commercialized in 1966 and 1976 respectively with a combined net output rating of 130 MW. Reid Station is regulated as an existing station and must comply with the requirements contained in the Kentucky State Implementation Plan (SIP) for emissions of all regulated pollutants. The Reid unit #1 was originally equipped with mechanical ash separators and was retro-fitted with high efficiency electrostatic precipitators in the 1970's to control particulate emissions.

**City of Henderson Station Two**

The Station Two facility is a multiple unit plant owned by the City of Henderson and operated by Big Rivers and consists of two coal-fired units designed to burn Illinois Basin coal. The units were commercialized in 1973 and 1974 respectively with a combined net output rating of 310 MW during Ozone Season and 311 MW during Non-Ozone Season. The City of Henderson's Station Two is regulated as an existing station and must comply with the requirements contained in the Kentucky State Implementation Plan (SIP) for emissions of all regulated pollutants. The station was originally equipped with high efficiency electrostatic precipitators to control particulate emissions.

### **Robert D. Green Station**

The Robert D. Green facility is a multiple unit plant consisting of two coal-fired units designed to burn Illinois Basin coal. The units were commercialized in 1979 and 1981 respectively with a combined net output rating of 454 MW during both Ozone Season and Non-Ozone Season. The Green Station is regulated as a new station and must comply with the requirements contained in the Kentucky State Implementation Plan (SIP) and in 40 CFR 60 Subpart D for emissions of all regulated pollutants. The station was originally equipped with high efficiency electrostatic precipitators to control particulate emissions, low-NOx burners and dual-module, magnesium-lime-based flue gas desulfurization (FGD) systems.

### **DB Wilson Station**

The DB Wilson Station is a single coal-fired unit designed to burn Illinois Basin coal. The unit was commercialized in 1986 with a net output rating of 417 MW during Ozone Season and 419 MW during Non-Ozone Season. The DB Wilson Station is regulated as a new station and must comply with the requirements contained in the Kentucky State Implementation Plan (SIP) and in 40 CFR 60 Subpart D(a) for emissions of all regulated pollutants. The station was originally equipped with high efficiency electrostatic precipitators to control particulate emissions, low-NOx burners with over-fire air ports; and a four-module, limestone-based FGD systems.

## **Sulfur Dioxide**

For emissions of sulfur dioxide (SO<sub>2</sub>) the current permit limit for each **Coleman** unit is 5.2 lbs SO<sub>2</sub>/mmBTU heat input. These limits may be achieved either through the use of a medium sulfur coal or by utilization of a post combustion process.

Additionally, the provisions of the Acid Rain Program (ARP) contained in the Clean Air Act Amendments of 1990 apply to the units at the Coleman Station (C-1, C-2, & C-3). During Phase I of the ARP the annual allowances allocated to the units were sufficient to balance against the emissions. However, with the beginning of Phase II the emissions exceeded the annual allowance allocations requiring the purchase of additional allowances. To mitigate this issue a Flue Gas Desulfurization (FGD) system was installed at the Coleman Station and achieved full operation in early 2006. This single module, limestone-based system treats the flue gas from all three units providing reductions in SO<sub>2</sub> emissions of 98%. These emission reductions allow the allowance allocations to balance the emissions and provide some surplus allowances for use within the rest of the Big Rivers system or for sale in the market.

Coleman Station is also subject to the provisions of the CAIR II Rule. The SO<sub>2</sub> provisions of this rule will take effect beginning in 2011. During the Phase I of the rule (from 2011 – 2014) the allowance surrender ratio will be two allowances for each ton of emissions. Beginning in 2015 with Phase II of the rule, the surrender ratio will increase to 2.86 allowances for each ton of emissions. Results from the production cost model indicate that the allocated allowances for Coleman Station will be sufficient to balance against the emissions during both Phase I and Phase II. There will be allowances

remaining to be used to balance emissions in the rest of the Big Rivers system during Phase I.

Under the SO<sub>2</sub> program for Coleman the primary costs are limestone reagent purchases associated with operation of the FGD system. Coleman does not require any FGD additives such as di-basic acid (DBA).

For emissions of SO<sub>2</sub> the current limit for **the Reid coal fired unit** is 5.2 lbs SO<sub>2</sub>/mmBTU heat input. This limit may be achieved either through the use of a medium sulfur coal or by utilization of a post combustion process.

Additionally, the provisions of the ARP contained in the Clean Air Act Amendments of 1990 apply to the coal fired unit at Reid Station (R-1). From the beginning of Phase I of the ARP the allowances allocated to the units were not sufficient to balance against the emissions. This situation continues through Phase II. To mitigate this issue surplus allowances from other units within the Big Rivers system are used to balance the Reid emissions above the Reid allocations.

Reid Station is also subject to the provisions of the CAIR II Rule. The SO<sub>2</sub> provisions of this rule will take effect beginning in 2011. During Phase I of the rule (from 2011 – 2014) the allowance surrender ratio will be two allowances for each ton of emissions. Beginning in 2015 with Phase II of the rule, the surrender ratio will increase to 2.86 allowances for each ton of emissions. The deficiency of allowance allocations will continue and become more pronounced under the requirements of CAIR II. Additionally, SO<sub>2</sub> emissions from the Reid combustion turbine (R-CT) operation will also be subject to the CAIR. This unit has no SO<sub>2</sub> allowance allocations so all Reid CT emissions will be balanced through Big Rivers intra-system transfers or market allowance purchases.

Under the SO<sub>2</sub> program for the Reid Station the primary costs are costs that are related to the need to purchase additional allowances to offset emissions.

For emissions of SO<sub>2</sub> the current limit for **each Station Two unit** is 5.2 lbs SO<sub>2</sub>/mmBTU heat input. These limits may be achieved either through the use of a medium sulfur coal or by utilization of a post combustion process.

Additionally, the provisions of the ARP contained in the Clean Air Act Amendments of 1990 apply to the units at Station Two (H-1 & H-2). During Phase I of the ARP the allowances allocated to the units were sufficient to balance against the emissions. However, with the beginning of Phase II the emissions were expected to exceed the allowance allocations requiring the purchase of additional allowances. To mitigate this issue a FGD system was installed at the Station during Phase I and achieved full operation in 1995. This single-module-per-unit, magnesium-lime-based system treats the flue gas from each unit providing reductions in SO<sub>2</sub> emissions of approximately 94%. These emission reductions allow the allowance allocations to balance the emissions and provide some surplus allowances for use within the Big Rivers system or for sale in the market.

Station Two is also subject to the provisions of the CAIR II Rule. The SO<sub>2</sub> provisions of this rule will take effect beginning in 2011. During Phase I of the rule (from 2011 – 2014) the allowance surrender ratio will be two allowances for each ton of emissions. Beginning in 2015 with Phase II of the rule, the surrender ratio will increase to 2.86 allowances for each ton of emissions. Results from the production cost model indicate that the allocated allowances for Station Two will be sufficient to balance the emissions during both Phase I and Phase II. There will be allowances remaining to be used to balance emissions in the rest of the Big Rivers system during Phase I.

Under the SO<sub>2</sub> program for Station Two the primary costs are lime reagent purchases associated with operation of the FGD system. Station Two does not require any FGD additives such as di-basic acid (DBA).

For emissions of SO<sub>2</sub> the current limit for **each Green unit** is 0.8 lbs SO<sub>2</sub>/mmBTU heat input. These limits may be achieved either through the use of a compliance coal or by utilization of a post combustion process.

Additionally, the provisions of the ARP contained in the Clean Air Act Amendments of 1990 apply to the units at Green Station (G-1 & G-2). During Phase I and Phase II of the ARP the allowances allocated to the units were sufficient to balance against the emissions. These dual-module magnesium-lime FGD systems treat the flue gas from each unit providing reductions in SO<sub>2</sub> emissions of approximately 97%. These emission reductions allow the allowance allocations to balance the emissions and provide some surplus allowances for use within the Big Rivers system or for sale in the market.

Green Station is also subject to the provisions of the CAIR II Rule. The SO<sub>2</sub> provisions of this rule will take effect beginning in 2011. During Phase I of the rule (from 2011 – 2014) the allowance surrender ratio will be two allowances for each ton of emissions. Beginning in 2015 with Phase II of the rule, the surrender ratio will increase to 2.86 allowances for each ton of emissions. Results from the production cost model indicate that the allocated allowances for Green Station will be sufficient to balance the emissions during both Phase I and Phase II. There will be allowances remaining to be used to balance emissions in the rest of the Big Rivers system during Phase I.

Under the SO<sub>2</sub> program for the Green Station the primary costs are lime reagent purchases associated with operation of the FGD system. Green Station does not require any FGD additives such as DBA.

For **Wilson** emissions of SO<sub>2</sub> the current limit is 1.2 lbs SO<sub>2</sub>/mmBTU heat input. Additionally, at this rate the scrubber must meet a SO<sub>2</sub> reduction of 90%. The regulations require the installation and operation of an FGD system.

Additionally, the provisions of the ARP contained in the Clean Air Act Amendments of 1990 apply to the unit at Wilson Station (W-1). During Phase I and Phase II of the ARP the allowances allocated to the unit were sufficient to balance against the emissions. This four-module limestone FGD system treats the flue gas from each unit providing reductions in SO<sub>2</sub> emissions of approximately 91%. These emission reductions allow the



allowance allocations to balance the emissions and provide some surplus allowances for use within the Big Rivers system or for sale in the market.

Wilson Station is also subject to the provisions of the CAIR II Rule. The SO<sub>2</sub> provisions of this rule will take effect beginning in 2011. During Phase I of the rule (from 2011 – 2014) the allowance surrender ratio will be two allowances for each ton of emissions. Beginning in 2015 with Phase II of the rule, the surrender ratio will increase to 2.86 allowances for each ton of emissions. Results from the production cost model indicate that the allocated allowances for Wilson Station will no longer be sufficient to balance against the emissions with the current removal efficiency, requiring the use of either surplus allowances available from the rest of the Big Rivers system or the purchase of allowances from the market.

Under the SO<sub>2</sub> program for Wilson Station the primary costs are limestone reagent purchases and enhancement chemicals such as DBA associated with operation of the FGD system.

Attached Exhibits 1 and 2 demonstrate there are sufficient SO<sub>2</sub> allowances in the 2011 - 2012 time frame for the Big Rivers generating system to meet compliance without the need to purchase additional allowances. However, there may be costs that are related to the need to purchase additional allowances to offset emissions or credits related to having additional surplus allowances available for sale in the market should actual operations differ from the production cost modeling

### Oxides of Nitrogen

The existing Kentucky SIP requirements for the emissions of NO<sub>x</sub> from **the Coleman Plant** show that there are no specific rate based limits (ie. in lbs/mmBTU).

Under the provisions for the ARP for NO<sub>x</sub> reductions, the Coleman Station units are a part of an overall system-wide averaging plan. As a part of this plan the Coleman units have an annual target limit of approximately 0.49 lbs NO<sub>x</sub>/mmBTU. To meet this requirement, low-NO<sub>x</sub> burners were retro-fitted to each Coleman unit in 1993 and 1994.

As a result of various state Clean Air Act Section 126 requests, the Environmental Protection Agency (EPA) issued the NO<sub>x</sub> SIP Call which provided specific limits on the number of tons of NO<sub>x</sub> which could be emitted from various states (including Kentucky) during the Ozone Season (May 1 through Sept 30 of each year). These state emissions budgets were then divided among the various sources within the state and NO<sub>x</sub> emission allowance allocations were made. The system wide control plan included modifications to the Coleman units to reduce NO<sub>x</sub> emissions through the installation of advanced over-fire air systems in 2002 & 2003; to be operated during the annual Ozone Season.

The provisions of the NO<sub>x</sub> portion of the CAIR II Rule begin in 2011 with the creation of two new allowance allocations, one based on annual requirements, the other based on the continuation of the Ozone Season. Once the CAIR II requirements begin, the limitations under the NO<sub>x</sub> SIP Call will expire. The control plan calls for the continued operation of

the installed advanced over-fire air systems but on a year-round basis. The need for additional allowances to balance against station emissions is expected to continue.

Under the NOx program for Coleman Station the primary costs are related to the need to purchase additional allowances to offset emissions or credits related to having surplus allowances available for sale in the market

The existing Kentucky SIP requirements for the emissions of NOx from **Reid Station** show that there are no specific rate based limits (ie. in lbs/mmBTU)

Under the provisions for the ARP for NOx reductions, the Reid Station coal fired unit is a part of an overall system-wide averaging plan. As a part of this plan the unit has an annual target limit of approximately 0.9 lbs NOx/mmBTU

As a result of various state Clean Air Act Section 126 requests, the EPA issued the NOx SIP Call which provided specific limits on the number of tons of NOx which could be emitted from various states (including Kentucky) during the Ozone Season. These state emissions budgets were then divided among the various sources within the state and NOx emission allowance allocations were made. The system wide control plan included modifications to the Reid Station coal fired unit (R-1) to reduce NOx emissions through the replacement of half the unit's coal burners with natural gas burners; and through the installation of a flue gas recirculation systems in 2001; to be operated during the annual Ozone Season. Although this has enabled the unit to reduce emissions, the levels are still greater than the allowance allocations requiring the use of either surplus allowances available from the rest of the Big Rivers system or the purchase of allowances from the market. Additionally, the Reid combustion turbine (R-CT) was equipped with dual-fuel burners in 2001 allowing use of either fuel oil or natural gas combustion.

The provisions of the NOx portion of the CAIR II Rule begin in 2011 with the creation of two new allowance allocations, one based on annual requirements, the other based on the continuation of the Ozone Season. Once the CAIR II requirements begin, the limitations under the NOx SIP Call will expire. The control plan calls for the continued operation of the installed Reid NOx control systems on a year-around basis. The need for additional allowances to balance against station emissions is expected to continue.

Under the NOx program for Reid Station the primary costs are related to the need to purchase additional allowances to offset emissions or credits related to having surplus allowances available for sale in the market.

The existing Kentucky SIP requirements for the emissions of NOx from **Station Two** show that there are no specific rate based limits (ie. in lbs/mmBTU).

Under the provisions for the ARP for NOx reductions, the Station Two units are a part of an overall system-wide averaging plan. As a part of this plan the station units have an annual target limit of approximately 0.51 lbs NOx/mmBTU. To meet this requirement low-NOx burners were retro-fitted each Station Two unit in 1993 and 1994.

As a result of various state Clean Air Act Section 126 requests, the EPA issued the NOx SIP Call which provided specific limits on the number of tons of NOx which could be emitted from various states (including Kentucky) during the Ozone Season. These state emissions budgets were then divided among the various sources within the state and NOx emission allowance allocations were made. The system wide control plan included modifications to the Station Two units to reduce NOx emissions through the installation of Selective Catalytic Reduction (SCR) systems to be operated during the annual Ozone Season. This has enabled the units to reduce emissions to a level below the allowance allocations and make surplus allowances available for use throughout the Big Rivers system or for sale.

The provisions of the NOx portion of the CAIR II Rule begin in 2011 with the creation of two new allowance allocations, one based on annual requirements, the other based on the continuation of the Ozone Season. Once the CAIR II requirements begin the limitations under the NOx SIP Call will expire. The control plan calls for the continued operation of the installed SCR systems but on a year-around basis.

Under the NOx program for Station Two the primary costs are anhydrous ammonia reagent purchases associated with operation of the SCR system. Costs for sulfur addition to the Station Two FGD are also a result to offset negative process impacts due to the SCRs.

The existing Kentucky SIP and 40 CFR 60, Subpart D requirements for the emissions of NOx from **Green Station** have a rate based limit of 0.7 lbs NOx /mmBTU heat input.

Under the provisions for the Acid Rain Program for NOx reductions, the Green Station units are a part of an overall system-wide averaging plan. As a part of this plan the station units have an annual target limit of approximately 0.45 lbs NOx/mmBTU.

As a result of various state Clean Air Act Section 126 requests, the EPA issued the NOx SIP Call which provided specific limits on the number of tons of NOx which could be emitted from various states (including Kentucky) during the Ozone Season. These state emissions budgets were then divided among the various sources within the state and NOx emission allowance allocations were made. The system wide control plan included modifications to the Green Station units to reduce NOx emissions through the installation of coal re-burn systems to be operated during the annual Ozone Season. This has enabled the units to reduce emissions to a level which provides for system compliance but the levels are still greater than the allowance allocations requiring the use of either surplus allowances available from the rest of the Big Rivers system or the purchase of allowances from the market.

The provisions of the NOx portion of the CAIR II Rule begin in 2011 with the creation of two new allowance allocations, one based on annual requirements, the other based on the continuation of the Ozone Season. Once the CAIR II requirements begin the limitations under the NOx SIP Call will expire. The control plan calls for the continued operation of the installed coal re-burn systems but on a year-around basis. The need for additional allowances to balance against station emissions is expected to continue.

Under the NOx program for Green Station the primary costs are related to the need to purchase additional allowances to offset emissions or credits related to having surplus allowances available for sale in the market

The existing Kentucky SIP and 40 CFR 60, Subpart D requirements for the emissions of NOx from **Wilson Station** have a rate based limit of 0.6 lbs NOx /mmBTU heat input.

Under the provisions for the ARP for NOx reductions, the Wilson Station units are a part of an overall system-wide averaging plan. As a part of this plan the station units have an annual target limit of approximately 0.47 lbs NOx/mmBTU

As a result of various state Clean Air Act Section 126 requests, the EPA issued the NOx SIP Call which provided specific limits on the number of tons of NOx which could be emitted from various states (including Kentucky) during the Ozone Season. These state emissions budgets were then divided among the various sources within the state and NOx emission allowance allocations were made. The system wide control plan included modifications to the Wilson Station unit to reduce NOx emissions through the installation of a SCR system in 2003 & 2004; to be operated during the annual Ozone Season. This has enabled the unit to reduce emissions to a level below the allowance allocations and make surplus allowances available for use throughout the Big Rivers system or for sale.

The provisions of the NOx portion of the CAIR II Rule begin in 2011 with the creation of two new allowance allocations, one based on annual requirements, the other based on the continuation of the Ozone Season. Once the CAIR II requirements begin the limitations under the NOx SIP Call will expire. The control plan calls for the continued operation of the installed SCR system but on a year-around basis.

Under the NOx program for Wilson Station the primary costs are anhydrous ammonia reagent purchases associated with operation of the SCR system. There are also costs for sulfur addition to the Wilson Station FGD. The sulfur is required to offset negative process impacts due to the SCRs.

Attached Exhibits 1 and 2 demonstrate there are insufficient NOx allowances in the 2008-2012 time frame for the Big Rivers generating system to meet compliance. Additional allowances will need to be purchased to meet compliance. However, there may be costs that are related to the need to purchase additional allowances to offset emissions or credits related to having additional surplus allowances available for sale in the market should actual operations differ from the production cost modeling

### **SO<sub>3</sub> and Opacity Compliance**

The current limit for each **Coleman** unit for emissions of particulate matter is 0.27 lbs /mmBTU heat input. In addition, emissions shall not exceed 40% opacity based on a six-minute average except that a maximum of 60% opacity is allowed for a period of not more than six minutes in any sixty minutes during certain operational procedures. Also, each unit has established, through testing, an opacity trigger limit that is related to the particulate emission standard. This trigger limit provides an alternate method of

monitoring particulate emissions on a continuous basis. These limits are achieved through the use of a high efficiency electrostatic precipitator. Due to the FGD design, additional significant reductions are realized as a result of flue gas interaction with the FGD slurry in the spray tower.

For emissions of particulate matter the current limit for the coal fired **Reid** unit #1 is 0.28 lbs /mmBTU heat input. In addition, emissions shall not exceed 40% opacity based on a six-minute average except that a maximum of 60% opacity is allowed for a period of not more than six minutes in any sixty minutes during certain operational procedures. Also, the unit has established, through testing, an opacity trigger limit that is related to the particulate emission standard. This trigger limit provides an alternate method of monitoring particulate emissions on a continuous basis. This limit is achieved through the use of a high efficiency electrostatic precipitator.

For emissions of particulate matter the current limit for each **Station Two** unit is 0.21 lbs /mmBTU heat input. In addition, emissions shall not exceed 40% opacity based on a six-minute average except that a maximum of 60% opacity is allowed for a period of not more than six minutes in any sixty minutes during certain operational procedures. Also, each unit has established, through testing, an opacity trigger limit that is related to the particulate emission standard. This trigger limit provides an alternate method of monitoring particulate emissions on a continuous basis when the unit is utilizing the bypass stack. These limits are achieved through the use of a high efficiency electrostatic precipitator. Due to the FGD design, additional significant reductions are realized as a result of flue gas interaction with the FGD slurry in the spray tower. Under normal operation post-scrubber particulate emissions are directly monitored on a continuous basis using a particulate monitor in lieu of using opacity monitoring and trigger level values.

For emissions of particulate matter the current limit for each **Green** unit is 0.1 lbs /mmBTU heat input. In addition, emissions shall not exceed 20% opacity based on a six-minute average except that a maximum of 27% opacity is allowed for a period of not more than six minutes in any sixty minutes during certain operational procedures. Also, each unit has established, through testing, an opacity trigger limit that is related to the particulate emission standard. This trigger limit provides an alternate method of monitoring particulate emissions on a continuous basis. These limits are achieved through the use of a high efficiency electrostatic precipitator. Due to the FGD design, additional significant reductions are realized as a result of flue gas interaction with the FGD slurry in the spray tower.

For emissions of particulate matter the current limit for the **Wilson** unit is 0.03 lbs /mmBTU heat input. In addition, emissions shall not exceed 20% opacity based on a six-minute average except that a maximum of 27% opacity is allowed for a period of not more than six minutes in any sixty minutes during certain operational procedures. Also, each unit has established, through testing, an opacity trigger limit that is related to the particulate emission standard. This trigger limit provides an alternate method of monitoring particulate emissions on a continuous basis. These limits are achieved through the use of a high efficiency electrostatic precipitator. As a result of the operation of the SCR system, there has been an increase in the opacity of the W-1 stack plume. In

order to maintain the opacity levels to those approximately equal to levels prior to the installation of the SCR, a hydrated lime duct injection system has been installed and is operated when the SCR system is utilized. The primary cost of this operation is the purchase of the reagent.

### **Scrubbers By-Products Disposal**

At the **Coleman Station** there are three main sources of combustion by-products; fly ash, bottom ash and scrubber waste. Due to the nature of these materials they are categorized as special waste. Fly ash and bottom ash are currently sluiced to the north ash pond. These materials are then periodically removed from the pond for final disposal at other permitted facilities. Additionally, there are costs related to the disposal of any off-spec gypsum (marketable by-product of the Coleman FGD). Currently, costs associated with the disposal of this waste are incorporated into a third party contract for the handling, hauling and operation of the landfill. No fixation lime is presently required for stabilization of these wastes in the landfills. Beginning in 2009 these wastes will be disposed of in a new facility at the Coleman Station. Consequently disposal costs are anticipated to decrease (in real dollars).

Coleman is unique in the Big Rivers system in that scrubber waste is gypsum which is sold and transported for reuse in other industries including wallboard and cement. The revenue from the sale of this gypsum is netted against the other Coleman disposal costs mentioned above.

At the **Reid Station** there are two main sources of combustion by-products; fly ash and bottom ash. Due to the nature of these materials they are categorized as special waste. The R-1 fly ash is used to blend with the FGD sludge from the Green and Station Two units along with fixation lime to help with stabilization for disposal before being placed in a permitted on-site landfill.

Bottom ash is currently sluiced to the station ash pond. This material is then periodically removed from the pond for final disposal at the on-site landfill. Currently, costs associated with the disposal of this waste are incorporated into a third party contract for the handling, hauling and operation of the landfill.

At the **Station Two** there are three main sources of combustion by-products; fly ash, bottom ash and scrubber waste. Due to the nature of these materials they are categorized as special waste. Bottom ash is currently sluiced to the station ash pond. This material is periodically removed from the pond for final disposal at the permitted on-site landfill. Currently, costs associated with the disposal of these wastes are incorporated into a third party contract for the handling, hauling and operation of the landfill. Additionally, there are costs that are related to disposal of FGD sludge. Fixation lime is required for stabilization of these wastes in the landfill. In approximately 2015 the on-site landfill will be full and these wastes are planned to be disposed of in an off-site landfill permitted for "special wastes"; consequently disposal costs are anticipated to increase (in real dollars).

At the **Green Station** there are three main sources of combustion by-products; fly ash, bottom ash and scrubber waste. Due to the nature of these materials they are categorized as special waste. Bottom ash is currently sluiced to the station ash pond. These materials are periodically removed from the pond for final disposal at other permitted facilities. Fly ash is currently handled with a dry system, allowing it to be directly incorporated into the scrubber waste stream or sold as market conditions allow. Scrubber waste is disposed in an on-site special waste landfill. Currently, costs associated with the disposal of these wastes are incorporated into a third party contract for the operation of the landfill.

Additionally, there are costs that are related to disposal of FGD sludge. Fixation lime is required for stabilization of these wastes in the landfill. In approximately 2015 the on-site landfill will be full and these wastes are planned to be disposed of in an off-site landfill permitted for "special wastes"; consequently disposal costs are anticipated to increase (in real dollars).

At the **Wilson Station** there are three main sources of combustion by-products; fly ash, bottom ash and scrubber waste. Due to the nature of these materials they are categorized as special waste. Bottom ash is currently handled in semi-dry condition using conventional material handling equipment and disposed in the on-site landfill. Fly ash is currently handled with a dry system, allowing it to be directly incorporated into the scrubber waste stream or sold as market conditions allow. Scrubber waste is disposed in an on-site special waste landfill. Currently, costs associated with the disposal of this waste are incorporated into a third party contract for the handling, hauling and operation of the landfill.

Additionally, there are costs that are related to disposal of FGD sludge. Fixation lime is required for stabilization of these wastes in the landfill.

## Analysis of Impending Air Quality Regulatory Requirements on the Big Rivers Electric Corporation

This report provides a forecasted analysis of Big Rivers Electric Corporation's multi-pollutant position. This position report and compliance plan is not intended to be the full economic evaluation of the scenarios described below; only to present potential impacts of these scenarios on environmental compliance. The EPA announced on March 10, 2005 in its CAIR ruling that Phase I NO<sub>x</sub> and SO<sub>2</sub> will start in 2009 and 2010, respectively. This update assumes a CAIR-like rule (identified as CAIR II) with Phase I beginning in 2011 for both SO and NO<sub>x</sub>; and Phase II beginning in 2015. Although implementation of CAIR II does not change Big Rivers SO<sub>2</sub> allowance allocation, it does change the allowance surrender ratio from the historical one allowance for each ton of SO<sub>2</sub> emitted to a ratio of 2:1 in 2011 and 2.86:1 in 2015. The report includes an assumption on the Kentucky Division for Air Quality's plan for implementing the requirements of CAIR II into KDAQ regulatory requirements and includes assumptions regarding Kentucky's methodology for incorporating new coal fired plants. Current assumptions utilized in the Big Rivers model are included in the Appendix.

### **Study Basis:**

Projections are based on results from the updated Production Cost Model run of 09/08/08 for Big Rivers as developed by ACES Power Marketing. These model results included any planned operational parameter changes and were incorporated into the production budget figures for 2009 – 2011. The model runs project that Reid Unit 1 will run after 2008 only when it meets economic targets and will use gas as fuel. This assumption is included in the "Base Case" of this plan. Additionally, this plan's base case assumes sales and purchases of allowances on a year by year basis with each year standing on its own, i.e., no banking. However, the 14,000 SO<sub>2</sub> Allowances due to be received by agreement from E.ON in the spring of 2009 are treated as banked allowances to be utilized to balance emissions each year the allocated allowances are insufficient. For clarity, charts are included that illustrate these assumptions. This plan also assumes that each year will begin with the current EPA allocations remaining intact with the study beginning with the year 2009. Finally, the assumption is made that the SO<sub>2</sub> allowance split with the City of Henderson will continue at the percentages used in the Production Cost Model (and detailed in the appendix) throughout the study period and that Big Rivers' portion of those allowances are added to the annual inventory and would therefore be available to market or used to offset emissions.

### **SO<sub>2</sub> Position:**

An allowance bank, and the fact that all the Big Rivers units (except for Reid 1) are scrubbed, mitigates the need for external allowance purchases. The Big Rivers and City of Henderson, Station Two facilities accumulated an allowance bank early in Phase I of the Acid Rain Program under the Clean Air Act Amendments of 1990. However, beginning in 1999 with Western Kentucky Energy's operation of the facilities at higher utilization rates and with fuel of higher sulfur content, allowances were drawn from the bank. Finally with the beginning of Phase II in 2000, the bank was completely depleted.

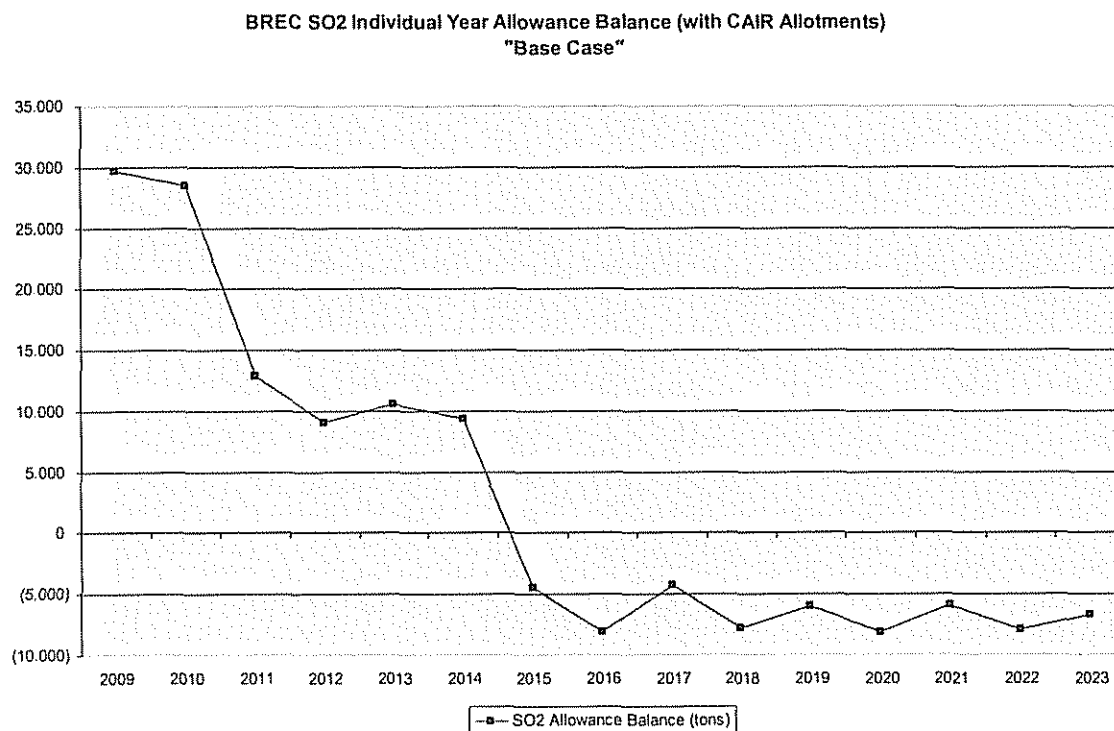


Following this depletion, WKE was in an allowance purchase position. Economic evaluations showed that the installation of a SO<sub>2</sub> scrubber at the Coleman Plant was the prudent decision. With the full implementation of the scrubber, Coleman Plant is utilizing fewer allowances than allocated thereby generating excess allowances for the Big Rivers system. This enables Big Rivers to be in the position to sell SO<sub>2</sub> allowances for a number of years into the planning period.

During Phase I of CAIR II, beginning in 2011, Big Rivers will be in a slightly net positive position on a year-by-year basis, enabling Big Rivers to build a bank of allowances adding to the 14,000 from E.ON during this time period; or to sell allowances to provide additional financial support for company operations.

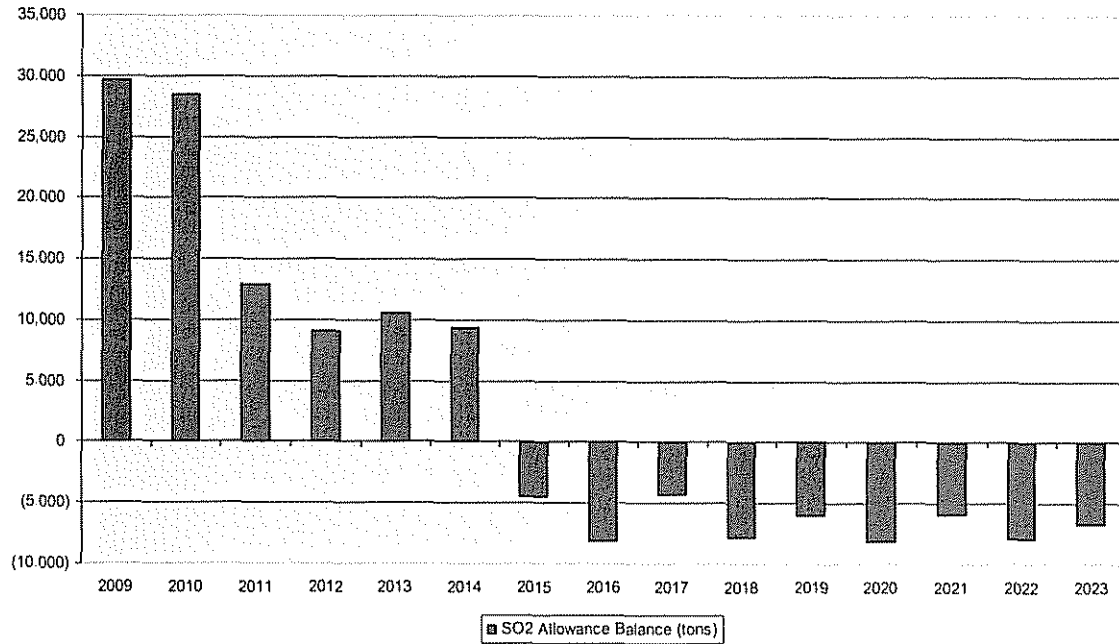
In 2015, as Phase II of CAIR II begins, this position will reverse and Big Rivers will be in a deficit position each of the following years. However, if a bank is created beginning in 2008 it will continue to supply allowances to the system at a rate that will enable compliance out through the end of the planning period in 2023. If the bank is not created then Big Rivers will be in the position to require purchases of allowances.

The following graph depicts the forecasted year by year SO<sub>2</sub> allowance balance with the implementation of the CAIR II with no banking of annual surplus allowances. For example, the graph shows in 2013 that there are approximately 10,000 excess allowances that would be sold at year end.



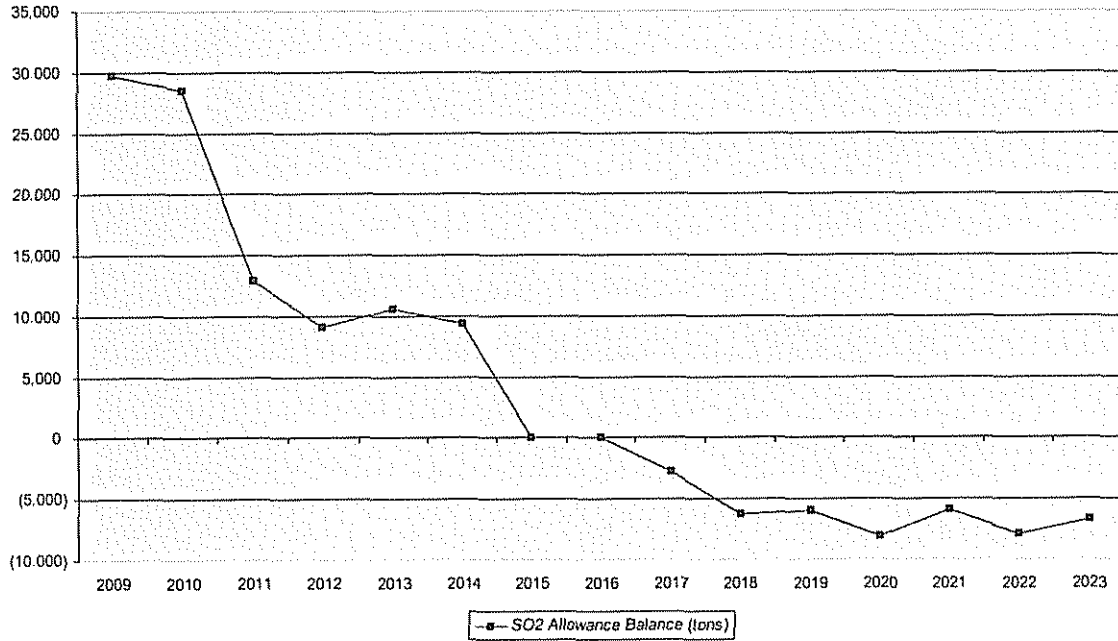
The following graph illustrates the year-by-year SO<sub>2</sub> allowance position for the Big Rivers system through the end of the planning period.

BREC SO<sub>2</sub> Individual Year Allowance Balance (with CAIR Allotments)  
"Base Case"

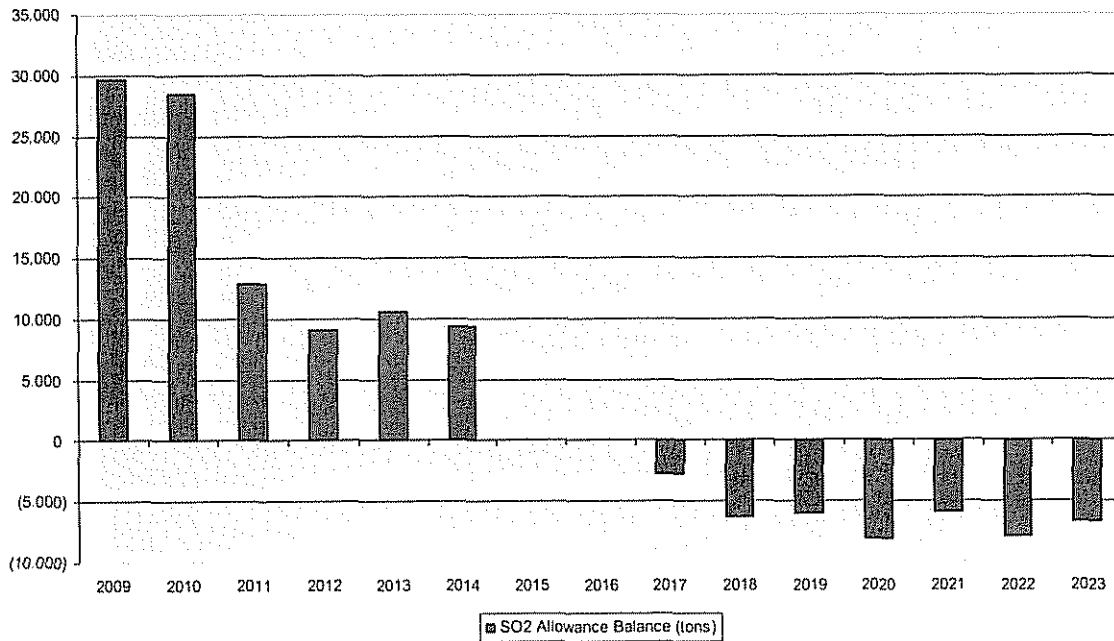


By including the 14,000 allowances from E.ON mentioned above and utilizing the bank to balance the emissions to zero each year of negative balances (which start in 2015), the first year that significant quantities of allowances would need to be purchased is extended two additional years to 2017.

**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case\_Roll-Over Credits Consumed in Initial Negative Years"**

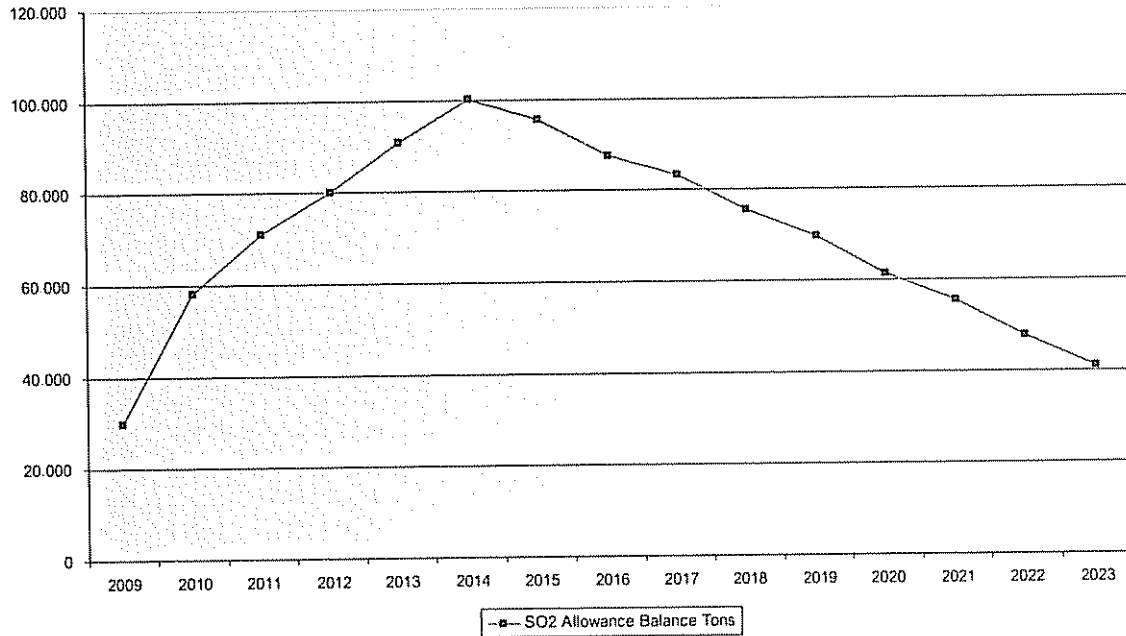


**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case\_Roll-Over Credits Consumed in Initial Negative Years"**

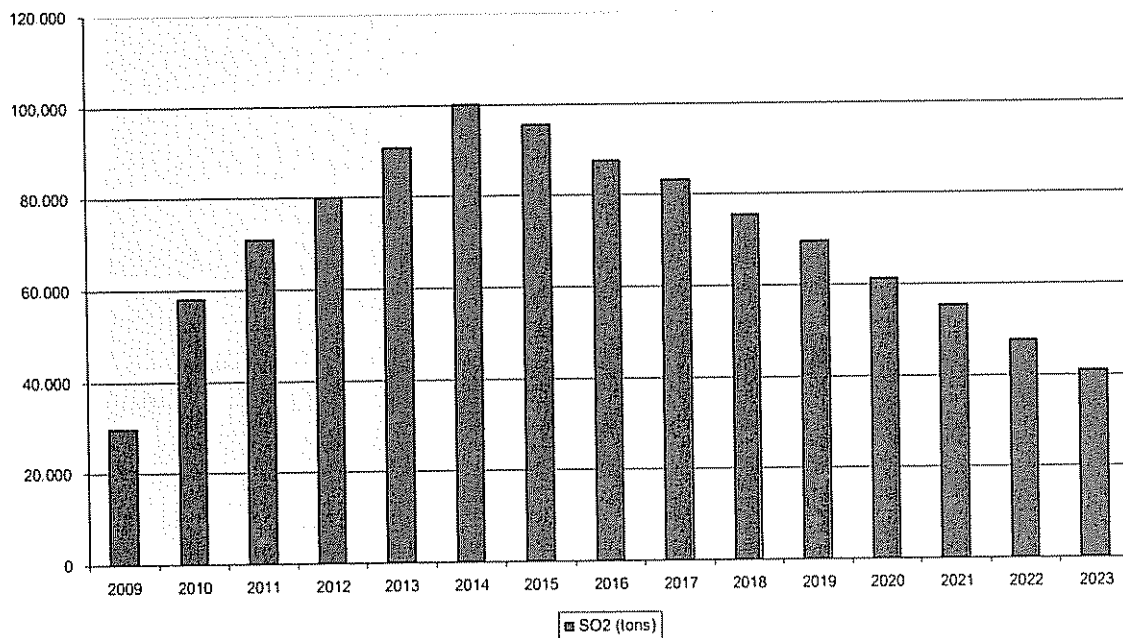


Although not currently in the model, if Big Rivers chooses to maintain an allowance bank and roll over any remaining allowances each year, the following graph illustrates the cumulative allowance balance.

BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
"Base Case"

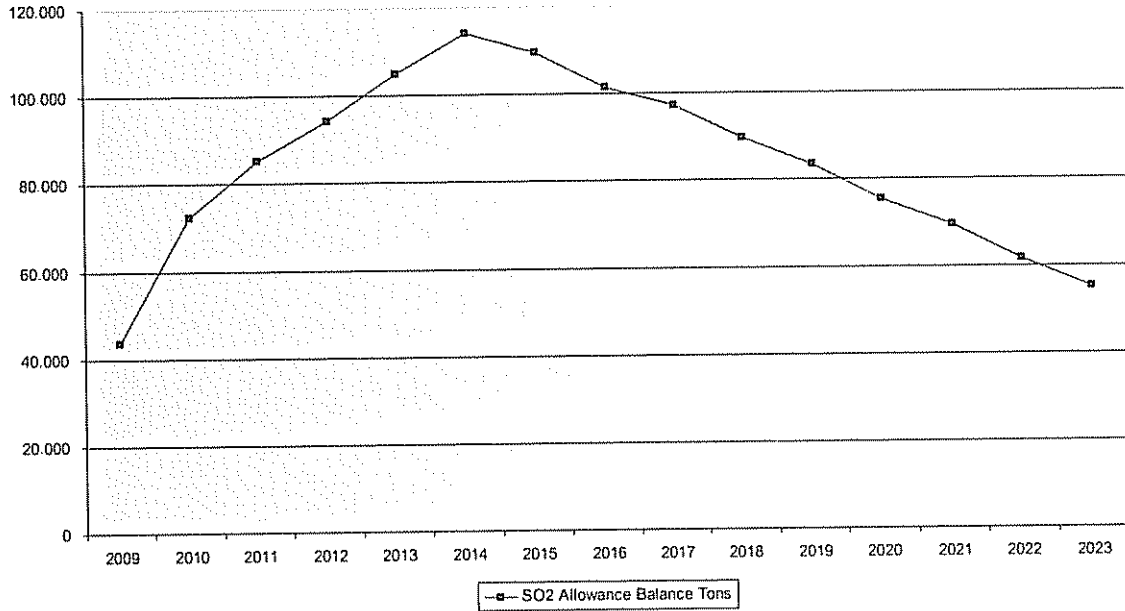


BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
"Base Case"

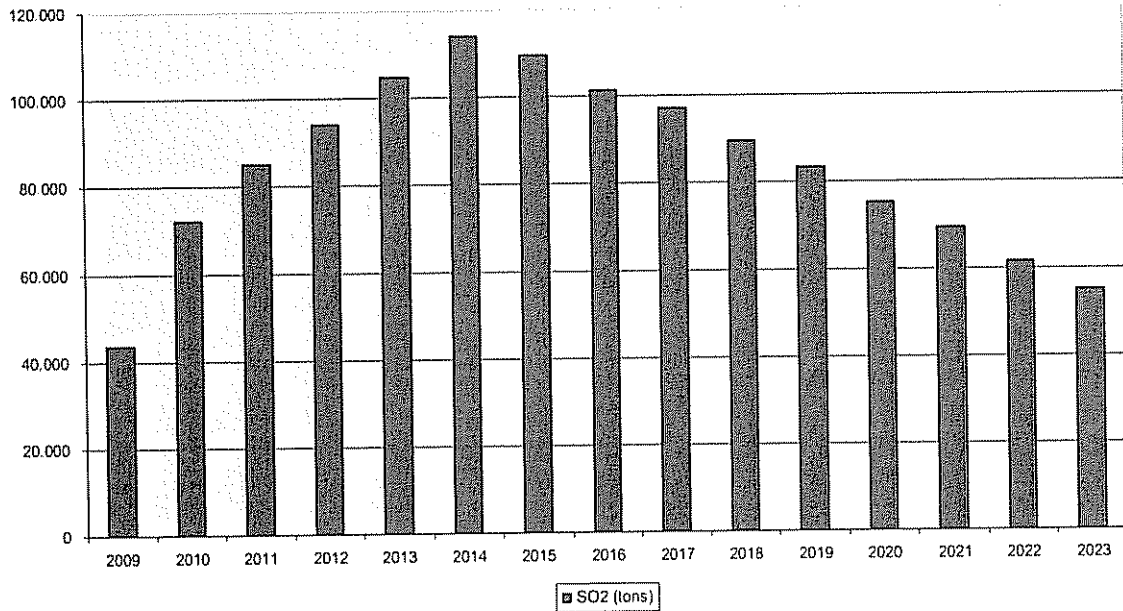


By incorporating the 14,000 allowances mentioned above, the cumulative graphs below illustrate the increased value of the allowance bank.

BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_Roll-Over Credits Added in 2009"  
 With Allowance Banking



BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_Roll-Over Credits Added in 2009"  
 With Allowance Banking



**SO<sub>2</sub> Conclusion:**

Big Rivers will maintain a net positive SO<sub>2</sub> allowance balance on a year by year basis from the present through the initial implementation of CAIR II Phase I. Starting in 2015, the first year of CAIR II Phase II, the annual emission surrender requirements will exceed the annual allowance allocation requiring the purchase of additional allowances.

If Big Rivers chooses to utilize allowance banking, a significant inventory could be built during the CAIR II Phase I period. Starting in 2015, the first year of CAIR II Phase II, the new emissions constraints will begin to deplete the banked allowances. However, the bank will allow continued operation through the 2023 planning period without the need of allowance purchases.

A third and more likely option would be someplace in the middle ground of maintaining a bank of allowances to mitigate the need for purchasing allowances and also selling some to help the finances of the company. The quantity sold each year would be flexible depending on the specific annual needs.

## **NO<sub>x</sub> Position:**

Big Rivers has NO<sub>x</sub> reduction equipment of various types on each of its coal fired units. This position report assumes that Big Rivers NO<sub>x</sub> allowance allocation reflects current understanding of regulatory reductions originally intended to occur in 2009 and now moved to 2011 as CAIR II and in 2015, as well as assumptions regarding Kentucky's methodology for incorporating new coal fired plants. Current assumptions utilized in the model are included in the Appendix.

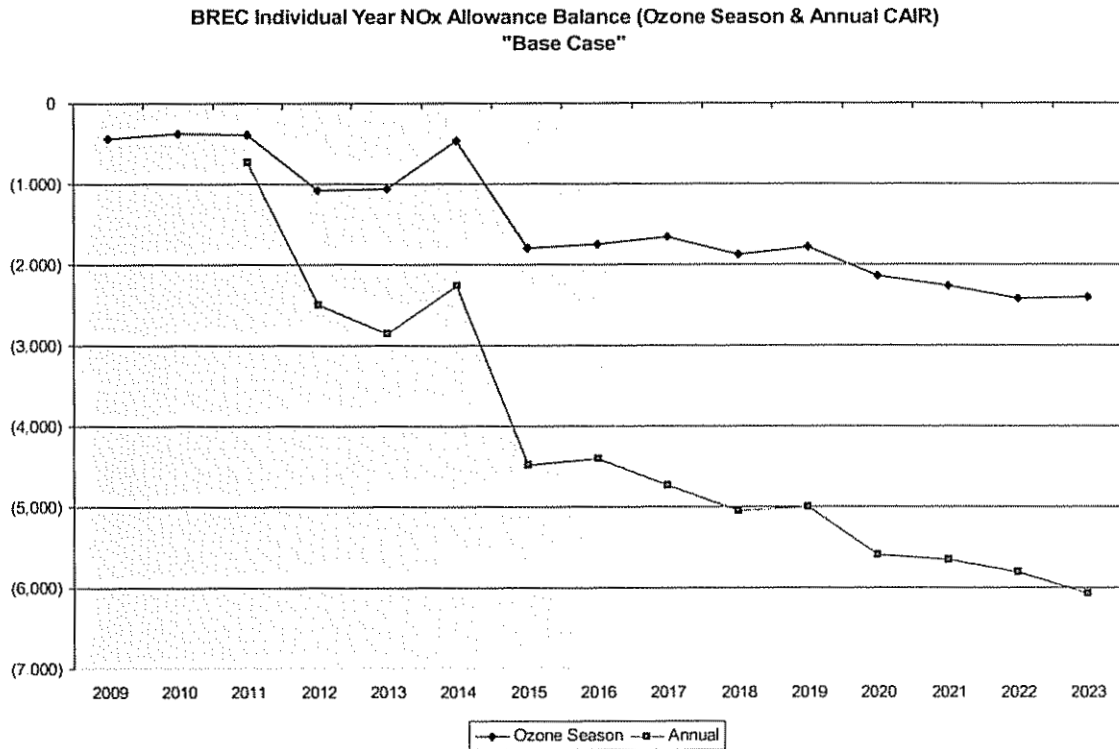
Similar to SO<sub>2</sub>, CAIR II will have a corresponding impact to the NO<sub>x</sub> allowance allocation process and NO<sub>x</sub> compliance will change from being only an ozone season (May through September) requirement to adding an annual allowance program, thereby requiring a year round NO<sub>x</sub> emission reduction requirement as well.

This position report's modeling reflects some instances where the SCRs are removed from service when the unit is operating below the minimum exit gas temperature for which ammonia can be injected. Below these minimums (typically 70-80% of the unit's capacity), the lower exit gas temperature would result in the ammonia plating out on the air heater as ammonia bisulfate and plugging the air heater. This event would require the unit to come off-line for an extended period of time to clean the air heater. These instances include start-ups and shut-downs due to boiler tube leaks, unit operation under wet coal conditions; and others.

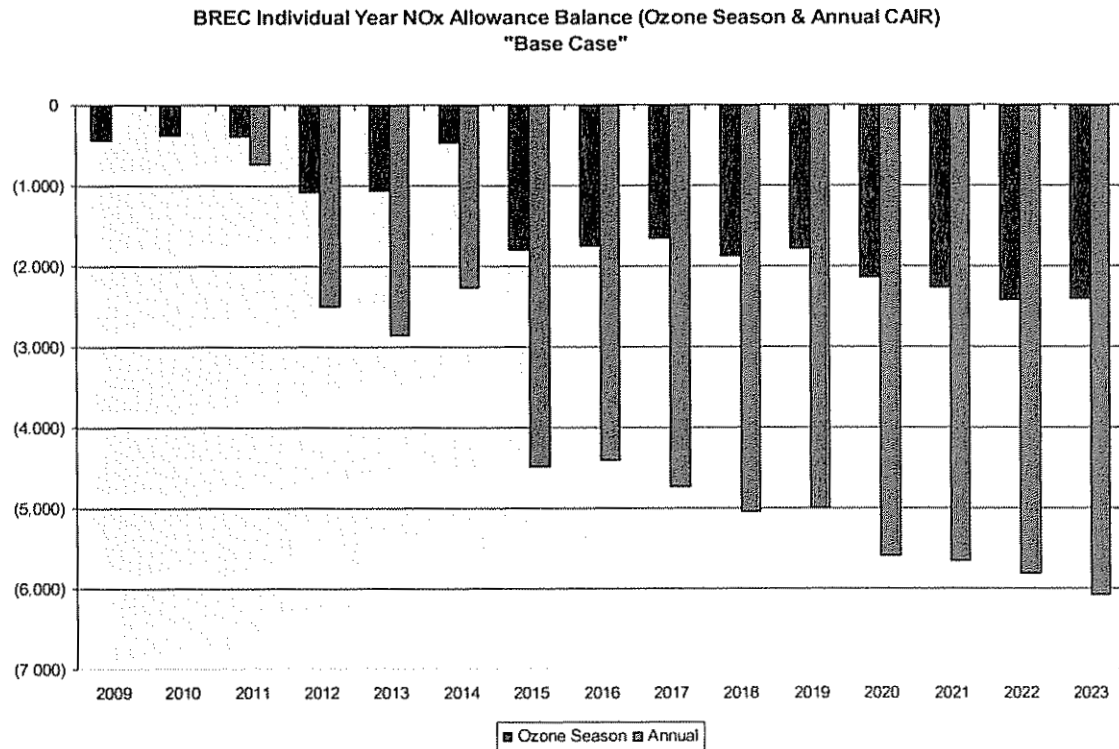
Big Rivers has a NO<sub>x</sub> SIP Call Ozone Season allocation of 4,799 allowances for the 2008 season. Of these, 810 allowances are associated with the City of Henderson, Station Two. Big Rivers has a cost sharing mechanism with the facility owners which provides for splitting any excess Station Two allowances between the parties. This agreement also provides for furnishing a number of allowances to HMP&L to offset emissions from HMP&L's Station One units. NO<sub>x</sub> allowances remaining are expected to rollover into the Big Rivers CAIR II Ozone Season bank. Results from the latest Big Rivers model run indicate that the system will be deficit with the CAIR II Ozone Season emission requirements starting with the first year (2011) through approximately 2015, requiring a purchase of approximately 1,000 NO<sub>x</sub> allowances per year. Beginning with Phase II the deficit will continue to grow under the more stringent requirements, increasing the quantities of allowances that will need to be purchased.

Additionally, the CAIR II Annual NO<sub>x</sub> emission allowance allocations are not expected to be sufficient to offset emissions with the first year of the rule. With consideration of currently forecasted unit utilizations, for most years of Phase I approximately 2,500 allowances will have to be purchased each year. With the beginning of Phase II Big Rivers will be in a position that will require either the purchase of increasing quantities of CAIR II Annual NO<sub>x</sub> allowances or the implementation of additional NO<sub>x</sub> controls no later than 2015. Any additional controls installed for the CAIR Annual requirements will impact (and help) the CAIR II Ozone Season needs as well.

The following graph depicts the forecasted year by year NOx allowance balance for both the CAIR II Ozone Season and Annual allowance programs.



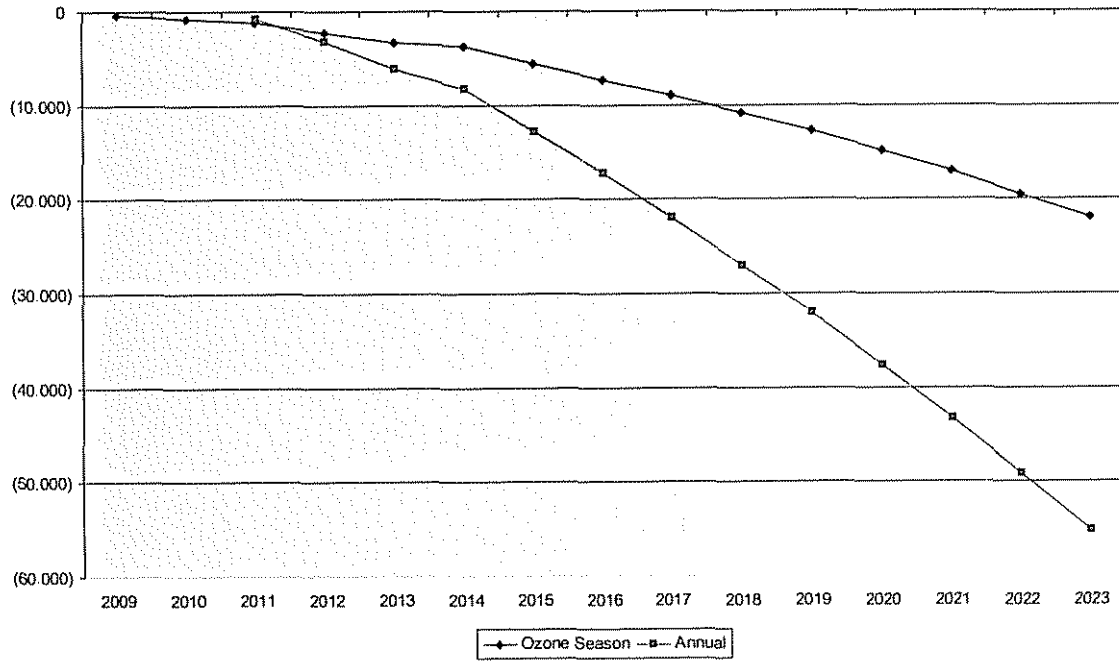
The following graph illustrates the year-by-year NOx allowance position for both the Ozone Season and Annual CAIR II programs for the Big Rivers system through the end of the planning period.



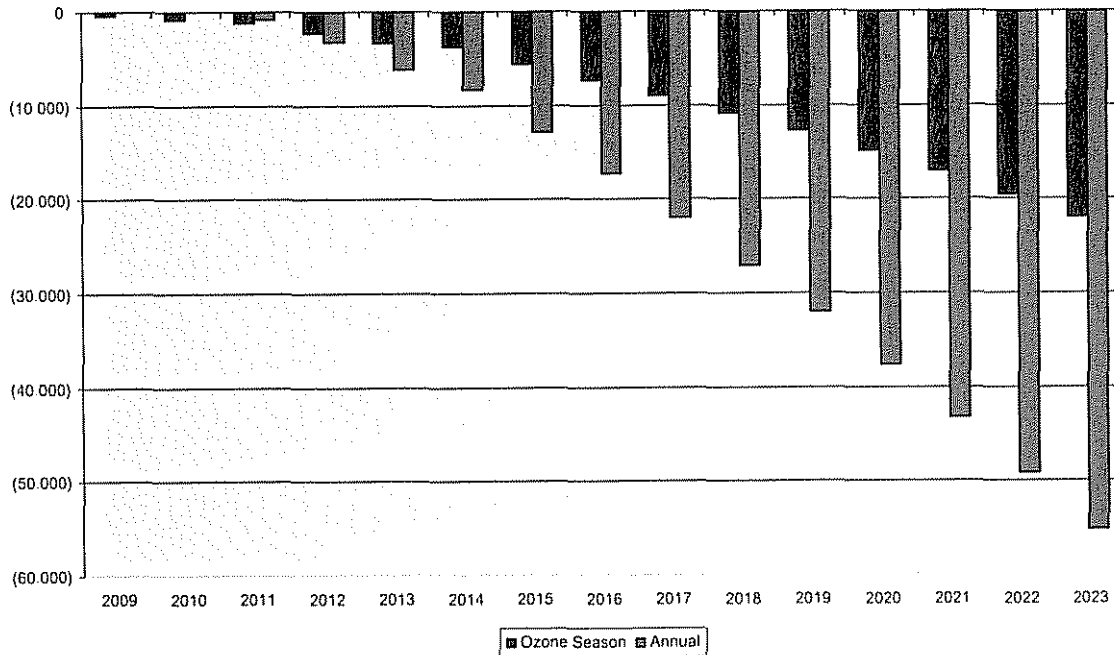


The following graphs illustrate the **cumulative** NOx allowance position for both the Ozone Season and Annual CAIR II programs for the Big Rivers system

**BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)**  
"Base Case"



**BREC Cumulative NOx Allowances Balance (Ozone Season and Annual CAIR)**  
"Base Case"



**NOx Conclusion:**

Big Rivers is in a somewhat poorer position with regard to NOx emissions. The company will be slightly deficient with the CAIR II Ozone Season requirements through about 2015. Beginning with Phase II the system will have an increasing deficit each year requiring allowance purchases into the future.

For CAIR II Annual requirements the system will start off in a deficit position requiring allowance purchases during Phase I, with significant allowance purchase requirement in the years after 2015 if there is no construction of additional NOx control equipment on the Big Rivers units.

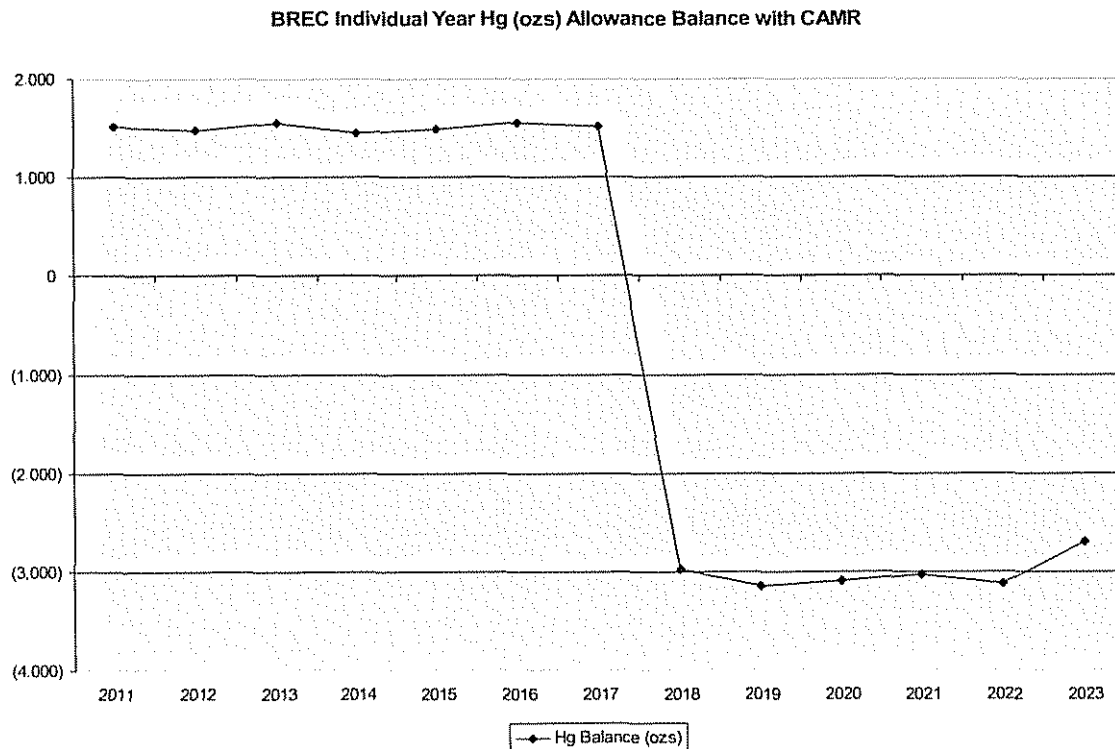
## Mercury Position:

On March 15, 2005, the EPA issued its "Clean Air Mercury Rule" to permanently cap mercury emissions and it will consist of two phases. Although CAMR has been vacated, this update assumes a new rule with identical provisions except that the Phase I cap will commence in 2011, and will be achieved by "co-benefit" reductions (via ESPs, SCRs and FGDs). Phase II starts in 2018 and will require additional measures be taken to control mercury emissions from the Big Rivers units.

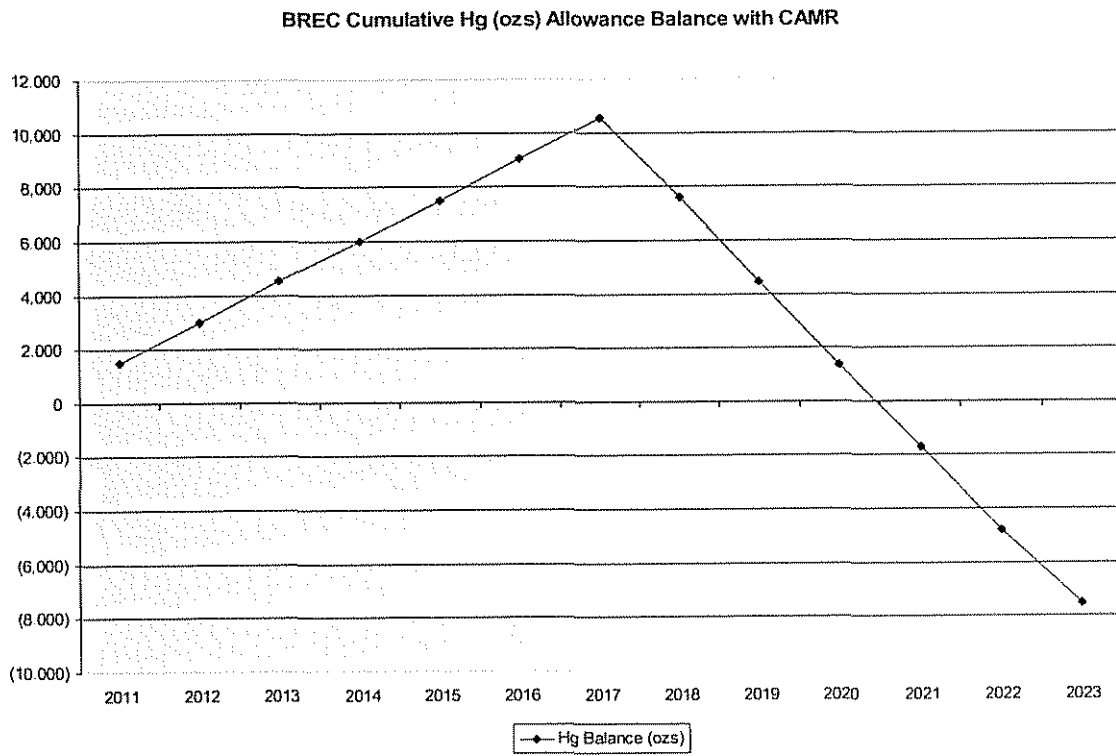
There is some level of uncertainty regarding the co-benefit mercury removal that is currently being achieved by the Big Rivers units, with significant difference between the EPA and EPRI data vs. the experience of other data sources. As a result of this concern a significant mercury testing project was undertaken in 2006 and 2007 to better identify the actual levels of mercury emissions from the Big Rivers units with the existing particulate, NOx, and SO<sub>2</sub> control equipment in operation. Using these study and test results, estimates can be made regarding the mercury removal efficiencies of the existing equipment.

Using the assumptions outlined in the Appendix and the base removal rates for the existing equipment from mercury testing program, the Big Rivers system is projected to build an allowance bank throughout the Phase I period and will be drawing out of the bank through the end of the planning period.

The following graph depicts the forecasted annual Hg allowance bank at the end of each year for the Big Rivers system using this scenario.



The following graph depicts the forecasted cumulative Hg allowance bank at the end of each year for the Big Rivers system using this scenario.



**Mercury Conclusion:**

Although there remains considerable uncertainty regarding the actual mercury emissions from the Big Rivers units, the testing program has brought some focus to the situation. It appears that the company is in a good position with regard to mercury through Phase I. Further study and testing is required to better determine the impacts of the Phase II requirements. However, any additional control equipment that is installed to provide enhanced removal of SO<sub>2</sub> and NO<sub>x</sub> emissions is expected to improve Big Rivers’ position on mercury, assuming no changes to the present mercury regulations.

**Mercury Update – June 2008**

The DC Circuit Court vacated the CAMR earlier this year and although both EPA and various industry groups appealed this decision asking for a rehearing, on May 20, 2008 the Court denied the petition for rehearing. This means the vacatur of CAMR stands and EPA will proceed to develop MACT standards for mercury emissions from electric generating units. At this time it is unknown what emission control levels will be required for Big Rivers’ generating units. Additionally, future monitoring requirements are also uncertain.

### **The Reid Unit 1 Issue (Also see Addendum #1)**

There are many issues concerning the possible lay-up or permanent shut-down of the Reid Unit 1. This is the oldest unit in the Big Rivers system and currently has minimal particulate controls, no SO<sub>2</sub> control and some minimal NOx controls as a result of cooling air flow through installed gas burners, or by burning gas alone. Additionally, the unit may well be impacted in the future by Clean Water Act Sections 316(a) or 316(b) since it operates in a once thru cooling mode.

There are also political and contractual issues associated with a permanent shut-down of the unit. The best option may be to lay-up the unit starting in 2010. Any potential use of the unit would then be justified on the value of the generation and cost of necessary fuel and allowances needed for operation. The economic differences between a lay-up and a permanent shut-down will also have to be evaluated.

The latest model run results indicate that after 2008 the Reid Unit 1 will operate only when economic dispatch constraints indicate the unit should run utilizing natural gas for fuel. Generation previously assigned to this unit is forecasted to be picked up by other units within the Big Rivers system. However, there may be more economical options to the burning of natural gas in Reid 1 that could allow the unit to remain available for a longer period of time to help minimize Big Rivers exposure to purchased power at market prices.

## Proposed Big Rivers System Compliance Plan

### CAIR II Requirements for NO<sub>x</sub>

- ❖ Operate Reid 1 as is through 2008 – Beginning in 2009, operate Reid 1 on gas in accordance with economic constraints.
  - The system will be close to being compliant with the CAIR II NO<sub>x</sub> Ozone Season Program.
  - The system will need to purchase CAIR II NO<sub>x</sub> Annual Allowances.
  
- ❖ Provide additional NO<sub>x</sub> control inside the Big Rivers system – Additional NO<sub>x</sub> removal will be required to assure the system will be compliant with the CAIR II Annual NO<sub>x</sub> requirements, especially after 2015.

### Option 1

- It appears that the installation of an SCR system on one of the Green units by 2012 would provide a level of reduction sufficient to maintain system compliance on a year by year basis with both the CAIR II NO<sub>x</sub> Season and CAIR II Annual requirements through 2014.
- With this addition the system could develop a small allowance bank during Phase I, but will begin drawing allowances from the bank starting in 2015, depleting it immediately, after which additional allowances will be required.
- Some additional NO<sub>x</sub> control will be required to enable the system to be fully compliant through the end of the planning period and beyond.
- Year by year allowance balance charts are shown below.
- Cumulative allowance balance charts are shown in two ways to illustrate the total allowances which would have to be acquired (1) in the total study period and (2) following the installation of the control device with years prior to that time zeroed out since allowances would have to balance in those years.
- However, the design, purchase, and construction of an SCR by 2012 would dictate a very aggressive schedule. But benefits would still exist even if the SCR was in operation a little later. The capital cost of this installation has not been developed but could exceed \$50 million.

### Option 2

- A second alternative would be to install a companion SCR on the other Green unit at the same time. This would be the least cost time to do the installation and the value of the sale of excess allowances by the second SCR could be significant. This would also provide a cushion in event of a failure at another unit's NO<sub>x</sub> reduction equipment. This addition would help assure system compliance with CAIR II NO<sub>x</sub> requirements through bank building.

- There are several possible cases regarding the installation of the SCRs in the 2012 through 2015 time period. These would have to be economically evaluated to determine the best combination of early reductions and allowance bank building vs. the option of delaying the capital investment and potentially purchasing allowances during the intervening years.
- In order to illustrate this alternative, the following charts show installing an SCR on the first Green unit by 2012. The second unit will be operational a year later in 2013.
- Year by year allowance balance charts are shown below.
- Cumulative allowance balance charts are shown in two ways to illustrate the total allowances which would have to be acquired (1) in the total study period and (2) following the installation of the control device(s) with years prior to that time zeroed out since allowances would have to balance in those years.

#### Option 3 (Model Base Case)

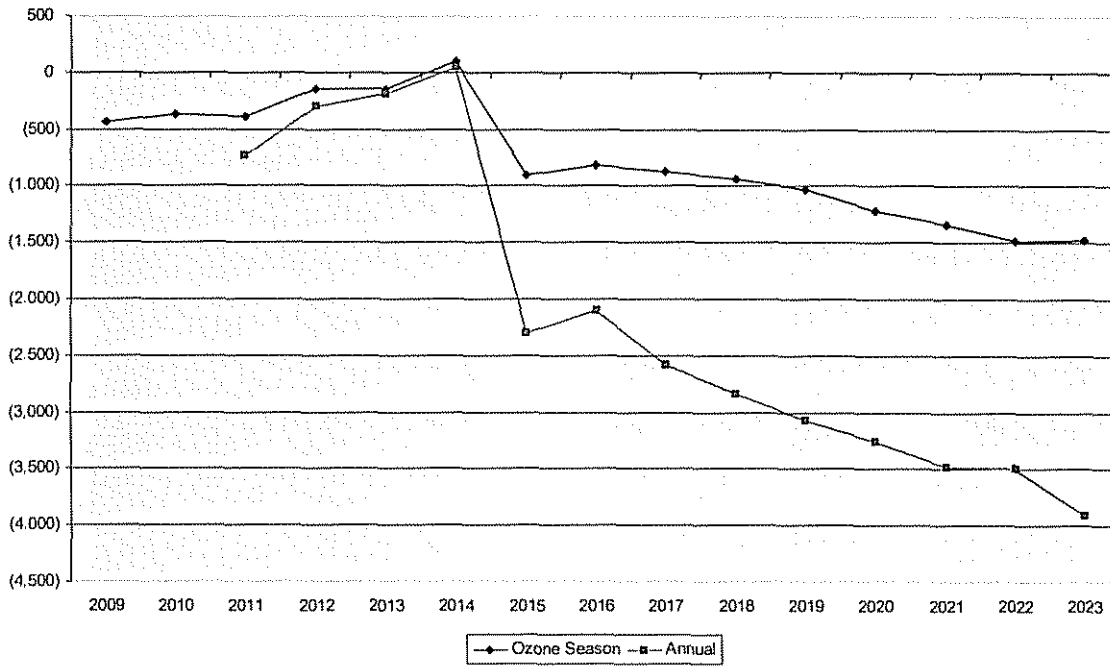
- Consideration must be given to the “do nothing” case in which no additional control equipment is added and both CAIR II NO<sub>x</sub> Season and CAIR II Annual allowances are purchased. With the uncertainty inherent in the allowance market and costs associated with control equipment installation, this may be the best economic option for the system<sup>1</sup>.

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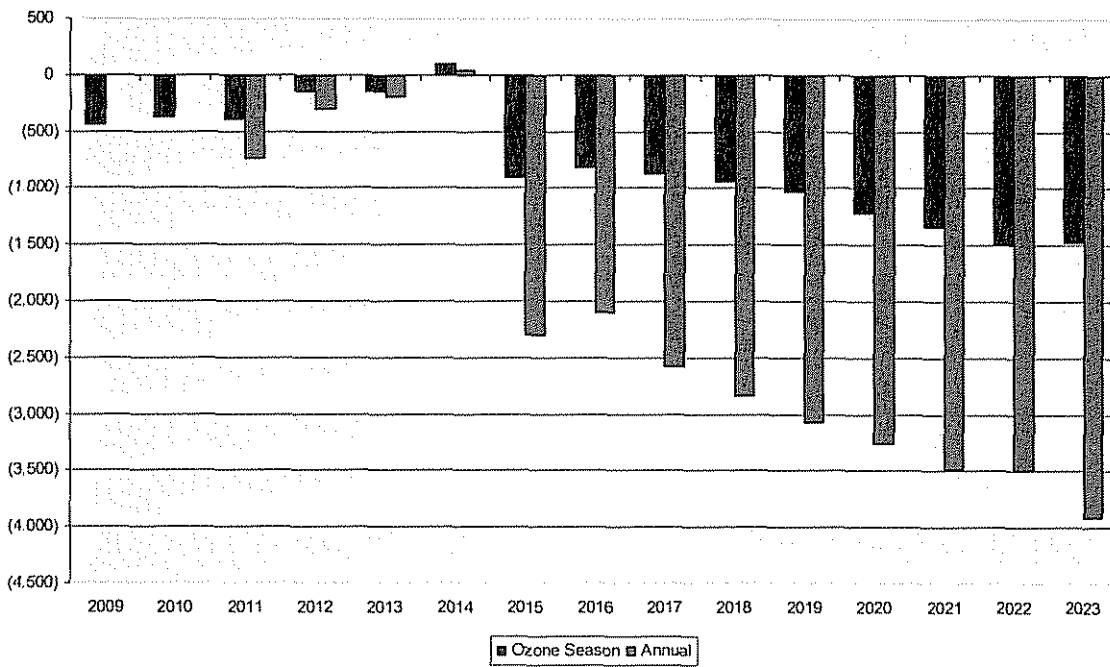
<sup>1</sup> Although no economic studies have been run to evaluate the alternatives of the addition of control equipment vs. the purchase of allowances, the Production Cost Model assumes allowances will be purchased or sold on a year-by-year basis to balance the account. Economic studies will need to be run to verify that this is the best economic decision for the Big Rivers system.

# Option 1 – Annual Impacts

**BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)**  
**"Base Case with G2 SCR in 2012"**



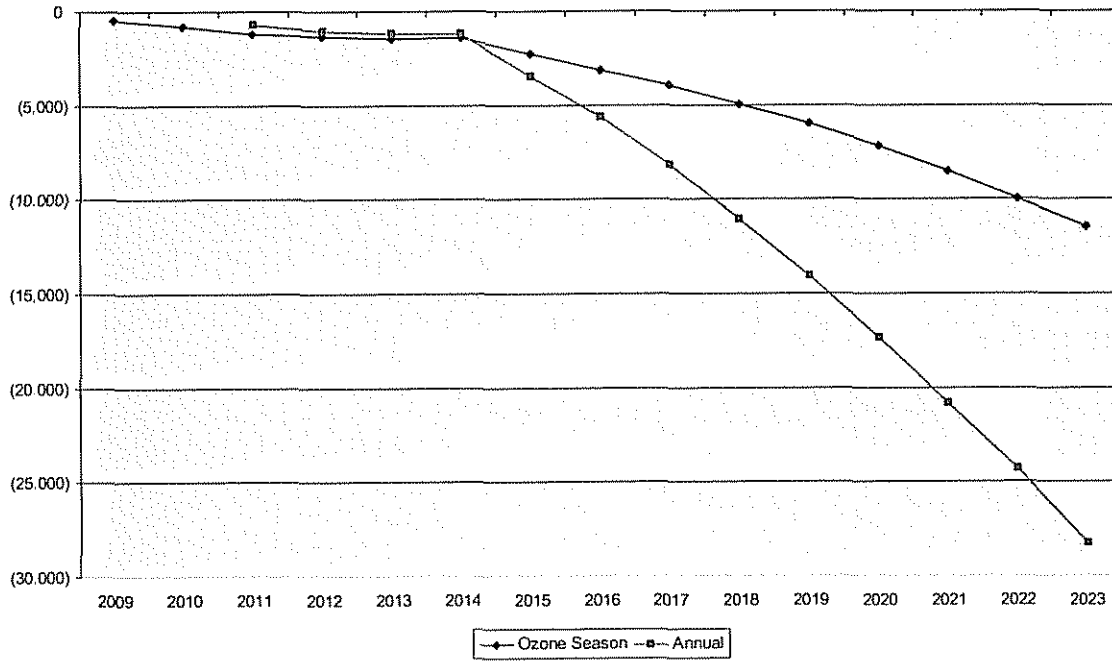
**BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)**  
**"Base Case with G2 SCR in 2012"**



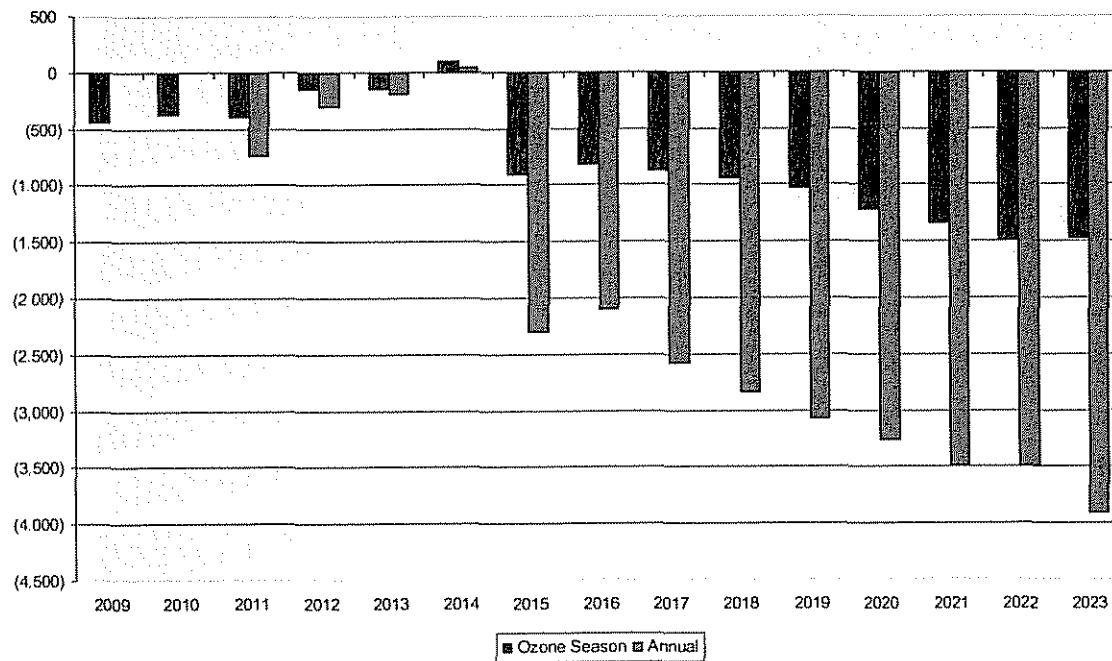


# Option 1 – Cumulative Impacts

**BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)**  
 "Base Case with G2 SCR in 2012"

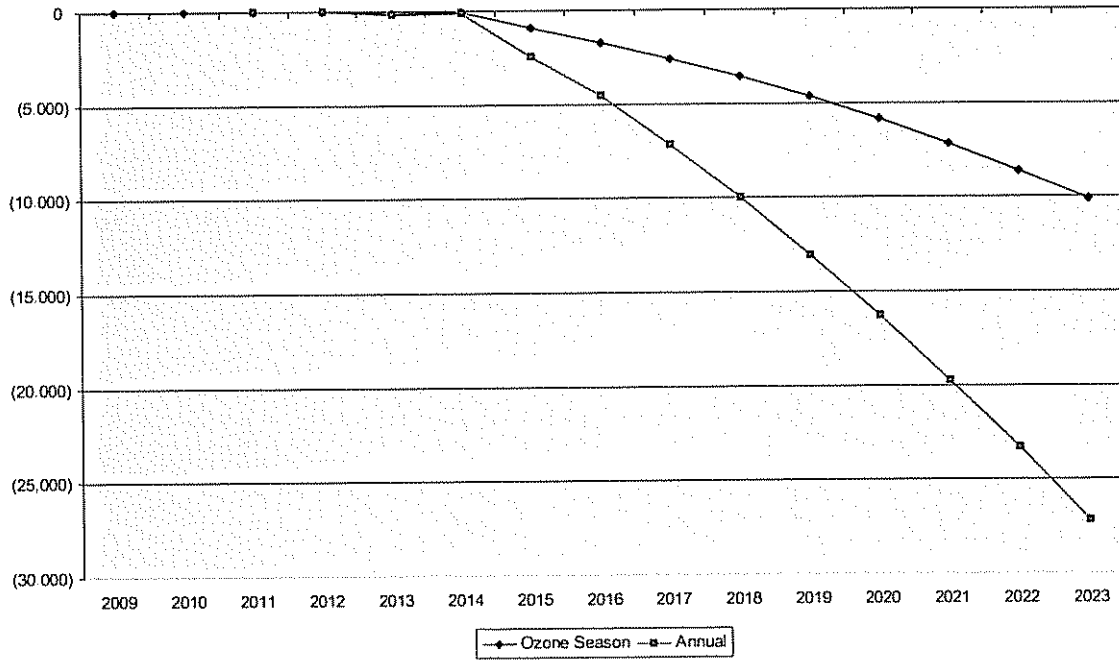


**BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)**  
 "Base Case with G2 SCR in 2012"

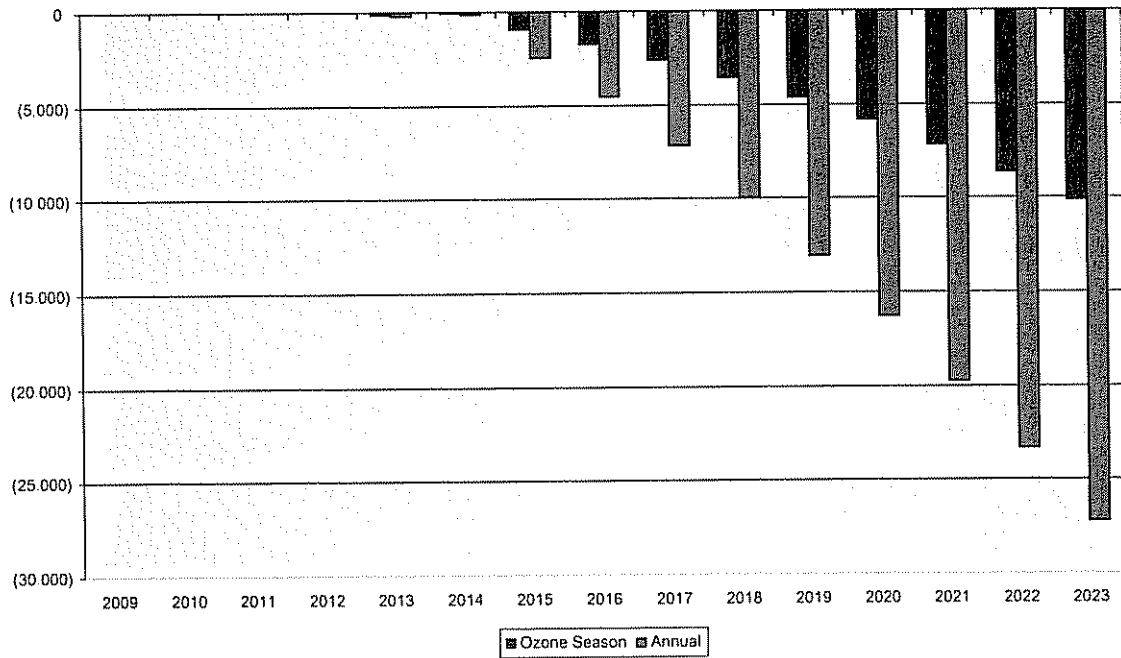


Option 1 – Cumulative Impacts with pre-control period zeroed

BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)  
 "Base Case with G2 SCR in 2012\_Pre-SCR Zeroed"

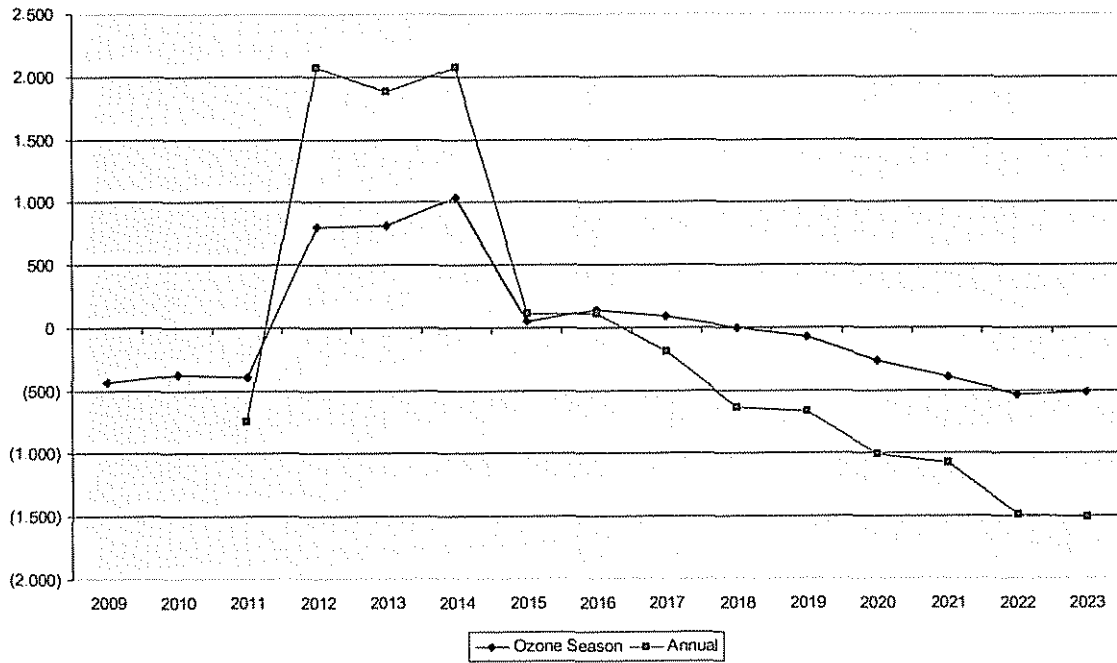


BREC Cumulative NOx Allowance Balance (Ozone Season and Annual CAIR)  
 "Base Case with G2 SCR in 2012\_Pre-SCR Zeroed"

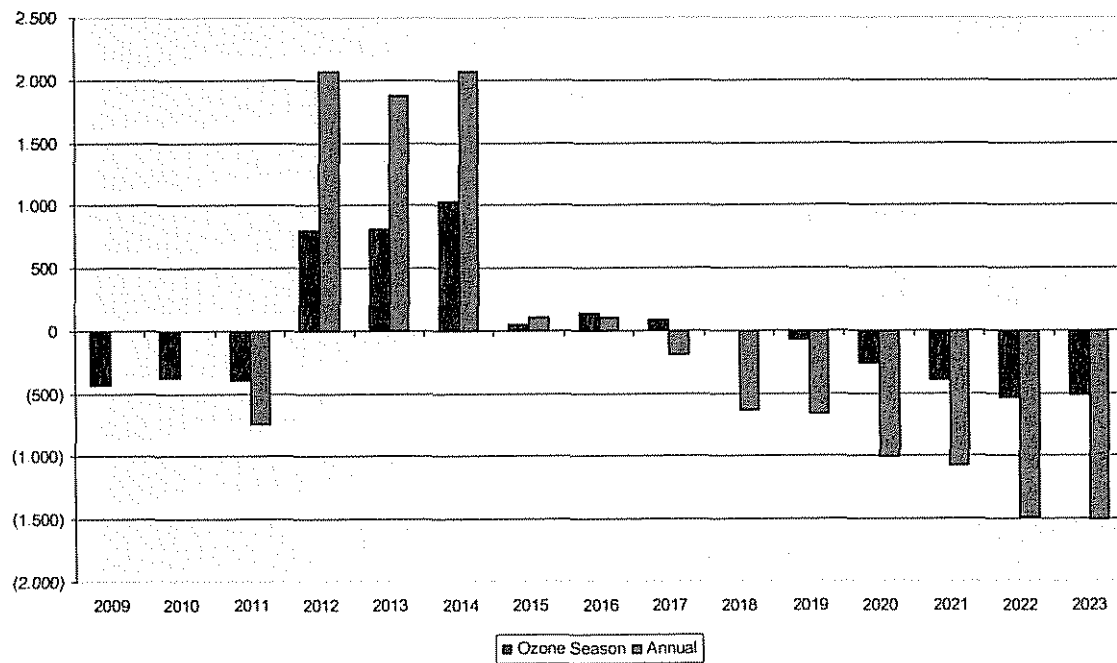


## Option 2 – Annual Impacts

**BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)**  
 "Base Case with G2 SCR in 2012 & G1 SCR in 2013"

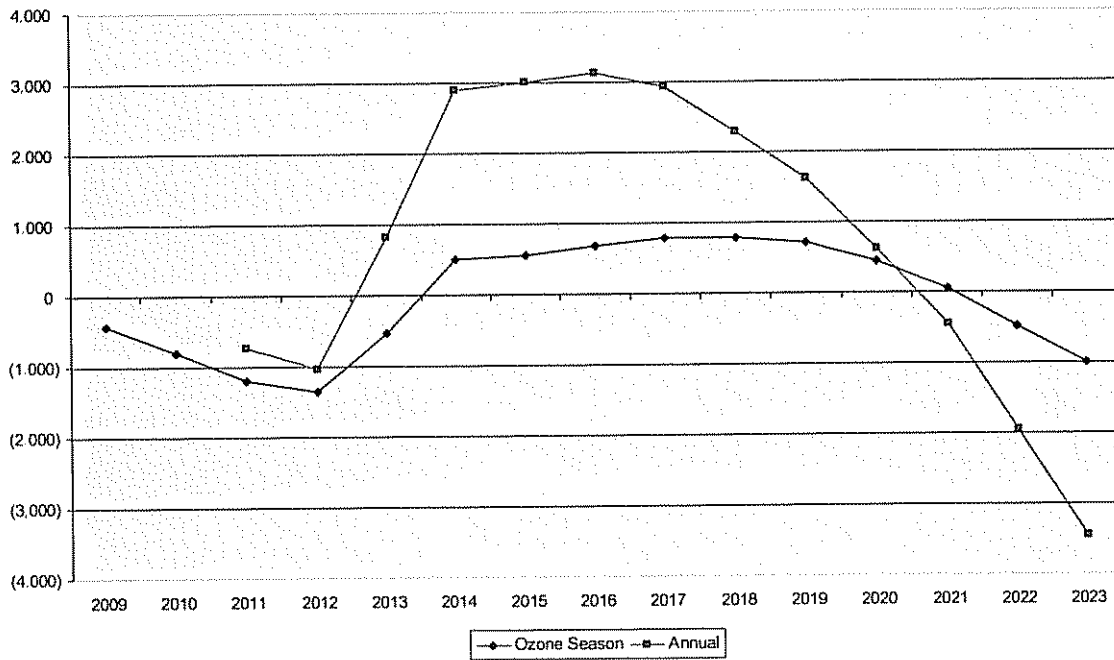


**BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)**  
 "Base Case with G2 SCR in 2012 & G1 SCR in 2013"

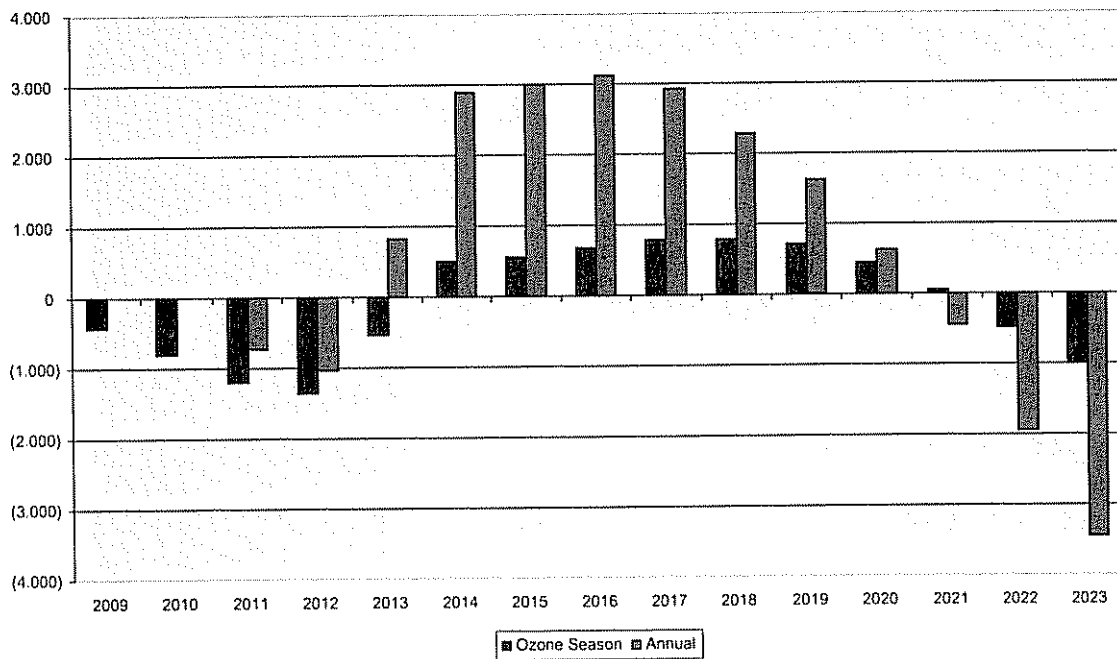


## Option 2 – Cumulative Impacts

**BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)**  
**"Base Case with G2 SCR in 2012 & G1 SCR in 2013"**

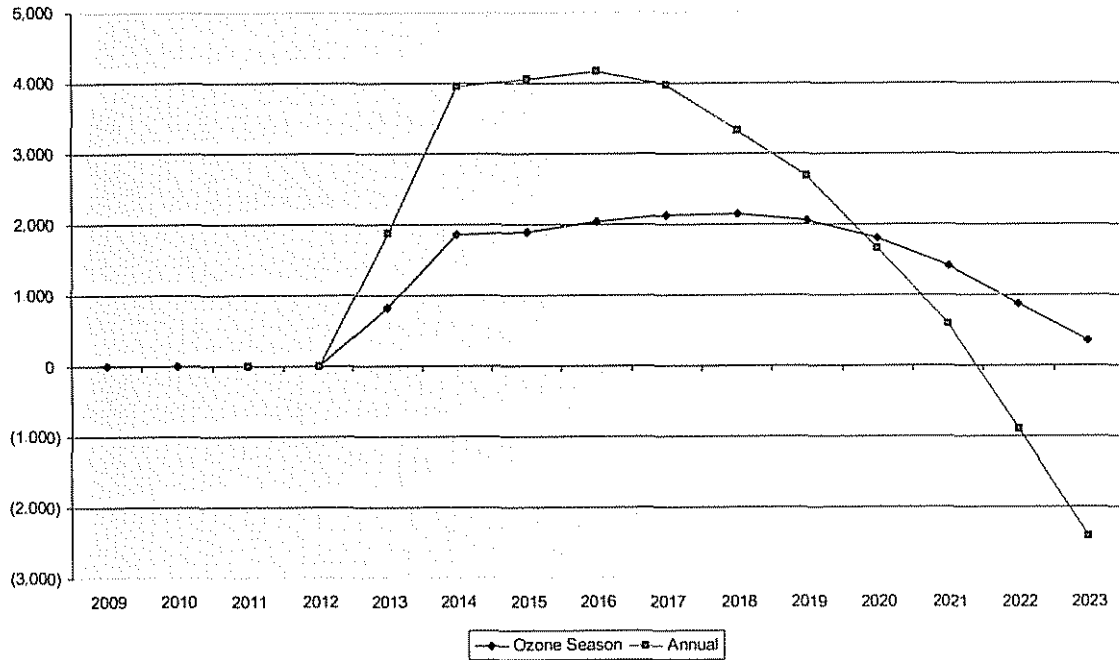


**BREC Cumulative NOx Allowance Balance (Ozone Season and Annual CAIR)**  
**"Base Case with G2 SCR in 2012 & G1 SCR in 2013"**

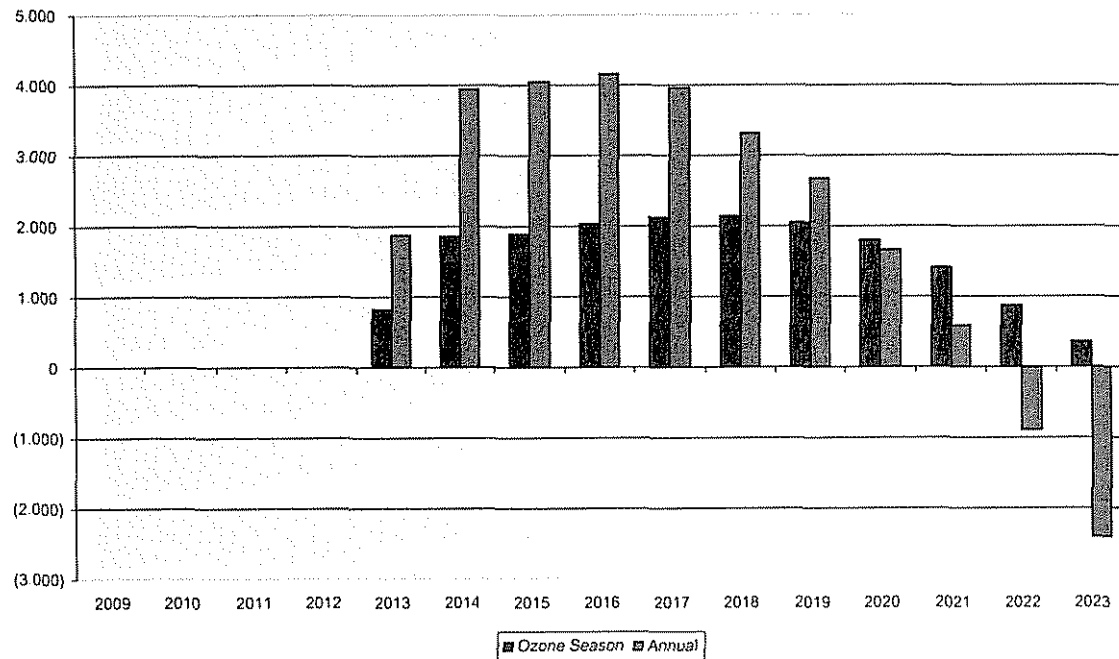


Option 2 – Cumulative Impacts with pre-control period zeroed

BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)  
 "Base Case with G2 SCR in 2012 & G1 SCR in 2013\_Pre-SCR Zeroed"



BREC Cumulative NOx Allowance Balance (Ozone Season and Annual CAIR)  
 "Base Case with G2 SCR in 2012 & G1 SCR in 2013\_Pre-SCR Zeroed"



## The Wilson FGD Issue

The Wilson scrubber was originally designed to be a horizontal three-module magnesium enhanced lime reagent system. Shortly before the startup of the plant, Big Rivers Electric Corporation investigated a switch to limestone reagent. After a review of the process by the vendor, it was decided to make that change. Upon startup it was discovered that the system could not meet the environmental emission requirements with two modules running and one spare using limestone. A fourth module was added by the vendor in order to reclaim the spare. The system currently just does meet the 90% removal requirements using limestone, but only through considerable plant personnel efforts and the use of additional chemical reagents. Currently the scrubber has several operational and maintenance concerns. Although a new single replacement module is possible at significant capital cost, the financial model assumes an extended repair and upgrade of the existing modules beginning in 2008. These repairs and upgrades will restore the scrubber and at least maintain its original operational parameters (*model base case*).

Big Rivers is currently investigating an alternative proposal by a vendor to repair and upgrade the existing modules in a slightly different configuration. There is a possibility that this configuration would create higher SO<sub>2</sub> removal efficiency and through a modification in the chemical process of the system, produce a gypsum by-product that could reduce disposal costs or could even be sold.

### CAIR II Phase II Requirements for SO<sub>2</sub>

- ❖ With Reid 1 forecasted to see more limited use beginning in 2009 (i.e., burning gas and operating only when economically viable), the primary contributor to the annual system non-compliance at the beginning of Phase II in 2015 is the Wilson Unit at only 90% SO<sub>2</sub> removal. The Coleman, Green, and Station Two units all operate well above 90% SO<sub>2</sub> removal.

#### Option 1 (Model Base Case)

- Consideration must be given to the “do nothing” case in which no additional control equipment is added and the existing equipment is operated and maintained in “as is” condition. This option will require purchase of CAIR II SO<sub>2</sub> allowances in the future when the bank is exhausted. With the uncertainty inherent in the allowance market and their future value, this may be the best economic option for the system.

#### Option 2

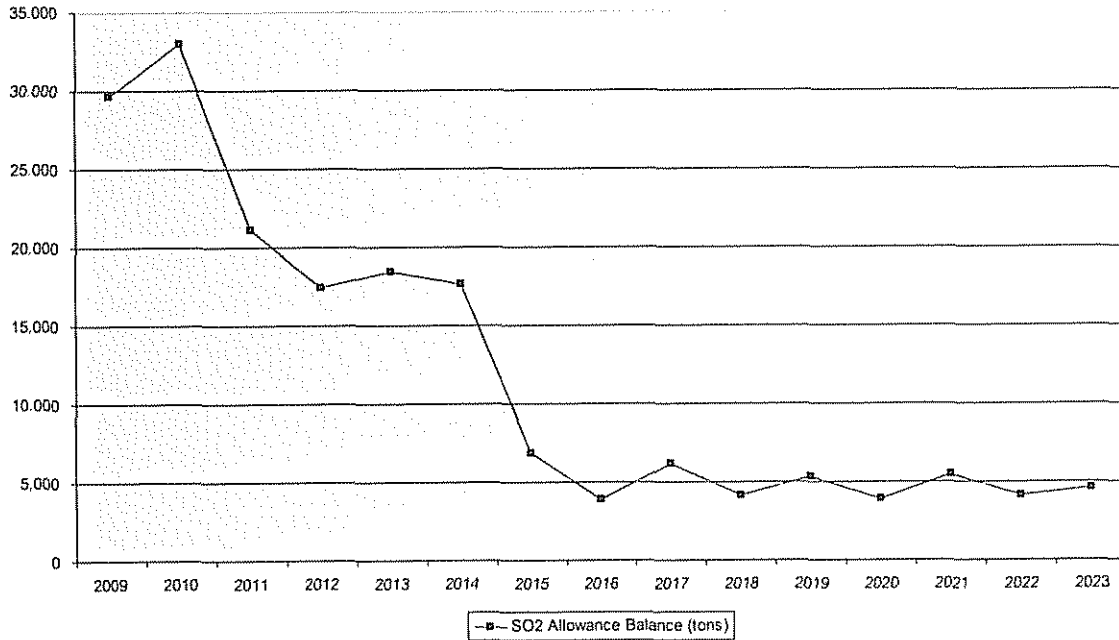
- In order to balance on a year by year basis through the end of the planning period and into the future, additional reductions from the base case are required; these may be achieved through increasing the removal efficiency of the Wilson scrubber to 95% by or before 2015. Assuming this is done through the continued use of limestone as a reagent and the creation of a gypsum waste product, there will be impacts on the waste handling at the plant as well as in various other systems requiring capital improvements. There may also be increased O&M expense.

- ❖ In the model base case, as well as the above options, Station Two scrubbers are assumed to operate at the 94% removal efficiency. If additional removal is necessary it may be achieved, however, it is anticipated that an additional thickener (along with associated piping), and at least one additional vacuum filter will be required to treat the additional waste generated from operation at the higher removal efficiencies. There may also need to be upgrades to the existing systems to handle the higher flow rates.
  
- ❖ NOTE: The scrubber modules replacement option mentioned above assumes the installation of a single-module limestone based scrubber at Wilson – similar in design to the newly installed unit at Coleman Station. Wilson falls under Subpart Da of the Clean Air Act Amendments of 1990 which requires such units to have a spare scrubber module installed. (This is the issue that forced the addition of the fourth module during start-up by the vendor.) This option would require seeking regulatory relief from this requirement.

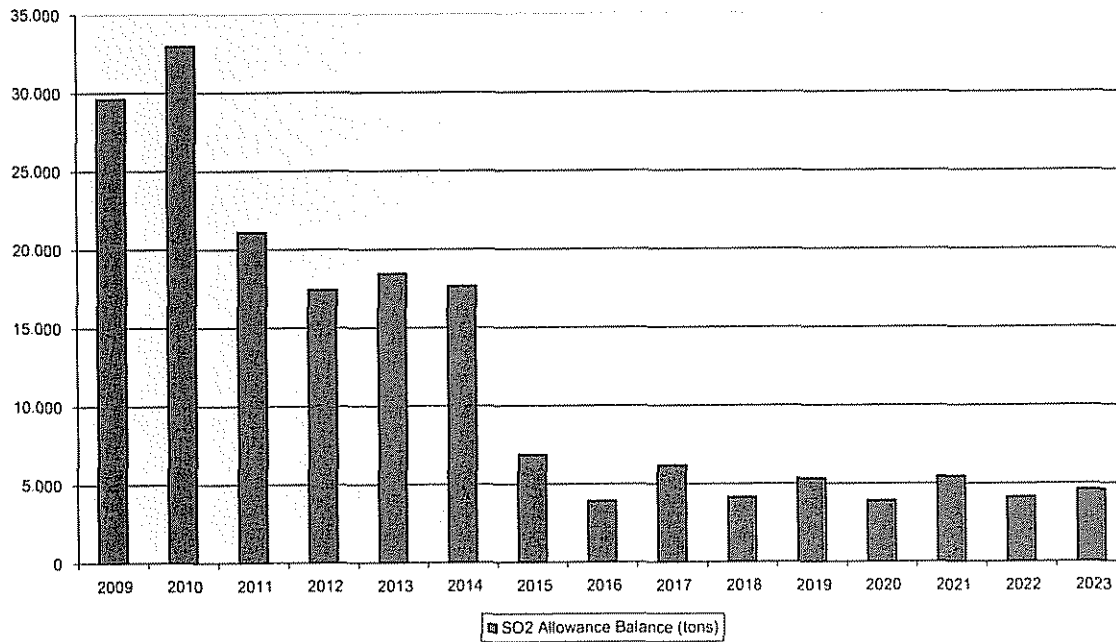
# Option 2 – Increase Wilson to 95% Removal in 2010

## Individual Year Impact

BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)  
"Base Case\_W1 FGD at 95% in 2010"



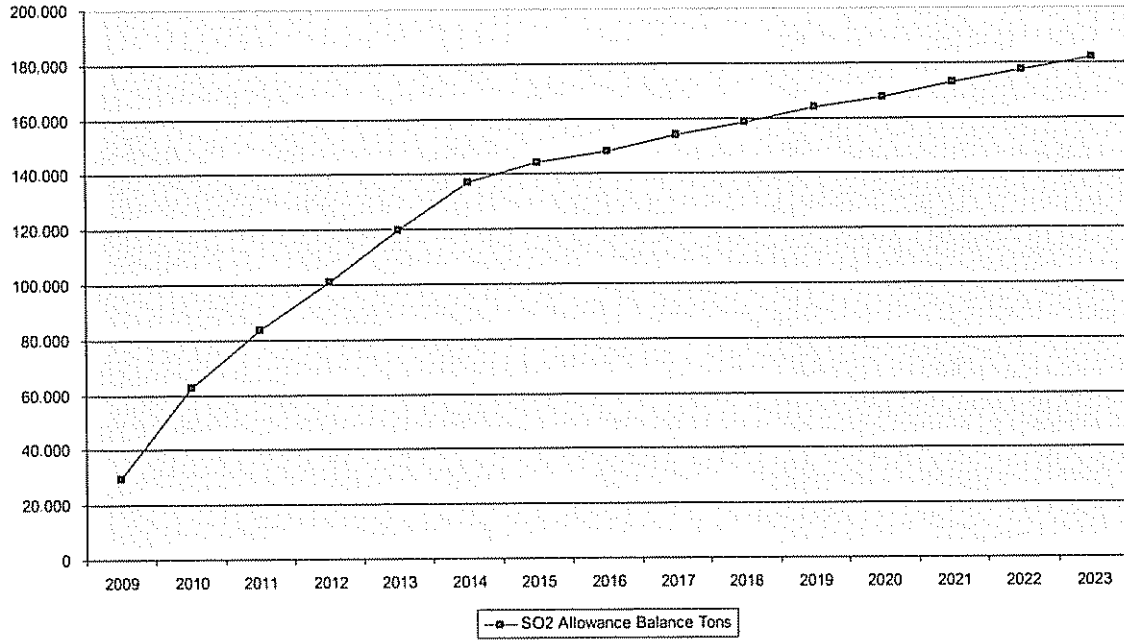
BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)  
"Base Case\_W1 at 95% in 2010"



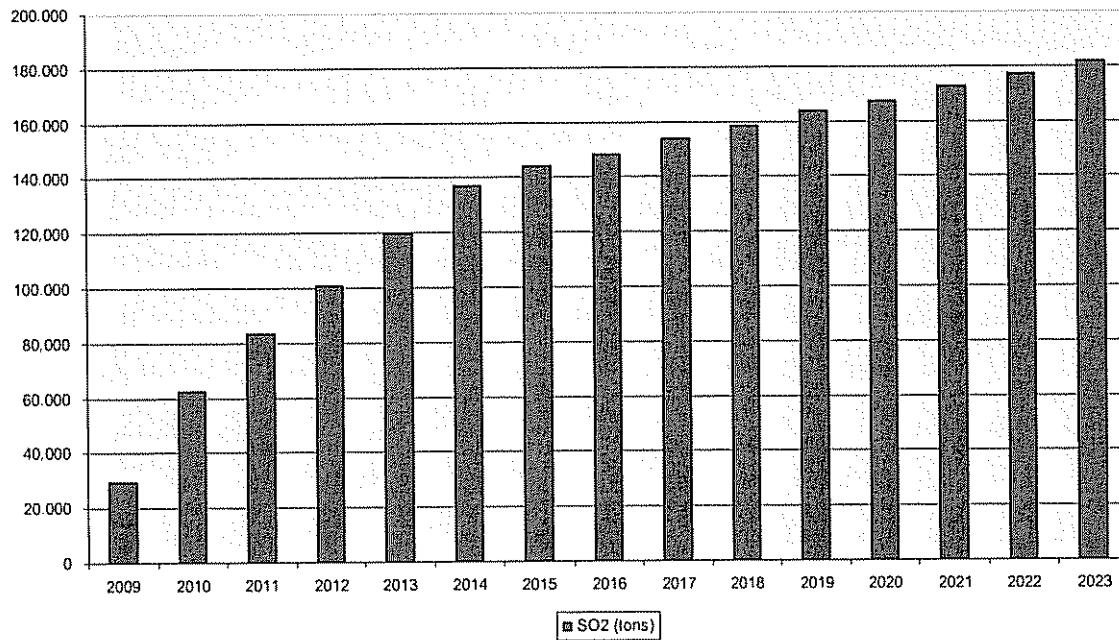


# Cumulative Impact

BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_W1 FGD at 95% in 2010"



BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_W1 FGD at 95% in 2010"



## CAMR Requirements for Mercury

- ❖ Based upon what is currently known about the CAMR and the anticipated Hg Allowance program. The State of Kentucky is expected to utilize the model rule and the allocated allowances are expected to be sufficient to balance the mercury emissions at least for Phase I.
- ❖ This assumption is based on expected co-benefit mercury removal as a result of operation of existing air pollution control devices (SCR, precipitator, and scrubber).
  - Big Rivers currently still has fairly limited knowledge about the mercury removal capabilities with the existing control equipment.
  - Using data from EPA and EPRI sources, and the mercury testing that was done on all units last year, assumptions can be made that:
    - Coleman achieves about 75% removal with the scrubber only
    - Station Two achieves 90% reduction with the existing SCR and FGD system (non-oxidized)
    - Wilson achieves 75% reduction with the existing SCR and FGD system
    - Green is achieving 76% reduction with the existing FGD system
    - Reid is achieving minimal reduction with the existing precipitator
- ❖ As discussed previously under the NOx compliance section of this plan, it could prove prudent to install one or two SCRs to the Green units. This would likely also produce additional mercury removal co-benefits from these units as well.
- ❖ New mercury emission monitoring systems<sup>2</sup> will be required for each of the coal fired operating units. These will need to be installed, certified and fully operational by January 2009 in order to collect one year of data prior to the start of the Phase I requirement.
  - ❖ Options for CAMR Monitoring and Reporting
    - ❖ The following Big Rivers units and associated by-pass stacks require CAMR monitoring and reporting: Green 1, Green 2, HMPL 1, HMPL 2, HMPL 1 and 2 by-pass stack (1), Reid, Coleman, Coleman by-pass stacks (3) and Wilson. The CAMR regulations provide options for reporting certified and quality assured emissions from these units. The two options of consideration include continuous mercury monitoring systems (CMMS) and sorbent tube measurement systems (STMS). There are additional options regarding low mass emission (LME) designation and by-pass stack designation. All options were considered in developing the WKE CAMR monitoring plan.
    - ❖ The leading study to date in the United States on CMMS was sponsored by the Electric Power Research Institute (EPRI) and took place at E.ON's Trimble County Generating Station. The 18-month study involved CMMS supplied by all serious contenders. From this study, there were two particular systems that performed better than the rest of the field. However, these two systems had several technical issues that kept data

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<sup>2</sup> Currently the state of the art in continuous monitors is questionable. Big Rivers expects to utilize sorbent tube monitoring systems for a least a period of time to allow continuous monitoring technology to catch up.

availability at an unacceptable low level. Follow-up correspondence from these suppliers revealed that the systems necessary for Big Rivers would cost an estimated \$5,100k which is much higher than traditional SO<sub>2</sub> / NO<sub>x</sub> continuous emission monitoring systems. Also, the physical space needed for these systems would warrant the replacement of Big Rivers' existing CEM shelters with larger shelters.

- ❖ The STMS are more basic in operation than the CMMS. With STMS, a known sample volume of stack gas is passed through activated charcoal sorbent tubes. The tubes are collected and analyzed for mercury concentration. The results are then calculated in units of ug/scf. The existing flow monitor output (scf) is utilized in reporting mass emissions. Typical sample run times are five to seven days. Although the STMS is more basic in operation, there is some risk of data loss if a sample run is invalidated, resulting in more punitive emissions being reported. This risk is managed through sorbent tube recovery procedures and analysis.
- ❖ The EPA has provided additional options for units that qualify as "low mass emitters" (LME). Qualification as a LME is based on a demonstration that actual mass emissions will fall below 464 ounces (29 lbs) per year. Big Rivers has performed mercury emission stack testing on all units. The testing concluded that the HMPL 1 and 2 scrubbed stacks will have expected mass emissions at approximately ½ of the threshold for LME status and will be eligible to be designated an LME unit. None of the other Big Rivers units qualify as LME units. In conjunction with a certified flow monitor output, a LME unit will utilize the mercury "high-tested value" from two emissions tests per year.
- ❖ The regulations provide three options for reporting mercury emissions during use of by-pass stacks: full monitor system, flow monitor only and maximum potential emissions. With a full monitoring system, a sorbent tube system would be installed to report actual mercury emissions in conjunction with the flow monitor output. With a flow monitor only, mercury emissions would be reported by utilizing the published maximum potential concentration rather than actual mercury concentration and the actual flow. With maximum potential emissions, mercury emissions would be reported by utilizing the published maximum potential concentration and maximum potential flow.
- ❖ Periodic stack testing by applicable EPA regulations is required to demonstrate the accuracy of all measured data reported for Federal Cap and Trade Programs. With the advent of CAMR, mercury will be included as a cap and trade program. To date for the SO<sub>2</sub> and NO<sub>x</sub> programs, this testing has been performed with "in-house" personnel through the Environmental and Technical Services Department with the use of a transportable measurement system. In order to provide this process for mercury emissions, a transportable measurement system would need to be purchased.
- ❖ If additional removal of mercury is required (over and above the enhancements indicated above), unlikely for Phase I, possible for Phase II, the required control equipment would need to be installed and operational by

2018. This could occur if co-benefit reductions are not as high as expected, leading to emissions which are greater than currently thought.

Note: See update to CAMR on Page 28 of this document.

## **Addendum 1**

### **Continued Operation of Reid Unit 1 on Coal**

Recently there has been consideration given to reviewing the decision to either shut-down or lay-up the Reid Unit. Forward energy price curves indicate that it may well be economic to continue to operate that unit for the foreseeable future. As is noted earlier in the report, the latest *Production Cost Model* run results show that any future operation of the unit assumes gas as the fuel. However, the system impact of its continued operation on coal is useful to understand. Since the current model runs do not include the Reid Unit operating on coal, the graphs below use the assumptions illustrated below:

- Unit capacity factor of 35%
- SO<sub>2</sub> Emission rate of 4.5 lbs SO<sub>2</sub>/mmBTU
- NO<sub>x</sub> Emission rate of 0.5 lbs NO<sub>x</sub>/mmBTU

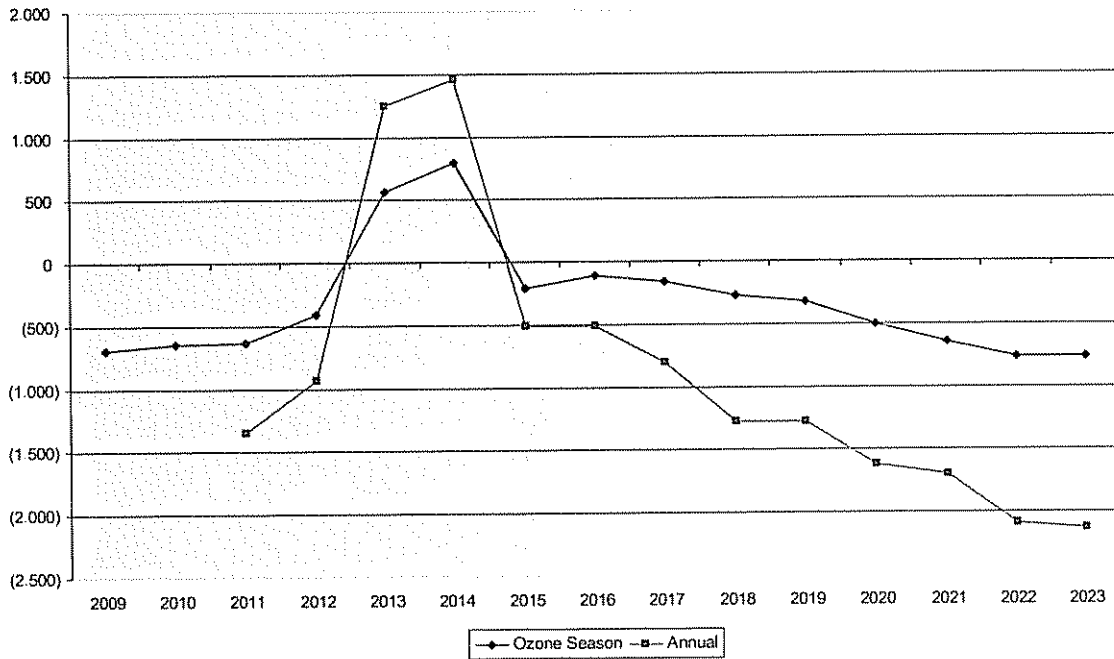
For NO<sub>x</sub>, the model base case assumes that the system will be in compliance prior to this scenario. Based on information discussed earlier in this plan, the charts that follow assume that the base case NO<sub>x</sub> Option 2 is taken and SCRs are installed on Green Unit 2 and Green Unit 1 in 2012 and 2013 respectively. Additionally, the option was investigated assuming a 50% reduction in NO<sub>x</sub> emissions from the Reid Unit.

For SO<sub>2</sub>, the model was run for several scenarios with increasing reductions in emissions.

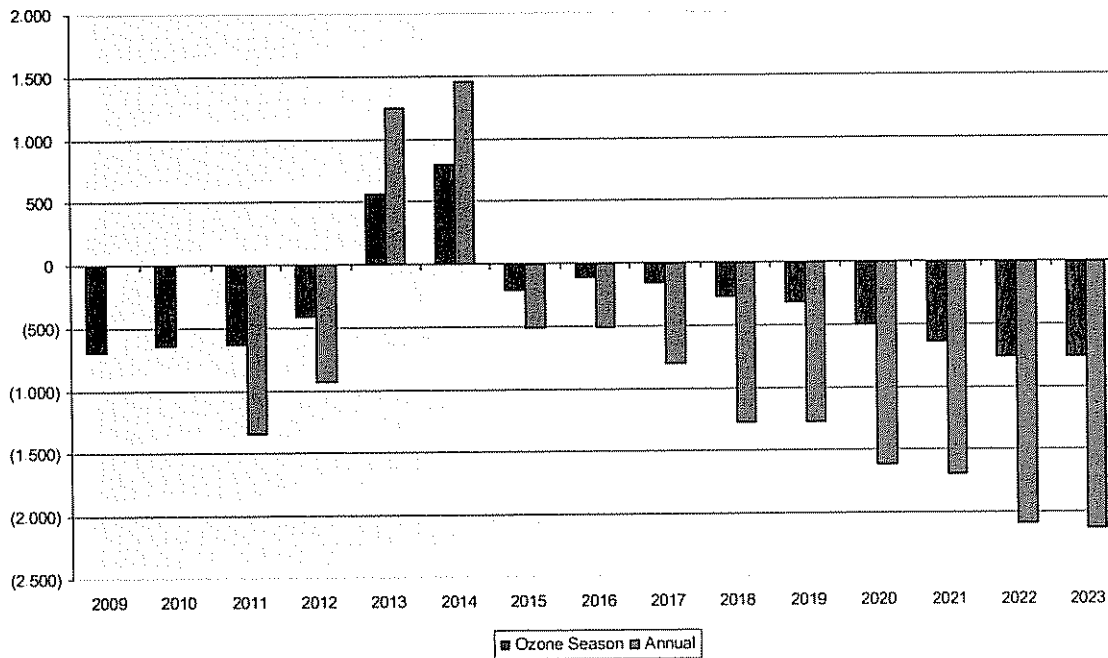
- Option 1 - Base case impact of Reid Unit running on coal
- Option 2 - Base case with a 50% reduction in emissions from the Reid Unit
- Option 3 - Base case with 95% removal at Wilson
- Option 4 - Base case with a 50% reduction in emissions from Reid and 95% removal at Wilson

For CAIR II NOx Requirements  
Individual Year Impacts

BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)  
"Base Case with R1 Coal & G2 SCR in 2012 & G1 SCR in 2013"

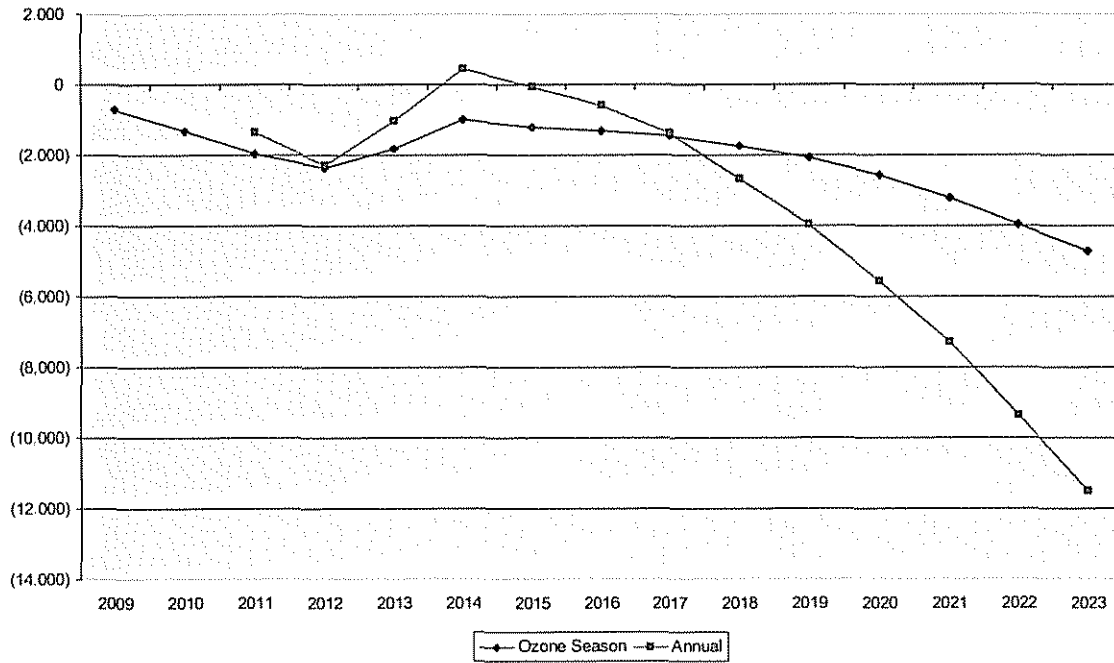


BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)  
"Base Case with R1 Coal & G2 SCR in 2012 & G1 SCR in 2013"

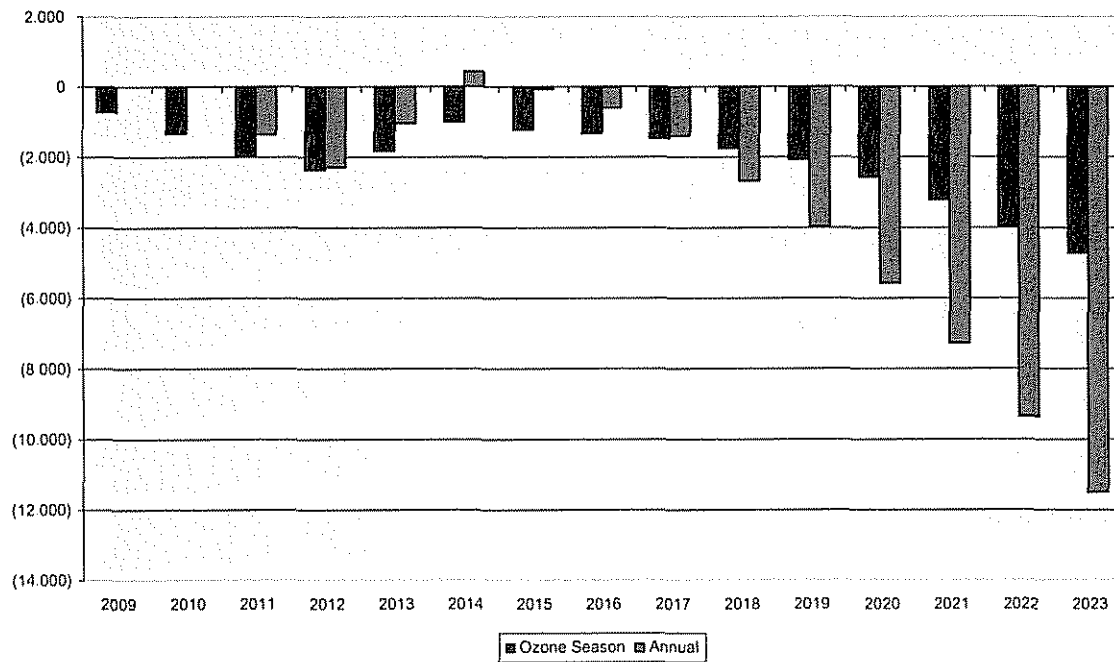


# Cumulative Impacts

**BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)**  
**"Base Case with R1 Coal & G2 SCR in 2012 & G1 SCR in 2013"**

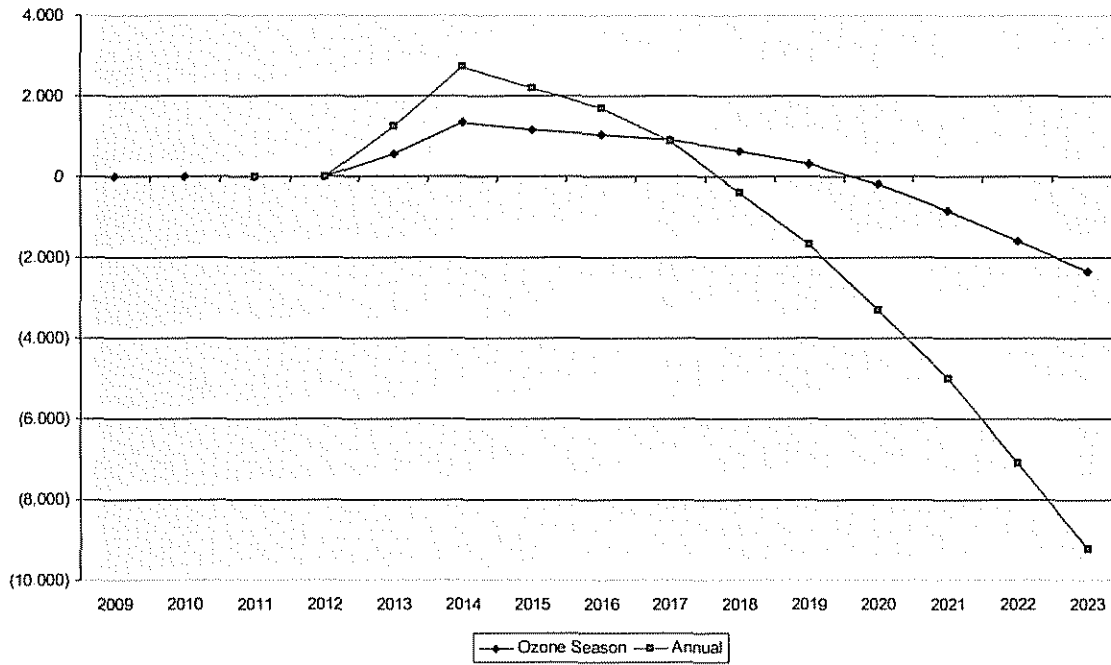


**BREC Cumulative NOx Allowance Balance (Ozone Season and Annual CAIR)**  
**"Base Case with R1 Coal & G2 SCR in 2012 & G1 SCR in 2013"**

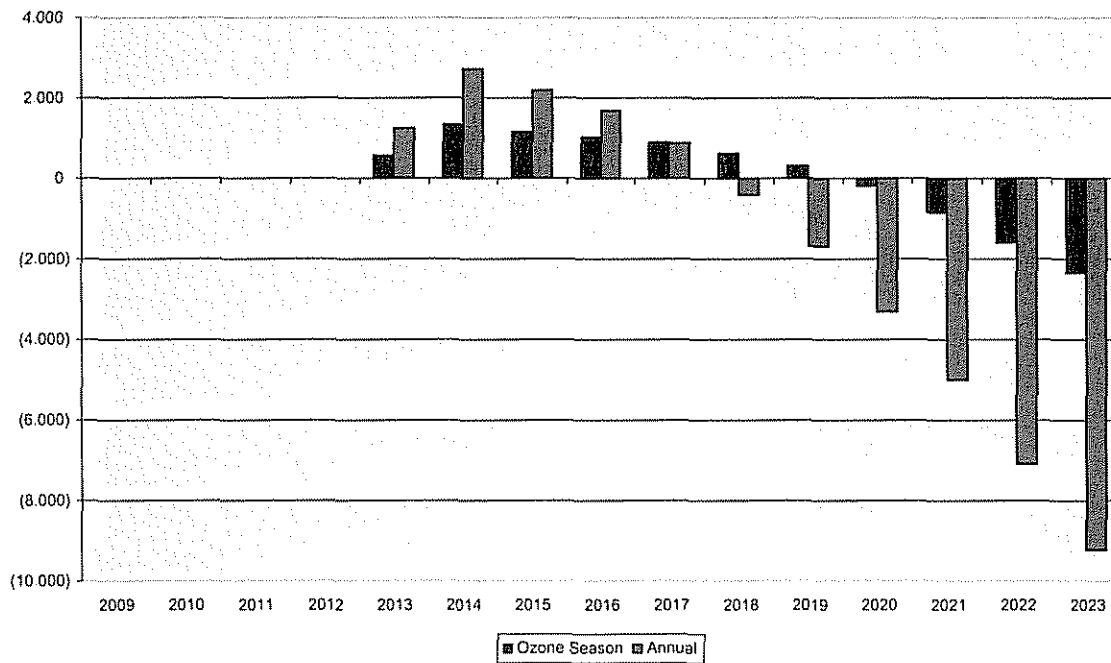


### Cumulative Impacts with pre-control years zeroed

**BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)**  
**"Base Case with R1 Coal & G2 SCR in 2012 & G1 SCR in 2013\_Pre-SCR Zeroed"**



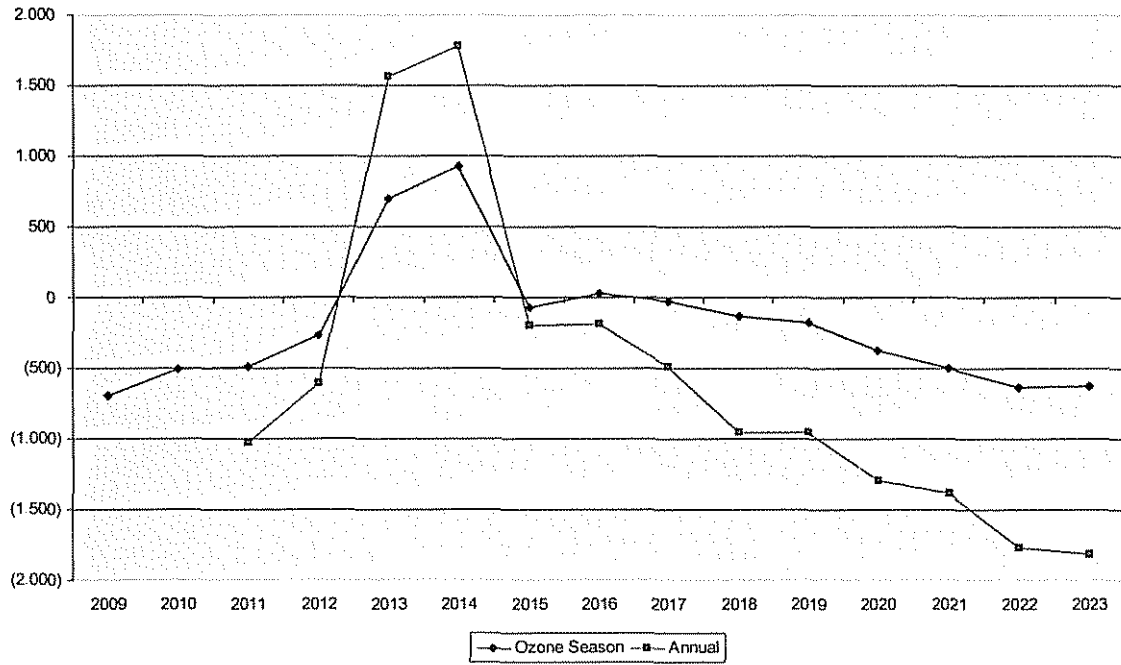
**BREC Cumulative NOx Allowance Balance (Ozone Season and Annual CAIR)**  
**"Base Case with R1 Coal & G2 SCR in 2012 & G1 SCR in 2013\_Pre-SCR Zeroed"**



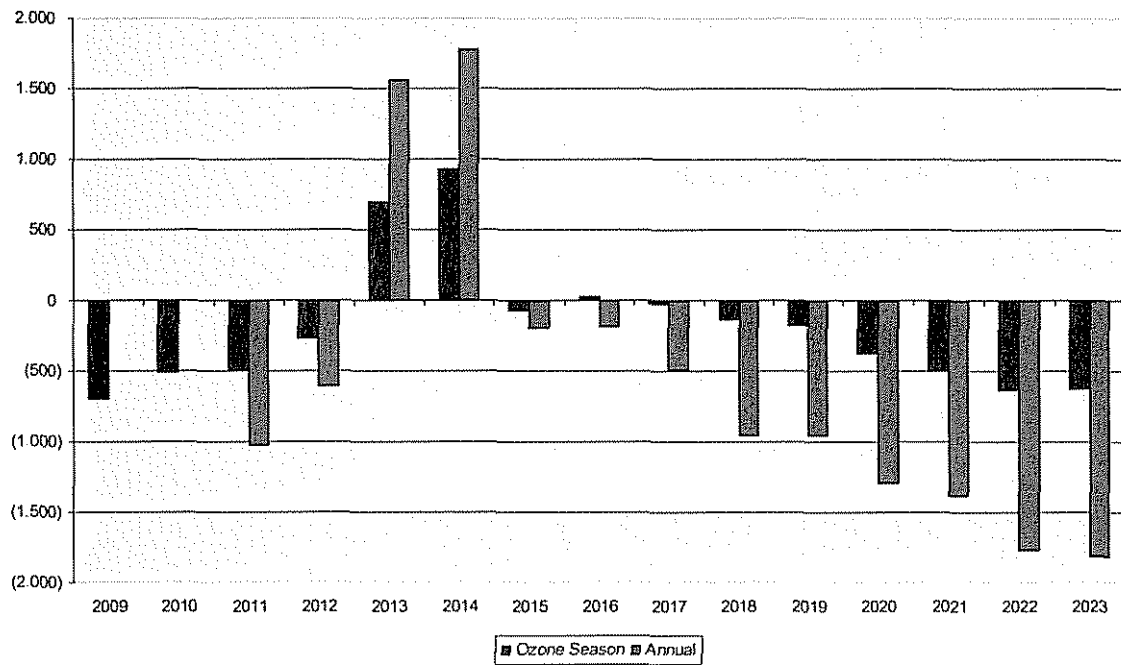


# Individual Year impacts with 50% NOx Reduction

**BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)**  
 "Base Case with R1 Coal & 50% NOx Reduction\_G2 SCR in 2012 & G1 SCR in 2013"

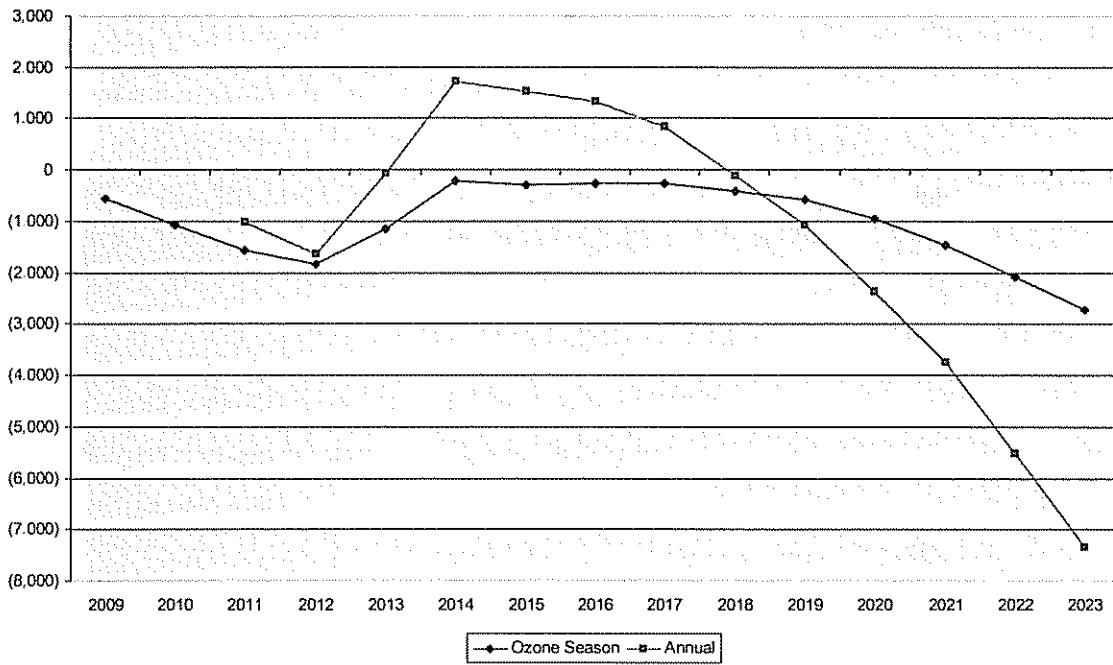


**BREC Individual Year NOx Allowance Balance (Ozone Season & Annual CAIR)**  
 "Base Case with R1 Coal & 50% NOx Reduction\_G2 SCR in 2012 & G1 SCR in 2013"

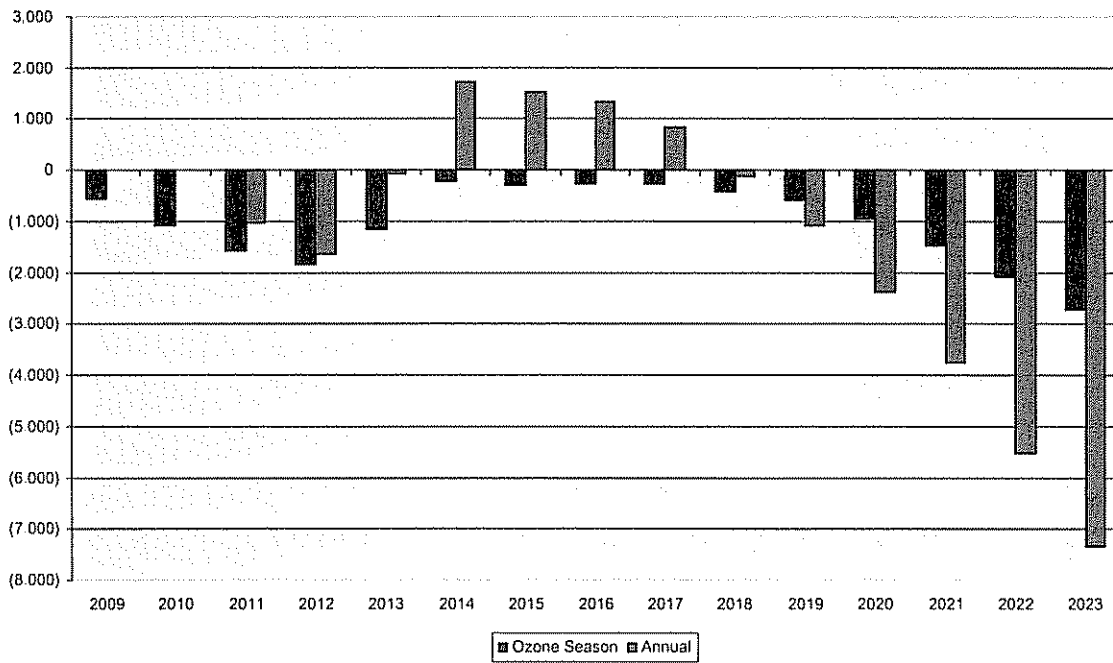


## Cumulative Year impacts with 50% NOx Reduction

**BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)**  
**"Base Case with R1 Coal at 50% NOx Reduction\_G2 SCR in 2012 & G1 SCR in 2013"**

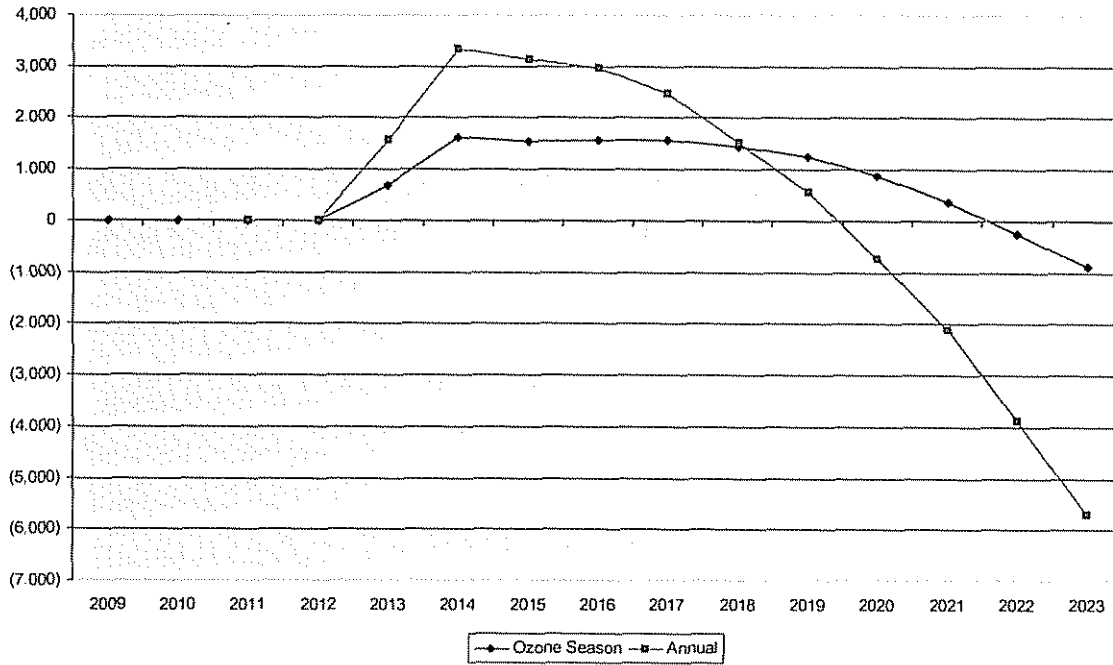


**BREC Cumulative NOx Allowances Balance (Ozone Season and Annual CAIR)**  
**"Base Case with R1 Coal at 50% NOx Reduction\_G2 SCR in 2012 & G1 SCR in 2013"**

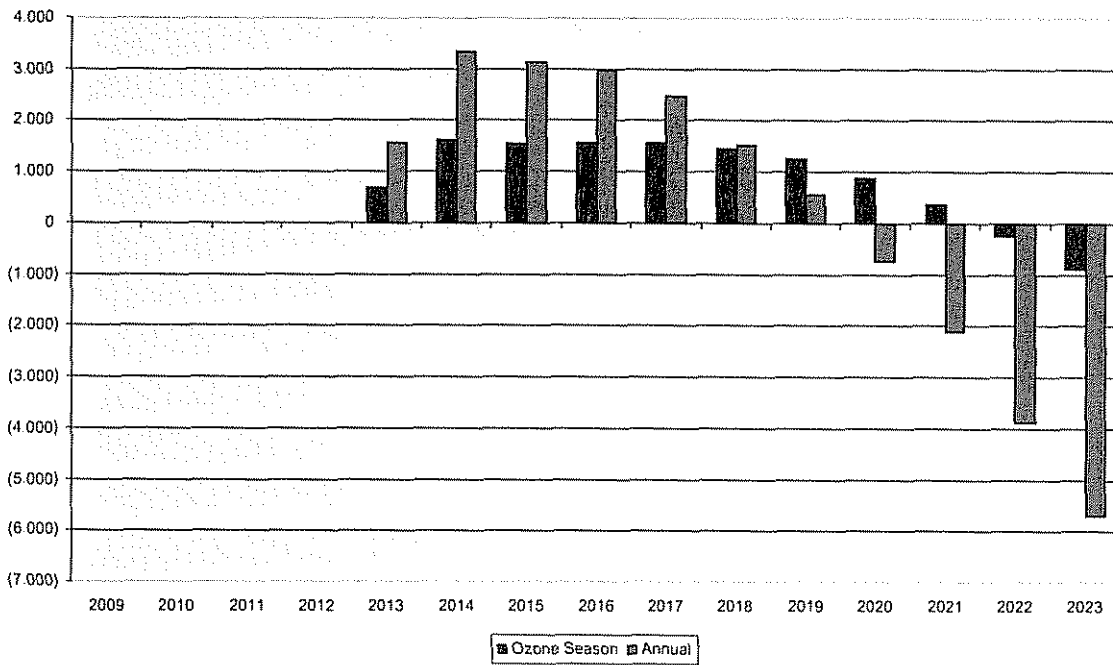


Cumulative year impact with 50% NOx Reduction and pre-control years zeroed

BREC Cumulative NOx Allowance Balance (Ozone Season & Annual CAIR)  
 "R1 on Coal & 50% NOx Reduction\_G2 SCR in 2012 & G1 SCR in 2013\_Pre-SCR Zeroed"

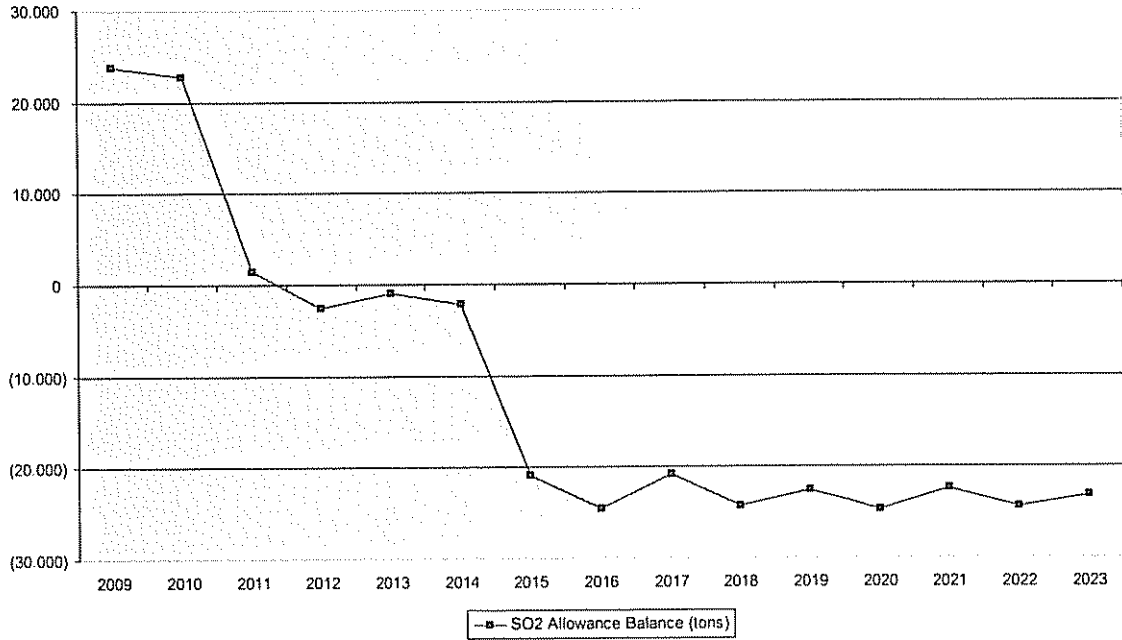


BREC Cumulative NOx Allowances Balance (Ozone Season and Annual CAIR)  
 "R1 on Coal & 50% NOx Reduction\_G2 SCR in 2012 & G1 SCR in 2013\_Pre-SCR Zeroed"

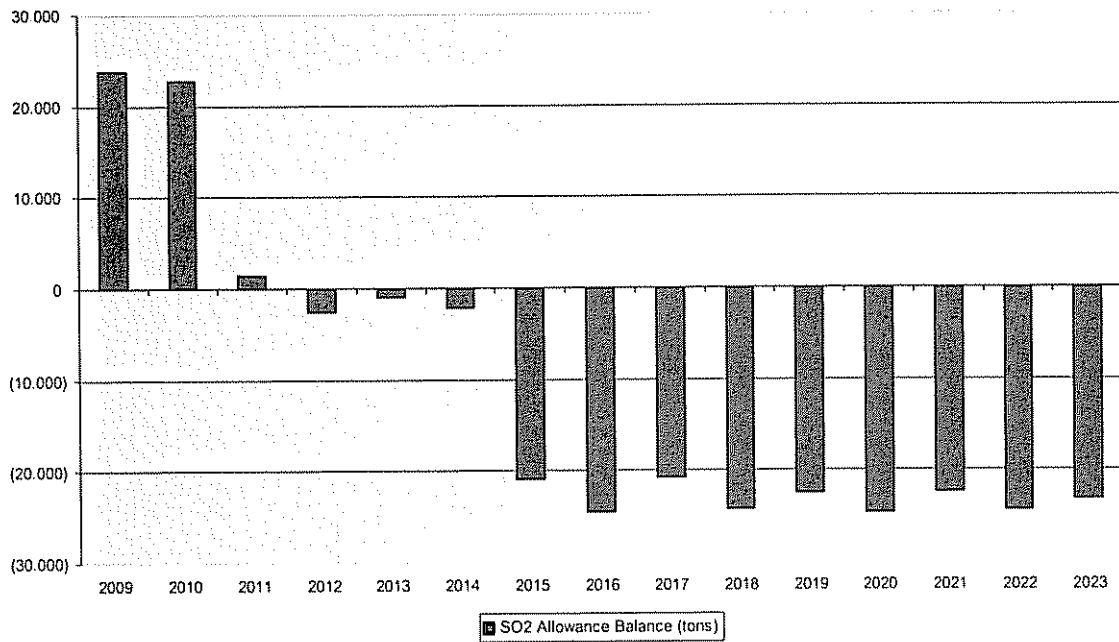


CAIR II Requirements for SO<sub>2</sub>  
 Individual Year Impacts – Base Case

BREC SO<sub>2</sub> Individual Year Allowance Balance (with CAIR Allotments)  
 "Base Case with R1 Coal"

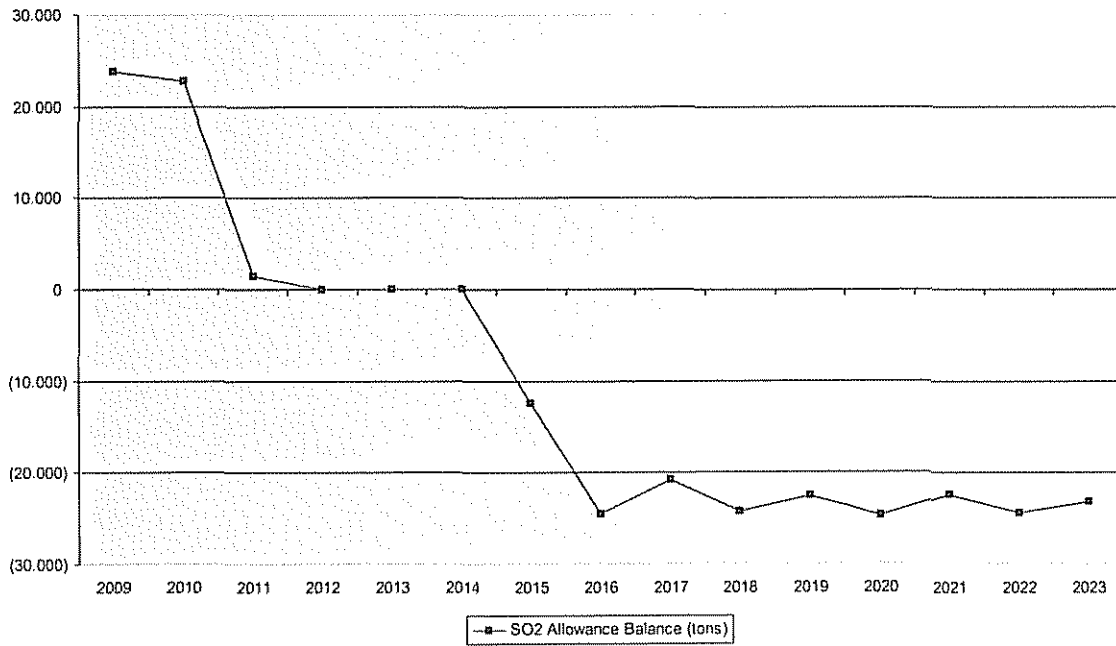


BREC SO<sub>2</sub> Individual Year Allowance Balance (with CAIR Allotments)  
 "Base Case with R1 Coal"

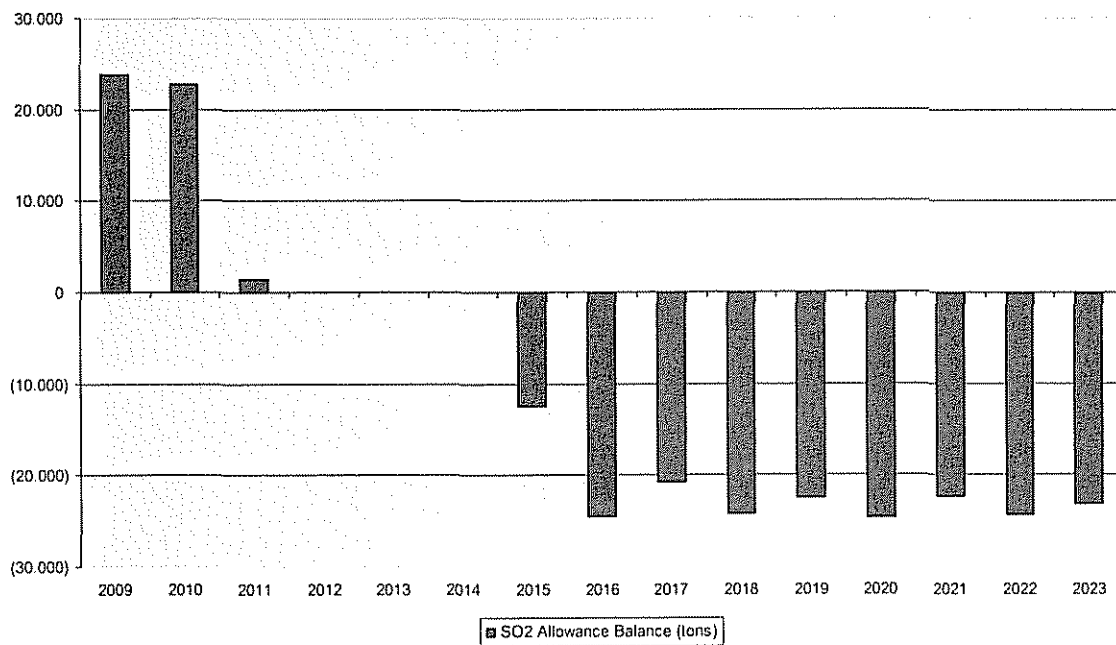


The following charts shows the impact of including the 14,000 Allowances into the first year of negative balance

**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case with R1 Coal\_Roll-Over Credits Consumed in Initial Negative Years"**

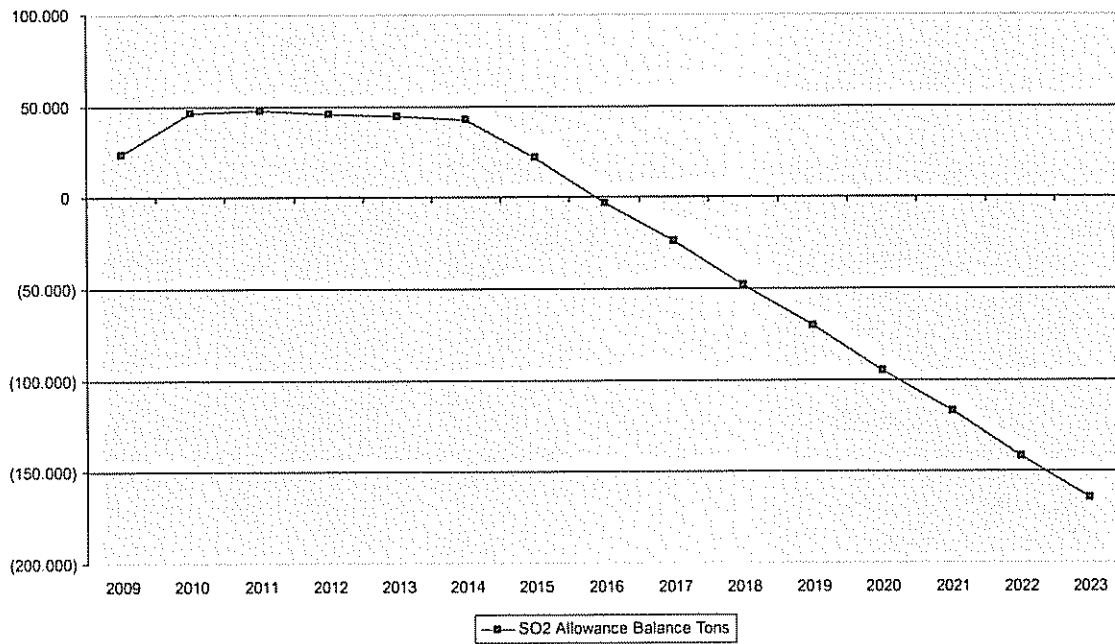


**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case with R1 Coal\_Roll-Over Credits Consumed in Initial Negative Years"**

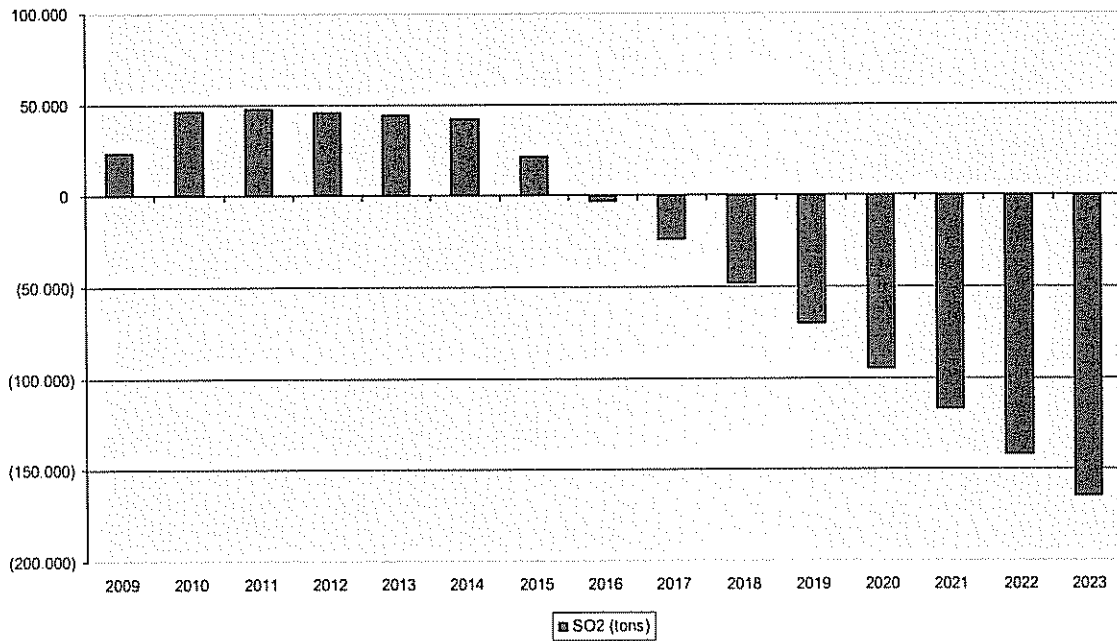


## Cumulative year impacts – Base Case

BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
"Base Case\_R1 on Coal"

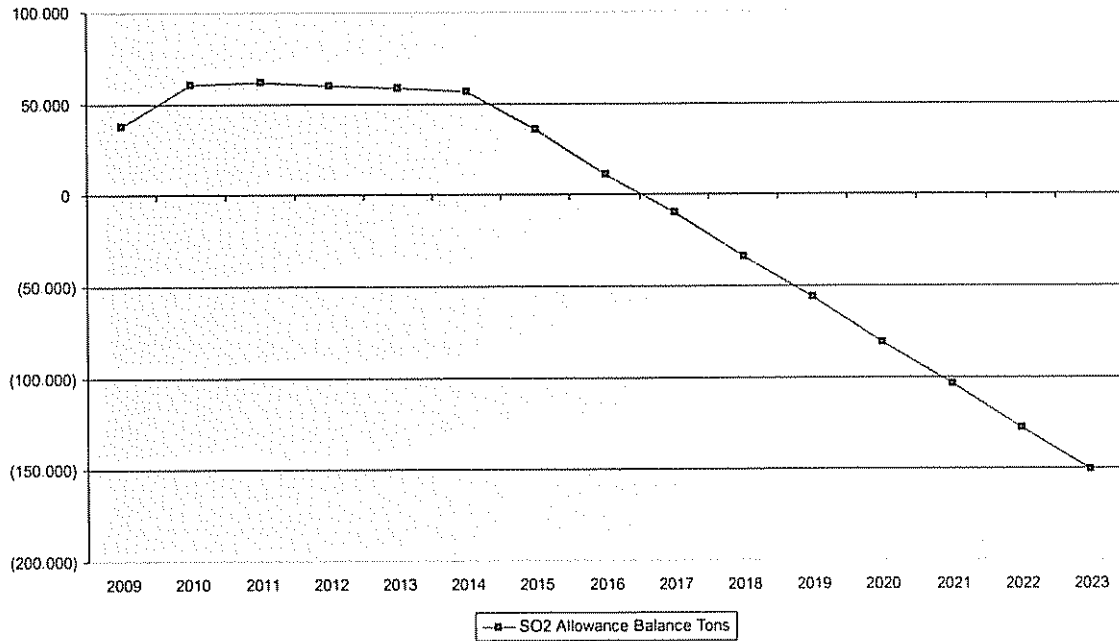


BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
"Base Case\_R1 on Coal"

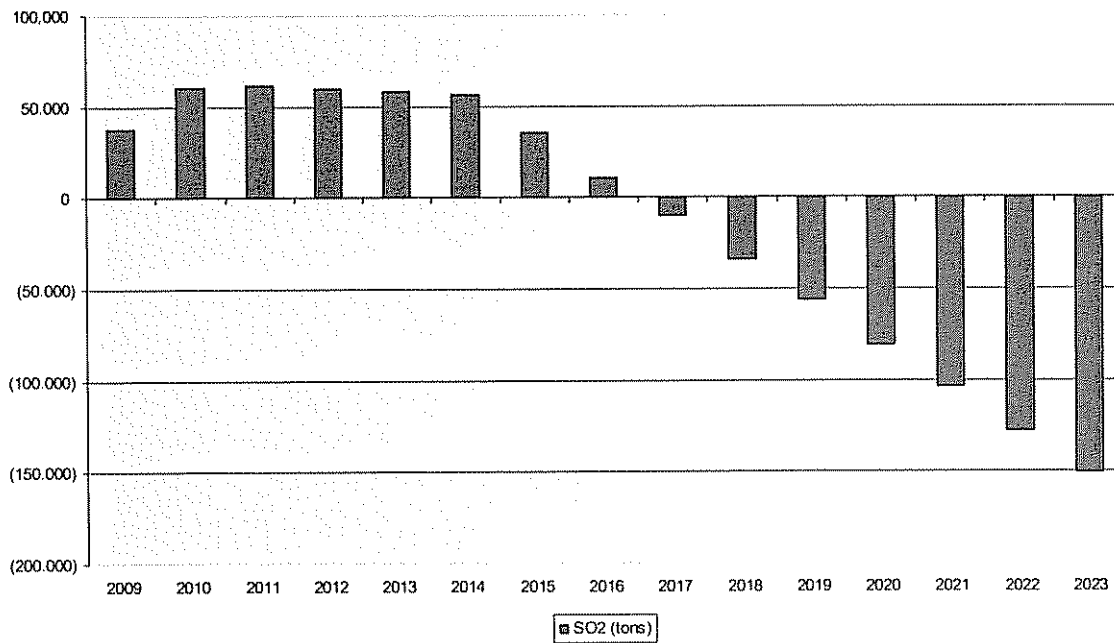


The following charts show the impacts of including the 14,000 allowances into a bank starting in 2009

**BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal\_Roll-Over Credits Added in 2009"**

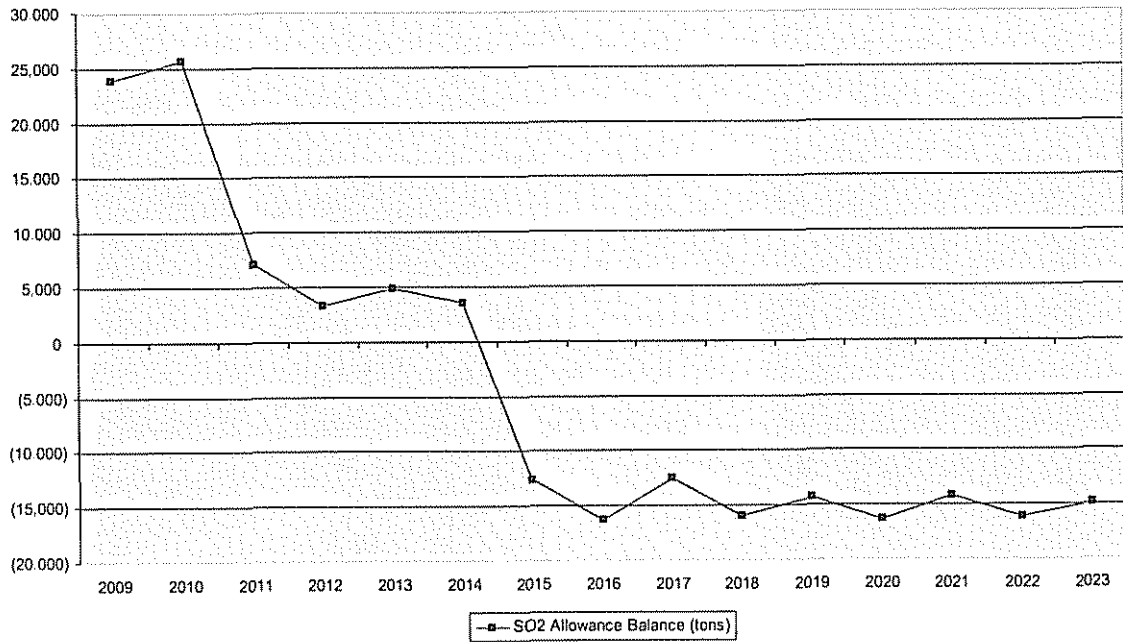


**BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal\_Roll-Over Credits Added in 2009"**

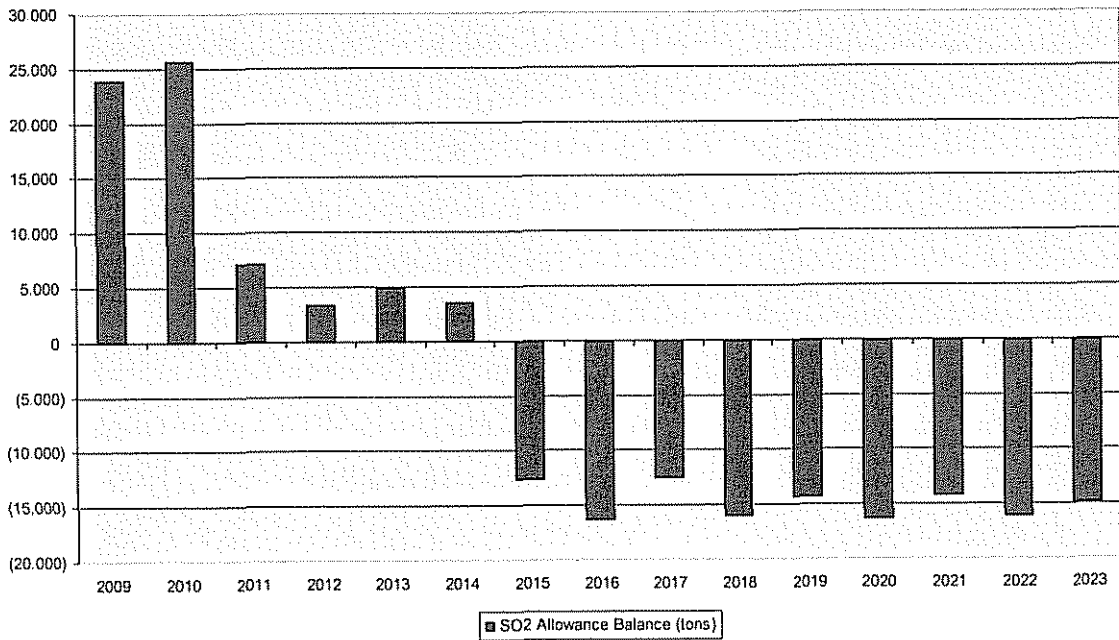


## Individual Year Impacts with 50% Reduction

BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)  
 "Base Case with R1 Coal & 50% SO2 Reduction"



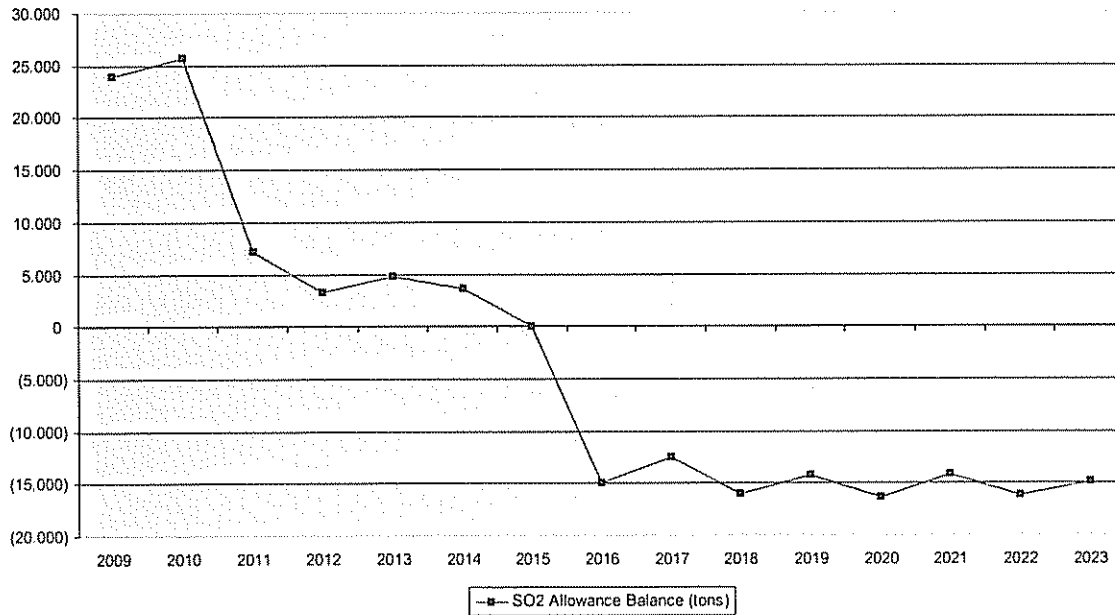
BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)  
 "Base Case with R1 Coal & 50% SO2 Reduction"



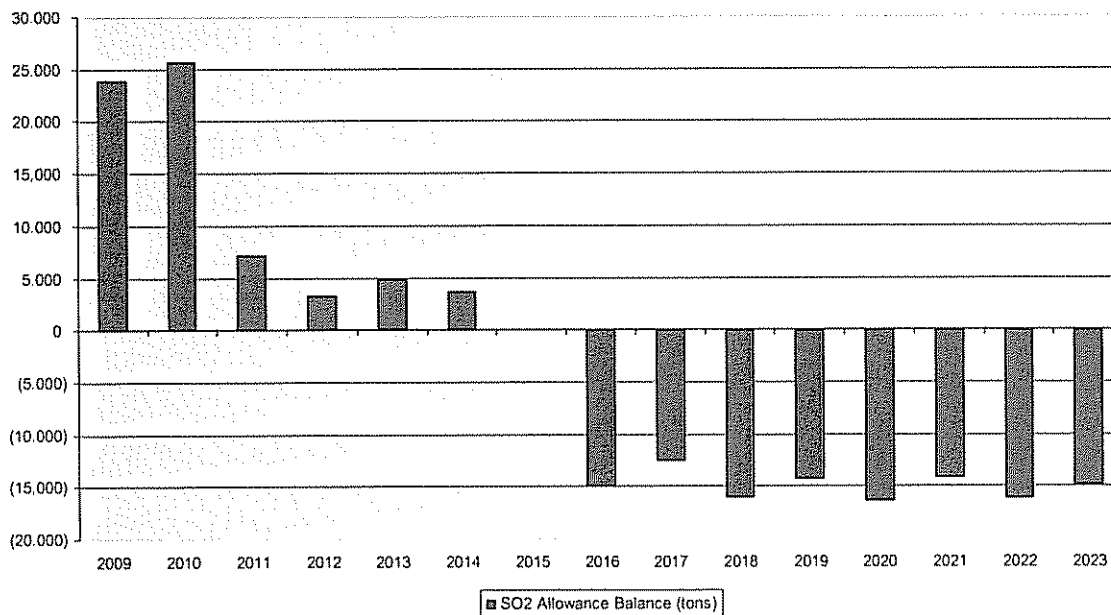


The following charts shows the impact of including the 14,000 Allowances into the first year of negative balance

**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case with R1 Coal & 50% SO2 Reduction\_Roll-Over Credits**  
**Consumed in Initial Negative Years"**

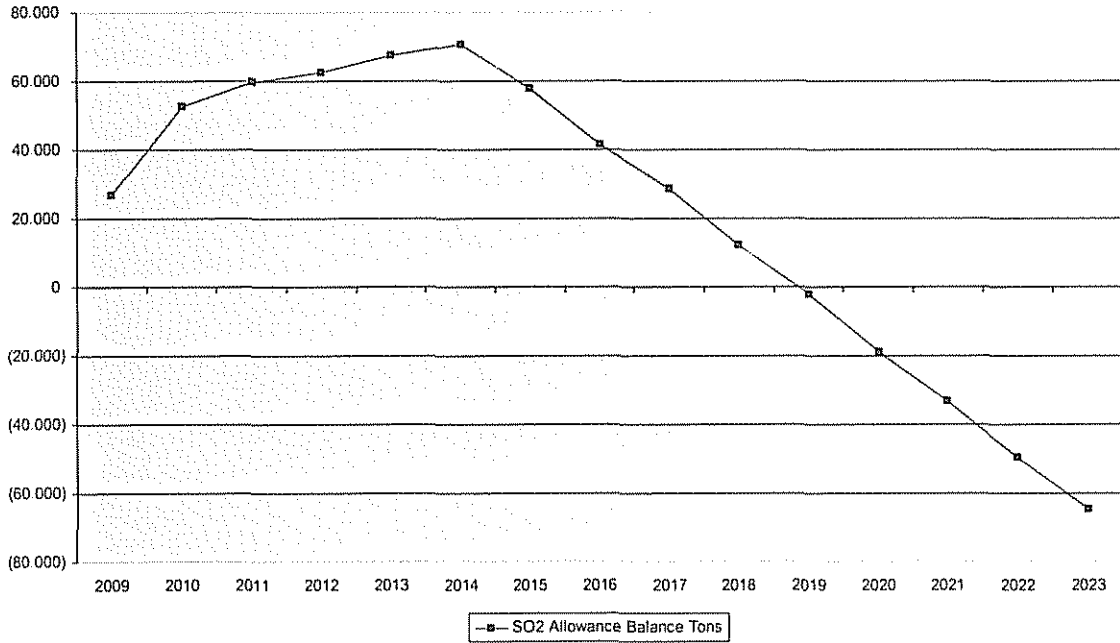


**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case with R1 Coal & 50% SO2 Reduction\_Roll-Over Credits**  
**Consumed in Initial Negative Years"**

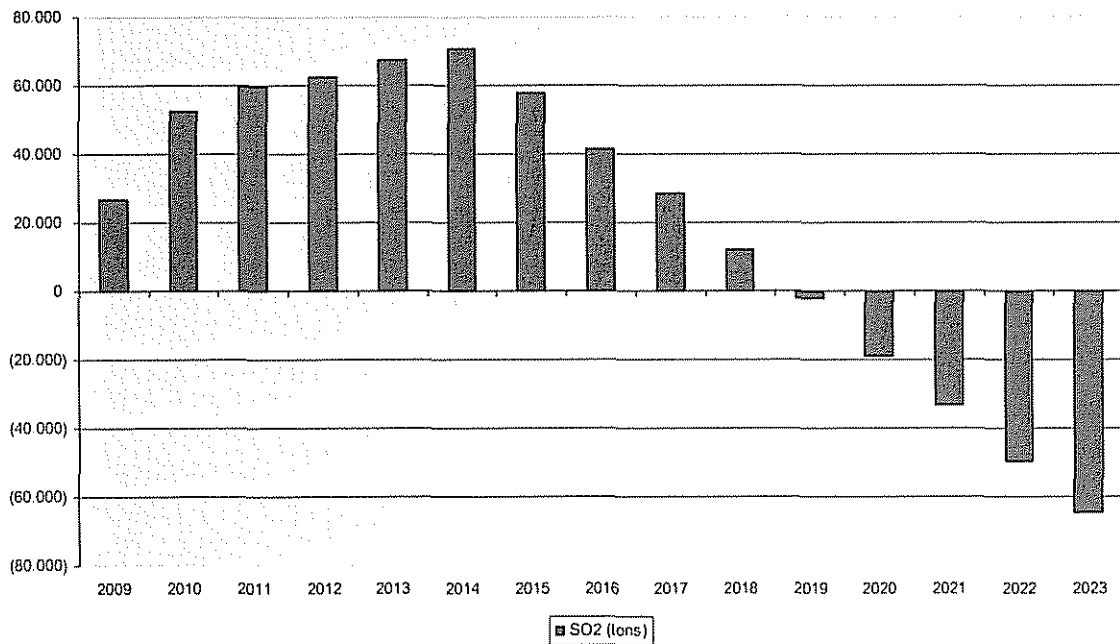


## Cumulative Year Impacts with 50% Reduction

BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_R1 on Coal & 50% SO2 Reduction"

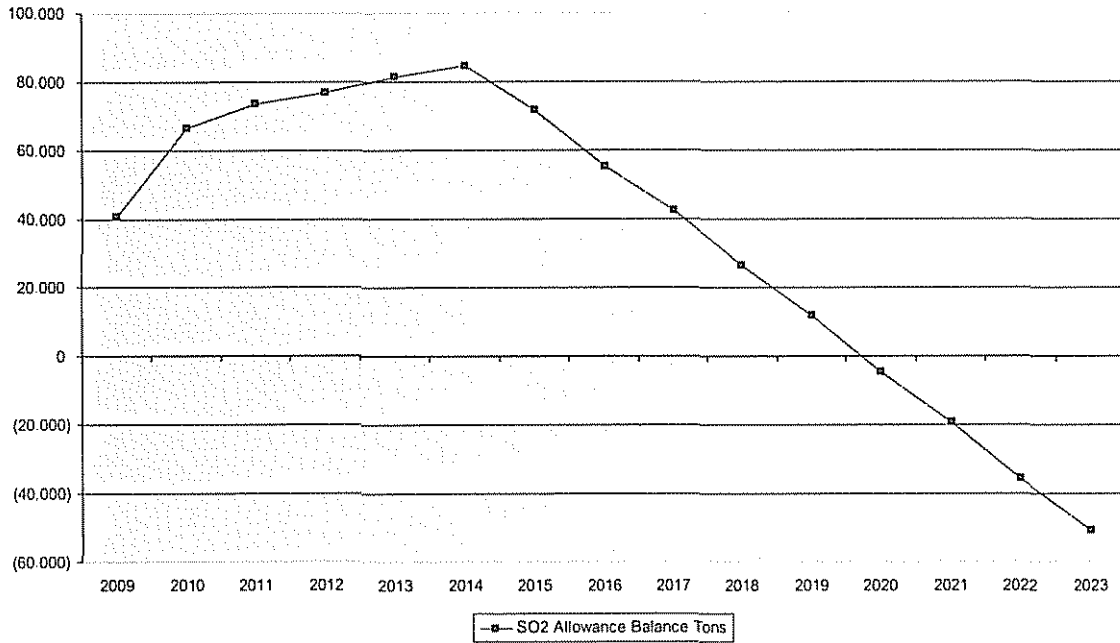


BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_R1 on Coal & 50% SO2 Reduction"

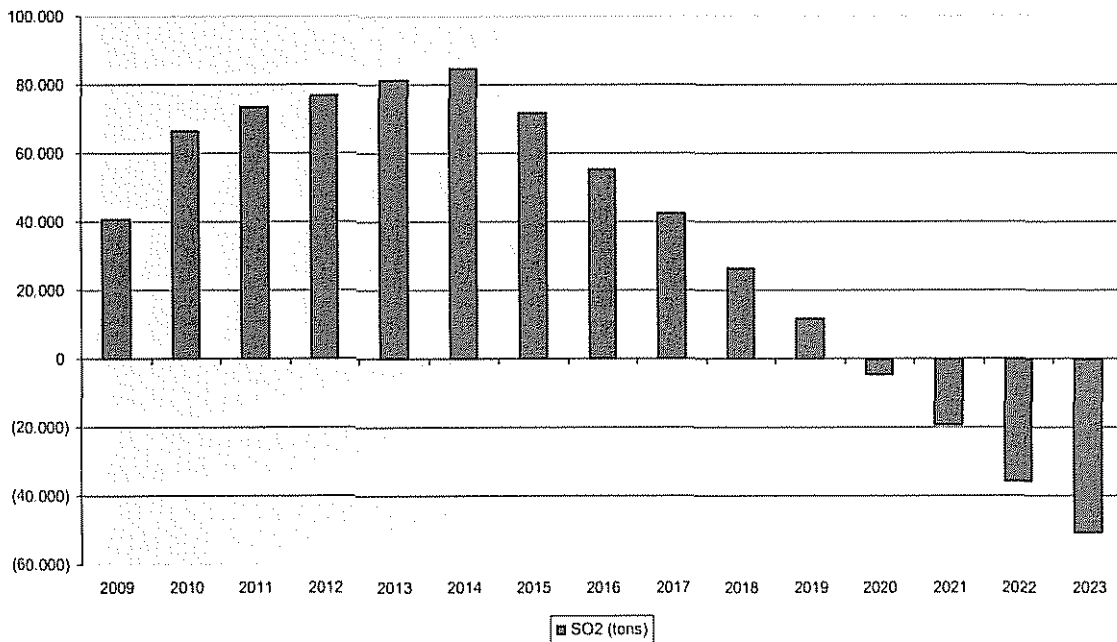


The following charts show the impact of including the 14,000 allowances in the bank starting in 2009

**BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal & 50% SO2 Reduction\_Roll-Over Credits Added in 2009"**

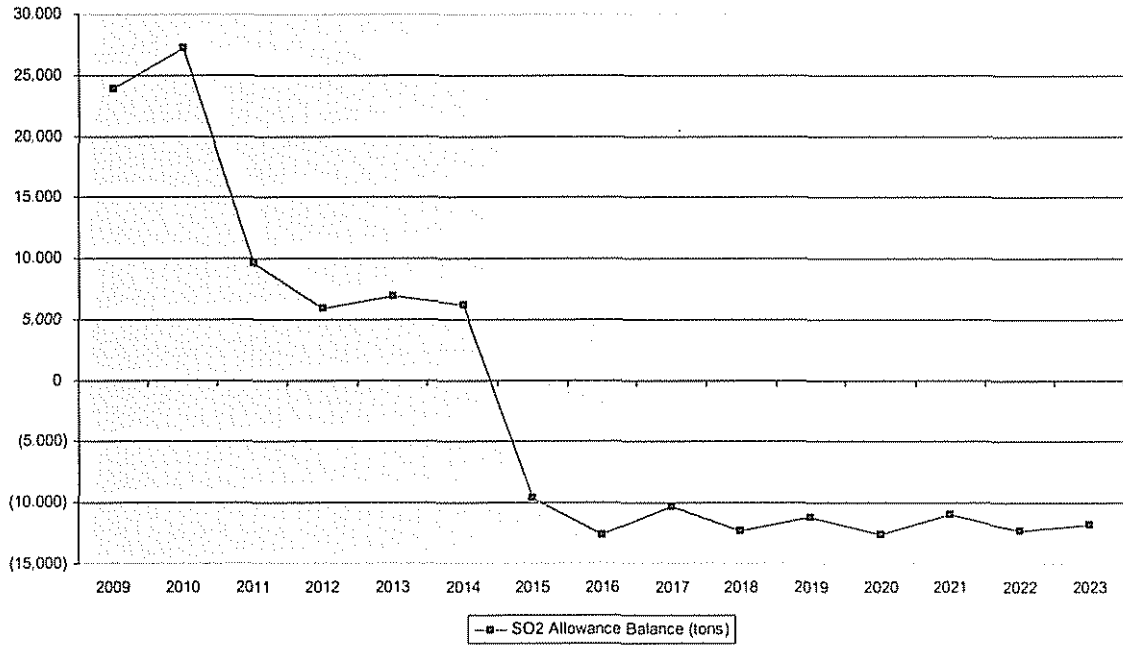


**BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal & 50% SO2 Reduction\_Roll-Over Credits Added in 2009"**

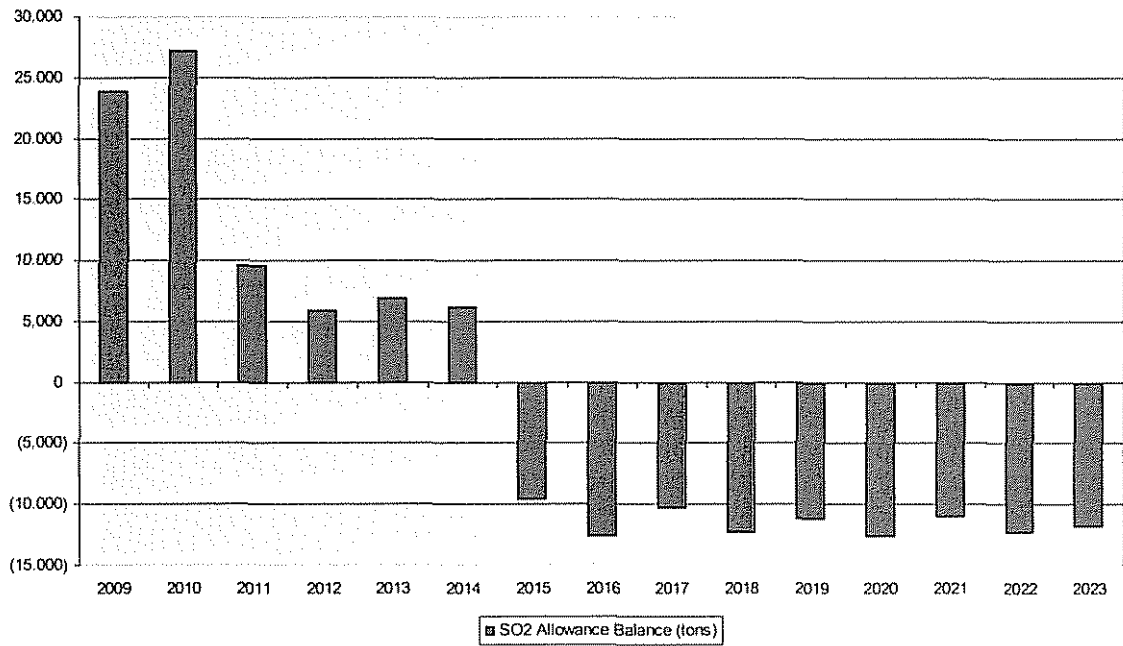


# Individual Year Impacts with Wilson at 95% Removal

BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)  
 "Base Case\_R1 on Coal & W1 2010 FGD at 95%"

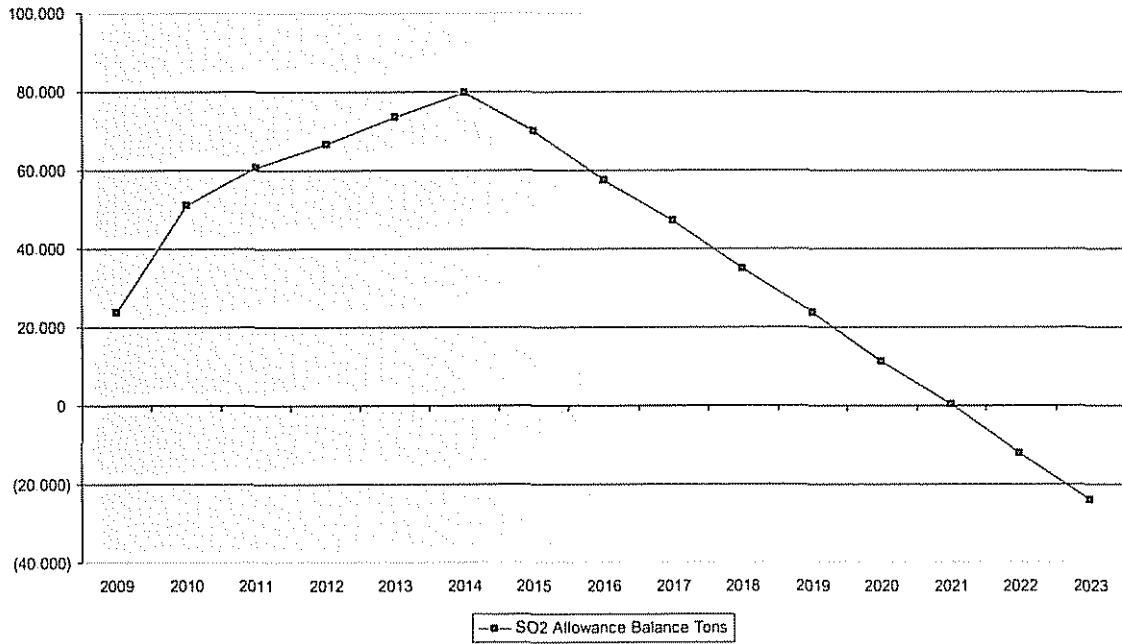


BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)  
 "Base Case\_R1 on Coal & W1 2010 FGD at 95%"

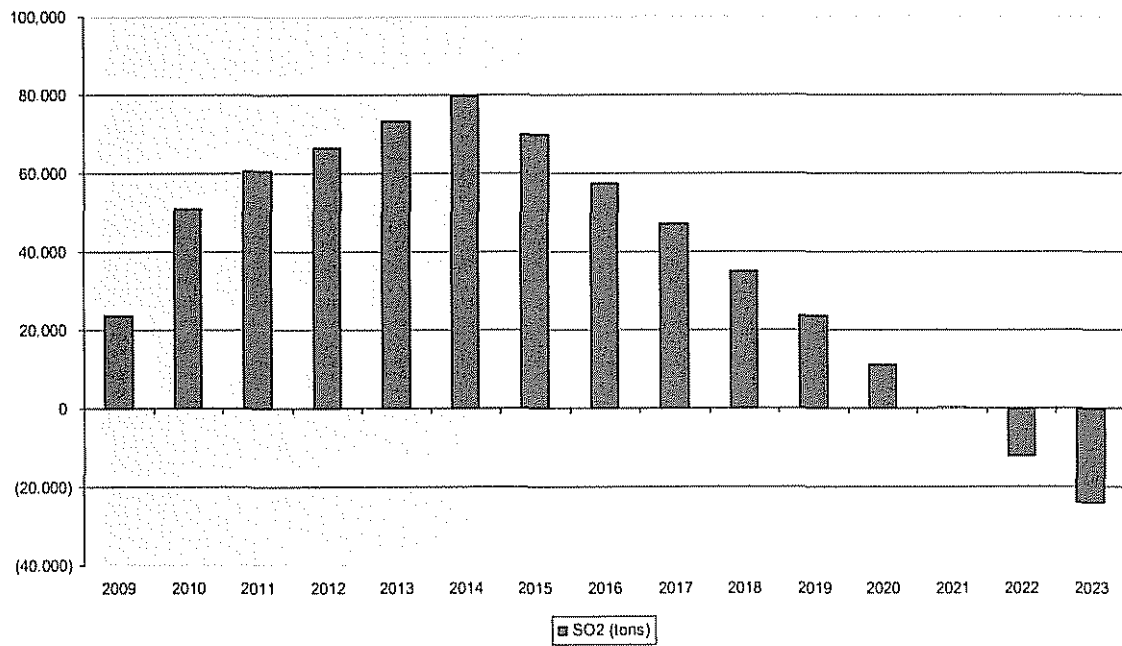


# Cumulative Year Impacts with Wilson at 95% Removal

BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_R1 on Coal & W1 2010 FGD at 95%"

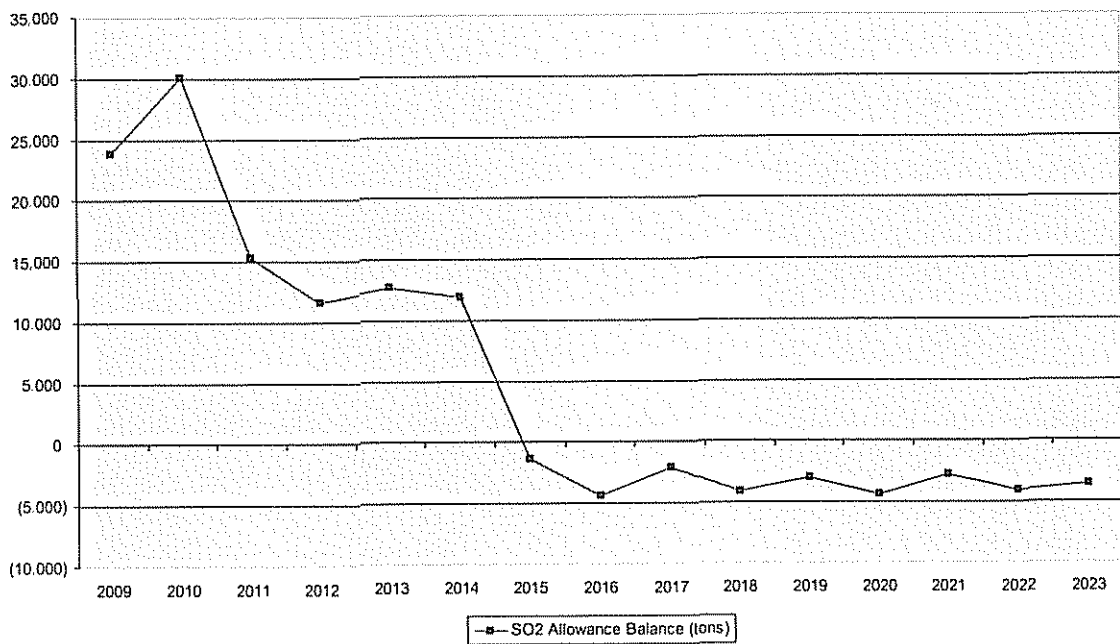


BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)  
 "Base Case\_R1 on Coal & W1 2010 FGD at 95%"

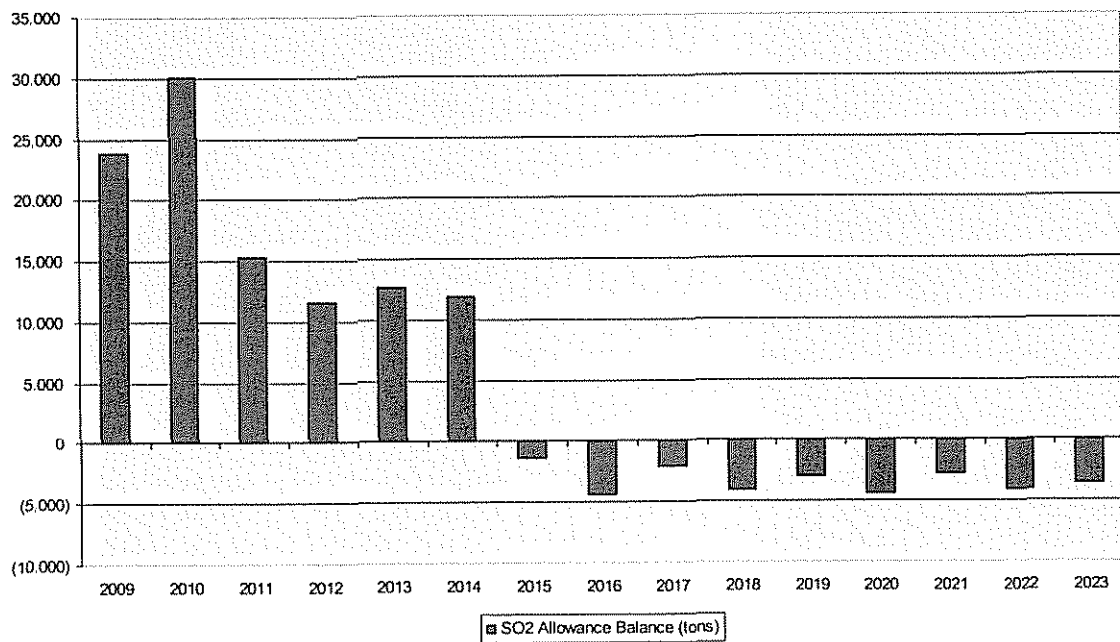


## Individual Year Impacts with 50% Reduction and Wilson at 95% Removal

**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal & 50% SO2 Reduction & W1 2010 FGD at 95%"**

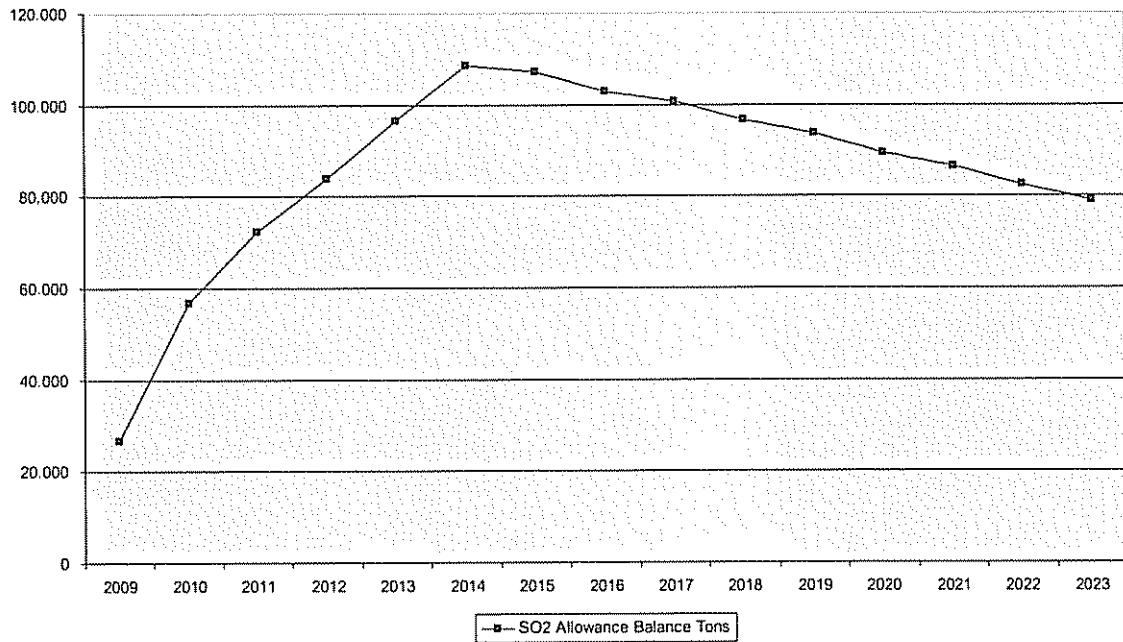


**BREC SO2 Individual Year Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal & 50% SO2 Reduction & W1 2010 FGD at 95%"**

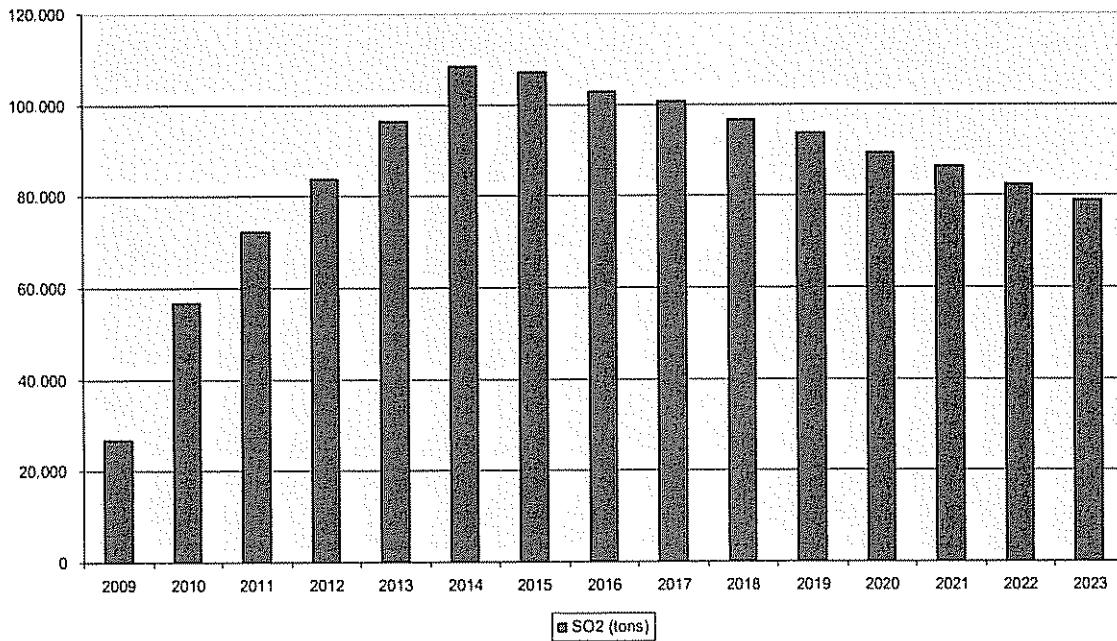


## Cumulative Year Impacts with 50% Reduction and Wilson at 95% Removal

**BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal & 50% SO2 Reduction & W1 2010 FGD at 95% "**



**BREC SO2 Cumulative Allowance Balance (with CAIR Allotments)**  
**"Base Case\_R1 on Coal & 50% SO2 Reduction & W1 2010 FGD at 95% "**



## Summary of Reid 1 Operation on Coal

For NO<sub>x</sub>, the options of installing an SCR on Green Unit 2 in 2012 and Green Unit 1 in 2013 will still help for longer term system compliance but at the expense (due to Reid 1 on coal) of considerable allowance purchases in the first three years of Phase I.

- With Reid on coal and SCRs installed on both Green Units the system remains compliant until 2018 for the Annual program and 2020 for the Ozone Season utilizing banked allowances and the zero-out option.
- With a 50% reduction in emissions from the Reid Unit, the combination would show system compliance until 2020 for the Annual program and 2022 for the Ozone Season utilizing banked allowances and the zero-out option.
- It appears that none of the options provide full system compliance through the entire planning period without additional significant NO<sub>x</sub> reduction at an additional unit (ie. SCR on Coleman Unit 3). Considering the cost of allowances, a careful economic analysis should be performed to follow-up on this option vs. allowance purchase.
- Further investigation of potential low-capital technologies that could provide limited additional NO<sub>x</sub> reduction is still necessary.

For SO<sub>2</sub>, these charts illustrate that of the various scenarios investigated there is not a combination that assures system compliance with the Phase II SO<sub>2</sub> requirements as long as Reid Unit 1 continues to burn coal without any SO<sub>2</sub> reduction.

- For the base case, and changing Reid Unit to coal, the system remains compliant only until 2017 utilizing banked allowances
- With a 50% reduction in emissions from Reid the system remains compliant until 2021
- With no reductions in emissions at Reid but increasing the SO<sub>2</sub> removal efficiency at the Wilson Unit to 95% in 2010 the system will remain compliant until 2022.
- Only through a combination of both emission reductions at Reid and increasing removal efficiency at Wilson does the system become compliant for the planning period and beyond.
- Further investigation of potential low-capital technologies that could provide limited additional SO<sub>2</sub> reduction is still necessary.

As another alternative, the compliance plan might proceed with no provision for incorporating Reid Unit 1 into the system; but instead operate the unit on a “cost-plus” basis by providing necessary allowances as a part of the power cost.



**Other Pending Air Quality Issues of Concern to Big Rivers System**  
(Developments in any of these areas would require changes to the Big Rivers  
Environmental Compliance Plan)

**Regional Haze**

The Clean Air Regional Haze Rule proposes controls to limit emissions of particulate, SO<sub>2</sub> and NO<sub>x</sub> in order to restore Class I areas to pristine conditions over a period of time. In general, affected sources must install Best Available Control Technology (BART) if their emissions are contributing to the regional haze impact. Most states have accepted the CAIR=BART position in that for those sources which are CAIR affected, those sources will meet the regional haze requirements. Since CAIR focuses specifically on SO<sub>2</sub> and NO<sub>x</sub>, those sources must still make a determination of the impacts of their particulate emissions on the regional haze at the impacted Class I areas. The Regional Planning Organization (RPO) (MANE-VU) for the Northeast and Mid-Atlantic states has indicated that in order to meet the visibility goals under the regional haze rule additional cuts in SO<sub>2</sub> emissions will be required. The RPO's computer studies indicated that even after CAIR and BART requirements were applied the visibility standards would not be met, primarily due to sulfates. The States have agreed to require a 90% reduction of SO<sub>2</sub> from 167 facilities that MANE-VU has determined contribute to the visibility problem (Note that most of these facilities are upwind of the region). With these additional reductions, the study anticipates \$ 12 billion in health co-benefits. On a broader view, the Regional Haze Rule requires States file their SIPs indicating how they will achieve reasonable progress in visibility improvement by Dec 17, 2007

**Mercury MACT and CAMR**

Originally EPA listed mercury as a Hazardous Air Pollutant (HAP) which then requires the use of Maximum Achievable Control Technology (MACT) to be installed on each impacted unit. Sometime later EPA reversed its position and delisted mercury. Following this action, EPA issued the Clean Air Mercury Rule (CAMR) as a Cap and Trade regulation. EPA has been sued on their actions by various environmental groups whose position is that mercury should be regulated as a HAP and meet the MACT requirements. The Court has yet to issue any ruling on the situation at this point; however major actions are proceeding to comply with the requirements of the CAMR. If the Court vacates the rule the impact may include additional control equipment on some units depending on the regulated emissions level. Financial impacts of this situation have not been included in the model. See update on page 28 of this document.

**SO<sub>3</sub> Concerns**

The formation of Sulfur Trioxide (SO<sub>3</sub>) along with Sulfur Dioxide (SO<sub>2</sub>) as a result of the combustion of coal is a normal and expected outcome. However, the addition of Selective Catalytic Reduction (SCR) equipment to coal fired boilers to reduce the emissions of Oxides of Nitrogen (NO<sub>x</sub>) to meet the requirements of the NO<sub>x</sub> SIP Call, and in the future the requirements of the Clean Air Interstate Rule (CAIR), has the effect of converting a portion of the SO<sub>2</sub> created in the boiler to SO<sub>3</sub>. Although some portion of

this SO<sub>3</sub> is collected in various parts of the system, the end effect is to increase the amount of SO<sub>3</sub> emitted to the air. These higher levels of SO<sub>3</sub> tend to increase the visible emissions (opacity) of the plume, potentially causing violations of the standard. Additionally, changes in plume characteristics may cause plume touch-downs and impact residents in the area. Although there are currently no specific emission limitations for SO<sub>3</sub>, these secondary effects encourage the use of various control techniques (ie. sorbent injection) to minimize the increase in emissions of SO<sub>3</sub>. Other, more capital intensive control options are also available on a more site specific basis.

## **CAIR Plus**

There are at least two regional planning organizations (RPO) that have conducted predictive modeling and determined that their regions will still fail to meet the Nation Ambient Air Quality Standards (NAAQS) following the full implementation of the CAIR requirements. Additionally, the Ozone Transport Commission (OTC) has new modeling which shows additional health benefits of further reductions of NO<sub>x</sub> and SO<sub>2</sub> as well as needing these cuts to assure compliance with the NAAQS Ozone standard. These RPOs have proposed that additional reductions will ultimately be required to assure their compliance. In many cases these additional controls will come from upwind states.

- The OTC wants EPA to:
  - Initiate another phase to the CAIR Rule with an additional 18% reduction in SO<sub>2</sub> and an additional 23% reduction in NO<sub>x</sub>
  - Expand the rule to all 50 states (currently only includes 28 states)
  - Include other sources like boilers and manufacturing facilities
- The OTC indicates this will result in \$ 8 billion in health benefits
- EPA has responded that it currently has too many other responsibilities to take on a whole new CAIR rulemaking
- OTC has begun working with Senate staff crafting economy-wide climate change legislation to incorporate these reductions in power plant emissions

These reductions may come from a “CAIR Phase III” or in the form of a SIP Call. Industry groups such as the Midwest Ozone Group (MOG) and the Utility Air Regulatory Group (UARG) are providing modeling efforts to support the current regulatory requirements.

## **Lowered NAAQS for PM**

EPA has just established new PM 2.5 standards in 2006 and now needs to determine how to implement the new values. A key issue is the transition from the older 1997 standards, for which SIPs are required by April 2008 to the more stringent 24-hour standards. EPA’s resolution of this issue may have a significant impact on utility operation. If EPA made the final non-attainment designations under the new standards effective before 2010, the default deadline for attaining the new standards would precede the compliance deadline for Phase II of CAIR, in effect accelerating the emission reduction requirements. Additionally, EPA has started its review of the current PM 2.5 standard in order to meet the 5-year review cycle. If, based on this review, EPA determines that an even more stringent standard is warranted, utilities should expect even more reductions in SO<sub>2</sub> and NO<sub>x</sub> emissions. EPA is expected to face significant pressure to reduce the level of the Annual PM 2.5 value, something which it did not do during the 2006 review.

### **Lowered NAAQS for Ozone**

EPA is under a court order to finalize a new NAAQS for Ozone by March 12, 2008. EPA has proposed to tighten the current standard of 0.08 parts per million (ppm) to between 0.070 and 0.075 ppm. EPA has also taken comment on a wide range of options including leaving the standard at the currently implemented value of 0.085 ppm to reducing the standard to 0.060 ppm. The EPA administrator has indicated in testimony that the current value is not protective enough. A tighter standard could lead to additional reductions in NO<sub>x</sub> emissions.

### **Lowered NAAQS for SO<sub>2</sub>**

EPA has entered into a consent degree establishing a schedule for the Agency's review of the current SO<sub>2</sub> NAAQS, including consideration of the effects of a new 5-minute primary standard. If EPA determines that a more stringent SO<sub>2</sub> standard is warranted, existing compliance programs may be impacted. The first draft of EPA's assessment indicates that exposure to current levels of ambient SO<sub>2</sub> could have a significant impact on human health

### **Lowered NAAQS for NO<sub>2</sub>**

EPA has entered into a consent degree establishing a schedule for the Agency's review of the NO<sub>2</sub> NAAQS. If EPA determines that a more stringent standard is warranted, utilities could be faced with additional reductions of NO<sub>x</sub> above those currently anticipated. A new short term standard could impact the viability of the Cap and Trade programs. The first draft of EPA's assessment suggests, in EPA staff's review, that concentrations below the current standard may cause adverse impacts on human health. There is, therefore, a serious prospect that EPA will propose a more stringent NO<sub>2</sub> standard.

### **Carbon Dioxide**

The issues surrounding emissions of carbon dioxide and its impact or effect on global climate change is both a science and politically focused discussion. EPA is set to release its "endangerment findings" report and on either side parties are encouraging the release and encouraging withholding the release of the document. At this point a commercially available technology to capture and sequester carbon dioxide is some way off. New generating facilities are being constructed with high efficiency boilers to allow the maximum amount of megawatt hours to be produced at the lowest amount of fuel input. In the immediate time, Big Rivers will continue to monitor this issue and encourage energy conservation measures through its members to reduce the carbon impact of its operations.

## Water Quality Concerns

### Section 316(b) Intake Structures

The Clean Water Act section 316(b) Phase II<sup>3</sup> rulemaking requires the reduction of adverse environmental impact upon aquatic populations by using best available control technologies (BACT). It covers existing facilities that generate electricity and have a >50 MGD total design intake flow and use > 25% flow for cooling water purposes.

The existing regulation was updated and signed by EPA in February 2004 and published in the Federal Register as a final rule in July 2004. The core requirements include two “performance standards” requiring facilities to reduce deaths from impingement by 80-95% (compared to a “calculated baseline”) and for some also reduce entrainment of fish, eggs, and larvae by 60-90%.

The Phase II regulations affect Coleman Plant for the impingement standard and may have some effect on the Sebree facilities. No Big Rivers facilities are impacted by the entrainment standard.

Commencing with the Federal Register publication date, facilities have 3.5 years to perform aquatic studies and submit a Comprehensive Demonstration Study (CDS) to their state regulatory agency (KY Division of Water). During that time frame, the following schedule requires implementation:

- **2004** - Develop strategic compliance approach for each facility
- **2005-2007** – Collect data through aquatic studies
- **January 2008** – Make compliance decisions and submit CDS to KY DOW

After submittal of the CDS, an implementation schedule and means of measuring compliance must be negotiated with the KY DOW permit writer. The final CDS will be incorporated into each facility’s KPDES permit.

Compliance with the Impingement Standard may be achieved by any one of the following:

- install closed-cycle recirculating system (e.g. cooling towers)
- reduce through-screen intake velocity to < 0.5 fps
- reduce impingement mortality by 80-95% from the calculated baseline using any combination of design and construction technologies, operational measures or restoration
- cost-cost or cost-benefit tests

Compliance with the Entrainment Standard may be achieved by any one of the following:

- install closed-cycle recirculating system (e.g. cooling towers)

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<sup>3</sup> Phase I was implemented in 2003 to cover new facilities constructed on new (greenfield) sites.

- reduce entrainment by 60-90% from the calculated baseline using any combination of design and construction technologies, operational measures or restoration
- current (5 year average) capacity utilization rate of < 15% or a guarantee of future 15% limit
- design intake flow < 5% of mean annual flow of freshwater river or stream
- cost-cost or cost-benefit tests

The Phase II regulations were challenged in the U.S. 2<sup>nd</sup> Circuit Court by environmental groups. Oral arguments before the court were scheduled for June 2006, with a final decision expected in August or September 2006. The issue of restoration as a compliance option is one of the main concerns for the petitioners. They basically want the installation of cooling towers to be the only compliance option.

Burns and McDonald Engineering was selected from the list of bidders to review the fish studies and then based on the results of each study, develop an appropriate compliance strategy for each Big Rivers station before the January 2008 deadline. Upon approval of the strategies by the Kentucky Division of Water; a compliance schedule will be issued to each Big Rivers station to be implemented during the 2008 -2010 timeframe.

The final decision from the U.S. 2<sup>nd</sup> Circuit Court of Appeals was finally released on January 25, 2007. In almost all areas, the court agreed with arguments presented by the environmental groups, claiming some portions of the Phase II regulation as illegal and remanding many others back to EPA for revision and another round of notice and comments. The general findings from the suit are listed below:

- Restoration is out. The court ruled that the restoration option is not legal under the statutes of the CWA.
- Cost-Benefit is out. The court ruled that cost can not be used as the only means with which to opt out of the regulatory requirements, regardless of how little benefit is achieved. Industry is required to install technology to the level of cost it can “reasonably bear”.
- The 80-95% impingement mortality reduction range must be better explained and justified by EPA and facilities must be required to achieve the highest point in the range technologically possible.
- The compliance option of the TIOP (Technology Installation and Operating Plan) has been remanded back to EPA because they did not give adequate notice prior to the issuance of the rule. The approved technologies within the TIOP must also be further justified as BACT.

From all the confusion created by this court ruling, EPA must now step back and determine if it will pull the rule and start over or try to revise the current rule to make it fit the court ruling. In either case, EPA would need to offer industry a delay in the requirement to submit a CDS by January 6, 2008 since it is unknown which technologies are approved and what the new impingement reduction goals are now. We must wait for EPA to react in some way. In the meantime, the fish studies were completed at Coleman and gathering of information on available technologies continues in order to be ready to react to whatever EPA decides.

The only real positive out of this ruling is the court did not agree that closed cooling is the only BACT and it left the door open for EPA to give industry other options to meet the requirements of the rule, if they can be appropriately justified.

On July 9, 2007, EPA officially suspended the Phase II 316(b) regulations in the Federal Register and advised the states to issue NPDES permits using BPJ (Best Professional Judgment) concerning 316(b) issues until such time EPA issues new regulations that meet the courts ruling. Therefore, since the current KPDES permits for Coleman and Wilson are up for renewal, (Sebree was received in December 2004 and is current through 2009) the permits should be issued in the next year or so using the permit writer's Best Professional Judgment.

### **Section 316(a) Thermal Impacts**

Recent discussion with representatives of the Kentucky Division of Water have indicated that the Division is expected to revisit the issue of thermal impacts of cooling water discharges under section 316(a) of the Clean Water Act. Big Rivers performed 316(a) demonstrations at both the Coleman and Sebree facilities. These studies delineated the extent of the thermal mixing zone and fish passage areas in the river. The Division has said they will likely request confirmation of the original study showing that there have not been any significant changes in the results.

### **Chemical Mixing Zones**

Recent discussion with representatives of the Kentucky Division of Water have indicated that the Division may request KPDES permit holders to evaluate and determine the extent of the chemical mixing zones at the discharge points into the receiving water body. Although the Division's focus could be on any chemical of concern, it is expected that for Big Rivers the focus will be on chloride discharges from surface runoff from the special waste landfills and from the treatment system at the Coleman scrubber.

### **Status of Existing Ash Ponds**

The ash pond at Coleman has been a concern of the KY Division of Water for some time. The pond has been quite full and the Divisions position has been one of stressing the need to have additional free settling space available. Construction has begun on a new water treatment facility slightly to the north of the main plant complex. This structure will be completed by the end of 2008 and will receive ash from all of the Coleman units.

The Reid/ Station Two ash pond receives bottom ash from both the Reid unit and the City of Henderson – Station Two units. Fly ash from these units is incorporated with scrubber waste and disposed in the Green Station special waste landfill. The pond operates in an open cycle condition and so must meet water effluent limits at the discharge point. The ash sluice water utilizes raw river water which may at times contain very high levels of suspended solids – which is one of the effluent limitations. During these times the permits allow for a “net – gross” limit which takes the influent suspended solids into account. However, the pond is currently reaching its capacity and continuous compliance becomes more difficult. There are both O&M and Capital projects under way to help this

situation. Significant amounts of pond dredging are expected and budgeted in the next several years. Additionally, a project to handle fly ash from these facilities in a dry manner will significantly reduce the quantity of sluice water directed to the pond, increasing the settling time available in the pond.

## **Waste Management Issues**

### **Green Station Landfill Capacity**

The Green Station landfill is a permitted special waste landfill with a ‘life of the facility’ term. The landfill has been in operation since the startup of the Green Station. It currently accepts special waste materials from the Green Station, City of Henderson – Station Two, and the Reid Station in the form of fixated scrubber waste, bottom ash and coal pile runoff control pond cleanings. Current best estimates indicate that the landfill will reach capacity in approximately 7 to 10 years. Prior to this Big Rivers will investigate various options for the continued disposal on these materials. These may include development of a new offsite disposal facility, use of an existing third party offsite disposal facility, or trucking the materials to Wilson Station for disposal. The model base case presently assumes hauling the materials to Wilson.

### **Green Station Groundwater**

At the Green Station groundwater samples have been taken since the initial phases of the landfill operation. These samples have traditionally shown some elevation of levels of Sulfates and Chlorides as statistically compared against previously reported values. Prior to the construction of the landfill this area was heavily utilized for oil production and it is the belief that this prior use is the contributing factor to these increases. Continuing discussions with the Kentucky Division for Waste Management have led to an assessment process. A plan has been filed with the Division for continued sampling to determine any impacts that may be occurring off site.

### **Wilson Station Landfill Capacity**

The Wilson Station landfill is a permitted special waste landfill with a ‘life of the facility’ permit term. The landfill has been in operation since the startup of the Wilson Station. It currently accepts special waste material from the Wilson Station and periodically from the Coleman Station. It is permitted to receive special waste from all the Big Rivers generating facilities. Waste materials are currently being placed in Phase I of the landfill operation. This area is nearing completion. Initial planning has begun to expand the landfill into the Phase II area. This section has sufficient airspace for disposal of material for the foreseeable future.



## **Wilson Station Groundwater**

At the Wilson Station groundwater samples have been taken since the initial phases of the landfill operation. These samples have traditionally shown some elevation of levels of Chlorides as statistically compared against previously reported values. Prior to the construction of the landfill this area was strip mined to a depth of approximately 80 feet below the surface and it is the belief that this prior use is the contributing factor to these increases. Since the site is in a remote location there are currently no uses for the groundwater in the area. Continuing discussions with the Kentucky Division for Waste Management have led to an assessment process. A plan was filed with the Division which was then published for public comment. Big Rivers is currently waiting for a final acceptance letter from the Division. There is no additional work anticipated.

## **Future Regulatory Requirements**

Although there is always a possibility of some changes in the regulations which will tighten the handling requirements for waste materials, EPA has performed two studies in the past to evaluate the disposal of coal combustion waste materials. As stated on the EPA website:

*EPA conducted two regulatory determinations on the management and use of coal combustion products, in 1993 (PDF) (75 pp, 216K) and in 2000 (PDF) (25 pp, 324K). As part of these regulatory determinations, EPA evaluated the following eight factors:*

- *The source and volume of coal combustion products generated per year.*
- *Current disposal practices.*
- *Potential danger, if any, to human health or the environment from the disposal of coal combustion products.*
- *Documented cases in which danger to human health or the environment has been proved.*
- *Alternatives to current disposal methods.*
- *The costs of such alternatives.*
- *The impact of those alternatives on the use of natural resources.*
- *The current and potential utilization of coal combustion products*

*In conducting these two regulatory determinations, EPA did not identify any environmental harm associated with the beneficial use of coal combustion products and concluded in both determinations that these materials did not warrant regulation as a hazardous waste. The beneficial use of coal combustion products can include both encapsulated and unencapsulated applications. EPA recognizes that unencapsulated uses of coal combustion product require proper hydrogeologic evaluation to ensure adequate groundwater protection. The 2000 regulatory determination recommended a separate review addressing the use of coal combustion wastes as fill for surface or underground mines, which is currently underway. (From EPA Website – August 2007)*

As is stated, EPA recognized that some additional study was warranted and requested public input into the process. Again from the EPA website:

*EPA is seeking public comment on additional information on the disposal of coal combustion waste. In May 2000, EPA issued a Regulatory Determination on Waste from the Combustion of Fossil Fuels. Since EPA issued the determination, additional information has become available for public comment through a Notice of Data Availability (NODA). This information includes: (1) a joint EPA and Department of Energy study on the management of coal combustion waste in landfills and surface impoundments that have been permitted, built, or laterally expanded over approximately the last ten years, (2) an assessment of damage cases, and (3) a draft risk assessment on the management of coal combustion wastes in landfills and surface impoundments.*

*EPA will consider all the information provided through the NODA, the comments and new information submitted on it, as well as the results of the peer review of the draft risk assessment as it continues the follow-up on its regulatory determination for coal combustion wastes disposed of in landfills and surface impoundments. The public will have 90 days to comment on the information once it is published in the Federal Register.*

EPA has extended the deadline for comments twice, with the final extension ending on February 11, 2008. Big Rivers will continue to watch this development. However, since the focus is on use of coal combustion wastes as fill for surface or underground mines, the impact is expected to be minimal.

Additionally, the Kentucky Division of Waste Management has made some comments regarding possible updating of the Kentucky regulations on coal combustion waste. However, no changes are expected unless EPA determines that additional regulation is required for these materials.

## **Environmental Regulations Associated With Big Rivers Transmission Operations**

### **Spill Prevention, Control and Countermeasures (SPCC) Regulations**

EPA regulations found in 40 CFR 112 require facilities that have over 1,320 gallons of oil to prepare and implement a spill plan to prevent the spilling of oil into navigable waters of the United States. The plan is commonly referred to as a SPCC Plan. Big Rivers exceeds the threshold quantity of 1,320 gallons of oil at all 24 substations within its transmission system and also at its ET&S Transmission facility located on Airline Road in Henderson, Kentucky.

As part of the implementation process of the SPCC Plan, Big Rivers is required to provide containment measures at all facilities to contain oil should it leak or spill from equipment within the substation or facility. Typical types of containment measures include physical or manmade structures such as dikes, containment curbs, oil/water separators and pits. Big Rivers currently has containment structures installed at half of the substations within its distribution system. The remaining substations will need to have some type of containment measures installed or implemented by July 2009, which is the deadline currently prescribed by the EPA in the SPCC regulations.

Big Rivers currently has \$536,409 in its 2008 budget for the installation of containment equipment.

### **PCB Regulations**

Big Rivers currently utilizes electrical equipment within its transmission system that contains Polychlorinated Biphenyls or PCBs. In accordance with regulations found in 40 CFR 761, all PCB equipment at a concentration of 50 ppm or above is required to be handled, stored and disposed in a manner that complies with specific regulations. All electrical equipment that Big Rivers retires, and which contains greater than 50 ppm of PCBs, is sent to a disposal facility that is licensed to dispose the regulated waste. Big Rivers routinely budgets approximately \$6,000.00 annually for the disposal of PCB waste.

### **Underground Storage Tank Regulations**

The Kentucky for Environmental Protection regulates the operation of Underground Storage Tanks (USTs) under 401 KAR Chapter 42. Big Rivers currently has three (3) regulated USTs that are in operation. The USTs contain either diesel fuel or gasoline.

## **Climate Change Regulations**

Big Rivers currently utilizes limited amounts of Sulfur hexafluoride (SF<sub>6</sub>) in various components within its substations. SF<sub>6</sub> is considered a potent greenhouse gas. There are currently no environmental regulations associated with greenhouse gases such as SF<sub>6</sub>, but there is a flurry of activity in the federal legislature trying to enact such regulations. The units that contain SF<sub>6</sub> could potentially be impacted by climate change legislation, but the impact is believed to be minimal due to the relatively low amount used within the transmission system (less than 1 ton).

Big Rivers is a participant in EPA's SF<sub>6</sub> Emission Reduction Partnership for Electric Power Systems. The program is voluntary for participants from the electric utility sector who collectively prevent SF<sub>6</sub> gas from escaping to the environment via leak detection and repair programs. Program participants have decreased SF<sub>6</sub> emission rates by 32% since 1999. Big Rivers was one of the original members to register for the program.

## **Hazardous Waste Regulations**

The handling and disposal of hazardous waste is regulated under Kentucky regulation 401 KAR 30-38 & 43-44. Big Rivers is considered a Conditionally Exempt Small Quantity generator under the hazardous waste regulations. This type of status minimizes the requirements that Big Rivers has under the regulations. The generator status is monitored monthly to assure that it does not change, which would require more stringent regulations.

## **The Emergency Planning and Community Right-to-Know Act (EPCRA)**

EPCRA establishes requirements for facilities regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals. The regulatory provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. Big Rivers is responsible for submitting various reports to state and local emergency planning committees under the EPCRA regulations.

## **Explosives Permits**

Big Rivers has permits from the Kentucky Division of Explosives and Blasting & the Bureau of Alcohol, Tobacco and Firearms which permits the use of blasting agents needed for stump removal within the system.

## **Pesticides Applicator License**

Big Rivers has pesticides applicators licenses for the utilization of pesticides and herbicides needed for clearing purposes within the system.

# Appendices

## MODEL ASSUMPTIONS

### Base Case Assumptions

#### Unit Operation:

1. Reid Unit 1 is not expected to operate routinely after 2008. Unit operation will be dependent upon economic constraints. Boiler operation will be using natural gas.
2. For modeling purposes all generation from the Reid Combustion turbine is assumed to occur during the Ozone Season.
3. Unit operation is based on results from the 09/08/08 Production Cost Model run for the planning period as developed by ACES Power Marketing for Big Rivers.

#### SCR Operation:

1. Currently installed SCRs are expected to operate at 90% average removal efficiency while on line. Full season removal efficiencies, which are calculated based on expected "unit events", are used to determine allowance use. These include unplanned unit outages and associated startup situations including SCR warm-ups.
2. SCR removed from service when load level/flue gas temperature is below ammonia-feed cutoff point.
3. No restriction on ramp rates beyond original unit design limits.

#### Scrubber Operation

1. Coleman will operate at a 98% removal rate through the plan period.
2. Green Station will operate at a 97% removal rate through the plan period.
3. Station Two will operate at a 94% removal rate through the plan period.
4. Wilson will operate at a 91% removal rate through the plan period.

#### Allowance Prices (Nominal \$/ton) as used in the Production Cost Model:

<u>YEAR</u>	<u>SO2</u> <u>\$/ton</u>	<u>YEAR</u>	<u>NOx</u> <u>\$/ton</u>
2009	\$140	2009	\$700
2010	\$115	2010	\$650
2011	\$434	2011	\$2,120
2012	\$439	2012	\$1,951
2013	\$438	2013	\$1,909
2014	\$425	2014	\$2,570
2015	\$294	2015	\$3,071
2016	\$288	2016	\$2,863
2017	\$265	2017	\$2,764
2018	\$247	2018	\$2,665
2019	\$196	2019	\$2,564
2020	\$144	2020	\$2,574
2021	\$122	2021	\$2,578
2022	\$106	2022	\$2,581
2023	\$98	2023	\$2,584

## Expected Split of Allowances between Big Rivers and City of Henderson

	City	BREC
2007	30.45%	69.55%
2008	30.45%	69.55%
2009	30.45%	69.55%
2010	30.45%	69.55%
2011	30.45%	69.55%
2012	32.05%	67.95%
2013	32.05%	67.95%
2014	32.05%	67.95%
2015	32.05%	67.95%
2016	32.05%	67.95%
2017	32.05%	67.95%
2018	32.05%	67.95%
2019	32.05%	67.95%
2020	32.05%	67.95%
2021	32.05%	67.95%
2022	32.05%	67.95%
2023	32.05%	67.95%

### General

These are ballpark estimates, based on the assumptions below, which include the Kentucky Division for Air Quality's initial allocation of the state-wide allowance pool (which should not change), the amount of new generation in the state, and other unknowns.

### CAIR II NOx Ozone Season

2008: NOx SIP Call Allocation

2011 - 2014: CAIR actual allocations

2015 - 2023 latest proposed from KYDAQ (which includes a 2% set-aside)

### CAIR II NOx Annual

2011 - 2014: CAIR actual allocations

2015 - 2023 latest proposed from KYDAQ (which includes a 2% set-aside)

### CAIR II SO<sub>2</sub>:

Assumes that a surrender ratio (e.g. surrendering 2 for 1) equates to receiving that fraction (e.g. half) of Acid Rain allowances; technically, we will still receive the same number of allowances but will have to surrender multiple allowances for each ton of emissions.

2011-2014: assume surrender of 2.0 for 1

2015+: assume surrender of 2.86 for 1

### Mercury:

2011-2017: 5% withheld / 2018+: 10% withheld

## PRODUCTION COST MODEL OUTPUTS

The following sheets provide output printout sheets from the December 15, 2007 production cost model runs as developed by ACES Power Marketing for Big Rivers and are arranged as follows:

- Portfolio Report
- Production Report
- Fuel Report
- Emissions Report
- Outage Report





## EXECUTIVE SUMMARY

This document will attempt to outline the Station objectives as well as identify all of the challenges and opportunities related to assumptions, key issues, risk, fuel strategies, KPI's and staffing issues that face Sebree Station during this three year planning cycle. (2009 – 2011)

Sebree Station evolved from two separate stations. It consists of six units; four coal fired and two with dual fuel capabilities, one coal/gas and the other one oil/gas.

The combined 896 MW net (969 gross) generation capacity is divided this way:

- Reid 1, 65 MW; Commercialized in 1966
- Henderson 1, 153 MW; Commercialized in 1973
- Henderson 2, 159 MW; Commercialized in 1974
- Green 1, 231 MW; Commercialized in 1979
- Green 2, 223 MW; Commercialized in 1981
- Reid Combustion Turbine, 65 MW; Commercialized in 1976

Henderson Municipal Power and Light owns the two Henderson units. Big Rivers operates these through an O&M cost sharing arrangement with HMPL based approximately on dividing most fixed costs according to each entities share of capacity. At this time, that ratio is about 30%/70% HMPL/BREC. Henderson purchases its share of fuel and reagent directly.

Big Rivers expects to resume operation of the Sebree facility during the fourth quarter of 2008. Big Rivers previously leased this facility to Western Kentucky Energy, a subsidiary of EON-U.S. from August 1998 to April 2008.

Combining the operating organization of the Henderson units with the Reid/Green units adds complexity to this Station. HMPL is only regulated by its utility commission and KY municipal code, not the PSC. Different fiscal years, municipal regulations and methods of classifying expenditures among the stakeholders and members add to the challenge of operating the units as a combined and effective station. The units continue to have risks, challenges, requirements and rewards distinct to their separate operating and ownership histories. However, Big Rivers has identified and implemented many initiatives to capture synergies and combine activities to reduce costs or streamline decision-making.

After satisfying contractual load requirements with HMPL, and local aluminum smelters, Big Rivers will sell the balance of Sebree Station's available generation.

All units have been updated over the years to meet new environmental regulations and fit inside a unified compliance plan both for the station and Big Rivers. The Henderson and Green units are equipped with magnesium-enhanced lime FGD systems. An overall NOx control strategy was implemented at the beginning of the June 2004 ozone season.

Henderson Units 1 and 2 have been retrofitted with Alstom designed SCR's that were commercialized during the second quarter of 2004. The overall NOx control plan requires that both Henderson 1 and Henderson 2 run at .05 lbs. per million BTU emission rate.

Four of the eight burners in the Reid Unit 1 boiler have been converted to natural gas; however, at the time of this publication, the conversion has not been tested.

The Reid combustion turbine has been converted to dual fuel capability with fuel oil or natural gas. Due to the limited use of the combustion turbine and the escalated natural gas market, no natural gas contract has been executed. However, at current market prices the calculated generation cost using natural gas is significantly less than with fuel oil. The cost of NOx credits has increased the clearing price of the combustion turbine when burning fuel oil to a point where it is not feasible to operate during the ozone season, however NOx emissions are much lower burning natural gas so there is reason to believe that this situation will change during this planning cycle.

Green Units 1 and 2 have been retrofitted with a proprietary coal reburn system designed by GE/EER. These systems have successfully lowered the NOx emission rates well below the anticipated rate of .22 lbs per million BTU. However the coal reburn system has produced a reducing atmosphere, which has escalated fire side corrosion of the water wall tubes. The wall thickness of both G-1 and G-2 water walls has deteriorated to less than one half of the original thickness, in some areas it is approaching .100 of an inch. A weld overlay was completed on G-2 furnace walls in 2005. G-1 weld overlay was completed in 2007.

Sebree Station enjoys several competitive strengths that have served it well in the past, and reliance on these strengths continues to be part of the operating strategy going forward:

- A dedicated and experienced workforce. Most employees were part of the previous BREC staffing and represent many years experience in operating, problem solving, responding to outages and advanced training.
- A collection of extremely flexible fuel unloading and blending systems. This allows the station to take advantage of many different types of fuel and methods of delivery.
- The Green units have robust pulverizers, furnaces, scrubbers and downstream ash and dust handling systems that give efficient and economical results with varied fuels

Overall activities are guided by a formal objective setting process (PEP) that gives direction, and delineates expectations to each member of the organization. PEP objectives include safety, availability, reliability, budget management, environmental compliance and personal development. All employees are included in business and progress updates. Sebree Station has adopted the Big Rivers philosophy that fully informed employees should have increased productivity, and are better equipped to participate in decision-making. Business goals (including KPI's) are reviewed monthly. Other objectives are reviewed at least twice a year and more often in some areas such as planned shutdowns. These periodic reviews ensure the efforts of each individual and the station as a whole remain on track and are coordinated to achieve the planned results.

Sebree Station objectives generally revolve around activities to support the Big Rivers Strategic Plan.

Sebree Station has benefited from the organizational realignment that was implemented during the last quarter of 2003. The Senior Leader positions have been responsible for increasing productivity and reducing outage durations. Creating and implementing a more intense planning and scheduling process, including a more comprehensive preventive and predictive maintenance program, accomplished this. As a part of our continuous improvement process, Sebree Station implemented an organizational realignment during the fourth quarter of 2004, which included

assigning one manager to act as both the Operations Manager and the Maintenance Manager at Reid/HMP&L and Green. This realignment will equally distribute the work loads of each manager and improve communications between the operations and maintenance groups as they become one cohesive unit.

Employee safety will continue to be the most important objective during this planning period. The station will focus on the following activities:

- Establish a culture that recognizes safe practices as the norm and rejects unsafe behaviors.
- Will perform an internal OSHA 269 audit to identify unsafe conditions and or possible OSHA violations.
- Will perform an Arc Flash Hazard Assessment to insure the station conforms to the IEEE 1584 Safety Standard.
- Relentless repetition of the corporate safety message at all levels of the organization, which includes our goal of zero recordable injuries.
- Utilization of near miss reporting.
- Improve the quality of our weekly and monthly meetings.

Sebree Station's most serious threat to performance in the near term continues to be the successful operation of the HMPL SCR's, and complying with the new environmental regulations that occur during this planning period.

Other risks and issues are addressed in their respective sections.

Recent internal demographic studies revealed a significant peak in the number of employees reaching retirement age in the very near future. To ensure a smooth transition through the peak in retirements, four operations production leaders and two control operators were added in 2007 to allow for adequate training as the leadership role is passed on to a younger generation. Also planned during this period are increased safety training, filling open positions to lower overtime, more frequent and detailed communication of business strategies and results and more training opportunities of all types to improve job performance and enhance skills.

### **Financial Summary**

Following this narrative are a number of spreadsheets that illustrate in detail the 2009 through 2011 controllable investment activities for Sebree Station, Green Station, HMPL Station, and Reid Station individually, along with Sebree Station in total are broken out in the illustration. Following the spreadsheets are two charts that reflect the non-labor O&M cost for Green, Reid, and HMPL. The Reid non-labor O&M will continue to increase, as environmental restrictions continue to affect its contribution to the overall business plan. Reid Unit 1 will become more and more disadvantaged in both cost, and environmentally, during this immediate three year planning cycle. Due to the sharing of integral systems between Reid and HMPL, significant O&M spending will still be required, and reduced generation will increase the dollar per megawatt hour cost.



**BREC - Sebree Station**  
KPI Objectives

	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Generation Volume (MWhs)</b>	6,073,676	6,085,380	5,893,010
<b>HMPL Share (MWhs)</b>	730,243	730,918	702,376
<b>Net Generation (MWhs)</b>	5,343,432	5,354,462	5,190,634
<b>RIIR</b>	1.6	1.37	1.14
<b>LTIR</b>	0.50	0.50	0.50
<b>EAF</b>	90.61%	90.91%	88.52%
<b>EFOR</b>	5.40%	5.40%	5.40%
<b>S0<sub>2</sub> Compliance Rate</b>	98%	98%	98%
<b>NOx Compliance Rate</b>	99%	99%	99%
<b>Opacity Compliance Rate</b>	98%	98%	98%

## Green Unit 1

### KPI Objectives

	2009	2010	2011
Net Generation Volume (MWhs)	1,956,029	1,800,440	1,949,920
Net Capacity Factor (%)	96.66%	88.97%	96.36%
EAF	96.70%	89.03%	96.70%
FOR by BREC TABLE	3.30%	3.30%	3.30%
S0 <sub>2</sub> Compliance Rate	98%	98%	98%
NOx Compliance Rate	99%	99%	99%
Opacity Compliance Rate	98%	98%	98%

## Green Unit 2

### KPI Objectives

	2009	2010	2011
Net Generation Volume (MWhs)	1,712,726	1,872,320	1,604,100
Net Capacity Factor (%)	87.68%	95.85%	82.11%
EAF	87.66%	96.70%	83.28%
FOR by BREC TABLE	3.30%	3.30%	3.30%
S0 <sub>2</sub> Compliance Rate	98%	98%	98%
NOx Compliance Rate	99%	99%	99%
Opacity Compliance Rate	98%	98%	98%

## Henderson Unit 1

### KPI Objectives

	2009	2010	2011
Net Generation Volume (MWhs)	1,127,694	1,216,600	1,055,080
HMPL Share (MWhs) (calculated)	343,368	370,439	321,258
Net Generation (MWhs)	784,326	846,161	733,822
Net Capacity Factor (%)	84.14%	90.77%	78.72%
EAF	84.51%	93.00%	79.58%
FOR by BREC TABLE	7.00%	7.00%	7.00%
S0 <sub>2</sub> Compliance Rate	98%	98%	98%
NOx Compliance Rate	99%	99%	99%
Opacity Compliance Rate	98%	98%	98%

## Henderson Unit 2

### KPI Objectives

	2009	2010	2011
Net Generation Volume (MWhs)	1,270,579	1,183,890	1,251,670
HMPL Share (MWhs) (calculated)	386,875	360,479	381,117
Net Generation (MWhs)	883,704	823,411	870,553
Net Capacity Factor (%)	91.22%	85.00%	89.86%
EAF	92.00%	86.24%	92.00%
FOR by BREC TABLE	8.00%	8.00%	8.00%
S0 <sub>2</sub> Compliance Rate	98%	98%	98%
NOx Compliance Rate	99%	99%	99%
Opacity Compliance Rate	98%	98%	98%



## Reid Unit 1

### KPI Objectives

	2009	2010	2011
	Coal/Gas	Coal/Gas	Coal/Gas
<b>Net Generation Volume (MWhs)</b>	6,646	12,130	32,240
<b>Net Capacity Factor (%)</b>	0.33%	0.60%	1.59%
<b>EAF</b>	90.00%	84.25%	90.00%
<b>FOR by BREC TABLE</b>	10.00%	10.00%	10.00%
<b>S0<sub>2</sub> Compliance Rate</b>	98%	98%	
<b>NOx Compliance Rate</b>	99%	99%	
<b>Opacity Compliance Rate</b>	98%	98%	



## **GENERATION**

Sebree Station will be responsible for providing approximately half of the total BREC generation during this three-year planning period. The station will deliver annually approximately 6 million megawatts (Gross) of output during this planning period. The plan calls for the Green units to operate at greater than a 89% capacity factor each year during this planning period.

**Big Rivers Electric Cooperative**  
**Sebree Station**

**2009 - 2011 Net Generation Summary**

	<u>2009</u>	<u>2010</u>	<u>2011</u>
<b>BREC Net Generation(MWH)</b>			
Green 1	1,956,029	1,800,440	1,949,920
Green 2	1,712,726	1,872,320	1,604,100
<b>Green Station</b>	<b>3,668,755</b>	<b>3,672,760</b>	<b>3,554,020</b>
Henderson 1	1,127,694	1,216,600	1,055,080
HMPL Share (MWhs) (calculated)	(343,368)	(370,439)	(321,258)
H1 Net Generation (MWhs)	784,326	846,161	733,822
Henderson 2	1,270,579	1,183,890	1,251,670
HMPL Share (MWhs) (calculated)	(386,875)	(360,479)	(381,117)
H2 Net Generation (MWhs)	883,704	823,411	870,553
<b>Henderson Station II (NET) Total</b>	<b>1,668,030</b>	<b>1,669,572</b>	<b>1,604,374</b>
Reid	6,646	12,130	32,240
<b>Total Plant (Gross)</b>	<b>6,073,674</b>	<b>6,085,380</b>	<b>5,893,010</b>
<b>Total Plant (Net)</b>	<b>5,343,431</b>	<b>5,354,462</b>	<b>5,190,634</b>

<u>Non-OTAG</u>	<u>OTAG</u>
<u>MW</u>	<u>MW</u>
231	231
223	223
153	152
159	158
55	55
65	65



## Assumptions

The key planning assumptions are as follows:

- The successful execution of the 2009-2011 Big Rivers Strategic Plan.
- This plan assumes the successful operation of the H-1 and H-2 SCR's, during the OTAG seasons.
- The Plan assumes the operation of the SCR's only during the five month OTAG season through 2010, and year round beginning in 2011.
- This Plan assumes that all current issues with the HMP&L SCR's are corrected under the manufacturer's warranty.
- The plan has included funds in 2009 – 2011 for anhydrous ammonia as a variable material to support SCR operation.
- This plan has included purchase of additional catalyst for the HMPL SCR system in the 2008 plan. Catalyst samples removed following the 2008 OTAG season will be sent for analysis to assist in the administration of the catalyst management plan..
- This plan makes no assumptions for additional staff to support the SCR operations or maintenance, although the experience we have at this time indicates it will be more labor intensive than originally anticipated. Warranty improvements in the NEMS probes have slightly reduce the required maintenance; however, evaluations have been performed and a business case submitted for additional instrument technicians.
- The fuel strategy for H-1 is to utilize 100% coal during both the non-OTAG season and the OTAG season.
- The fuel strategy for H-2 is to utilize a 100% coal during both the non-OTAG season and the OTAG season.
- This plan also assumes that R-1 will not run during the OTAG season. A cost model has been developed based on fuel, SO<sub>2</sub>, and NO<sub>x</sub> credit expenses to help determine the feasibility of running the Reid unit during the OTAG season. This same assumption was included in the 2008 – 2010 plan; however, market/system conditions were strong enough that R-1 was used during May, June, July, and August of 2008 providing more than 36,000 gross MW for the system.
- All capital projects submitted in this plan are approved and executed, refer to section 7 of this plan for further details.
- The full compliment of staff is approved and obtained, per the operating plan; refer to section X of this plan.
- This plan assumes a 95% capacity factor for G-1 and G-2, which will require the Green units to be base loaded at maximum capacity 24 hours a day.

The following is the Minimum Fuel properties required to achieve full capacity, meet environmental requirements and maintain availability.

	<b>BTU</b>	<b>SO2</b>	<b>Ash</b>	<b>Moisture</b>
	<b>MMBTU / #</b>	<b># / MMBTU</b>	<b>%</b>	<b>%</b>
<b>Coal 100%</b>				
Green	<b>11,100 – 11,500</b>	<b>&lt; 7</b>	<b>&lt; 15</b>	<b>&lt; 12</b>
HMPL	<b>12,000 – 12,500</b>	<b>&lt; 7</b>	<b>&lt; 8</b>	<b>&lt; 8</b>
Reid	<b>12,000 – 12,500</b>	<b>&lt; 5</b>	<b>&lt; 10</b>	<b>&lt; 10</b>
<b>Coal 60 – 85 %</b>				
Green	<b>10,000</b>	<b>&lt; 7</b>	<b>&lt; 20</b>	<b>&lt; 12</b>
<b>The balance being pet coke with these properties:</b>	<b>14,000</b>	<b>6 - 8</b>	<b>&lt; 1</b>	<b>3 - 5</b>





## KEY ISSUES

### Reid

- This unit is approaching the end of its design life. Major failures are possible and critical decisions regarding replacement costs, appropriate investment in spares and predicted versus actual availability will have to be made. Reid, although updated with precipitator improvements and natural gas burners, will become increasingly disadvantaged both cost and environmentally during this immediate three year planning cycle. Fuel options and power sales reality already limit Reid's contribution to the overall business plan. A cost model has been created to compare production cost with the market to determine the feasibility of running the Reid unit. This model calculates total production cost, based on fuel cost, and both SO<sub>2</sub> and NO<sub>x</sub> allowance cost. R-1 is budgeted to generate approximately 11,000 mw's of its 468,000 mw capability during the 2009 through 2011 planning cycle. Operation of the Reid unit beyond 2010 is being closely evaluated as changes in environmental regulations such as CAIR, 316B, NO<sub>x</sub>, PM 2.5 and mercury could make it cost prohibitive to operate. Due to the short remaining life of this unit, any major spending to maintain future reliability will be limited.

### Henderson

- Prevailing wage interpretations continue to increase contractor cost at HMPL. The prevailing wage rates for the current contract that went into effect in January of 2006 increased by 18% over the previous three year maintenance services contract. The straight time rate for mechanical services in 2008 was \$71.86 per man hour. The loaded rate for a Sr. Mechanic is \$47.98 per man hour. The mechanical services contractor has offered to extend the agreement through 2009 with no increase in cost. Due to escalating costs a comprehensive cost analysis that was completed during the third quarter of 2006 to determine the feasibility of reducing the number of daily contractors and hiring additional internal staff was revised and resubmitted in mid 2008. This proposal is currently under review by upper management. If approved, implementation of this proposal could reduce the O&M cost at Reid/HMP&L as much as \$300,000 per year.
- More stringent city bid requirements have significantly increased the procurement work load at Sebree. We have secured more blanket purchase orders and contract agreements during the past year to mitigate some of the work, but more will be required during this three year planning cycle in order to comply with the city purchasing requirements. Failure to comply with the city purchasing guidelines relieves the city of its obligation to share in the O&M cost. HMP&L continues to become more involved in the day to day activities at Station II.
- Both Henderson SCR's were completed and tied in during the second quarter of 2004. Successful commercialization and operation of the HMPL SCR's is essential to avoid a negative financial impact on BREC. The operation of the SCR's will present many challenges to Sebree Station during this planning period.

- SCR operation has upset the FGD chemistry, by increasing the oxidation in the reactors. The increased oxidation has caused the settling rates to increase in the thickeners creating unstable bed levels. Currently we are injecting periodic tanker loads of emulsified sulfur into the process stream to control oxidation and normalize settling rates in the thickeners. During this planning period the Station plans to install sulfur storage and a pump feed system as a permanent solution.
  - No boiler control upgrades were added during the SCR construction. The existing 30-year-old combustion control technology on these two units makes it very difficult to obtain the precise control required by the SCR's. Optimum control is essential to manage ammonia slip and avoid air heater plugging. The capital plan includes a complete retrofit to new DCS digital controls for H-1 and H-2 at a cost of \$5,760,000 over four years.
  - A comprehensive fuel sampling plan will be utilized to mitigate potential catalyst contamination.
  - High SCR inlet temperature design has limited the turn down capability of the HMPL units.
  - The catalyst management plan will be revised during this planning period due to the recent ruling regarding sulfuric acid mist, New Source Review, and the federal court ruling that vacated the EPA's CAIR rules.
  - At times both HMPL units suffer a small derate when the SCR's are in service. It appears the units could be derated due to fan limitations when the third layer of catalyst is installed. A fan study was conducted in September, 2007 to determine the effect the third layer of catalyst will have on unit capacity, but the results were inconclusive.
- Reid/HMPL Ash Pond: The ash pond is filling from the west to the east at an accelerated rate due primarily to fly ash carryover from the R/H fly ash handling system. Over the years several Notice of Violations (NOV's) have been received from the Kentucky Department for Environmental Protection (KDEP) for TSS excursions at the ash pond effluent sampling point. A temporary injection system was installed to feed chemicals that aid settling of these solid particles. Options to address the TSS problem were studied by Sargent & Lundy, and the best solution was to convert the existing wet eductor system to a dry collection system. The new fly ash system was commissioned in March, 2008. The dry fly ash system will significantly reduce the solids loading to the ash pond, reduce water flow to the pond and increase retention time in the pond.
  - Wet stack particulate monitors were installed on H-2 in 2006 and H-1 in 2007. With our revised 2007 Title V permits these have become the new compliance instruments and will allow the station to take advantage of the particulate removed by the FGD.
  - The HMP&L bypass stack CEM's have never been certified, and Big Rivers has always been required to pay for maximum potential emissions when operating on bypass. In order to reduce the cost of SO<sub>2</sub> and NO<sub>x</sub> credits while on bypass we plan to replace and certify the bypass stack emission monitors during this planning period.
  - Mill plugging from wet fuel has been an ongoing problem caused by rain on stockpiles and barges. A drying agent additive has been used successfully to help reduce the frequency of this problem. Chemical testing was performed and the product was cleared

to use by the SCR catalyst manufacturer. Although expensive to apply, the additive continues to be effective in reducing unit derates due to wet fuel.

### Green

- The water wall tube thickness is a major concern due to the NOx reduction strategy of the coal re-burn systems. This system causes fireside corrosion due to a reducing atmosphere. Weld overlay was installed on Green 2 in 2005 and installed on Green 1 in 2007.
- Low cold end temperatures combined with poor steam coil performance provide opportunities for air heater plugging, efficiency losses, and accelerated corrosion in the precipitator. An alternative heating system has been installed to increase the air heater cold end average temperature.
- Green 2 reheater is twenty plus years old and suffers from severe coal ash corrosion. Random tube replacement in the worst areas was completed in 2005 in order to extend the complete element replacement until 2009. It is important to realize that this random repair will only slightly reduce the potential of reheat tube failures in this section until the elements are replaced.
- The protective coating on the exposed boiler structural steelwork is severely deteriorated and worse than Henderson or Reid, although those units need coating replacement as well. *This plan includes a five year phased approach to address the coating issues.* The coating project will be completed over a five year time frame beginning in 2009 through 2013.
- The Green IUCS dewatering building is in a deteriorated condition. There is funding in 2009, 2010 and 2011 for renovations.
- Unit substation transformers are of a concern due to a failure occurring on Green 2 USS 2A3 in 2007. These step down 4160 volt to 480 volt transformers are of the Freon type cooled and are non-repairable. A replacement strategy will begin in 2010.

### General

- Succession planning and employee development will be essential for the Station's long term success. The demographics of the aging work force at the station pose a risk to the planning cycle labor investment. By the end of the planning cycle the average age of the station's employees will be approaching fifty years old, and a significant number of key employees will be at retirement age.
- Operator development will be a major point of interest during this planning period. Recent promotional opportunities and retirements have resulted in lost experience and over thirty operating employees are new to their current position. As part of the

newly created succession plan, a special initiative will be followed to train operators to be able to upgrade to the next higher classification.

- Continuous improvement of the procurement activities will be essential at both the BREC level and the station level during this planning cycle. Sebree Station will focus on improving our blanket order management and large contract development during this plan. Coordinating the BREC procurement procedures with the HMP&L procurement requirements will further complicate the purchasing activities and increase the work load of the Sebree procurement team. An evaluation will be conducted to determine if sufficient staff exists to adequately perform these duties.
- During this planning period Sebree Station will implement a “back to the basics” approach to the operation and maintenance activities required to meet the Key Performance Indicators (KPI’s) set in this plan. Sebree will utilize the following basic utility practices, to meet or exceed our objectives.
  - Defined equipment checks and routines
  - Detailed operator logs
  - Comprehensive boiler tube sampling program
  - Monthly vibration analysis
  - Routine oil analysis
  - Detailed daily work schedules for both operations and maintenance personnel
  - Detailed outage planning
- Increased productivity of both internal and external resources will continue to be a priority during the next three years. A contractor evaluation process will also be developed and implemented during this planning period.
- Utilization of process improvement teams to review and augment key business processes and activities will be a priority during this planning period. Sebree Station will implement and maintain the results of the process improvement team initiatives from the following teams.
  - Critical Operations
  - Boiler Assessment
  - Outage Management
- Current life of the landfill is estimated at approximately ten to twelve years. This puts urgency in the plans for expanding and finding alternatives to the landfill.
- Sebree will work closely with the internal environmental group to determine the impact of any new environmental requirements that will become effective during this planning period. Known items to watch at this time are PM 2.5, Mercury, and SO<sub>3</sub>.
- BREC must wait to evaluate implications of the new CAIR environmental rule requirements as they are published. Funding for engineering and any required capital investment are not included in this plan.



# Big Rivers Electric Cooperative

## Sebree Station

### 2009 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor			Labor			Total O&M		
	Green	Reid/SII	Total Sebree	Green	Reid/SII	Total Sebree	Green	Reid/SII	Total Sebree
<b>Operations</b>									
<b>Outage</b>	\$ 428,000	\$ 232,000	\$ 660,000	\$ -	\$ -	\$ -	\$ 428,000	\$ 232,000	\$ 660,000
H-1 (B/O, CCS - 744 hours)		232,000	232,000					232,000	232,000
G-2 (B/O - 792 hours)	428,000		428,000				428,000		428,000
<b>Non-Outage</b>	1,954,987	2,760,210	4,715,197	7,264,289	5,883,768	13,148,057	9,219,276	8,643,978	17,863,254
Operations	403,619	1,742,966	2,146,585	5,790,006	4,217,093	10,007,099	6,193,625	5,960,059	12,153,684
Fuel Handling	583,520	526,955	1,110,475	808,927	1,122,292	1,931,219	1,392,447	1,649,247	3,041,694
Laboratory	684,455	254,930	939,385	358,065	292,962	651,027	1,042,520	547,892	1,590,412
Administrative	283,393	235,359	518,752	307,292	251,421	558,712	590,685	486,780	1,077,464
<b>Total Operations</b>	\$ 2,382,987	\$ 2,992,210	\$ 5,375,197	\$ 7,264,289	\$ 5,883,768	\$ 13,148,057	\$ 9,647,276	\$ 8,875,978	\$ 18,523,254
<b>Maintenance</b>									
<b>Outage</b>	\$ 3,190,900	\$ 3,276,070	\$ 6,466,970	\$ -	\$ -	\$ -	\$ 3,190,900	\$ 3,276,070	\$ 6,466,970
H-1 Unplanned Outages		70,000	70,000					70,000	70,000
H-2 Unplanned Outages		360,000	360,000					360,000	360,000
R-1 Unplanned Outages		210,000	210,000					210,000	210,000
H-1 (B/O, CCS - 744 hours)		2,636,070	2,636,070					2,636,070	2,636,070
G-1 Unplanned Outages	563,000		563,000				563,000		563,000
G-2 Unplanned Outages	90,000		90,000				90,000		90,000
G-2 (B/O - 792 hours)	2,537,900		2,537,900				2,537,900		2,537,900
<b>Non-Outage</b>	6,244,625	5,358,670	11,603,295	4,265,684	3,838,142	8,103,826	10,510,309	9,196,812	19,707,121
Maintenance Dept	5,643,745	5,175,670	10,819,415	4,265,684	3,478,619	7,744,303	9,909,429	8,654,289	18,563,718
Fuels Dept	508,760	183,000	691,760				508,760	183,000	691,760
Central Machine Shop	92,120		92,120		359,523	359,523	92,120	359,523	451,643
<b>Total Maintenance</b>	\$ 9,435,525	\$ 8,634,740	\$ 18,070,265	\$ 4,265,684	\$ 3,838,142	\$ 8,103,826	\$ 13,701,209	\$ 12,472,882	\$ 26,174,091
<b>Sebree Grand Totals (Gross)</b>	\$ 11,818,512	\$ 11,626,950	\$ 23,445,462	\$ 11,529,973	\$ 9,721,910	\$ 21,251,883	\$ 23,348,485	\$ 21,348,860	\$ 44,697,345
<b>HMPL Allocation</b>	(84,708)	(2,910,274)	(2,994,982)	(281,176)	(2,371,368)	(2,652,544)	(365,884)	(5,281,642)	(5,647,526)
<b>Sebree Grand Totals (Net)</b>	\$ 11,733,804	\$ 8,716,676	\$ 20,450,480	\$ 11,248,797	\$ 7,350,542	\$ 18,599,340	\$ 22,982,601	\$ 16,067,218	\$ 39,049,819
<b>Sebree Generation</b>									
Green(Gross)	3,668,755		3,668,755	3,668,755		3,668,755	3,668,755		3,668,755
Green(Net)	3,668,755		3,668,755	3,668,755		3,668,755	3,668,755		3,668,755
Reid-SII(Gross)		2,408,893	2,408,893		2,408,893	2,408,893		2,408,893	2,408,893
Reid-SII(Net)		1,678,650	1,678,650		1,678,650	1,678,650		1,678,650	1,678,650
<b>Total(Gross)</b>	3,668,755	2,408,893	6,077,648	3,668,755	2,408,893	6,077,648	3,668,755	2,408,893	6,077,648
<b>Total(Net)</b>	3,668,755	1,678,650	5,347,405	3,668,755	1,678,650	5,347,405	3,668,755	1,678,650	5,347,405
<b>\$/Mwh(Gross)</b>	3.22	4.83	3.86	3.14	4.04	3.50	6.36	8.86	7.35
<b>\$/Mwh(Net)</b>	3.20	5.19	3.82	3.07	4.38	3.48	6.26	9.57	7.30

# Big Rivers Electric Cooperative

## Green Station

### 2009 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor	Labor	Total O&M
<b>Operations</b>			
<b>Outage</b>	\$ 428,000	\$ -	\$ 428,000
G-2 (B/O - 792 hours)	428,000		428,000
<b>Non-Outage</b>	<b>1,954,987</b>	<b>7,264,289</b>	<b>9,219,276</b>
Operations	403,619	5,790,006	6,193,625
Fuel Handling	583,520	808,927	1,392,447
Laboratory	684,455	358,065	1,042,520
Administrative	283,393	307,292	590,685
<b>Total Operations</b>	<b>\$ 2,382,987</b>	<b>\$ 7,264,289</b>	<b>\$ 9,647,276</b>
<b>Maintenance</b>			
<b>Outage</b>	\$ 3,190,900	\$ -	\$ 3,190,900
G-1 Unplanned Outages	563,000		563,000
G-2 Unplanned Outages	90,000		90,000
G-2 (B/O - 792 hours)	2,537,900		2,537,900
<b>Non-Outage</b>	<b>6,244,625</b>	<b>4,265,684</b>	<b>10,510,309</b>
Maintenance Dept	5,643,745	4,265,684	9,909,429
Fuels Dept	508,760		508,760
Central Machine Shop	92,120		92,120
<b>Total Maintenance</b>	<b>\$ 9,435,525</b>	<b>\$ 4,265,684</b>	<b>\$ 13,701,209</b>
<b>Green Grand Total (Gross)</b>	<b>\$ 11,818,512</b>	<b>\$ 11,529,973</b>	<b>\$ 23,348,485</b>
<b>HMPL Allocation</b>	(84,708)	(281,176)	(365,884)
<b>Green Grand Total (Net)</b>	<b>\$ 11,733,804</b>	<b>\$ 11,248,797</b>	<b>\$ 22,982,601</b>
<b>Green Station Generation</b>			
Green(Gross)	3,668,755	3,668,755	3,668,755
Green(Net)	3,668,755	3,668,755	3,668,755
<b>\$/MwH(Gross)</b>	3.22	3.14	6.36
<b>\$/MwH(Net)</b>	3.20	3.07	6.26

# Big Rivers Electric Cooperative

## Reid/Station Two

### 2009 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor	Labor	Total O&M
<b>Operations</b>			
<b>Outage</b>	\$ 232,000	\$ -	\$ 232,000
H-1 (B/O, CCS - 744 hours)	232,000		232,000
<b>Non-Outage</b>	<b>2,760,210</b>	<b>5,883,768</b>	<b>8,643,978</b>
Operations	1,742,966	4,217,093	5,960,059
Fuel Handling	526,955	1,122,292	1,649,247
Laboratory	254,930	292,962	547,892
Administrative	235,359	251,421	486,780
<b>Total Operations</b>	<b>\$ 2,992,210</b>	<b>\$ 5,883,768</b>	<b>\$ 8,875,978</b>
<b>Maintenance</b>			
<b>Outage</b>	\$ 3,276,070	\$ -	\$ 3,276,070
H-1 Unplanned Outages	70,000		70,000
H-2 Unplanned Outages	360,000		360,000
R-1 Unplanned Outages	210,000		210,000
H-1 (B/O, CCS - 744 hours)	2,636,070		2,636,070
<b>Non-Outage</b>	<b>5,358,670</b>	<b>3,838,142</b>	<b>9,196,812</b>
Maintenance Dept	5,175,670	3,478,619	8,654,289
Fuel Handling	183,000		183,000
Central Machine Shop		359,523	359,523
<b>Total Maintenance</b>	<b>\$ 8,634,740</b>	<b>\$ 3,838,142</b>	<b>\$ 12,472,882</b>
<b>Reid Station II Grand Total(Gross)</b>	<b>\$ 11,626,950</b>	<b>\$ 9,721,910</b>	<b>\$ 21,348,860</b>
<b>HMPL Allocation</b>	(2,910,274)	(2,371,368)	(5,281,642)
<b>Reid Station II Grand Total(Net)</b>	<b>\$ 8,716,676</b>	<b>\$ 7,350,542</b>	<b>\$ 16,067,218</b>
<b>Reid Station II Generation</b>			
Reid-SII(Gross)	2,408,893	2,408,893	2,408,893
Reid-SII(Net)	1,678,650	1,678,650	1,678,650
<b>\$/MwH(Gross)</b>	<b>4.83</b>	<b>4.04</b>	<b>8.86</b>
<b>\$/MwH(Net)</b>	<b>5.19</b>	<b>4.38</b>	<b>9.57</b>



# Green Station Non-Labor Budget

2009

Number	Description	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	TOTAL
GNMPAS Total	GNM Air System	4,650	4,650	4,650	4,650	4,650	23,650	4,650	15,150	15,150	4,650	23,650	4,650	114,800
GNMASH Total	GNM Ash Handling	9,300	9,300	29,300	9,100	59,300	30,300	59,300	9,300	29,300	9,300	9,000	9,000	271,800
GNMSGU Total	GNM Bollers & Burners	28,217	23,217	24,017	26,717	25,217	25,217	30,217	25,217	25,217	29,217	21,717	24,217	308,400
GNMFOS Total	GNM Fuel Oil System	500	500	700	500	500	700	500	500	700	500	500	700	6,800
GNMSGURBN Total	GNM OFA Reburn Maintenance	0	0	0	17,400	1,400	1,400	1,400	1,400	1,400	16,000	0	0	40,400
GNMCDS Total	GNM Condensate System	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
GNMDWS Total	GNM Demineralized Water System	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	21,000
GNMBFW Total	GNM Boller Feedwater System	1,000	1,000	2,750	2,750	1,250	16,500	1,250	1,250	1,250	16,250	1,250	1,500	48,000
GNMSGUFDE Total	GNM Fans/Draft Equipment	6,500	3,000	4,100	3,000	6,500	4,600	4,100	3,000	6,500	3,000	3,500	27,000	74,800
GNMFPS Total	GNM Fire Protection System	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
GNMPST Total	GNM Plant Struct/Improve	5,225	4,900	5,225	4,900	5,225	4,900	14,900	4,900	4,900	15,225	5,225	4,900	80,425
GNMPFF Total	GNM Plant Freeze Protection	13,180	2,520	2,520	2,010	2,520	2,520	2,520	2,520	12,520	12,520	11,810	11,810	78,970
GNMCWS Total	GNM Circ Water System	6,000	28,000	6,000	20,000	24,000	6,000	6,000	6,000	6,000	28,000	5,000	5,000	146,000
GNMCW Total	GNM Cooling Water System	1,000	1,000	3,500	1,000	1,000	3,500	1,000	1,000	1,000	1,000	1,000	1,000	17,000
GNMCSM Total	GNM Consummables	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	402,000
GNMMPBBPL Total	GNM Plant Lubrication	4,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	18,600
GNMFGD Total	GNM Flue Gas Desulfurization	18,100	32,700	28,500	27,500	58,600	34,100	20,600	24,600	40,600	44,000	28,100	18,100	373,500
GNMWWWS Total	GNM Waste Water Treatment	750	750	750	2,250	750	750	750	750	750	400	1,000	750	10,400
GNMSGUFPE Total	GNM Mills & Feeders	34,200	34,200	34,200	57,400	34,200	15,000	15,000	15,000	15,000	34,200	72,600	15,000	376,000
GNMTR Total	GNM Tool Room	5,000	7,500	5,600	7,500	6,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	66,600
GNMGEU Total	GNM General Use Equipment	2,000	4,000	2,000	2,000	2,000	3,500	2,000	3,500	5,000	2,000	2,000	2,000	32,000
GNMPWS Total	GNM Potable Water System	500	500	500	425	500	500	500	500	500	500	425	425	5,775
GNMPLS Total	GNM Plant Lighting System	5,700	5,350	5,400	5,750	5,400	5,550	5,600	5,550	5,700	5,750	5,400	5,450	66,600
GNMOHC Total	GNM Overhead Cranes/Hoists	4,000	18,400	0	0	0	8,400	0	0	4,000	18,400	0	0	53,200
GNMPCM Total	GNM Plant Communications	3,700	3,900	3,700	3,900	19,700	3,900	3,700	3,900	3,700	14,900	3,700	3,900	72,600
GNMHVC Total	GNM HVAC Equipment	3,870	11,370	3,870	3,410	3,870	3,870	3,870	3,870	3,890	3,890	3,470	3,890	53,140
GNMEL Total	GNM Elevators	3,785	3,785	3,785	3,785	3,785	3,785	3,785	3,785	3,785	3,785	3,785	3,785	45,420
GNMPCS Total	GNM Plant Controls/Computer System	9,633	7,533	7,533	37,533	7,533	7,533	7,533	7,533	37,533	7,533	7,533	7,533	152,500
GNMRID Total	GNM Recording/Indicating Devices	875	875	875	875	875	875	875	875	875	875	875	875	10,500
GNMIBBIC Total	GNM Instrument Calibration	500	500	500	500	500	500	500	500	500	500	500	500	6,000
GNMENV Total	GNM CEM	5,420	5,420	5,120	6,010	5,420	6,620	5,420	6,620	5,420	5,420	4,810	5,420	67,120
GNMSGUPCP Total	GNM Precipitators	1,500	2,500	1,000	6,500	17,500	1,500	1,000	1,500	6,500	1,500	16,000	1,500	58,500
GNMEDT Total	GNM Electrical Distribution	400	12,900	5,900	10,400	30,400	12,900	5,900	10,400	6,900	12,900	400	200	109,600
GNMTGN Total	GNM Turbine/Generator	4,000	4,000	4,000	4,000	6,000	4,000	4,000	4,000	4,000	6,000	4,000	4,000	52,000
GNMCHS Total	GNM Coal Handling System	16,110	19,210	36,120	21,350	79,620	43,310	65,710	45,110	21,110	19,110	30,450	14,950	412,160
GNMCHSBUX Total	GNM G/S/II Barge Unloading Sys	4,500	4,500	28,500	3,000	4,500	9,500	4,500	4,500	9,500	7,500	3,000	8,000	91,500
GNMFGX Total	GNM G/S/II Limestone Processing	500	770	6,000	320	4,500	12,500	1,500	1,000	1,000	6,000	180	180	34,450
GNMSTFGD Total	GNM G/S/II Limestone Grinding	3,200	3,200	2,400	5,600	6,700	41,600	37,100	33,200	2,100	3,200	1,850	2,400	142,550
GNMFGDLSE Total	GNM LimeStone Grinding-Non-shared	6,900	6,900	9,600	8,400	12,700	6,900	11,200	3,200	6,900	6,900	2,700	2,700	85,000
GNMCWSINT Total	GNM Screenwell	500	500	500	500	500	500	500	500	500	500	500	500	6,000
GNMSWY Total	GNM G/S/II Solid Waste Disposal	21,900	36,700	55,400	48,300	49,900	52,500	81,800	31,200	57,500	30,700	27,900	24,700	518,500
GNENGPST Total	GN ENGINEER Buildings & Grounds	0	0	0	0	0	0	0	30,000	0	0	0	0	30,000
GNMMEX Total	GNM G/S/II Mobile Fuels Equipment	15,200	125,200	15,200	15,200	15,200	65,200	15,200	15,200	15,200	15,200	15,200	15,200	342,400
GNMMEQ Total	GNM R/G/S/II Mobile Fuels Equip	9,980	10,580	10,580	10,580	10,580	50,580	10,580	10,580	10,580	10,580	10,580	10,580	166,360
GNOCHMEQ Total	GNO Diesel Fuel	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	264,000
GNOCHSBUX Total	GNO Barge Unloader	0	0	15,000	0	15,000	0	60,000	55,000	0	15,000	0	0	160,000
GNCHCSM Total	GNO Consummables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
GNCHTR Total	GNO Tool Room	700	700	700	700	700	700	700	700	700	700	700	700	8,400
GNCHPST Total	GNO Buildings & Grounds	5,060	5,060	5,060	7,460	7,460	17,460	7,460	7,460	7,460	2,060	2,060	5,060	79,120
GNCHOIS Total	GN Outside Industrial Service	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
GNOSGU Total	GNO Bollers & Burners	58,000	28,000	18,500	18,598	18,000	38,000	48,000	18,000	18,500	37,998	18,000	18,000	337,600
GNOPST Total	GNO Buildings & Grounds	11,375	14,375	15,375	12,150	10,375	16,500	42,875	10,375	10,375	11,350	10,395	10,395	175,915
GNOCSM Total	GNO Consummables	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	39,600

## Green Station Non-Labor Budget

2009

Number	Description	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	TOTAL
GNOTR Total	GNO Tool Room	0	0	2,000	0	0	0	1,500	0	2,000	0	0	0	5,500
GNOTGN Total	GNO Turbine Generator	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	5,800	3,800	3,800	47,600
GNOMEQCVH Total	GNO Vehicles	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	4,600	55,200
GNOIS Total	GN Outside Industrial Service	12,500	12,500	12,500	16,972	16,972	14,736	14,736	14,736	12,500	14,736	14,736	14,736	172,360
GNOLDF Total	GNO Landfill	0	0	0	8,000	6,250	2,500	500	4,750	11,500	0	0	0	33,500
GNOUTL Total	GNO Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
GNOFGD Total	GNO Flue Gas Desulfurization	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(38,638)	(463,656)
GNOADM Total	GNO Administrative	22,688	22,202	25,288	26,513	22,158	26,818	23,569	22,638	24,703	22,538	22,139	22,139	283,393
GNOLAB Total	GNO Laboratory	45,148	64,508	45,648	58,948	48,772	37,602	67,422	37,802	51,082	31,877	52,078	58,568	599,455
GNDREDGE Total	GN Dredging Green Ash Pond	0	0	0	0	0	85,000	0	0	0	0	0	0	85,000
GNCMS Total	GN Central Machine Shop	12,260	8,160	7,260	6,960	6,960	6,960	7,260	8,160	6,960	7,260	6,960	6,960	92,120
GNMMBBMT Total	GNM Training	1,600	19,400	3,100	42,800	13,700	17,700	31,400	5,100	32,700	1,200	3,300	2,400	174,400
GN109xxx Total	Green 1 Major Initiatives	17,056	17,056	257,056	17,056	17,056	17,056	17,056	17,056	17,056	17,056	17,056	17,056	444,678
GN209xxx Total	Green 2 Major Initiatives	15,471	15,471	15,471	255,471	15,471	15,471	15,471	15,471	15,471	15,471	15,471	15,471	425,658
GN109USO Total	Green 1 Unscheduled Outages	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	400,000
GN209USO Total	Green 2 Unscheduled Outages	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500	90,000
GN109FPO Total	Green 1 Fall Planned Outage (Ops)	0	0	0	0	0	0	0	0	0	0	163,000	0	163,000
GN209SPO Total	Green 2 Spring Planned Outage (Ops)	0	0	50,000	378,000	0	0	0	0	0	0	0	0	428,000
GN209SPN Total	Green 2 Spring Planned Outage (Mtc)	0	0	66,150	19,750	0	0	0	0	0	0	0	0	85,900
GN209SPG Total	Green 2 Spring Planned Outage (Mtc)	0	0	825,750	367,250	60,000	0	0	0	0	0	0	0	1,253,000
GN209SPS Total	Green 2 Spring Planned Outage (Mtc)	0	0	530,000	141,000	0	0	0	0	0	0	0	0	671,000
GN209SPT Total	Green 2 Spring Planned Outage (Mtc)	0	0	435,750	92,250	0	0	0	0	0	0	0	0	528,000
Total 2009 Green Non-Labor O&M (Gross)		544,800	730,909	2,770,550	1,936,540	859,316	898,310	859,556	641,505	670,634	663,798	742,152	500,447	11,818,512
HMPL Allocation		3,118	4,953	7,771	6,604	7,442	12,983	14,664	7,965	7,381	4,860	3,645	3,323	84,708
Total 2009 Green Non-Labor O&M (Net)		541,682	725,955	2,762,779	1,929,936	851,874	885,326	844,891	633,539	663,253	658,938	738,506	497,124	11,733,804

## Reid/Station Two

### 2009 O&M Non-Labor Budget (Gross)

Number	Description	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	GROSS TOTAL
RD109USO Total	R1 - Unscheduled Outages	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	17,500	210,000
RD109xxx Total	R1 - Major Initiatives	0	0	0	0	0	0	80,000	0	0	0	0	0	80,000
RD109ASIL Total	R1 - Rebuild "A" Silo Sump Pump	0	0	0	18,000	0	0	0	0	0	0	0	0	18,000
RD109xxx Total	R1 - Major Initiatives	0	0	371,315	0	0	19,500	15,000	10,000	19,500	0	0	0	435,315
RDMAIR Total	RDM Air System	5,000	3,420	5,000	40,150	4,270	4,290	1,830	5,800	4,350	3,520	3,920	950	82,500
RDMASH Total	RDM Ash Handling	6,250	5,300	3,954	6,750	755	12,960	5,880	3,435	8,166	3,450	10,200	4,400	71,500
RDMBFW Total	RDM Feedwater System	1,400	2,200	1,200	1,550	200	400	400	300	850	900	1,200	1,400	12,000
RDMCDS Total	RDM Condensate System	1,000	1,250	1,000	1,600	600	700	600	500	850	1,500	1,500	1,100	12,200
RDMCHS Total	RDM Fuel Feed: Fuel Conveying System	11,400	30,320	22,800	42,620	25,420	41,020	27,420	35,520	27,320	28,880	17,400	23,420	333,540
RDMCHSBUS Total	RDM Fuel Handling:Coal Unloading Barge	4,000	3,500	14,750	4,500	7,000	14,250	12,500	10,100	4,000	7,800	15,400	5,000	102,800
RDMCW Total	RDM Cooling Water System	400	350	125	400	200	150	330	400	350	150	170	0	3,025
RDMCWS Total	RDM Circulating Water/Cooling Towers	1,000	1,000	1,000	1,000	1,900	1,350	1,400	1,450	600	1,700	0	1,700	14,100
RDMCWSINT Total	RDM Screenwell Maintenance	2,500	7,050	13,500	12,000	2,800	1,800	5,400	4,300	3,550	1,600	2,500	4,000	61,000
RDMDWS Total	RDM Demineralized Water System	900	1,300	1,500	1,000	1,800	800	900	1,000	400	1,800	1,300	1,300	14,000
RDMEDGT Total	RDM Combustion Turbine-Electrical Distributio	400	400	800	300	500	900	500	500	400	0	600	300	5,600
RDMEDT Total	RDM Switchgear/Bus	250	1,300	450	150	1,400	6,000	300	7,700	6,000	200	500	100	24,350
RDMEL Total	RDM Bldgs & Grounds: Elevators	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,925	46,550
RDMENV Total	RDM Emission Controls: CEM	3,500	1,570	2,100	2,550	820	1,050	600	900	1,700	4,200	3,100	1,910	24,000
RDMFOS Total	RDM Fuel Oil System	900	600	400	800	650	665	575	500	210	700	500	900	7,400
RDMFPS Total	RDM Fire Protection	400	1,200	1,200	2,700	650	1,800	200	700	1,100	2,800	800	800	14,350
RDMFSPGT Total	RDM Combustion Turbine-Fire Protection	1,000	450	600	500	500	200	600	400	200	400	3,000	200	8,050
RDMGEU Total	RDM General Use Equipment	3,200	1,700	2,700	1,700	3,200	2,700	2,200	1,200	3,200	1,700	1,200	2,700	27,400
RDMGT Total	RDM Combustion Turbine	0	1,000	7,000	3,200	2,000	0	1,000	0	3,000	17,700	61,100	1,000	97,000
RDMHVC Total	RDM Bldgs & Grounds: HVAC	580	3,980	1,980	3,680	2,680	3,460	5,075	3,600	5,050	340	3,260	2,040	35,725
RDMMBBLU Total	RDM Plant Lubrication	3,000	3,000	3,000	3,000	3,000	3,500	3,500	3,000	3,000	3,000	3,000	3,000	37,000
RDMMBBMT Total	RDM Maintenance Training	1,250	3,250	1,250	1,250	1,250	24,250	6,250	3,250	1,250	1,250	3,250	1,250	49,000
RDMMEQ Total	RDM Non-Fuels Equipment	600	600	600	600	600	600	600	600	600	600	600	600	7,200
RDMMEQCLE Total	RDM Mobile Fuels Equipment	6,900	6,900	6,900	6,900	59,900	6,900	6,900	6,900	6,900	46,900	6,900	6,900	175,800
RDMOHC Total	RDM Overhead Cranes & Hoists	3,000	600	3,000	1,900	0	5,500	2,000	400	3,700	800	1,000	0	21,900
RDMPCM Total	RDM Plant Communications	1,350	1,800	1,000	1,850	1,500	1,600	1,700	1,950	1,600	2,200	1,500	1,250	19,300
RDMPCS Total	RDM Controls/Computer Systems	1,000	1,000	16,000	500	1,000	1,100	1,000	1,000	500	1,100	1,000	500	25,700
RDMPPF Total	RDM Bldgs & Grounds:Winterization	1,510	1,000	600	500	500	0	0	410	1,050	15,410	410	610	22,000
RDMPLS Total	RDM Plant Lighting System	2,800	4,850	1,350	9,850	5,650	5,000	2,550	10,000	5,750	6,400	2,000	1,550	57,750
RDMPST Total	RDM Bldgs & Grounds Site Mtce/Improvements	4,850	5,750	3,950	4,450	3,700	3,100	6,700	1,400	2,200	1,950	3,350	2,600	44,000
RMPVE Total	RDM Vehicles	4,650	4,500	4,400	5,500	4,650	6,300	4,450	4,050	5,450	5,600	5,100	3,350	58,000
RMPWS Total	RDM Potable Water System	800	350	370	500	1,100	620	900	450	500	850	450	600	7,490
RDMRID Total	RDM Recording/Indicating Devices	1,000	1,500	750	600	225	450	740	450	180	900	1,000	500	8,295
RDMSGU Total	RDM Boilers & Burners	10,300	12,500	11,300	6,800	2,580	3,350	4,790	3,900	2,850	12,800	12,500	9,200	92,570
RDMSGUFDE Total	RDM Fans/Draft System	1,500	3,400	1,600	3,600	750	1,000	2,550	1,100	1,900	600	2,500	5,500	26,000
RDMSGUFPE Total	RDM Fuel Feed: Mills and Feeders	2,500	5,800	2,500	6,400	600	2,700	1,000	1,400	500	5,100	1,400	2,150	32,050
RDMSGUPCP Total	RDM Emission Controls:Precipitators	500	500	5,800	500	700	1,100	1,500	500	1,100	200	200	700	13,300
RDMTGN Total	RDM Turbine/Generator	2,500	2,500	2,600	1,750	700	850	1,100	800	1,100	1,750	2,100	2,250	20,000
RDMWTS Total	RDM Bldgs & Grounds: Sumps	3,250	1,650	8,050	4,250	1,050	5,150	15,150	9,450	3,650	4,050	1,250	3,150	60,100
RDMWWS Total	RDM Effluent Control(Waste Water Treatment)	750	13,000	750	1,000	750	1,000	750	1,000	750	1,000	750	1,000	22,500
RDOSGUFPE Total	RDO Mills and Feeders	5,000	5,000	5,000	5,000	0	0	0	0	0	5,000	5,000	5,000	35,000
GT09STKLR Total	GT - Stack Liner Replacement	0	0	0	0	0	0	0	0	0	0	0	0	0
ST09DGB Total	H0 - Turbine Crane Drive Gear Box	0	0	0	0	0	0	0	0	0	30,000	0	0	30,000
RH09BUBP Total	RH - Barge Unloader Bumper Pad	0	0	0	0	0	0	0	0	0	0	0	0	0

## Reid/Station Two

### 2009 O&M Non-Labor Budget (Gross)

Number	Description	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	GROSS TOTAL
ST109AMIL Total	H1 - OH "B" Mill Gear Box	0	80,000	0	0	0	0	0	0	0	0	0	0	80,000
ST109ASHB Total	H1 - Overhaul "B" Ash Sluice Pump	0	0	0	0	0	0	0	30,000	0	0	0	0	30,000
ST109MFSR Total	H1 - Rebuild "B" Mass Flow/Screw Feeder	0	0	150,000	0	0	0	0	0	0	0	0	0	150,000
ST109SPG Total	H1 - Planned Outage (General)	0	0	2,036,890	0	0	0	0	0	0	0	0	0	2,142,980
ST109SPN Total	H1 - Planned Outage (Nox)	0	0	73,000	0	0	0	0	0	0	0	0	0	73,000
ST109SPO Total	H1 - Planned Outage (Ops)	0	0	232,000	0	0	0	0	0	0	0	0	0	232,000
ST109SPS Total	H1 - Planned Outage (Scrubber)	0	0	202,260	0	0	0	0	0	0	0	0	0	202,260
ST109SPT Total	H1 - Planned Outage (Turbine)	0	0	192,830	0	0	0	0	0	20,000	0	5,000	0	217,830
ST109USO Total	H1 - Unscheduled Outages	7,000	7,000	0	0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	70,000
ST209ASHC Total	H2 - Rebuild "C" Ash Sluice Pump	0	0	0	0	0	0	30,000	0	0	0	0	0	30,000
ST209USO Total	H2 - Unscheduled Outages	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	360,000
STCHCSM Total	FH Consumables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
STCHOIS Total	FH Outside Industrial Svc	5,500	5,500	5,500	5,500	5,500	6,785	6,785	6,786	6,786	6,786	6,786	6,786	75,000
STCHPST Total	FH Buildings & Grounds	6,750	6,750	3,750	6,900	6,150	10,465	5,465	5,465	5,465	2,465	2,465	5,465	67,550
STCHTR Total	FH Tool Room	700	700	700	700	700	700	700	700	700	700	700	700	8,400
STDREDGE Total	ST Dredging Ash Ponds	0	0	0	0	0	15,000	0	0	10,000	0	0	0	25,000
STMASH Total	STM Ash Handling	16,100	43,800	15,450	18,050	3,450	19,300	16,700	37,150	13,600	16,350	18,400	10,800	229,150
STMBFW Total	STM Feedwater System	5,000	5,900	9,600	6,700	4,500	6,000	5,200	5,200	7,000	7,000	7,900	5,500	75,500
STMCDSTotal	STM Condensate System	1,900	1,200	1,600	1,650	1,700	1,500	1,625	2,175	10,600	2,050	2,250	1,250	29,500
STMCHS Total	STM Fuel Feed: Fuel Conveying System	3,975	6,200	6,175	6,275	9,075	6,175	8,900	7,475	7,875	5,525	3,550	7,025	78,225
STMCSM Total	STM Consumables	18,670	16,920	16,420	18,820	16,920	19,620	17,620	21,570	23,320	19,320	22,320	17,320	228,840
STMCMW Total	STM Cooling Water System	1,000	700	950	1,000	1,500	1,700	1,500	1,150	750	700	1,150	1,500	13,600
STMCMWS Total	STM Circulating Water/Cooling Towers	5,400	4,550	6,650	6,350	6,700	8,050	5,550	5,550	6,000	15,900	5,200	5,200	81,100
STMEDT Total	STM Switchgear/Bus	1,400	7,900	7,500	2,400	6,500	6,700	7,850	450	8,250	1,200	12,400	1,200	63,750
STMEL Total	STM Bldgs & Grounds: Elevators	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	3,875	46,550
STMELVSTotal	STM Emission Controls:CEM	8,150	7,900	9,900	6,550	16,050	6,250	9,550	7,300	7,250	13,900	6,250	7,450	106,500
STMFGD Total	STM Emission Controls: Scrubbers	7,250	7,800	22,700	10,450	6,650	14,225	2,900	5,700	12,300	9,675	13,100	2,200	114,950
STMFGX Total	STM Limestone Grinding/Processing	4,888	14,588	21,388	18,188	12,988	11,988	10,688	8,688	7,189	13,189	10,189	6,189	140,160
STMFGXMEW Total	STM Emission Controls: SDRS Mist Eliminator	0	1,500	4,300	500	0	3,100	800	2,000	2,000	500	2,000	900	17,600
STMFGXPWS Total	STM Emission Controls:SDRS Potable Water	400	200	100	200	500	200	100	200	100	200	100	500	2,800
STMFGXSAB Total	STM Emission Controls:SDRS Absorber Bldg	1,500	5,000	1,000	1,500	2,500	1,000	3,100	1,300	1,500	1,500	2,400	1,200	23,500
STMFGXSBB Total	STM Emission Controls:SDRS Scrubber Bldg	100	150	100	150	100	150	700	150	150	150	150	250	2,300
STMFGXSTK Total	STM Emission Controls:SDRS Scrubber Stack	500	0	1,000	400	0	1,400	0	500	1,700	500	700	700	7,400
STMFGXTRW Total	STM Emission Controls:SDRS Thickener Return	750	750	750	4,750	900	7,750	800	750	1,050	750	1,150	750	20,900
STMFOS Total	STM Fuel Oil System	1,100	900	1,200	850	650	1,300	1,100	1,200	800	400	800	1,300	11,600
STMFPS Total	STM Fire Protection	1,000	1,000	3,500	1,500	3,000	1,000	1,500	1,500	2,500	1,000	3,500	1,000	22,000
STMHVC Total	STM Bldgs & Grounds:HVAC	1,200	3,630	3,750	3,750	5,750	5,760	6,275	4,250	4,100	2,050	5,000	2,285	47,800
STMOHC Total	STM Overhead Cranes & Hoists	0	2,500	3,600	4,000	0	1,000	0	0	4,000	1,600	1,500	1,000	19,200
STMPAS Total	STM Air System	13,660	3,590	3,050	2,100	18,500	3,100	2,750	3,050	3,300	3,650	1,950	2,800	61,500
STMPCM Total	STM Plant Communications	1,600	1,600	1,800	1,500	1,950	2,150	2,300	1,800	1,800	1,000	2,100	1,300	20,900
STMPCS Total	STM Plant Controls	1,800	2,000	1,900	1,700	1,800	1,800	1,000	1,200	1,900	2,000	1,300	1,300	19,700
STMPLC Total	STM Controls/Computer Systems	3,100	3,800	161,085	4,900	3,500	17,850	2,800	4,250	2,800	3,000	3,500	2,750	213,335
STMPLS Total	STM Plant Lighting System	11,800	8,200	12,850	12,250	15,350	7,250	8,000	8,700	11,450	14,750	10,500	9,000	130,100
STMPWS Total	STM Service Water System	100	100	100	100	100	100	100	100	100	100	100	100	1,200
STMRID Total	STM Recording/Indicating Devices	900	1,150	3,350	1,800	500	0	500	1,000	1,500	1,500	1,500	0	13,700
STMSCR Total	STM Nox Reduction-SCR Maintenance	7,000	3,000	30,200	41,500	3,000	5,000	3,000	22,200	10,680	8,100	2,000	2,000	137,680
STMSTGU Total	STM Boilers & Burners	38,650	39,800	31,050	31,050	41,050	27,500	28,600	31,075	26,725	30,800	33,200	29,100	388,600
STMSTGUFDE Total	STM Fans/Draft System	1,000	4,750	6,250	5,500	4,000	8,500	3,200	3,500	7,350	2,600	3,700	1,600	51,950

## Reid/Station Two

### 2009 O&M Non-Labor Budget (Gross)

Number	Description	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	GROSS TOTAL
STMSGUFPE Total	STM Fuel Feed: Mills and Feeders	6,100	8,250	12,500	9,500	5,500	7,400	6,000	4,500	9,000	7,000	8,500	3,900	88,150
STMSGUPRP Total	STM Emission Controls: Precipitators	4,000	6,500	7,000	4,000	8,000	6,000	5,500	5,000	6,500	5,000	3,500	500	61,500
STMTGN Total	STM Turbine/Generator	4,000	5,000	3,100	4,750	3,500	3,500	5,400	4,600	4,150	5,500	4,000	3,000	50,500
STMTGNDGS Total	STM Diesel/Generator	100	70	0	600	200	0	200	500	0	1,500	0	800	3,970
STMTR Total	STM Tool Room	3,500	3,400	4,050	3,250	3,600	4,000	4,700	6,000	5,500	4,500	5,500	4,500	52,500
STMWWS Total	STM Effluent Control(Waste Water Treatment)	500	400	350	400	500	400	500	400	500	400	350	400	5,100
STOADM Total	STO Administrative	17,112	17,112	22,262	22,162	17,112	24,432	18,282	22,362	20,012	20,262	17,112	17,137	235,359
STOCHSBUS Total	FH Coal Unloading Barge	0	0	12,000	0	12,000	0	37,000	50,000	25,000	12,000	0	0	148,000
STOCSM Total	STO Consummables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
STOFGD Total	STO HMPL FGD Shared Equipment	38,638	38,638	38,638	38,638	38,638	38,638	38,638	38,638	38,638	38,638	38,638	38,638	463,656
STOIS Total	STO Outside Industrial Svc	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	13,000	156,000
STOLAB Total	STO Laboratory	13,050	15,350	30,400	18,750	22,300	33,700	13,200	15,450	36,880	16,250	15,900	23,700	254,930
STOMEQ Total	FH Mobile Fuels Equipment	8,600	8,600	8,600	8,600	8,600	24,715	24,715	24,715	24,715	24,715	24,715	24,715	216,005
STOMEQCVH Total	STO Vehicles (Mtc, Gas, Oil)	3,300	3,300	3,300	3,300	3,300	5,015	5,015	5,015	5,015	5,015	5,015	5,015	51,605
STOPST Total	STO Buildings & Grounds	11,640	14,640	11,640	19,595	10,595	12,195	12,195	35,695	10,695	10,695	19,695	12,025	181,305
STOSCR Total	STO SCR Operation	6,250	6,250	30,250	6,250	6,250	126,250	6,250	6,250	6,250	82,250	84,250	6,250	373,000
STOSGU Total	STO Boilers and Burners	27,000	33,000	25,500	0	19,200	42,000	18,000	0	27,800	33,000	18,000	0	243,500
STOSGUFPE Total	STO Mills and Feeders	13,500	13,500	13,500	7,000	13,500	13,500	13,500	13,500	13,500	13,500	13,500	13,500	155,500
STOTGN Total	STO Turbine/Generator	5,330	5,330	5,340	5,330	5,330	5,340	5,330	5,330	5,340	5,330	5,330	5,340	64,000
STOTR Total	STO Tool Room	0	0	2,550	0	1,000	0	1,500	0	350	1,000	0	1,000	7,400
Grand Total		515,803	697,958	4,227,662	663,458	605,458	842,768	717,673	659,604	715,011	781,515	718,975	481,065	11,626,950
Total 2009 Budget		515,803	697,958	4,192,299	663,458	605,458	842,768	717,673	659,604	715,011	781,515	718,975	481,065	11,626,950
HMPL Allocation		122,850	170,218	1,129,166	162,991	152,845	211,799	156,156	161,469	175,743	188,794	164,403	113,838	2,910,274
BREC Share		392,953	527,740	3,063,133	500,467	452,613	630,969	561,517	498,135	539,268	592,721	554,572	367,227	8,716,676



# Big Rivers Electric Cooperative

## Sebree Station

### 2010 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor			Labor			Total O&M		
	Green	Reid/SII	Total Sebree	Green	Reid/SII	Total Sebree	Green	Reid/SII	Total Sebree
<b>Operations</b>									
<b>Outage</b>	\$ 378,000	\$ 162,000	\$ 540,000	\$ -	\$ -	\$ -	\$ 378,000	\$ 162,000	\$ 540,000
H-2 (B/O, CC, TV, DCS - 768 hours)		162,000	162,000					162,000	162,000
G-1 (B/O, TV - 672 hours)	378,000		378,000				378,000		378,000
<b>Non-Outage</b>	2,009,195	2,763,645	4,772,840	7,574,795	6,060,281	13,635,076	9,583,990	8,823,926	18,407,916
Operations	409,427	1,724,988	2,134,415	6,056,283	4,343,606	10,399,889	6,465,710	6,068,594	12,534,304
Fuel Handling	583,520	535,925	1,119,445	833,194	1,155,961	1,989,155	1,416,714	1,691,886	3,108,600
Laboratory	724,455	268,530	992,985	368,807	301,751	670,558	1,093,262	570,281	1,663,543
Administrative	291,793	234,202	525,995	316,511	258,963	575,474	608,304	493,165	1,101,469
<b>Total Operations</b>	\$ 2,387,195	\$ 2,925,645	\$ 5,312,840	\$ 7,574,795	\$ 6,060,281	\$ 13,635,076	\$ 9,961,990	\$ 8,985,926	\$ 18,947,916
<b>Maintenance</b>									
<b>Outage</b>	\$ 4,201,149	\$ 2,862,687	\$ 7,063,836	\$ -	\$ -	\$ -	\$ 4,201,149	\$ 2,862,687	\$ 7,063,836
H-1 Unplanned Outages		360,000	360,000					360,000	360,000
H-2 Unplanned Outages		70,000	70,000					70,000	70,000
R-1 Unplanned Outages		-	-					-	-
H-2 (B/O, CC, TV, DCS - 768 hours)		2,432,687	2,432,687					2,432,687	2,432,687
G-1 (B/O, TV - 672 hours)	3,511,390		3,511,390				3,511,390		3,511,390
G-1 Unplanned Outages	96,750		96,750				96,750		96,750
G-2 Unplanned Outages	593,009		593,009				593,009		593,009
<b>Non-Outage</b>	6,863,029	6,446,814	13,309,843	4,486,232	4,045,864	8,532,095	11,349,260	10,492,678	21,841,938
Maintenance Dept	6,176,149	6,293,514	12,469,663	4,486,232	3,675,555	8,161,787	10,662,380	9,969,069	20,631,449
Fuels Dept	594,760	153,300	748,060	-	-	-	594,760	153,300	748,060
Central Machine Shop	92,120	-	92,120	-	370,309	370,309	92,120	370,309	462,429
<b>Total Maintenance</b>	\$ 11,064,177	\$ 9,309,501	\$ 20,373,678	\$ 4,486,232	\$ 4,045,864	\$ 8,532,095	\$ 15,550,409	\$ 13,355,365	\$ 28,905,774
<b>Sebree Grand Totals (Gross)</b>	\$ 13,451,372	\$ 12,235,146	\$ 25,686,518	\$ 12,061,026	\$ 10,106,145	\$ 22,167,171	\$ 25,512,399	\$ 22,341,291	\$ 47,853,689
<b>HMPL Allocation</b>	(95,833)	(2,875,493)	(2,971,326)	(289,611)	(2,442,509)	(2,732,120)	(385,444)	(5,318,002)	(5,703,446)
<b>Sebree Grand Totals (Net)</b>	\$ 13,355,539	\$ 9,359,653	\$ 22,715,192	\$ 11,771,415	\$ 7,663,636	\$ 19,435,051	\$ 25,126,955	\$ 17,023,289	\$ 42,150,243
<b>Sebree Generation</b>									
Green(Gross)	3,672,767		3,672,767	3,672,767		3,672,767	3,672,767		3,672,767
Green(Net)	3,672,767		3,672,767	3,672,767		3,672,767	3,672,767		3,672,767
Reid-SII(Gross)		2,416,882	2,416,882		2,416,882	2,416,882		2,416,882	2,416,882
Reid-SII(Net)		1,685,963	1,685,963		1,685,963	1,685,963		1,685,963	1,685,963
<b>Total(Gross)</b>	3,672,767	2,416,882	6,089,649	3,672,767	2,416,882	6,089,649	3,672,767	2,416,882	6,089,649
<b>Total(Net)</b>	3,672,767	1,685,963	5,358,730	3,672,767	1,685,963	5,358,730	3,672,767	1,685,963	5,358,730
<b>\$/MwH(Gross)</b>	3.66	5.06	4.22	3.28	4.18	3.64	6.95	9.24	7.86
<b>\$/MwH(Net)</b>	3.64	5.55	4.24	3.21	4.55	3.63	6.84	10.10	7.87

# Big Rivers Electric Cooperative

## Green Station

### 2010 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor	Labor	Total O&M
<b>Operations</b>			
<b>Outage</b>	\$ 378,000	\$ -	\$ 378,000
G-1 (B/O, T/V - 672 hours)	378,000		378,000
<b>Non-Outage</b>	<b>2,009,195</b>	<b>7,574,795</b>	<b>9,583,990</b>
Operations	409,427	6,056,283	6,465,710
Fuel Handling	583,520	833,194	1,416,714
Laboratory	724,455	368,807	1,093,262
Administrative	291,793	316,511	608,304
<b>Total Operations</b>	<b>\$ 2,387,195</b>	<b>\$ 7,574,795</b>	<b>\$ 9,961,990</b>
<b>Maintenance</b>			
<b>Outage</b>	\$ 4,201,149	\$ -	\$ 4,104,399
G-1 (B/O, T/V - 672 hours)	3,511,390		3,511,390
G-1 Unplanned Outages	96,750		
G-2 Unplanned Outages	593,009		593,009
<b>Non-Outage</b>	<b>6,863,029</b>	<b>4,486,232</b>	<b>11,349,260</b>
Maintenance Dept	6,176,149	4,486,232	10,662,380
Fuels Dept	594,760		594,760
Central Machine Shop	92,120		92,120
<b>Total Maintenance</b>	<b>\$ 11,064,177</b>	<b>\$ 4,486,232</b>	<b>\$ 15,453,659</b>
<b>Green Grand Total (Gross)</b>	<b>\$ 13,451,372</b>	<b>\$ 12,061,026</b>	<b>\$ 25,415,649</b>
<b>HMPL Allocation</b>	(95,833)	(289,611)	(385,444)
<b>Green Grand Total (Net)</b>	<b>\$ 13,355,539</b>	<b>\$ 11,771,415</b>	<b>\$ 25,030,205</b>
<b>Green Station Generation</b>			
Green(Gross)	3,672,767	3,672,767	3,672,767
Green(Net)	3,672,767	3,672,767	3,672,767
<b>\$/MwH(Gross)</b>	3.66	3.28	6.92
<b>\$/MwH(Net)</b>	3.64	3.21	6.82



# Big Rivers Electric Cooperative

## Reid/Station Two

### 2010 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor	Labor	Total O&M
<b>Operations</b>			
<b>Outage</b>	\$ 162,000	\$ -	\$ 162,000
H-2 (B/O, CC, TV, DCS - 768 hours)	162,000		162,000
<b>Non-Outage</b>	2,763,645	6,060,281	8,823,926
Operations	1,724,988	4,343,606	6,068,594
Fuel Handling	535,925	1,155,961	1,691,886
Laboratory	268,530	301,751	570,281
Administrative	234,202	258,963	493,165
<b>Total Operations</b>	<b>\$ 2,925,645</b>	<b>\$ 6,060,281</b>	<b>\$ 8,985,926</b>
<b>Maintenance</b>			
<b>Outage</b>	\$ 2,862,687	\$ -	\$ 2,862,687
H-1 Unplanned Outages	360,000		360,000
H-2 Unplanned Outages	70,000		70,000
R-1 Unplanned Outages	-		-
H-2 (B/O, CC, TV, DCS - 768 hours)	2,432,687		2,432,687
<b>Non-Outage</b>	6,446,814	4,045,864	10,492,678
Maintenance Dept	6,293,514	3,675,555	9,969,069
Fuel Handling	153,300		153,300
Central Machine Shop	-	370,309	370,309
<b>Total Maintenance</b>	<b>\$ 9,309,501</b>	<b>\$ 4,045,864</b>	<b>\$ 13,355,365</b>
<b>Reid Station II Grand Total(Gross)</b>	<b>\$ 12,235,146</b>	<b>\$ 10,106,145</b>	<b>\$ 22,341,291</b>
<b>HMPL Allocation</b>	(2,875,493)	(2,442,509)	(5,318,002)
<b>Reid Station II Grand Total(Net)</b>	<b>\$ 9,359,653</b>	<b>\$ 7,663,636</b>	<b>\$ 17,023,289</b>
<b>Reid Station II Generation</b>			
Reid-SII(Gross)	2,416,882	2,416,882	2,416,882
Reid-SII(Net)	1,685,963	1,685,963	1,685,963
<b>\$/MwH(Gross)</b>	5.06	4.18	9.24
<b>\$/MwH(Net)</b>	5.55	4.55	10.10

# Green Station Non-Labor Budget

2010

Number	Description	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	TOTAL
GNMPAS Total	GNM Air System	6,250	6,250	5,250	4,250	5,250	26,050	5,250	12,250	15,750	5,250	25,550	5,250	122,600
GNMASH Total	GNM Ash Handling	9,300	9,300	29,300	31,150	59,300	9,300	99,300	9,300	29,300	9,300	9,000	9,000	312,850
GNMSGU Total	GNM Boilers & Burners	28,932	23,932	41,187	43,932	25,932	25,932	30,932	25,932	25,932	29,887	22,432	24,932	349,890
GNMFOS Total	GNM Fuel Oil System	500	500	700	500	115,500	700	500	500	700	500	500	700	121,800
GNMSGURBN Total	GNM OFA Reburn Maintenance	0	0	0	19,800	1,400	1,400	1,400	1,400	1,400	18,400	0	0	45,200
GNMCDS Total	GNM Condensate System	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
GNMDWS Total	GNM Demineralized Water System	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	21,000
GNMBFW Total	GNM Boiler Feedwater System	1,000	1,000	2,900	2,900	16,250	1,500	1,250	1,250	1,250	16,250	1,250	1,500	48,300
GNMSGUFDE Total	GNM Fans/Draft Equipment	6,575	3,000	4,175	3,000	6,575	4,780	4,175	3,000	6,575	3,000	3,575	27,000	75,430
GNMFPS Total	GNM Fire Protection System	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
GNMPST Total	GNM Plant Struct/Improve	5,683	5,320	5,683	5,320	5,683	5,320	16,820	5,320	5,320	17,183	5,683	5,320	88,653
GNMPFP Total	GNM Plant Freeze Protection	14,950	2,730	2,730	2,175	2,730	2,730	2,730	2,730	14,230	14,230	13,460	13,460	88,885
GNMCWS Total	GNM Circ Water System	5,600	6,600	24,600	44,925	6,600	6,600	6,600	6,600	6,600	47,950	5,450	5,450	174,575
GNMCW Total	GNM Cooling Water System	1,090	1,090	3,590	3,590	1,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090	18,080
GNMCSM Total	GNM Consummables	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	402,000
GNMABBPL Total	GNM Plant Lubrication	4,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	18,600
GNMFGD Total	GNM Flue Gas Desulfurization	19,255	25,455	37,525	30,125	83,985	37,055	21,755	26,505	43,480	46,880	30,755	19,255	422,030
GNMWWSTotal	GNM Waste Water Treatment	750	750	750	2,250	750	750	750	750	750	400	1,075	750	10,475
GNMSGUFPE Total	GNM Mills & Feeders	36,030	36,030	36,030	61,060	36,030	15,000	15,000	15,000	15,000	36,030	78,090	15,000	394,300
GNMTR Total	GNM Tool Room	5,000	7,500	5,600	7,500	6,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	66,600
GNMGEU Total	GNM General Use Equipment	2,000	4,300	2,000	2,000	2,000	3,500	2,000	3,500	5,300	2,000	2,000	2,000	32,600
GNMPWS Total	GNM Potable Water System	560	560	560	478	560	560	560	560	560	560	478	478	6,473
GNMPLS Total	GNM Plant Lighting System	6,150	5,800	5,850	6,200	5,850	6,000	6,050	6,000	6,150	6,200	5,850	5,900	72,000
GNMOHC Total	GNM Overhead Cranes/Hoists	0	9,360	4,600	11,500	0	9,360	0	0	4,600	20,860	0	0	60,280
GNMPCM Total	GNM Plant Communications	3,880	4,080	3,880	4,080	21,830	4,080	3,880	4,080	3,880	16,280	3,880	4,080	77,910
GNMHVC Total	GNM HVAC Equipment	4,164	11,889	4,164	3,689	4,164	4,164	4,164	4,164	4,186	4,186	3,748	4,186	56,866
GNMEL Total	GNM Elevators	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	49,173
GNMPCS Total	GNM Plant Controls/Computer System	11,138	8,608	8,608	43,108	8,608	8,608	8,608	8,608	43,108	8,608	8,608	8,608	174,830
GNMRID Total	GNM Recording/Indicating Devices	875	875	875	875	875	875	875	875	875	875	875	875	10,500
GNMIBBIC Total	GNM Instrument Calibration	500	500	500	500	500	500	500	500	500	500	500	500	6,000
GNMENV Total	GNM CEM	5,435	5,435	5,135	6,025	5,435	6,635	5,435	6,635	5,435	5,435	4,825	5,435	67,300
GNMSGUPCP Total	GNM Precipitators	1,500	2,500	1,000	7,250	17,500	1,500	1,000	1,500	7,250	1,500	16,000	1,500	60,000
GNMEDT Total	GNM Electrical Distribution	400	13,500	6,350	11,000	34,300	13,500	6,350	11,000	7,500	13,500	400	200	118,000
GNMTGN Total	GNM Turbine/Generator	4,000	4,000	4,000	4,000	6,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	52,000
GNMCHS Total	GNM Coal Handling System	17,865	21,115	40,125	27,135	111,750	44,515	46,465	49,040	23,240	21,315	33,780	16,705	453,050
GNMCHSBUX Total	GNM G/S/II Barge Unloading Sys	4,500	4,500	29,400	3,000	4,500	9,500	4,500	4,500	9,500	7,500	3,000	8,000	92,400
GNMFGX Total	GNM G/S/II Limestone Processing	503	773	5,378	11,798	4,878	2,003	1,503	1,003	1,003	6,003	183	183	36,211
GNMSTFGD Total	GNM G/S/II Limestone Grinding	3,215	3,215	2,415	5,615	6,895	43,858	39,358	35,465	2,108	3,215	1,858	2,415	149,630
GNMFGDLSE Total	GNM LimeStone Grinding-Non-shared	6,900	6,900	10,500	8,400	12,880	6,900	11,380	3,200	6,900	6,900	2,700	2,700	86,260
GNMCWSINT Total	GNM Screenwell	500	500	500	500	500	500	500	500	500	500	500	500	6,000
GNMSWY Total	GNM G/S/II Solid Waste Disposal	22,455	21,420	75,740	85,195	53,455	39,195	128,260	90,620	61,580	32,020	28,950	25,480	664,370
GNENGPST Total	GN ENGINEER Buildings & Grounds	0	0	0	0	0	0	0	34,500	0	0	0	0	34,500
GNMMEX Total	GNM G/S/II Mobile Fuels Equipment	16,700	66,700	16,700	16,700	16,700	16,700	16,700	16,700	16,700	136,700	16,700	16,700	370,400
GNMMEQ Total	GNM R/G/S/II Mobile Fuels Equip	9,980	10,580	10,580	10,580	10,580	108,580	10,580	10,580	10,580	10,580	10,580	10,580	224,360
GNOCHMEQ Total	GNO Diesel Fuel	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	264,000
GNOCHSBUX Total	GNO Barge Unloader	0	0	15,000	0	15,000	0	50,000	55,000	0	15,000	0	0	160,000
GNCHCSM Total	GNO Consummables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
GNCHTR Total	GNO Tool Room	700	700	700	700	700	700	700	700	700	700	700	700	8,400
GNCHPST Total	GNO Buildings & Grounds	5,060	5,060	5,060	7,460	7,460	17,460	7,460	7,460	7,460	2,060	2,060	5,060	79,120
GNCHOIS Total	GN Outside Industrial Service	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
GNOSGU Total	GNO Boilers & Burners	58,167	28,167	18,667	18,765	18,167	38,167	48,167	18,167	18,667	38,165	18,167	18,167	339,600
GNOPST Total	GNO Buildings & Grounds	11,625	17,625	17,625	10,400	8,625	14,750	11,125	8,625	8,625	3,300	3,300	3,300	137,915
GNOCSM Total	GNO Consummables	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	39,600
GNOTR Total	GNO Tool Room	0	0	2,000	0	0	0	1,500	0	2,000	0	0	0	5,500
GNOTGN Total	GNO Turbine Generator	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	3,800	5,800	3,800	3,800	47,600
GNOMEQCVH Total	GNO Vehicles	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	4,700	56,400
GNOIS Total	GN Outside Industrial Service	12,500	12,500	12,500	16,972	16,972	14,736	14,736	14,736	12,500	14,736	14,736	14,736	172,360
GNOLDF Total	GNO Landfill	0	0	0	8,000	6,250	2,500	500	4,750	11,500	0	0	0	33,500

## Green Station Non-Labor Budget

2010

Number	Description	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	TOTAL
GNOUTL Total	GNO Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
GNOFGD Total	GNO Flue Gas Desulfurization	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(35,254)	(423,048)
GNOADM Total	GNO Administrative	18,522	26,512	23,855	32,227	20,687	24,737	36,477	21,762	31,497	17,562	20,565	17,390	291,793
GNOLAB Total	GNO Laboratory	50,148	69,508	51,148	63,948	53,772	40,602	72,422	45,302	54,582	39,377	57,078	61,568	659,455
GNDREDGE Total	GN Dredging Green Ash Pond	0	0	0	0	0	65,000	0	0	0	0	0	0	65,000
GNCMS Total	GN Central Machine Shop	12,260	8,160	7,260	6,960	6,960	6,960	7,260	8,160	6,960	7,260	6,960	6,960	92,120
GNMMBBMT Total	GNM Training	1,675	20,165	3,205	43,970	13,805	17,760	32,495	5,190	33,780	1,260	3,390	2,445	179,140
GN110xxx Total	Green 1 Major Initiatives	13,103	266,603	13,103	13,103	13,103	13,103	13,103	13,103	13,103	13,103	13,103	13,103	410,731
GN210xxx Total	Green 2 Major Initiatives	11,383	11,383	264,883	117,383	11,383	11,383	11,383	11,383	11,383	11,383	11,383	11,383	496,091
GN110USO Total	G1 Unscheduled Outages	8,063	8,063	8,063	8,063	8,063	8,063	8,063	8,063	8,063	8,063	8,063	8,063	96,750
GN210USO Total	G2 Unscheduled Outages	35,834	35,834	35,834	35,834	35,834	35,834	35,834	35,834	35,834	35,834	35,834	35,834	430,009
GN110SPG Total	G1 Spring Planned Outage (Mtc.)	0	0	0	321,725	1,715,165	0	0	0	0	0	0	0	2,036,890
GN110SPO Total	G1 Spring Planned Outage (Ops)	0	0	0	9,000	369,000	0	0	0	0	0	0	0	378,000
GN110SPS Total	G1 Spring Planned Outage (Scrubber)	0	0	272,500	72,500	391,525	0	0	0	0	0	0	0	736,525
GN110SPT Total	G1 Spring Planned Outage (Turbine)	0	0	0	70,725	667,250	0	0	0	0	0	0	0	737,975
GN210FPO Total	G2 Fall Planned Outage (Ops)	0	0	0	0	0	0	0	0	0	0	163,000	0	163,000
Total 2010 Green Non-Labor O&M (Gross)		555,567	895,239	1,239,675	1,438,232	4,130,948	838,387	924,837	720,784	702,877	827,081	764,399	509,177	13,547,206
HMPL Allocation		3,637	3,543	11,280	12,836	8,673	5,858	17,190	11,549	8,463	5,471	3,877	3,454	95,833
Total 2010 Green Non-Labor O&M (Net)		551,930	891,696	1,228,395	1,425,396	4,122,275	832,529	907,646	709,236	694,415	821,610	760,522	505,723	13,451,372

## Reid/Station Two

### 2010 O&M Non-Labor Budget (Gross)

Number	Description	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	TOTAL
RD110SPO Total	R1 - Planned Outage (Ops)	0	0	0	0	0	0	0	0	0	0	0	0	0
RD110USO Total	R1 - Unscheduled Outages	0	0	0	0	0	0	0	0	0	0	0	0	0
RD110xxx Total	RD - Major Initiatives	130,550	30,550	155,050	395,550	30,550	60,000	230,000	0	497,550	30,550	30,550	30,514	1,621,414
RDMAIR Total	RDM Air System	4,450	3,520	2,870	26,000	4,720	2,370	15,250	5,000	2,950	2,870	3,100	1,300	74,400
RDMASH Total	RDM Ash Handling	5,450	6,150	4,050	7,350	1,500	10,650	5,350	3,350	7,900	3,350	8,100	3,800	67,000
RDMBFW Total	RDM Feedwater System	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMCDS Total	RDM Condensate System	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMCHS Total	RDM Fuel Feed: Fuel Conveying System	11,400	33,300	25,600	45,400	25,920	39,720	27,920	28,020	28,020	23,820	17,900	23,420	330,440
RDMCHSBUS Total	RDM Fuel Handling: Coal Unloading Barge	3,500	3,500	16,450	4,500	10,500	15,250	10,000	7,100	4,000	5,800	13,900	5,300	99,800
RDMCW Total	RDM Cooling Water System	0	350	925	400	0	320	330	0	530	350	470	0	3,675
RDMCWS Total	RDM Circulating Water/Cooling Towers	1,000	1,000	400	500	1,900	1,350	2,700	1,450	600	1,700	500	1,700	14,800
RDMCWSINT Total	RDM Screenwell Maintenance	200	3,700	21,300	14,200	13,200	200	7,200	4,500	8,450	200	200	200	73,550
RDMDWS Total	RDM Demineralized Water System	1,400	2,100	1,000	1,000	1,300	11,000	1,000	1,600	300	1,200	1,300	800	24,000
RDMEDGT Total	RDM Combustion Turbine-Electrical Distribution	0	400	800	300	500	900	4,500	500	500	0	600	300	9,300
RDMEDT Total	RDM Switchgear/Bus	250	800	450	650	400	6,350	800	6,400	6,000	700	500	100	23,400
RDMEL Total	RDM Bldgs & Grounds: Elevators	3,600	3,600	4,100	4,100	4,100	4,100	4,600	4,100	3,600	4,600	3,600	4,600	48,700
RDMENV Total	RDM Emission Controls: CEM	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMFOS Total	RDM Fuel Oil System	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMFPS Total	RDM Fire Protection	700	850	3,400	700	650	500	500	700	2,100	2,800	750	700	14,350
RDMFSPGT Total	RDM Combustion Turbine-Fire Protection	0	350	400	2,900	300	700	600	400	0	1,700	3,000	200	10,550
RDMGEU Total	RDM General Use Equipment	3,200	1,200	2,700	2,700	2,700	2,700	2,200	1,200	3,200	1,700	1,700	2,700	27,900
RDMGT Total	RDM Combustion Turbine	100	100	8,100	5,100	6,100	100	100	100	4,100	20,100	66,900	100	111,000
RDMHVC Total	RDM Bldgs & Grounds: HVAC	730	3,630	1,030	4,130	3,130	3,600	4,200	4,075	3,800	500	4,950	2,300	36,075
RDMMBLU Total	RDM Plant Lubrication	3,000	3,500	3,500	4,000	2,500	4,000	3,500	4,000	3,000	4,000	3,000	4,000	42,000
RDMMBBMT Total	RDM Maintenance Training	1,250	3,250	1,250	1,250	1,250	24,250	6,250	3,250	1,250	1,250	3,250	1,250	49,000
RDMMEQ Total	RDM Non-Fuels Equipment	900	900	1,100	1,300	900	1,100	900	1,100	900	1,100	900	900	12,000
RDMMEQCLE Total	RDM Mobile Fuels Equipment	6,400	6,400	6,400	6,900	6,900	66,900	6,900	6,900	6,900	6,900	6,900	6,900	141,300
RDMOHC Total	RDM Overhead Cranes & Hoists	3,000	1,300	5,300	2,400	0	3,000	2,500	1,000	3,500	1,900	2,000	0	25,900
RDMPCM Total	RDM Plant Communications	1,450	2,200	1,000	1,650	1,500	1,700	1,800	1,450	1,600	2,200	1,000	1,850	19,400
RDMPCS Total	RDM Controls/Computer Systems	0	0	15,000	0	0	0	0	0	0	0	0	0	15,000
RDMPPF Total	RDM Bldgs & Grounds: Winterization	1,500	900	900	800	0	0	0	400	100	12,900	1,220	1,000	19,720
RDMPLS Total	RDM Plant Lighting System	4,400	7,700	2,300	11,350	6,650	4,100	4,100	10,950	6,850	5,800	4,100	2,550	70,850
RDMPST Total	RDM Bldgs & Grounds Site Mtce/Improvements	3,000	2,600	2,100	7,700	2,100	3,300	14,200	2,200	3,200	4,150	2,350	3,600	50,500
RDMPVE Total	RDM Vehicles	4,600	4,700	4,350	5,500	5,100	5,600	4,450	3,750	5,300	4,400	4,500	3,650	55,900
RDMPWS Total	RDM Potable Water System	800	350	370	500	2,350	300	900	450	500	800	450	600	8,370
RDMRID Total	RDM Recording/Indicating Devices	1,000	1,500	750	600	225	0	540	450	380	900	1,000	0	7,345
RDMSGU Total	RDM Boilers & Burners	0	0	0	0	0	3,385	3,385	3,390	0	0	0	0	10,160
RDMSGUFDE Total	RDM Fans/Draft System	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMSGUFPE Total	RDM Fuel Feed: Mills and Feeders	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMSGUPCP Total	RDM Emission Controls: Precipitators	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMTGN Total	RDM Turbine/Generator	0	0	0	0	0	3,000	3,000	3,000	0	0	0	0	9,000
RDMWTS Total	RDM Bldgs & Grounds: Sumps	550	650	11,750	4,650	550	8,650	15,250	9,950	4,050	2,850	1,750	550	61,200
RDMWWS Total	RDM Effluent Control (Waste Water Treatment)	950	950	1,000	9,950	950	950	950	900	850	850	850	850	20,000
RDOSGUFPE Total	RDO Mills and Feeders	0	0	0	0	0	0	0	0	0	0	0	0	0
RH10xxx Total	RH - Major Initiatives	0	0	0	0	0	0	0	0	40,000	15,000	0	0	55,000
ST110USO Total	H1 - Unscheduled Outages	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	360,000
ST110xxx Total	H1 - Major Initiatives	0	15,000	30,000	25,000	0	0	0	0	0	0	22,000	0	92,000

## Reid/Station Two

### 2010 O&M Non-Labor Budget (Gross)

<u>Number</u>	<u>Description</u>	<u>Jan-10</u>	<u>Feb-10</u>	<u>Mar-10</u>	<u>Apr-10</u>	<u>May-10</u>	<u>Jun-10</u>	<u>Jul-10</u>	<u>Aug-10</u>	<u>Sep-10</u>	<u>Oct-10</u>	<u>Nov-10</u>	<u>Dec-10</u>	<u>TOTAL</u>
ST210SPG Total	H2 - Planned Outage (General)	0	0	829,462	1,161,635	0	0	0	0	0	0	0	0	1,991,097
ST210SPN Total	H2 - Planned Outage (Nox)	0	0	0	73,000	0	0	0	0	0	0	0	0	73,000
ST210SPO Total	H2 - Planned Outage (Ops)	0	0	0	162,000	0	0	0	0	0	0	0	0	162,000
ST210SPS Total	H2 - Planned Outage (Scrubber)	0	0	13,950	141,810	0	0	0	0	0	0	0	0	155,760
ST210SPT Total	H2 - Planned Outage (Turbine)	0	0	51,080	161,750	0	0	0	0	0	0	0	0	212,830
ST210USO Total	H2 - Unscheduled Outages	7,000	7,000	3,500	0	3,500	7,000	7,000	7,000	7,000	7,000	7,000	7,000	70,000
ST210xxx Total	H2 - Major Initiatives	0	0	90,000	110,000	0	0	30,000	0	0	0	22,000	0	252,000
STCHCSM Total	FH Consummables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
STCHOIS Total	FH Outside Industrial Svc	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	75,000
STCHPST Total	FH Buildings & Grounds	6,250	6,250	3,250	7,000	6,250	12,375	6,250	6,250	7,375	3,775	3,250	6,250	74,525
STCHTR Total	FH Tool Room	700	700	700	700	700	700	700	700	700	700	700	700	8,400
STDREDGE Total	ST Dredging Ash Ponds	0	0	0	0	0	5,000	0	10,000	0	0	0	0	15,000
STMASH Total	STM Ash Handling	14,450	41,200	18,000	21,500	7,050	28,250	14,900	40,500	7,300	17,000	13,950	10,550	234,650
STMBFW Total	STM Feedwater System	8,000	5,500	10,700	9,200	5,000	5,800	3,000	8,900	8,300	5,000	11,800	5,500	86,700
STMCDSTotal	STM Condensate System	2,750	1,650	3,700	1,650	2,250	2,750	2,575	2,575	11,500	2,150	3,400	1,250	38,200
STMCHS Total	STM Fuel Feed: Fuel Conveying System	3,650	6,375	6,900	7,300	9,300	7,200	10,400	9,100	8,300	8,100	2,850	5,750	85,225
STMCSM Total	STM Consummables	21,320	20,070	19,570	22,070	20,070	21,070	19,070	22,320	23,070	19,070	22,070	17,070	246,840
STMCW Total	STM Cooling Water System	1,600	700	1,800	1,500	1,000	1,700	2,000	1,150	750	700	1,150	0	14,050
STMCWS Total	STM Circulating Water/Cooling Towers	5,000	4,700	6,000	6,150	5,700	16,550	4,750	4,800	5,700	40,500	4,900	4,200	108,950
STMEDT Total	STM Switchgear/Bus	1,900	8,400	7,500	1,400	7,000	8,700	6,850	1,200	7,250	1,200	14,400	1,300	67,100
STMEL Total	STM Bldgs & Grounds: Elevators	4,800	4,800	3,300	4,300	3,800	3,800	3,500	3,200	3,800	3,400	3,600	3,400	45,700
STMEVS Total	STM Emission Controls:CEM	8,250	7,750	10,700	6,550	15,150	6,450	10,650	7,550	7,450	14,300	5,250	7,450	107,500
STMFGD Total	STM Emission Controls: Scrubbers	3,350	7,900	26,800	11,550	3,950	14,325	3,500	5,800	13,450	10,775	10,300	2,300	114,000
STMFGX Total	STM Limestone Grinding/Processing	5,535	15,235	21,534	16,834	13,934	12,134	7,034	3,834	7,334	12,464	5,334	6,334	127,540
STMFGXMEW Total	STM Emission Controls: SDRS Mist Eliminator	0	3,100	3,200	600	0	4,100	200	2,200	2,500	200	1,800	900	18,800
STMFGXPWS Total	STM Emission Controls:SDRS Potable Water	200	200	300	1,600	300	200	300	200	100	200	100	100	3,800
STMFGXSAB Total	STM Emission Controls:SDRS Absorber Bldg	1,500	5,000	2,000	1,000	2,500	1,000	3,600	1,300	2,000	1,500	1,400	1,200	24,000
STMFGXSBB Total	STM Emission Controls:SDRS Scrubber Bldg	150	150	150	1,000	100	200	150	150	150	100	150	100	2,550
STMFGXSTK Total	STM Emission Controls:SDRS Scrubber Stack	500	0	1,000	1,200	0	1,400	0	600	1,700	0	700	700	7,800
STMFGXTRW Total	STM Emission Controls:SDRS Thickener Return	800	9,250	750	750	350	300	750	1,150	750	1,150	550	750	17,300
STMFOS Total	STM Fuel Oil System	900	1,700	1,500	1,150	450	1,100	1,100	1,800	1,300	500	700	900	13,100
STMFPS Total	STM Fire Protection	1,550	2,050	2,750	2,550	1,550	2,050	1,250	2,550	1,550	1,050	4,050	1,050	24,000
STMHVC Total	STM Bldgs & Grounds:HVAC	1,900	3,700	4,415	3,600	5,800	4,500	4,900	3,850	3,700	2,200	3,700	1,900	44,165
STMOHC Total	STM Overhead Cranes & Hoists	1,000	2,500	2,600	3,000	0	1,000	2,000	0	3,600	1,500	2,600	1,000	20,800
STMPAS Total	STM Air System	1,000	4,050	3,000	8,300	30,000	3,000	3,000	2,150	9,900	3,700	2,100	3,000	73,200
STMPCM Total	STM Plant Communications	1,300	1,700	3,100	1,900	1,300	1,900	1,600	1,300	3,200	1,900	1,300	1,200	21,700
STMPCS Total	STM Plant Controls	2,100	1,900	2,100	1,000	3,260	1,000	0	1,000	2,100	2,000	1,400	1,400	19,260
STMPLC Total	STM Controls/Computer Systems	3,100	4,100	119,435	8,100	2,900	16,200	5,600	5,500	4,200	2,900	4,300	4,200	180,535
STMPLS Total	STM Plant Lighting System	9,100	6,450	8,950	6,200	7,850	4,900	9,000	4,100	5,000	10,700	9,300	6,100	87,650
STMPWS Total	STM Service Water System	100	100	100	100	100	100	100	100	100	100	100	100	1,200
STMRID Total	STM Recording/Indicating Devices	900	1,150	3,350	2,000	500	200	500	1,000	1,500	1,500	1,500	0	14,100
STMSCR Total	STM Nox Reduction-SCR Maintenance	4,000	4,000	51,200	26,500	4,000	5,000	4,000	22,200	24,000	17,500	4,000	4,000	170,400
STMSGU Total	STM Boilers & Burners	26,750	37,050	33,750	35,450	37,250	61,300	33,700	28,875	34,225	33,200	27,000	30,500	419,050
STMSGUFDE Total	STM Fans/Draft System	1,800	5,250	4,450	5,100	3,200	9,000	2,900	4,300	6,250	4,400	2,900	3,100	52,650
STMSGUFPE Total	STM Fuel Feed: Mills and Feeders	5,800	9,700	12,000	11,100	3,800	7,400	5,000	4,900	9,900	8,000	11,100	3,900	92,600
STMSGUPRP Total	STM Emission Controls: Precipitators	4,000	6,500	7,000	4,000	8,000	6,000	5,750	5,000	6,750	5,000	3,500	500	62,000
STMTGN Total	STM Turbine/Generator	4,000	5,000	3,100	5,250	3,500	4,000	5,400	7,600	3,150	4,500	4,000	3,000	52,500

## Reid/Station Two

### 2010 O&M Non-Labor Budget (Gross)

<u>Number</u>	<u>Description</u>	<u>Jan-10</u>	<u>Feb-10</u>	<u>Mar-10</u>	<u>Apr-10</u>	<u>May-10</u>	<u>Jun-10</u>	<u>Jul-10</u>	<u>Aug-10</u>	<u>Sep-10</u>	<u>Oct-10</u>	<u>Nov-10</u>	<u>Dec-10</u>	<u>TOTAL</u>
STMTGNDGS Total	STM Diesel/Generator	100	70	300	600	300	200	250	330	200	1,250	0	500	4,100
STMTR Total	STM Tool Room	3,500	3,400	4,050	3,250	3,600	4,000	4,700	6,000	5,500	4,500	5,500	4,500	52,500
STMWWS Total	STM Effluent Control(Waste Water Treatment)	350	350	350	1,500	350	400	300	400	300	400	550	350	5,600
STOADM Total	STO Administrative	17,261	17,261	22,411	17,261	17,786	24,581	18,956	22,511	23,961	17,661	17,261	17,291	234,202
STOCHSBUS Total	FH Coal Unloading Barge	0	0	12,000	0	12,000	0	37,000	52,000	25,000	12,000	0	0	150,000
STOCSM Total	STO Consumables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
STOFGD Total	STO HMPL FGD Shared Equipment	35,254	35,254	35,254	35,254	35,254	35,254	35,254	35,254	35,254	35,254	35,254	35,254	423,048
STOIS Total	STO Outside Industrial Svc	13,400	13,400	13,400	13,400	13,400	13,400	13,400	13,400	13,400	13,400	13,400	13,400	160,800
STOLAB Total	STO Laboratory	14,050	16,350	25,400	20,050	23,300	43,700	14,200	16,450	37,180	17,250	16,900	23,700	268,530
STOMEQ Total	FH Mobile Fuels Equipment	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	216,000
STOMEQCVH Total	STO Vehicles (Mtc, Gas, Oil)	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	4,350	52,200
STOPST Total	STO Buildings & Grounds	12,245	15,245	12,245	19,695	10,695	12,195	12,195	35,695	10,695	10,695	19,695	12,245	183,540
STOSCR Total	STO SCR Operation	9,000	9,000	9,000	21,000	9,000	129,000	9,000	9,000	9,000	85,000	87,000	9,000	394,000
STOSGU Total	STO Boilers and Burners	27,000	30,000	18,000	0	19,200	39,000	18,000	0	27,800	30,000	18,000	9,000	236,000
STOSGUFPE Total	STO Mills and Feeders	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	192,000
STOTGN Total	STO Turbine/Generator	5,330	5,330	5,340	5,330	5,330	5,340	5,330	5,330	5,340	5,330	5,330	5,340	64,000
STOTR Total	STO Tool Room	0	0	2,550	0	1,000	0	1,500	0	350	1,000	0	1,000	7,400
<b>Grand Total</b>		<b>580,425</b>	<b>622,090</b>	<b>1,971,241</b>	<b>2,872,319</b>	<b>587,624</b>	<b>984,369</b>	<b>876,539</b>	<b>652,309</b>	<b>1,169,464</b>	<b>727,214</b>	<b>728,984</b>	<b>462,568</b>	<b>12,235,146</b>
<b>Total 2010 Budget</b>		<b>580,425</b>	<b>622,090</b>	<b>1,971,241</b>	<b>2,872,319</b>	<b>587,624</b>	<b>984,369</b>	<b>876,539</b>	<b>652,309</b>	<b>1,169,464</b>	<b>727,214</b>	<b>728,984</b>	<b>462,568</b>	<b>12,235,146</b>
<b>HMPL Allocation</b>		<b>118,178</b>	<b>157,704</b>	<b>521,633</b>	<b>725,291</b>	<b>146,073</b>	<b>240,584</b>	<b>162,048</b>	<b>162,952</b>	<b>175,897</b>	<b>179,969</b>	<b>171,263</b>	<b>113,899</b>	<b>2,875,493</b>
<b>BREC Share</b>		<b>462,247</b>	<b>464,386</b>	<b>1,449,608</b>	<b>2,147,028</b>	<b>441,551</b>	<b>743,785</b>	<b>714,491</b>	<b>489,357</b>	<b>993,567</b>	<b>547,245</b>	<b>557,721</b>	<b>348,669</b>	<b>9,359,653</b>



# Big Rivers Electric Cooperative

## Sebree Station

### 2011 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor			Labor			Total O&M		
	Green	Reid/SII	Total/Sebree	Green	Reid/SII	Total/Sebree	Green	Reid/SII	Total/Sebree
<b>Operations</b>									
<b>Outage</b>	\$ 163,000	\$ 177,000	\$ 340,000	\$ -	\$ -	\$ -	\$ 163,000	\$ 177,000	\$ 340,000
H-1 (Turbine Overhaul - 1176 hours)		177,000	177,000					177,000	177,000
G-1 (Turbine Overhaul - 1176 hours)	163,000		163,000				163,000		163,000
<b>Non-Outage</b>	2,159,967	2,782,639	4,942,606	7,897,393	6,242,089	14,139,483	10,057,360	9,024,728	19,082,089
Operations	487,247	1,712,333	2,199,580	6,333,326	4,473,914	10,807,240	6,820,573	6,186,247	13,006,820
Fuel Handling	583,520	540,925	1,124,445	858,190	1,190,640	2,048,830	1,441,710	1,731,565	3,173,275
Laboratory	793,555	280,430	1,073,985	379,871	310,803	690,674	1,173,426	591,233	1,764,659
Administrative	295,645	248,951	544,596	326,006	266,732	592,738	621,651	515,683	1,137,334
<b>Total Operations</b>	<b>\$ 2,322,967</b>	<b>\$ 2,959,639</b>	<b>\$ 5,282,606</b>	<b>\$ 7,897,393</b>	<b>\$ 6,242,089</b>	<b>\$ 14,139,483</b>	<b>\$ 10,220,360</b>	<b>\$ 9,201,728</b>	<b>\$ 19,422,089</b>
<b>Maintenance</b>									
<b>Outage</b>	\$ 6,313,519	\$ 5,648,505	\$ 11,962,024	\$ -	\$ -	\$ -	\$ 6,313,519	\$ 5,648,505	\$ 11,962,024
H-1 Unplanned Outages		70,000	70,000					70,000	70,000
H-2 Unplanned Outages		360,000	360,000					360,000	360,000
R-1 Unplanned Outages		-	-					-	-
H-1 (Turbine Overhaul - 1176 hours)		5,218,505	5,218,505					5,218,505	5,218,505
G-1 (Turbine Overhaul - 1176 hours)	5,608,719		5,608,719				5,608,719		5,608,719
G-1 Unplanned Outages	438,600		438,600				438,600		438,600
G-2 Unplanned Outages	266,200		266,200				266,200		266,200
<b>Non-Outage</b>	6,731,001	5,547,200	12,278,201	4,620,819	4,262,594	8,883,412	11,351,820	9,809,794	21,161,614
Maintenance Dept	6,106,281	5,397,600	11,503,881	4,620,819	3,881,176	8,501,995	10,727,100	9,278,776	20,005,876
Fuels Dept	532,600	149,600	682,200				532,600	149,600	682,200
Central Machine Shop	92,120	-	92,120		381,418	381,418	92,120	381,418	473,538
<b>Total Maintenance</b>	<b>\$ 13,044,521</b>	<b>\$ 11,195,705</b>	<b>\$ 24,240,226</b>	<b>\$ 4,620,819</b>	<b>\$ 4,262,594</b>	<b>\$ 8,883,412</b>	<b>\$ 17,665,339</b>	<b>\$ 15,458,299</b>	<b>\$ 33,123,638</b>
<b>Sebree Grand Totals (Gross)</b>	<b>\$ 15,367,488</b>	<b>\$ 14,155,344</b>	<b>\$ 29,522,832</b>	<b>\$ 12,518,212</b>	<b>\$ 10,504,683</b>	<b>\$ 23,022,895</b>	<b>\$ 27,885,699</b>	<b>\$ 24,660,027</b>	<b>\$ 52,545,727</b>
<b>HMPL Allocation</b>	(104,364)	(3,803,928)	(3,908,292)	(298,299)	(2,515,784)	(2,814,083)	(402,663)	(6,319,712)	(6,722,375)
<b>Sebree Grand Totals (Net)</b>	<b>\$ 15,263,124</b>	<b>\$ 10,351,416</b>	<b>\$ 25,614,540</b>	<b>\$ 12,219,912</b>	<b>\$ 7,988,899</b>	<b>\$ 20,208,812</b>	<b>\$ 27,483,036</b>	<b>\$ 18,340,315</b>	<b>\$ 45,823,351</b>
<b>Sebree Generation</b>									
Green(Gross)	3,554,020		3,554,020	3,554,020		3,554,020	3,554,020		3,554,020
Green(Net)	3,554,020		3,554,020	3,554,020		3,554,020	3,554,020		3,554,020
Reid-SII(Gross)		2,345,738	2,345,738		2,345,738	2,345,738		2,345,738	2,345,738
Reid-SII(Net)		1,643,365	1,643,365		1,643,365	1,643,365		1,643,365	1,643,365
Total(Gross)	3,554,020	2,345,738	5,899,758	3,554,020	2,345,738	5,899,758	3,554,020	2,345,738	5,899,758
Total(Net)	3,554,020	1,643,365	5,197,385	3,554,020	1,643,365	5,197,385	3,554,020	1,643,365	5,197,385
<b>\$/MwH(Gross)</b>	4.32	6.03	5.00	3.52	4.48	3.90	7.85	10.51	8.91
<b>\$/MwH(Net)</b>	4.29	6.30	4.93	3.44	4.86	3.89	7.73	11.16	8.82



# Big Rivers Electric Cooperative

## Green Station

### 2011 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor	Labor	Total O&M
<b>Operations</b>			
<b>Outage</b>	\$ 163,000	\$ -	\$ 163,000
G-1 (Turbine Overhaul - 1176 hours)	163,000		163,000
<b>Non-Outage</b>	<b>2,159,967</b>	<b>7,897,393</b>	<b>10,057,360</b>
Operations	487,247	6,333,326	6,820,573
Fuel Handling	583,520	858,190	1,441,710
Laboratory	793,555	379,871	1,173,426
Administrative	295,645	326,006	621,651
<b>Total Operations</b>	<b>\$ 2,322,967</b>	<b>\$ 7,897,393</b>	<b>\$ 10,220,360</b>
<b>Maintenance</b>			
<b>Outage</b>	\$ 6,313,519	\$ -	\$ 5,874,919
G-1 (Turbine Overhaul - 1176 hours)	5,608,719		5,608,719
G-1 Unplanned Outages	438,600		
G-2 Unplanned Outages	266,200		266,200
<b>Non-Outage</b>	<b>6,731,001</b>	<b>4,620,819</b>	<b>11,351,820</b>
Maintenance Dept	6,106,281	4,620,819	10,727,100
Fuels Dept	532,600		532,600
Central Machine Shop	92,120		92,120
<b>Total Maintenance</b>	<b>\$ 13,044,521</b>	<b>\$ 4,620,819</b>	<b>\$ 17,226,739</b>
<b>Green Grand Total (Gross)</b>	<b>\$ 15,367,488</b>	<b>\$ 12,518,212</b>	<b>\$ 27,447,099</b>
<b>HMPL Allocation</b>	(104,364)	(298,299)	(402,663)
<b>Green Grand Total (Net)</b>	<b>\$ 15,263,124</b>	<b>\$ 12,219,912</b>	<b>\$ 27,044,436</b>
<b>Green Station Generation</b>			
Green(Gross)	3,554,020	3,554,020	3,554,020
Green(Net)	3,554,020	3,554,020	3,554,020
<b>\$/MwH(Gross)</b>	4.32	3.52	7.72
<b>\$/MwH(Net)</b>	4.29	3.44	7.61

# Big Rivers Electric Cooperative

## Reid/Station Two

### 2011 Operating Plan Summary View

#### Non-Labor and Labor O&M

	Non-Labor	Labor	Total O&M
<b>Operations</b>			
<b>Outage</b>	\$ 177,000	\$ -	\$ 177,000
H-1 (Turbine Overhaul - 1176 hours)	177,000		177,000
<b>Non-Outage</b>	<b>2,782,639</b>	<b>6,242,089</b>	<b>9,024,728</b>
Operations	1,712,333	4,473,914	6,186,247
Fuel Handling	540,925	1,190,640	1,731,565
Laboratory	280,430	310,803	591,233
Administrative	248,951	266,732	515,683
<b>Total Operations</b>	<b>\$ 2,959,639</b>	<b>\$ 6,242,089</b>	<b>\$ 9,201,728</b>
<b>Maintenance</b>			
<b>Outage</b>	\$ 5,648,505	\$ -	\$ 5,648,505
H-1 Unplanned Outages	70,000		70,000
H-2 Unplanned Outages	360,000		360,000
R-1 Unplanned Outages	-		-
H-1 (Turbine Overhaul - 1176 hours)	5,218,505		5,218,505
<b>Non-Outage</b>	<b>5,547,200</b>	<b>4,262,594</b>	<b>9,809,794</b>
Maintenance Dept	5,397,600	3,881,176	9,278,776
Fuel Handling	149,600		149,600
Central Machine Shop	-	381,418	381,418
<b>Total Maintenance</b>	<b>\$ 11,195,705</b>	<b>\$ 4,262,594</b>	<b>\$ 15,458,299</b>
<b>Reid Station II Grand Total(Gross)</b>	<b>\$ 14,155,344</b>	<b>\$ 10,504,683</b>	<b>\$ 24,660,027</b>
<b>HMPL Allocation</b>	(3,803,928)	(2,515,784)	(6,319,712)
<b>Reid Station II Grand Total(Net)</b>	<b>\$ 10,351,416</b>	<b>\$ 7,988,899</b>	<b>\$ 18,340,315</b>
<b>Reid Station II Generation</b>			
Reid-SII(Gross)	2,345,738	2,345,738	2,345,738
Reid-SII(Net)	1,643,365	1,643,365	1,643,365
<b>\$/MwH(Gross)</b>	6.03	4.48	10.51
<b>\$/MwH(Net)</b>	6.30	4.86	11.16

# Green Station Non-Labor Budget

2011

Number	Description	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	TOTAL
GNMPAS Total	GNM Air System	8,200	8,200	6,200	6,200	6,200	29,300	6,200	16,700	16,700	6,200	29,300	6,200	145,600
GNMASH Total	GNM Ash Handling	9,300	38,600	30,300	65,350	63,300	9,300	99,300	26,200	30,300	9,300	9,000	9,000	399,150
GNMSGU Total	GNM Boilers & Burners	31,032	26,032	43,287	50,682	28,032	28,032	33,032	28,032	28,032	31,987	28,032	28,032	384,240
GNMFOS Total	GNM Fuel Oil System	500	500	700	500	500	700	500	500	700	500	500	700	6,800
GNMSGURBN Total	GNM OFA Reburn Maintenance	1,400	1,400	1,400	19,800	1,400	1,400	1,400	1,400	1,400	19,800	1,400	1,400	53,600
GNMCDS Total	GNM Condensate System	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
GNMDWS Total	GNM Demineralized Water System	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	1,750	21,000
GNMBFW Total	GNM Boiler Feedwater System	1,000	1,000	2,900	2,900	6,650	1,500	1,250	1,250	1,250	6,650	1,250	1,500	29,100
GNMSGUFDE Total	GNM Fans/Draft Equipment	7,000	3,500	4,600	3,500	7,000	5,200	4,600	3,500	7,000	3,500	4,000	27,500	80,980
GNMFPS Total	GNM Fire Protection System	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	24,000
GNMPST Total	GNM Plant Struct/Improve	5,683	5,320	5,683	5,320	5,683	5,320	16,820	5,320	5,320	17,183	5,683	5,320	88,653
GNMPFP Total	GNM Plant Freeze Protection	14,950	2,730	2,730	2,175	2,730	2,730	2,730	2,730	14,230	14,230	13,460	13,460	88,885
GNMCWS Total	GNM Circ Water System	9,440	11,285	51,190	50,065	9,440	11,285	9,440	9,440	9,440	75,690	9,440	9,440	265,595
GNMCW Total	GNM Cooling Water System	1,090	1,090	6,090	6,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090	1,090	23,080
GNMCSM Total	GNM Consummables	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	33,500	402,000
GNMMBBPL Total	GNM Plant Lubrication	4,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	1,300	18,600
GNMFGD Total	GNM Flue Gas Desulfurization	19,830	26,030	38,100	30,700	84,560	37,630	22,330	27,080	44,055	47,455	31,330	19,830	428,930
GNMWWWS Total	GNM Waste Water Treatment	750	750	750	2,250	750	750	750	750	750	400	1,075	750	10,475
GNMSGUFPE Total	GNM Mills & Feeders	36,950	36,950	36,950	62,900	36,950	15,000	15,000	15,000	15,000	36,950	80,850	15,000	403,500
GNMTR Total	GNM Tool Room	6,000	8,500	6,600	8,500	7,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	78,600
GNMGEU Total	GNM General Use Equipment	2,000	4,300	2,000	2,000	2,000	3,500	2,000	3,500	5,300	2,000	2,000	2,000	32,600
GNMPWS Total	GNM Potable Water System	560	560	560	478	560	560	560	560	560	560	478	478	6,473
GNMPLS Total	GNM Plant Lighting System	6,623	6,673	6,623	6,673	6,623	6,673	6,623	6,673	6,623	6,673	6,623	6,673	79,770
GNMOHC Total	GNM Overhead Cranes/Hoists	0	9,360	5,175	14,950	0	9,360	0	5,175	24,310	0	0	0	68,330
GNMPCM Total	GNM Plant Communications	4,880	5,080	4,880	5,080	26,130	5,080	4,880	5,080	4,880	19,430	4,880	5,080	95,360
GNMHVC Total	GNM HVAC Equipment	4,164	11,889	4,164	3,689	4,164	4,164	4,164	11,889	4,186	4,186	3,748	4,186	64,591
GNMEL Total	GNM Elevators	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	4,098	49,173
GNMPCS Total	GNM Plant Controls/Computer System	11,253	8,608	8,608	43,108	8,608	8,608	8,608	8,608	43,108	8,608	8,608	8,608	174,945
GNMRID Total	GNM Recording/Indicating Devices	875	875	875	875	875	875	875	875	875	875	875	875	10,500
GNMIBBIC Total	GNM Instrument Calibration	500	500	500	500	500	500	500	500	500	500	500	500	6,000
GNMENV Total	GNM CEM	5,435	5,435	5,135	6,025	5,435	6,635	5,435	6,635	5,435	5,435	4,825	5,435	67,300
GNMSGUPCP Total	GNM Precipitators	1,500	2,500	1,000	7,250	17,500	1,500	1,000	1,500	7,250	1,500	16,000	1,500	60,000
GNMEDT Total	GNM Electrical Distribution	400	13,500	6,350	11,000	34,300	13,500	6,350	11,000	7,500	13,500	400	200	118,000
GNMTGN Total	GNM Turbine/Generator	4,000	4,000	4,000	4,000	6,000	4,000	4,000	4,000	4,000	6,000	4,000	4,000	52,000
GNMCHS Total	GNM Coal Handling System	19,303	22,553	42,713	28,918	114,338	47,103	47,903	50,478	24,678	22,753	35,218	18,143	474,095
GNMCHSBUX Total	GNM G/SII Barge Unloading Sys	4,500	4,500	29,400	3,000	4,500	9,500	4,500	4,500	9,500	7,500	3,000	8,000	92,400
GNMFGX Total	GNM G/SII Limestone Processing	503	773	6,378	11,798	4,878	2,003	1,503	1,003	1,003	6,003	183	183	36,211
GNMSTFGD Total	GNM G/SII Limestone Grinding	3,560	3,560	2,760	5,960	7,240	44,260	39,760	35,810	2,510	3,560	2,260	2,760	154,000
GNMFGDLSE Total	GNM LimeStone Grinding-Non-shared	6,900	6,900	10,500	8,400	12,880	6,900	11,380	3,200	6,900	6,900	2,700	2,700	86,260
GNMCWSINT Total	GNM Screenwell	500	500	500	500	500	500	500	500	500	500	500	500	6,000
GNMSWY Total	GNM G/SII Solid Waste Disposal	22,455	21,420	78,040	85,195	53,455	39,195	128,260	90,620	61,580	32,020	28,950	25,480	666,670
GNENGPST Total	GN ENGINEER Buildings & Grounds	0	0	0	0	0	0	0	30,000	0	0	0	0	30,000
GNMMEX Total	GNM G/SII Mobile Fuels Equipment	14,700	124,700	14,700	84,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	14,700	356,400
GNMMEQ Total	GNM R/G/SII Mobile Fuels Equip	10,800	11,400	11,400	11,400	11,400	51,400	11,400	11,400	11,400	11,400	11,400	11,400	176,200
GNOCHMEQ Total	GNO Diesel Fuel	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	22,000	264,000
GNOCHSBUX Total	GNO Barge Unloader	0	0	60,000	30,000	15,000	0	15,000	25,000	0	15,000	0	0	160,000
GNCHCSM Total	GNO Consummables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
GNCHTR Total	GNO Tool Room	700	700	700	700	700	700	700	700	700	700	700	700	8,400
GNCHPST Total	GNO Buildings & Grounds	5,060	5,060	5,060	7,460	7,460	17,460	7,460	7,460	7,460	2,060	2,060	5,060	79,120
GNCHOIS Total	GN Outside Industrial Service	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	60,000
GNOSGU Total	GNO Boilers & Burners	58,334	30,334	18,834	18,932	18,334	38,334	50,334	18,334	18,334	38,332	18,334	18,334	345,600
GNOPST Total	GNO Buildings & Grounds	11,625	17,625	17,625	10,400	8,625	14,750	11,125	8,625	8,625	9,600	8,645	10,645	137,915
GNOCSM Total	GNO Consummables	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	3,300	39,600
GNOTR Total	GNO Tool Room	0	0	2,000	0	0	0	1,500	0	2,000	0	0	0	5,500
GNOTGN Total	GNO Turbine Generator	3,800	3,800	3,800	33,800	3,800	3,800	3,800	3,800	3,800	5,800	3,800	3,800	77,600
GNOMEQCVH Total	GNO Vehicles	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	4,800	57,600
GNOIS Total	GN Outside Industrial Service	12,500	12,500	12,500	16,972	16,972	14,736	14,736	14,736	12,500	14,736	14,736	14,736	172,360
GNOLDF Total	GNO Landfill	0	0	0	8,000	6,250	2,500	500	4,750	11,500	0	0	0	33,500

## Green Station Non-Labor Budget

2011

Number	Description	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	TOTAL
GNOUTL Total	GNO Utilities	0	0	0	0	0	0	0	0	0	0	0	0	0
GNOFGD Total	GNO Flue Gas Desulfurization	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(31,869)	(382,428)
GNOADM Total	GNO Administrative	18,743	26,733	24,076	32,448	20,908	25,558	36,698	21,983	31,718	17,783	20,786	18,211	295,645
GNOLAB Total	GNO Laboratory	50,148	69,508	53,148	63,948	53,772	104,202	72,422	45,302	56,082	39,377	57,078	63,568	728,555
GNDREDGE Total	GN Dredging Green Ash Pond	0	0	0	0	0	65,000	0	0	0	0	0	0	65,000
GNCMS Total	GN Central Machine Shop	12,260	8,160	7,260	6,960	6,960	6,960	7,260	8,160	6,960	7,260	6,960	6,960	92,120
GNMBBMT Total	GNM Training	1,675	20,165	3,205	43,970	13,805	17,760	32,495	5,190	33,780	1,260	3,390	2,445	179,140
GN11xxx Total	Green 1 Major Initiatives	1,720	265,220	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	1,720	274,140
GN21xxx Total	Green 2 Major Initiatives	0	0	253,500	106,000	0	0	0	0	0	0	0	0	359,500
GN111USO Total	G1 Unscheduled Outages	36,550	36,550	36,550	36,550	36,550	36,550	36,550	36,550	36,550	36,550	36,550	36,550	438,600
GN211USO Total	G2 Unscheduled Outages	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	8,600	103,200
GN111FPO Total	Green 1 Fall Planned Outage (Ops)	0	0	0	0	0	0	0	0	0	0	163,000	0	163,000
GN211SPO Total	G2 Spring Planned Outage (Ops)	0	0	9,000	154,000	0	0	0	0	0	0	0	0	163,000
GN211SPG Total	G2 Spring Planned Outage (Mtc)	0	0	657,325	811,325	0	0	0	0	0	0	0	0	1,468,650
GN211SPN Total	G2 Spring Planned Outage (Nox)	0	0	53,925	36,150	0	0	0	0	0	0	0	0	90,075
GN211SPS Total	G2 Spring Planned Outage (Scrubber)	0	0	197,800	442,500	0	0	0	0	0	0	0	0	640,300
GN211SPT Total	G2 Spring Planned Outage (Turbine)	0	159,135	2,322,037	928,523	0	0	0	0	0	0	0	0	3,409,694
Total 2011 Green Non-Labor O&M (Gross)		551,328	1,143,440	4,280,482	3,509,466	865,404	842,640	874,220	707,110	698,336	722,702	768,693	508,028	15,471,851
HMPL Allocation		3,230	3,137	10,618	12,539	7,986	10,408	20,647	15,521	7,928	5,065	3,824	3,462	104,364
Total 2011 Green Non-Labor O&M (Net)		548,098	1,140,304	4,269,865	3,496,927	857,417	832,232	853,573	691,590	690,408	717,638	764,869	504,567	15,367,488

## Reid/Station Two

### 2011 O&M Non-Labor Budget (Gross)

Number	Description	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	TOTAL
RD111USO Total	R1 - Unscheduled Outages	0	0	0	0	0	0	0	0	0	0	0	0	0
RD111xxx Total	RD - Major Initiatives	32,500	32,500	32,500	62,500	32,500	65,000	0	0	132,500	32,500	32,500	32,500	487,500
RDMAIR Total	RDM Air System	4,450	3,520	2,870	26,000	4,720	2,370	1,250	5,000	2,950	2,870	3,100	1,300	60,400
RDMASH Total	RDM Ash Handling	4,100	3,950	4,050	7,350	1,500	9,300	5,350	3,100	5,700	3,350	5,700	3,800	57,250
RDMBFW Total	RDM Feedwater System	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMCDS Total	RDM Condensate System	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMCHS Total	RDM Fuel Feed: Fuel Conveying System	11,400	33,300	25,600	45,400	25,920	39,720	27,920	28,020	28,020	23,820	17,900	23,420	330,440
RDMCHSBUS Total	RDM Fuel Handling:Coal Unloading Barge	3,500	3,500	16,450	4,500	10,500	15,250	10,000	7,100	4,000	5,800	13,900	5,300	99,800
RDMCW Total	RDM Cooling Water System	0	350	925	400	0	320	330	0	530	350	470	0	3,675
RDMCWS Total	RDM Circulating Water/Cooling Towers	1,000	1,000	400	500	1,900	1,350	2,700	1,450	600	1,700	500	1,700	14,800
RDMCWSINT Total	RDM Screenwell Maintenance	200	3,700	21,300	14,200	13,200	200	7,200	4,500	8,450	200	200	200	73,550
RDMDWS Total	RDM Demineralized Water System	1,400	2,100	1,000	1,000	1,300	1,000	1,000	1,600	300	1,200	1,300	800	14,000
RDMEDGT Total	RDM Combustion Turbine-Electrical Distribution	0	400	800	300	500	900	4,500	500	500	0	600	300	9,300
RDMEDT Total	RDM Switchgear/Bus	250	800	450	650	400	6,350	800	6,400	6,000	700	500	100	23,400
RDMEL Total	RDM Bldgs & Grounds: Elevators	3,600	3,600	4,100	4,100	4,100	4,100	4,600	4,100	3,600	4,600	3,600	4,600	48,700
RDMENV Total	RDM Emission Controls: CEM	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMFOS Total	RDM Fuel Oil System	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMFPS Total	RDM Fire Protection	700	850	3,400	700	650	500	500	700	2,100	2,800	750	700	14,350
RDMFSPGT Total	RDM Combustion Turbine-Fire Protection	0	350	400	2,900	300	700	600	400	0	1,700	3,000	200	10,550
RDMGEU Total	RDM General Use Equipment	3,200	1,200	2,700	2,700	2,700	2,700	2,200	1,200	3,200	1,700	1,700	2,700	27,900
RDMGT Total	RDM Combustion Turbine	100	100	8,100	5,100	6,100	100	100	100	4,100	20,100	66,900	100	111,000
RDMHVC Total	RDM Bldgs & Grounds: HVAC	730	3,630	1,030	4,130	3,130	3,600	4,200	4,075	3,800	500	4,950	2,300	36,075
RDMMBBLU Total	RDM Plant Lubrication	3,000	3,500	3,500	4,000	2,500	4,000	3,500	4,000	3,000	4,000	3,000	4,000	42,000
RDMMBBMT Total	RDM Maintenance Training	1,250	3,250	1,250	1,250	1,250	24,250	6,250	3,250	1,250	1,250	3,250	1,250	49,000
RDMMEQ Total	RDM Non-Fuels Equipment	900	900	1,100	1,300	900	1,100	900	1,100	900	1,100	900	900	12,000
RDMMEQCLE Total	RDM Mobile Fuels Equipment	8,950	8,950	8,950	8,950	8,950	8,950	9,200	8,900	8,950	38,950	8,950	8,950	137,600
RDMOHC Total	RDM Overhead Cranes & Hoists	3,000	1,300	5,300	2,400	0	3,000	2,500	1,000	3,500	1,900	2,000	0	25,900
RDMPCM Total	RDM Plant Communications	1,450	2,200	1,000	1,650	1,500	1,700	1,800	1,450	1,600	2,200	1,000	1,850	19,400
RDMPCS Total	RDM Controls/Computer Systems	0	0	15,000	0	0	0	0	0	0	0	0	0	15,000
RDMPPF Total	RDM Bldgs & Grounds:Winterization	1,500	900	900	800	0	0	0	400	100	12,900	1,220	1,000	19,720
RDMPLS Total	RDM Plant Lighting System	2,975	6,375	1,475	10,525	5,825	2,175	2,775	10,125	6,025	4,975	3,175	1,725	58,150
RDMPST Total	RDM Bldgs & Grounds Site Mtce/Improvements	3,000	2,600	2,100	7,700	2,100	3,300	14,200	2,200	3,200	4,150	2,350	3,600	50,500
RDMPVE Total	RDM Vehicles	4,550	4,400	4,300	5,400	4,550	5,800	4,350	3,950	5,050	4,800	4,500	3,250	54,900
RDMPWS Total	RDM Potable Water System	800	350	370	500	2,350	300	900	450	500	800	450	600	8,370
RDMRID Total	RDM Recording/Indicating Devices	1,000	1,500	750	600	225	0	540	450	380	900	1,000	0	7,345
RDMSGU Total	RDM Boilers & Burners	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMSGUFDE Total	RDM Fans/Draft System	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMSGUFPE Total	RDM Fuel Feed: Mills and Feeders	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMSGUPCP Total	RDM Emission Controls:Precipitators	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMTGN Total	RDM Turbine/Generator	0	0	0	0	0	3,250	3,250	3,250	0	0	0	0	9,750
RDMWTS Total	RDM Bldgs & Grounds: Sumps	550	650	11,750	4,650	550	8,650	15,250	9,950	4,050	2,850	1,750	550	61,200
RDMWWS Total	RDM Effluent Control(Waste Water Treatment)	950	950	1,000	9,950	950	950	950	900	850	850	850	850	20,000
RDOSGUFPE Total	RDO Mills and Feeders	0	0	0	0	0	0	0	0	0	0	0	0	0
RH11xxx Total	RH - Major Initiatives	0	0	0	0	0	0	0	24,000	0	0	0	0	24,000
ST111SPG Total	H1 - Planned Outage (General)	0	0	0	615,850	1,041,065	0	0	0	0	0	0	0	1,656,915
ST111SPN Total	H1 - Planned Outage (Nox)	0	0	0	73,000	0	0	0	0	0	0	0	0	73,000
ST111SPO Total	H1 - Planned Outage (Ops)	0	0	0	177,000	0	0	0	0	0	0	0	0	177,000
ST111SPS Total	H1 - Planned Outage (Scrubber)	0	0	0	55,850	99,910	0	0	0	0	0	0	0	155,760
ST111SPT Total	H1 - Planned Outage (Turbine)	0	0	0	2,431,330	901,500	0	0	0	0	0	0	0	3,332,830

## Reid/Station Two

### 2011 O&M Non-Labor Budget (Gross)

Number	Description	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	TOTAL
ST111USO Total	H1 - Unscheduled Outages	7,000	7,000	7,000	0	0	7,000	7,000	7,000	7,000	7,000	7,000	7,000	70,000
ST111xxx Total	H1 - Major Initiatives	0	80,000	255,000	35,000	0	15,000	30,000	12,000	0	0	0	0	427,000
ST211USO Total	H2 - Unscheduled Outages	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	360,000
ST211xxx Total	H2 - Major Initiatives	0	15,000	0	20,000	0	0	45,000	0	12,000	0	0	0	92,000
STCHCSM Total	FH Consummables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
STCHOIS Total	FH Outside Industrial Svc	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	6,500	78,000
STCHPST Total	FH Buildings & Grounds	6,250	6,250	3,250	7,000	6,250	12,375	6,250	6,250	7,375	3,775	3,250	6,250	74,525
STCHTR Total	FH Tool Room	700	700	700	700	700	700	700	700	700	700	700	700	8,400
STDREDGE Total	ST Dredging Ash Ponds	0	0	0	0	0	5,000	0	0	20,000	0	0	0	25,000
STMASH Total	STM Ash Handling	14,450	42,200	18,000	21,500	7,050	28,250	30,900	40,500	7,300	18,250	13,950	10,550	252,900
STMBFW Total	STM Feedwater System	8,000	5,500	10,700	9,200	5,000	5,800	3,000	8,900	8,300	5,000	11,800	5,500	86,700
STMCDSD Total	STM Condensate System	2,750	650	3,700	1,650	2,250	1,750	2,575	2,075	11,500	2,150	3,400	1,250	35,700
STMCHS Total	STM Fuel Feed: Fuel Conveying System	3,650	6,375	6,900	7,300	9,300	7,200	10,400	9,100	8,300	8,100	2,850	5,750	85,225
STMCSM Total	STM Consummables	21,650	20,400	19,900	22,400	20,400	21,400	19,400	22,650	23,400	19,400	22,400	17,400	250,800
STMCW Total	STM Cooling Water System	1,600	700	1,800	1,500	1,000	1,700	2,000	1,150	750	700	1,150	0	14,050
STMCWS Total	STM Circulating Water/Cooling Towers	5,050	4,800	5,950	6,900	5,900	6,400	4,650	5,350	6,750	40,400	5,200	4,800	102,150
STMEDT Total	STM Switchgear/Bus	1,900	8,400	7,500	1,400	7,000	8,700	6,850	1,200	7,250	1,200	14,400	1,300	67,100
STMEL Total	STM Bldgs & Grounds: Elevators	4,800	4,800	3,300	4,300	3,800	3,800	3,500	3,200	3,800	3,400	3,600	3,400	45,700
STMEVS Total	STM Emission Controls:CEM	8,250	7,750	10,700	6,550	15,150	6,450	10,650	7,550	7,450	14,300	5,250	7,450	107,500
STMFGD Total	STM Emission Controls: Scrubbers	3,350	7,900	26,800	11,550	3,950	14,325	3,000	5,800	13,400	10,775	9,550	2,300	112,700
STMFGX Total	STM Limestone Grinding/Processing	5,535	15,235	19,534	16,834	13,934	10,134	16,534	3,834	7,334	10,464	5,334	6,334	131,040
STMFGXMEW Total	STM Emission Controls: SDRS Mist Eliminator	0	3,100	3,200	600	0	4,100	200	2,200	2,500	200	1,800	900	18,800
STMFGXPWS Total	STM Emission Controls: SDRS Potable Water	200	200	300	1,600	300	200	300	200	100	200	100	100	3,800
STMFGXSAB Total	STM Emission Controls: SDRS Absorber Bldg	1,500	5,000	2,000	1,000	2,500	1,000	3,600	1,300	2,000	1,500	1,400	1,200	24,000
STMFGXSBB Total	STM Emission Controls: SDRS Scrubber Bldg	150	150	150	1,000	100	200	150	150	100	150	150	100	2,550
STMFGXSTK Total	STM Emission Controls: SDRS Scrubber Stack	500	0	1,000	1,200	0	1,400	0	600	1,700	0	700	700	7,800
STMFGXTRW Total	STM Emission Controls: SDRS Thickener Return	800	9,250	750	750	350	300	750	1,150	750	1,150	550	750	17,300
STMFOS Total	STM Fuel Oil System	900	1,700	1,500	1,150	450	1,100	1,100	1,800	1,300	500	800	900	13,200
STMFPS Total	STM Fire Protection	1,550	2,050	2,750	2,550	1,550	2,050	1,250	2,550	1,550	1,050	4,050	1,050	24,000
STMHVC Total	STM Bldgs & Grounds: HVAC	1,900	3,700	4,415	3,600	5,800	4,500	4,900	3,850	3,700	2,200	3,700	1,900	44,165
STMOHC Total	STM Overhead Cranes & Hoists	1,000	2,500	2,600	3,000	0	1,000	2,000	0	3,600	1,500	2,600	1,000	20,800
STMPAS Total	STM Air System	10,000	4,050	3,000	8,300	21,000	3,000	3,000	2,150	9,900	3,700	2,100	3,000	73,200
STMPCM Total	STM Plant Communications	1,300	1,700	3,100	1,900	1,300	1,900	1,600	1,300	3,200	1,900	1,300	1,200	21,700
STMPCS Total	STM Plant Controls	2,100	1,900	2,100	1,000	3,260	1,000	0	1,000	2,100	2,000	1,400	1,400	19,260
STMPLC Total	STM Controls/Computer Systems	3,100	4,100	122,535	8,100	62,900	16,200	5,600	5,500	4,200	2,900	4,300	4,200	243,635
STMPLS Total	STM Plant Lighting System	11,300	8,200	12,900	12,350	14,950	7,100	7,500	8,800	11,750	14,350	10,100	8,500	127,800
STMPWS Total	STM Service Water System	100	100	100	100	100	100	100	100	100	100	100	100	1,200
STMTRD Total	STM Recording/Indicating Devices	900	1,150	3,350	1,500	500	200	500	1,000	1,500	1,500	1,500	0	13,600
STMSCR Total	STM Nox Reduction-SCR Maintenance	8,000	4,000	51,200	26,500	4,000	5,000	4,000	22,200	24,000	21,500	3,000	3,000	176,400
STMSGU Total	STM Boilers & Burners	26,750	39,050	33,750	35,450	37,250	61,300	33,700	28,875	34,225	33,200	27,000	30,500	421,050
STMSGUFDE Total	STM Fans/Draft System	1,800	5,150	4,450	5,100	3,200	9,000	2,900	4,300	6,250	4,400	2,900	3,100	52,550
STMSGUFPE Total	STM Fuel Feed: Mills and Feeders	5,800	9,700	12,000	11,100	3,800	7,400	5,000	4,900	9,900	8,000	11,100	3,900	92,600
STMSGUPRP Total	STM Emission Controls: Precipitators	4,000	6,500	7,000	4,000	8,000	6,000	5,750	5,000	6,750	5,000	3,500	500	62,000
STMTGN Total	STM Turbine/Generator	4,000	5,000	3,100	5,250	3,500	4,000	5,400	7,600	3,150	4,500	4,000	3,000	52,500
STMTGNDGS Total	STM Diesel/Generator	100	70	300	600	300	200	250	330	200	1,250	0	500	4,100
STMTR Total	STM Tool Room	3,500	3,400	4,050	3,250	3,600	4,000	4,700	6,000	5,500	4,500	5,500	4,500	52,500
STMWWS Total	STM Effluent Control(Waste Water Treatment)	350	350	350	1,500	350	400	300	400	300	400	550	350	5,600
STOADM Total	STO Administrative	18,536	18,011	23,161	23,736	18,011	25,831	19,181	23,261	24,761	18,411	18,011	18,040	248,951
STOCHSBUS Total	FH Coal Unloading Barge	0	0	12,000	0	12,000	0	37,000	54,000	25,000	12,000	0	0	152,000

## Reid/Station Two

### 2011 O&M Non-Labor Budget (Gross)

<u>Number</u>	<u>Description</u>	<u>Jan-11</u>	<u>Feb-11</u>	<u>Mar-11</u>	<u>Apr-11</u>	<u>May-11</u>	<u>Jun-11</u>	<u>Jul-11</u>	<u>Aug-11</u>	<u>Sep-11</u>	<u>Oct-11</u>	<u>Nov-11</u>	<u>Dec-11</u>	<u>TOTAL</u>
STOCSM Total	STO Consummables	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	12,000
STOFGD Total	STO HMPL FGD Shared Equipment	31,869	31,869	31,869	31,869	31,869	31,869	31,869	31,869	31,869	31,869	31,869	31,869	382,428
STOIS Total	STO Outside Industrial Svc	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	13,800	165,600
STOLAB Total	STO Laboratory	14,050	16,550	59,500	25,350	19,400	33,900	14,300	16,650	22,380	17,450	17,000	23,900	280,430
STOMEQ Total	FH Mobile Fuels Equipment	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	216,000
STOMEQCVH Total	STO Vehicles (Mtc, Gas, Oil)	4,450	4,450	4,450	4,450	4,450	4,450	4,450	4,450	4,450	4,450	4,450	4,450	53,400
STOPST Total	STO Buildings & Grounds	13,095	16,095	22,095	11,325	11,325	12,900	12,900	36,400	11,400	11,400	20,400	13,170	192,505
STOSCR Total	STO SCR Operation	9,000	9,000	9,000	24,000	9,000	139,000	9,000	9,000	9,000	85,000	87,000	9,000	407,000
STOSGU Total	STO Boilers and Burners	27,000	30,000	18,000	0	19,200	39,000	18,000	0	27,800	30,000	18,000	9,000	236,000
STOSGUFPE Total	STO Mills and Feeders	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	192,000
STOTGN Total	STO Turbine/Generator	5,330	5,330	5,340	5,330	5,330	5,340	5,330	5,330	5,340	5,330	5,330	5,340	64,000
STOTR Total	STO Tool Room	0	0	2,550	0	1,000	0	1,500	0	350	1,000	0	1,000	7,400
Grand Total		497,170	706,010	1,141,769	4,123,729	2,682,174	924,109	702,404	687,394	787,339	751,939	684,359	466,948	14,155,344
Total 2011 Budget		497,170	706,010	1,141,769	4,123,729	2,682,174	924,109	702,404	687,394	787,339	751,939	684,359	466,948	14,155,344
HMPL Allocation		122,119	182,612	303,864	1,207,299	783,588	224,292	178,485	171,957	172,277	185,808	157,146	114,482	3,803,928
BREC Share		375,051	523,398	837,905	2,916,430	1,898,586	699,817	523,919	515,437	615,062	566,131	527,213	352,466	10,351,416





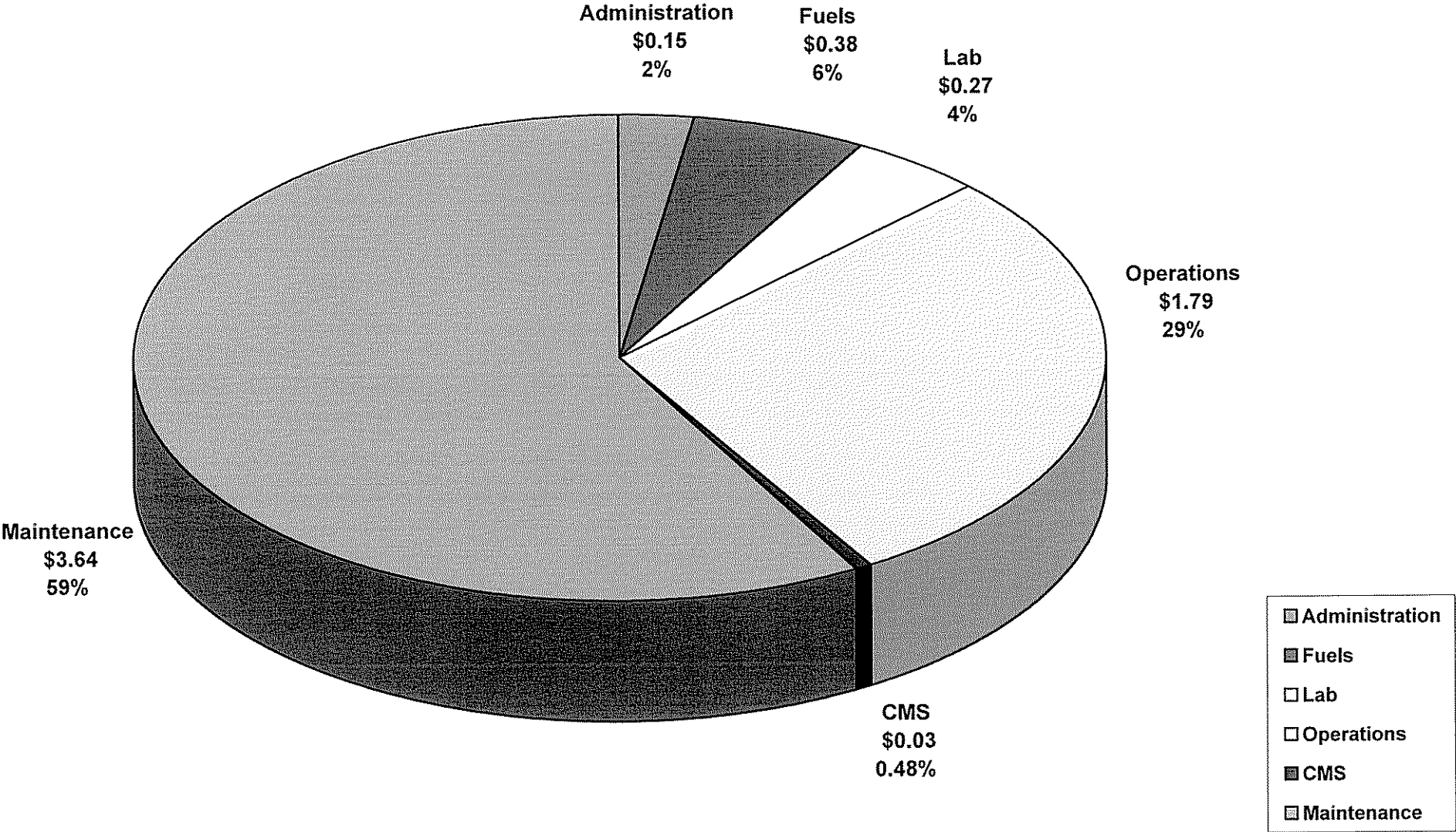
## Big Rivers Electric Cooperative Green Station NET Total O&M Summary

	2009	2010	2011
Administration	\$ 553,810	\$ 570,323	\$ 582,530
Fuels	1,392,447	1,416,714	1,441,710
Lab	999,552	1,049,005	1,127,842
Operations	6,583,292	6,799,337	6,932,979
CMS	92,120	92,120	92,120
Maintenance	13,361,380	15,295,290	17,305,855
<b>GN Station Total O&amp;M Non-Labor</b>	<b>\$ 22,982,600</b>	<b>\$ 25,222,788</b>	<b>\$ 27,483,036</b>
Generation @ Green	3,668,755	3,672,767	3,554,020
<b>Total O&amp;M \$/MWH</b>	<b>\$ 6.26</b>	<b>\$ 6.87</b>	<b>\$ 7.73</b>

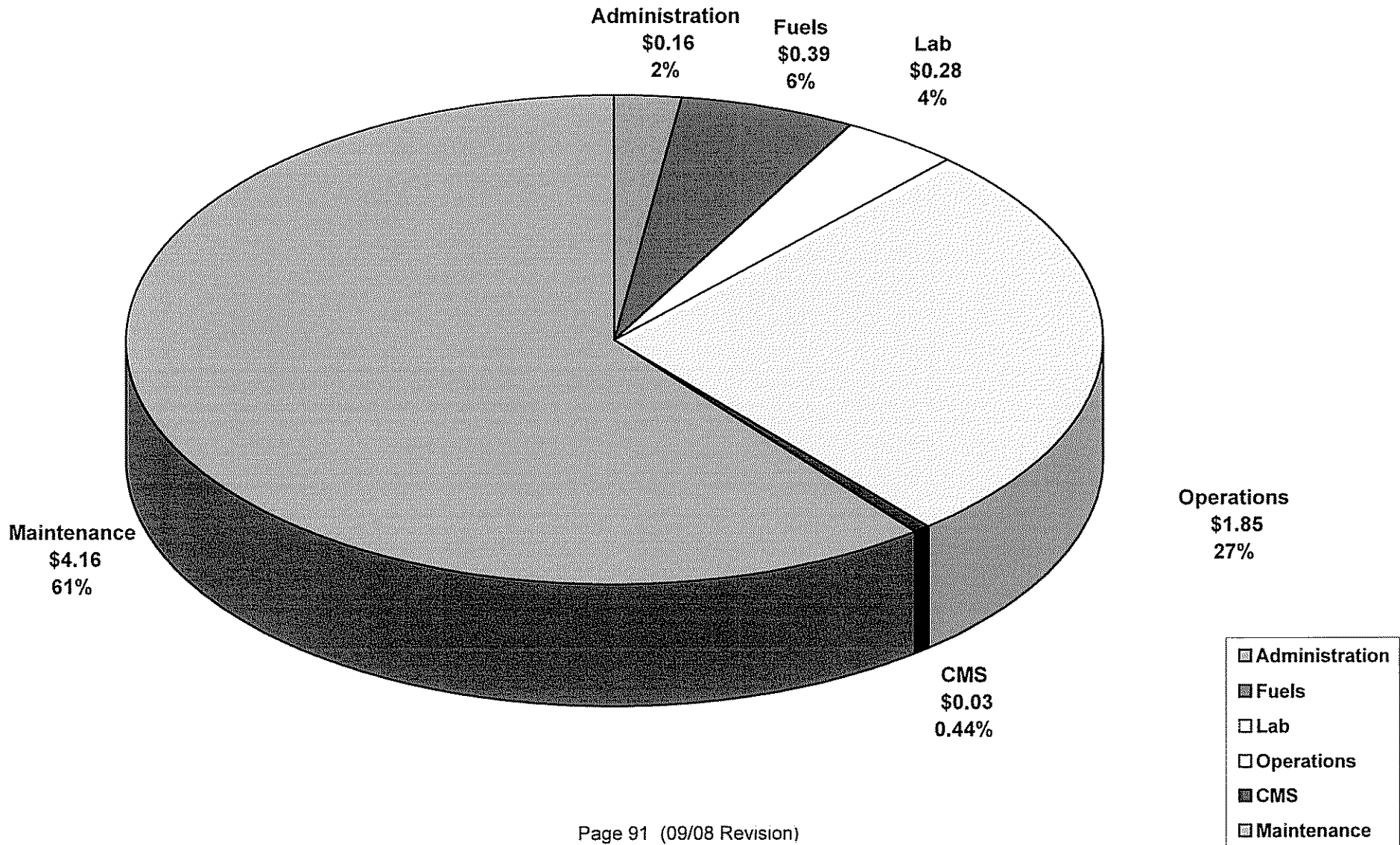
<i>\$/MWH</i>	2009	2010	2011
Administration	\$ 0.15	\$ 0.16	\$ 0.16
Fuels	\$ 0.38	\$ 0.39	\$ 0.41
Lab	\$ 0.27	\$ 0.28	\$ 0.32
Operations	\$ 1.79	\$ 1.85	\$ 1.94
CMS	\$ 0.03	\$ 0.03	\$ 0.03
Maintenance	\$ 3.64	\$ 4.16	\$ 4.87
	<b>\$ 6.26</b>	<b>\$ 6.87</b>	<b>\$ 7.73</b>

<i>Percent</i>	2009	2010	2011
Administration	2%	2%	2%
Fuels	6%	6%	5%
Lab	4%	4%	4%
Operations	29%	27%	25%
CMS	0%	0%	0%
Maintenance	58%	61%	63%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

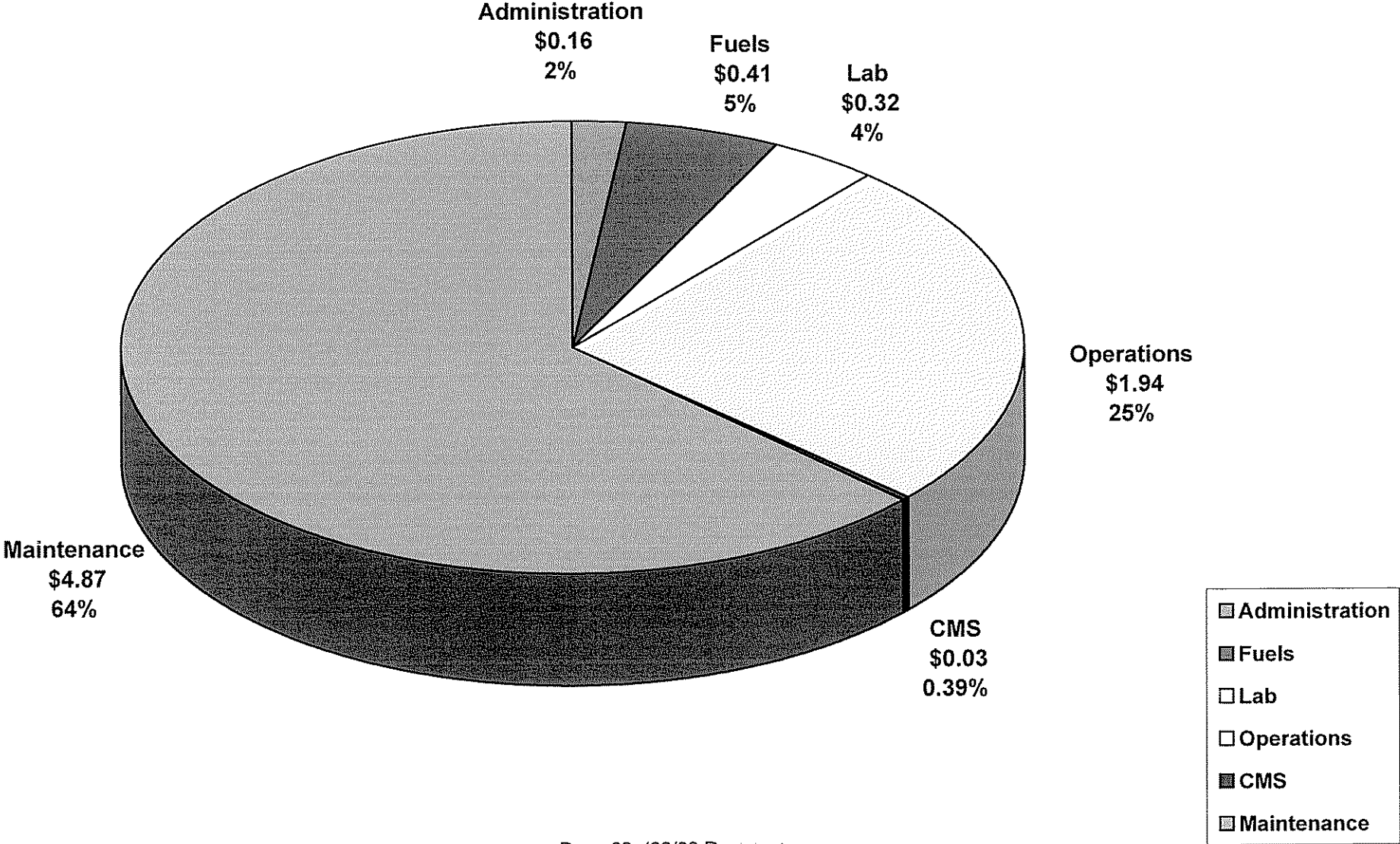
# 2009 Green Station Total O&M is \$6.26 / MWh



# 2010 Green Station Total O&M is \$6.87 / MWh



# 2011 Green Station Total O&M is \$7.73 / MWh



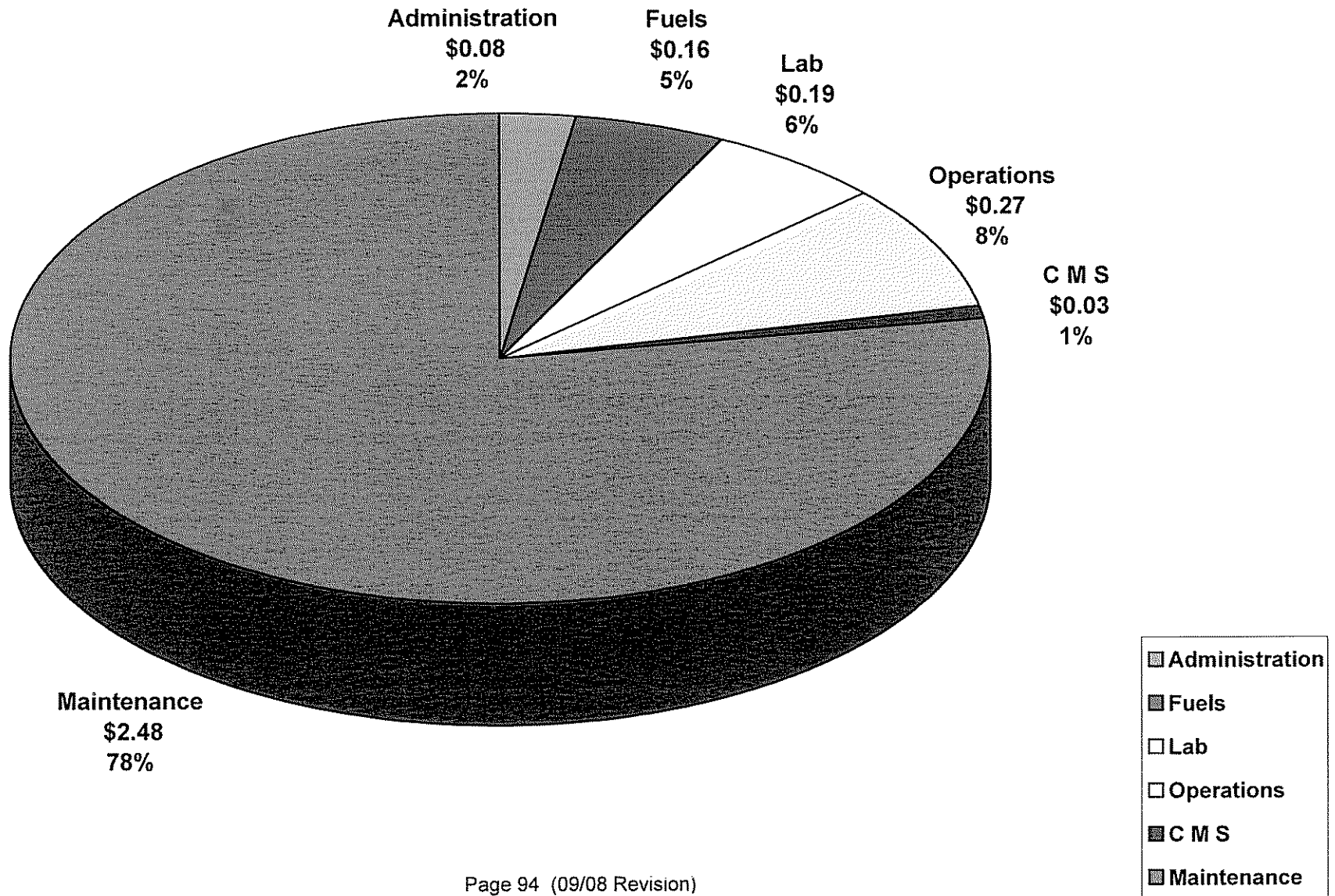
**Big Rivers Electric Cooperative**  
**Green Station Net Non-Labor Summary**

	2009	2010	2011
Administration	283,393	291,793	295,645
Fuels	583,520	583,520	583,520
Lab	684,455	724,455	793,555
Operations	994,619	950,427	650,247
Central Machine Shop	92,120	92,120	92,120
Maintenance	9,095,696	10,809,058	12,848,037
<b>GN Station Total O&amp;M Non-Labor</b>	<b>\$ 11,733,803</b>	<b>\$ 13,451,373</b>	<b>\$ 15,263,124</b>
Generation @ Green	3,668,755	3,672,767	3,554,020
<b>Non-Labor \$/MWH</b>	<b>\$ 3.20</b>	<b>\$ 3.66</b>	<b>\$ 4.29</b>

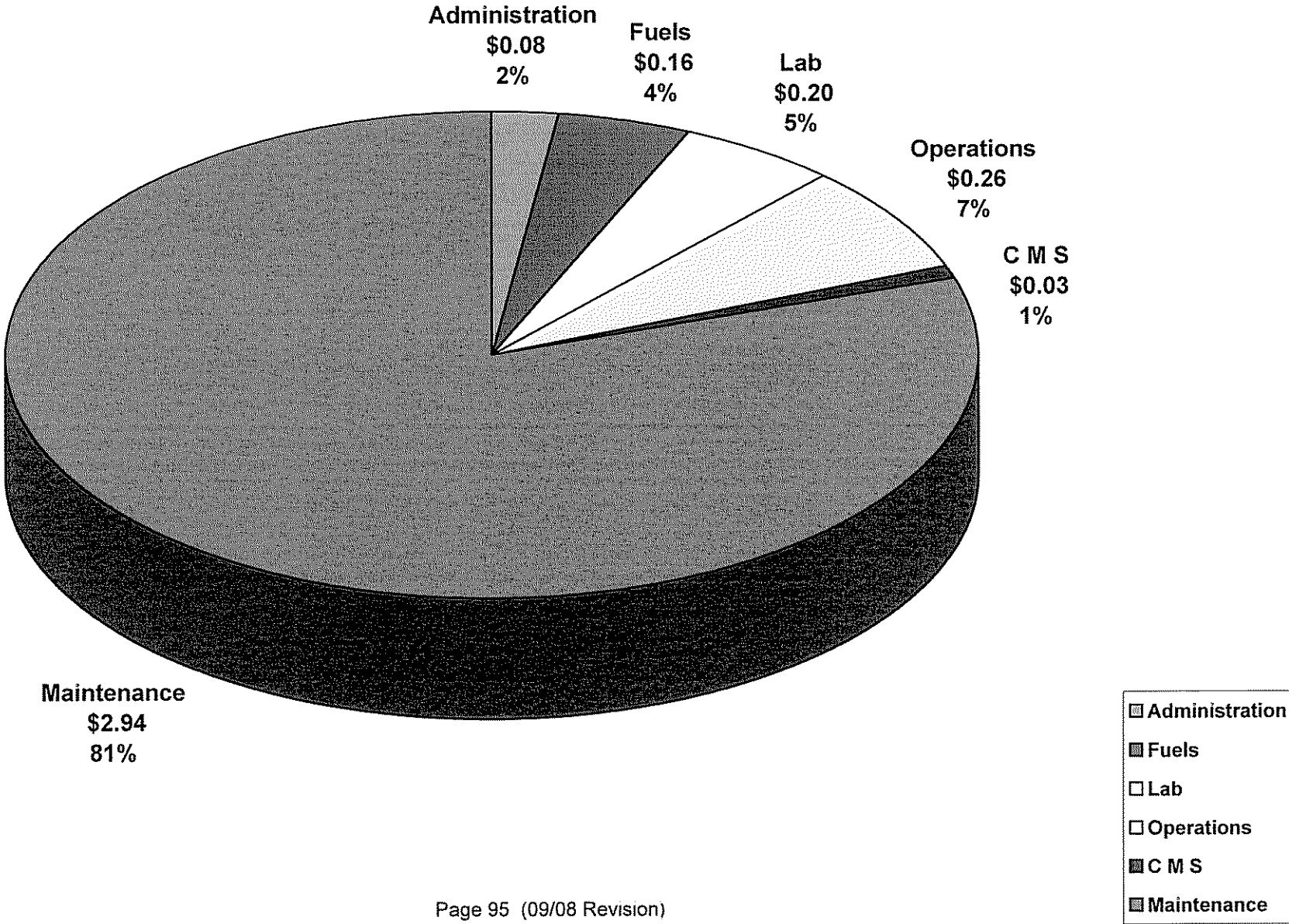
<i>\$/MWH</i>	2009	2010	2011
Administration	\$ 0.08	\$ 0.08	\$ 0.08
Fuels	\$ 0.16	\$ 0.16	\$ 0.16
Lab	\$ 0.19	\$ 0.20	\$ 0.22
Operations	\$ 0.27	\$ 0.26	\$ 0.18
C M S	\$ 0.03	\$ 0.03	\$ 0.03
Maintenance	\$ 2.48	\$ 2.94	\$ 3.62
	<b>\$ 3.20</b>	<b>\$ 3.67</b>	<b>\$ 4.29</b>

<i>Percent</i>	2009	2010	2011
Administration	2%	2%	2%
Fuels	5%	4%	4%
Lab	6%	5%	5%
Operations	8%	7%	4%
Central Machine Shop	1%	7%	1%
Maintenance	78%	1%	84%
	<b>100%</b>	<b>27%</b>	<b>100%</b>

# 2009 GN Total O&M Non-Labor is \$3.20 / MWh

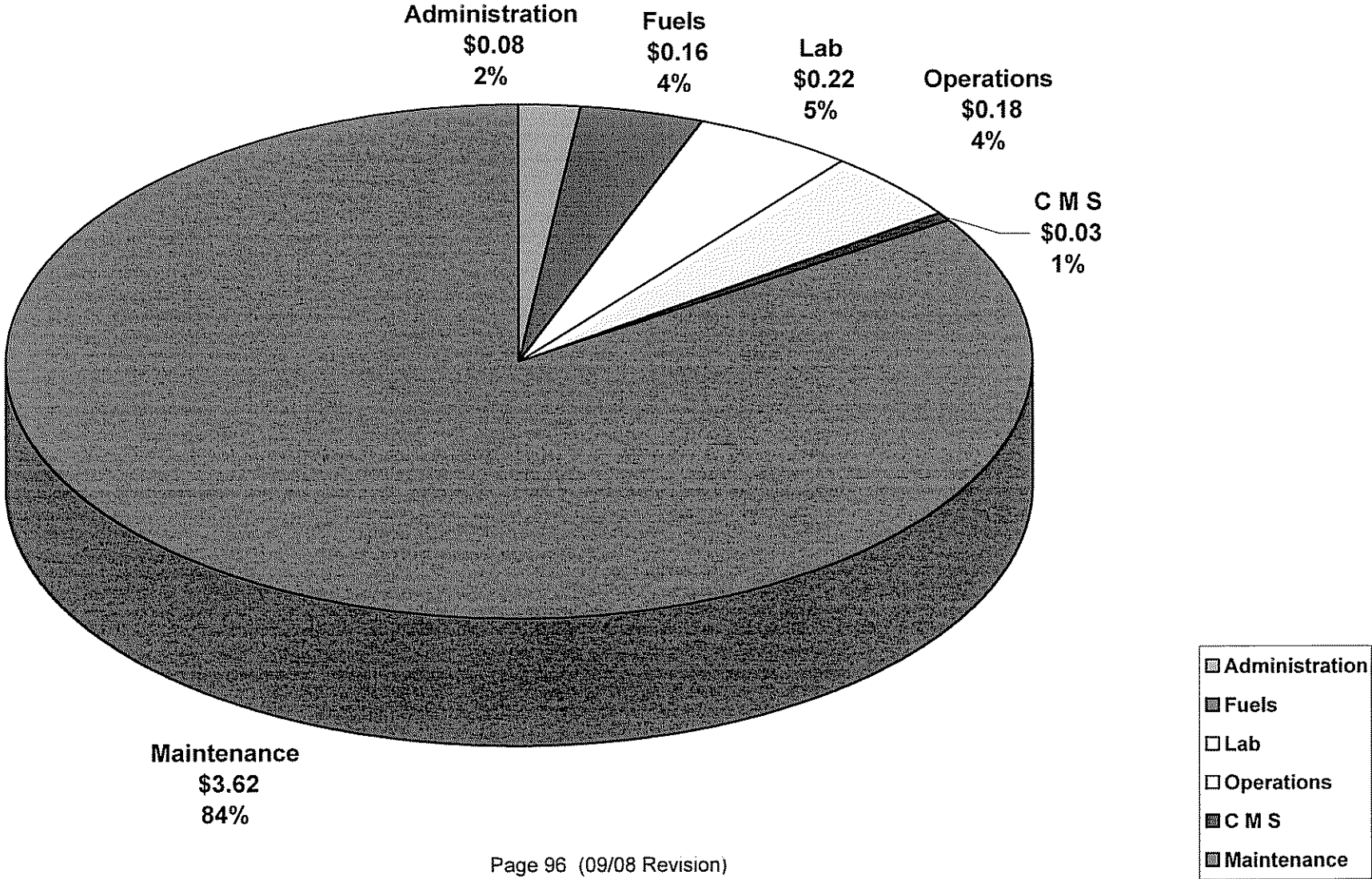


# 2010 GN Total O&M Non-Labor is \$3.66 / MWh





# 2011 GN Total O&M Non-Labor is \$4.29 / MWh





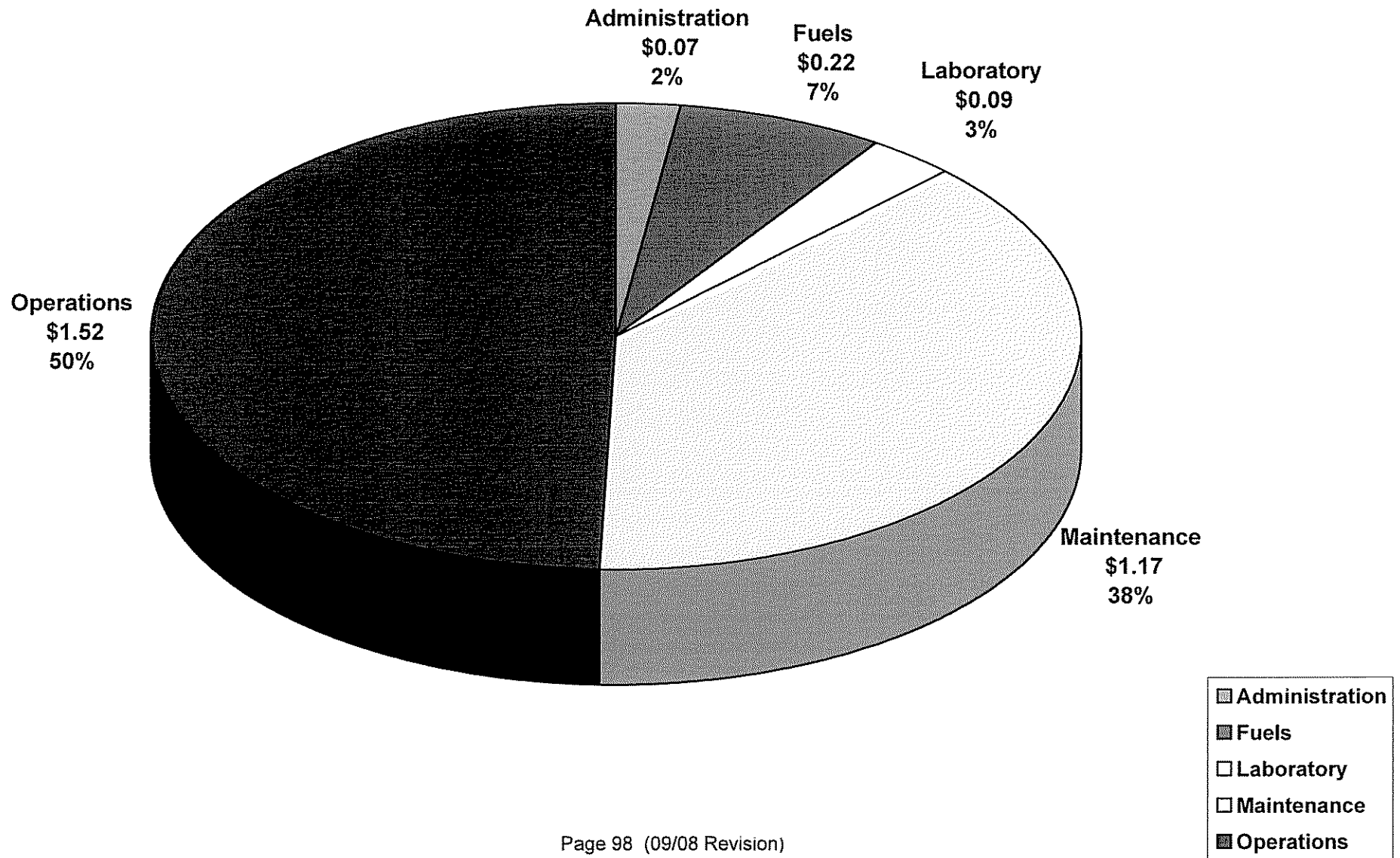
**Big Rivers Electric Cooperative**  
**Green Station Net Labor Summary**

	2009	2010	2011
Administration	\$ 270,417	\$ 278,530	\$ 286,885
Fuels	808,927	833,194	858,190
Laboratory	315,097	324,550	334,287
Maintenance	4,265,684	4,486,232	4,620,819
Operations	5,588,673	5,848,910	6,119,732
<b>Net Labor and Labor Related Costs</b>	<b>\$ 11,248,797</b>	<b>\$ 11,771,415</b>	<b>\$ 12,219,913</b>
Generation @ Green	3,668,755	3,672,767	3,554,020
<b>Labor \$/MWH</b>	<b>\$ 3.07</b>	<b>\$ 3.21</b>	<b>\$ 3.44</b>

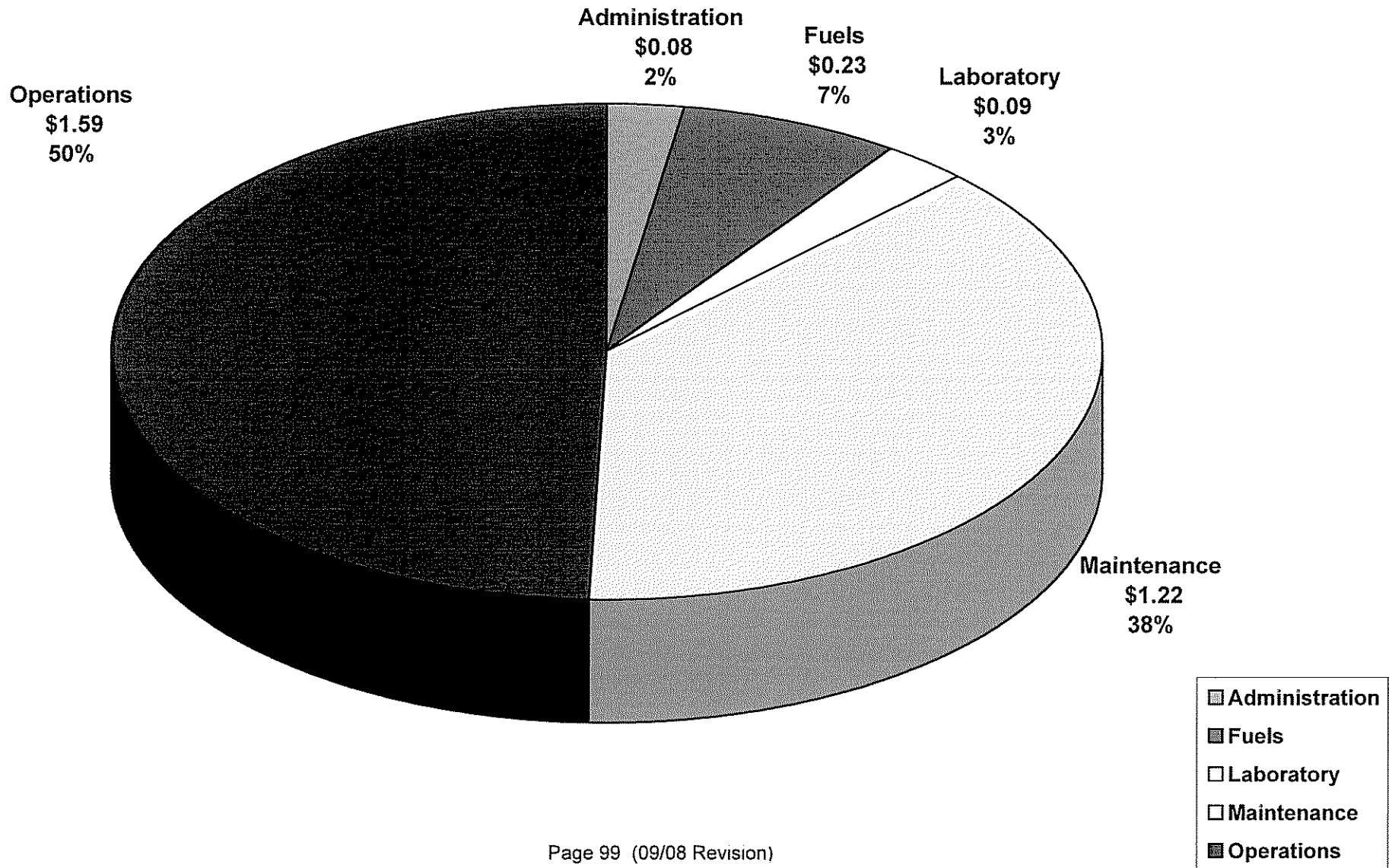
<i>\$/MWH</i>	2009	2010	2011
Administration	\$ 0.07	\$ 0.08	\$ 0.08
Fuels	\$ 0.22	\$ 0.23	\$ 0.24
Laboratory	\$ 0.09	\$ 0.09	\$ 0.09
Maintenance	\$ 1.17	\$ 1.22	\$ 1.31
Operations	\$ 1.52	\$ 1.59	\$ 1.72
	<b>\$ 3.07</b>	<b>\$ 3.21</b>	<b>\$ 3.44</b>

<i>Percent</i>	2009	2010	2011
Administration	2%	2%	2%
Fuels	7%	7%	7%
Laboratory	3%	3%	3%
Maintenance	38%	38%	38%
Operations	50%	50%	50%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

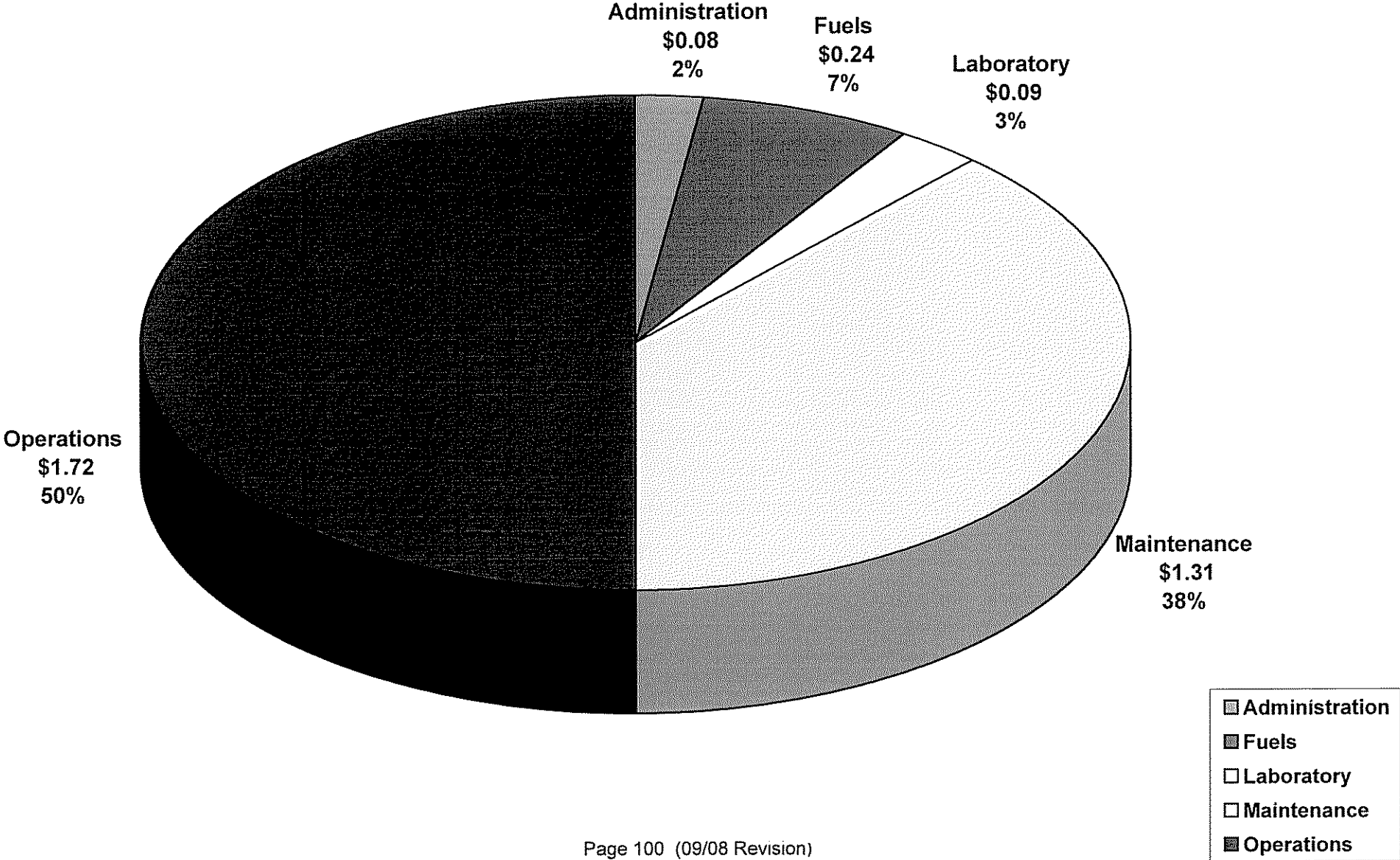
# 2009 Green Station Total O&M Labor is \$3.07 / MWh



# 2010 Green Station Total O&M Labor is \$3.21 / MWh



# 2011 Green Station Total O&M Labor is \$3.44 / MWh





**Big Rivers Electric Cooperative**  
**GN Outage vs. Non-Outage Comparison**

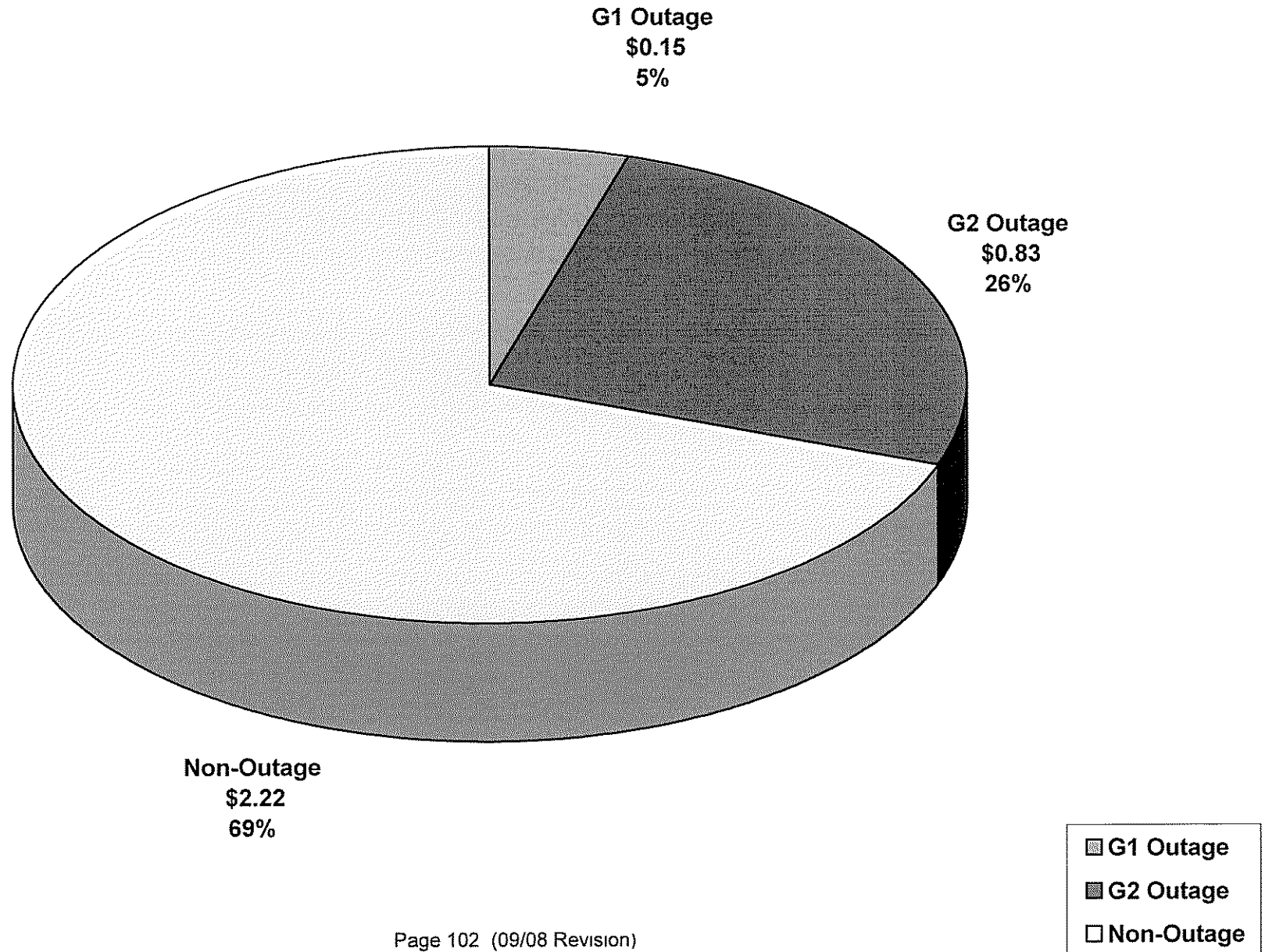
**Non-Labor (Net)**

	2009	2010	2011
G1 Outage	563,000	3,986,140	6,210,319
G2 Outage	3,055,900	593,009	266,200
Non-Outage	8,114,904	8,872,223	8,786,605
<b>Outage/Non-Outage Costs</b>	<b>\$ 11,733,804</b>	<b>\$ 13,451,372</b>	<b>\$ 15,263,124</b>
Generation @ Green	3,668,755	3,672,767	3,554,020
<b>Outage/Non-Outage \$/MWH</b>	<b>\$ 3.20</b>	<b>\$ 3.66</b>	<b>\$ 4.29</b>

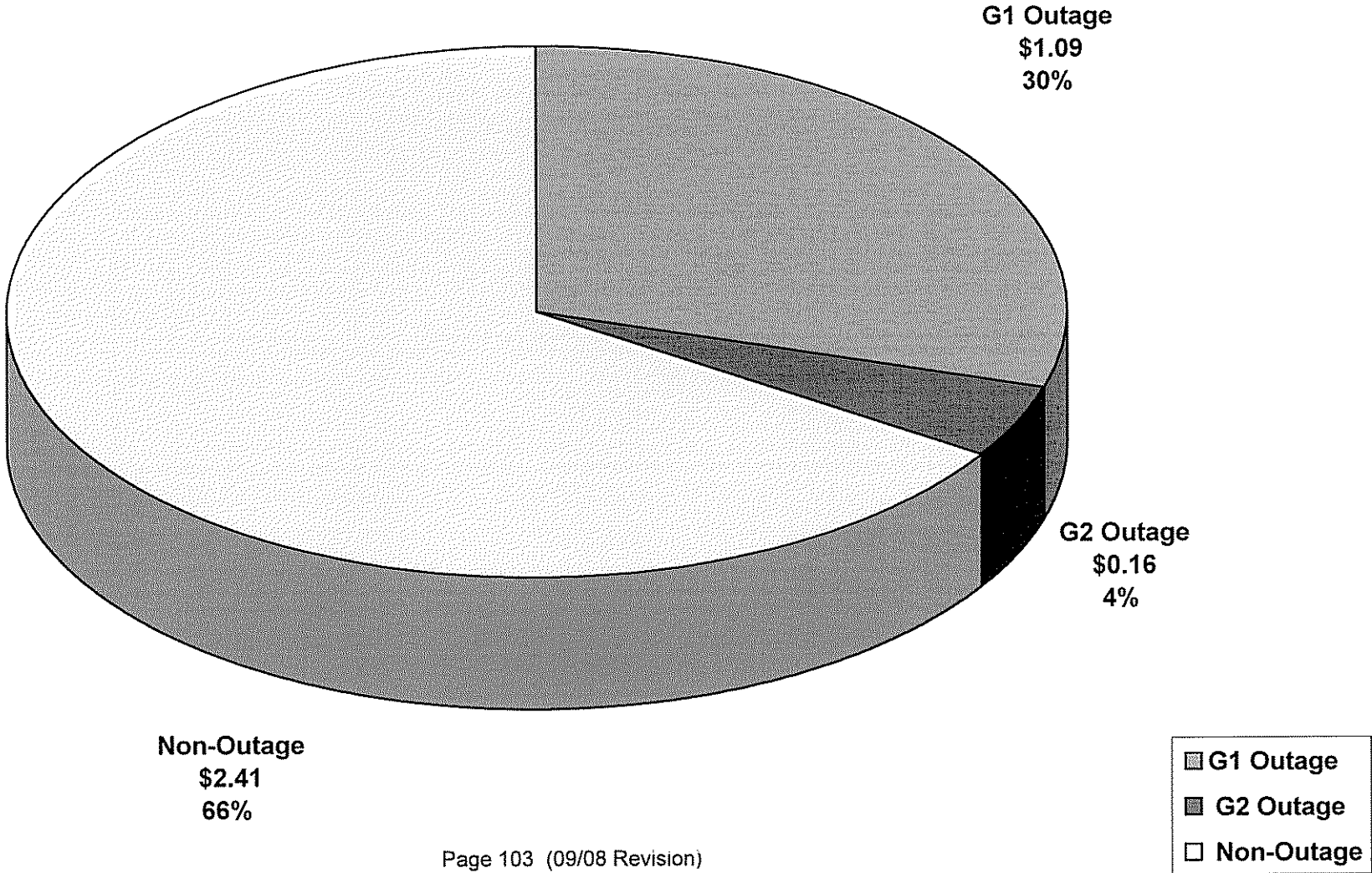
<i>\$/MWH</i>	2009	2010	2011
G1 Outage	\$ 0.15	\$ 1.09	\$ 1.75
G2 Outage	\$ 0.83	\$ 0.16	\$ 0.07
Non-Outage	\$ 2.22	\$ 2.41	\$ 2.47
	<b>\$ 3.20</b>	<b>\$ 3.66</b>	<b>\$ 4.29</b>

<i>Percent</i>	2009	2010	2011
G1 Outage	4%	25%	41%
G2 Outage	23%	4%	2%
Non-Outage	61%	56%	58%
	<b>87%</b>	<b>85%</b>	<b>100%</b>

# 2009 Green Outage vs. Non-Outage Comparison \$3.20 / MWh

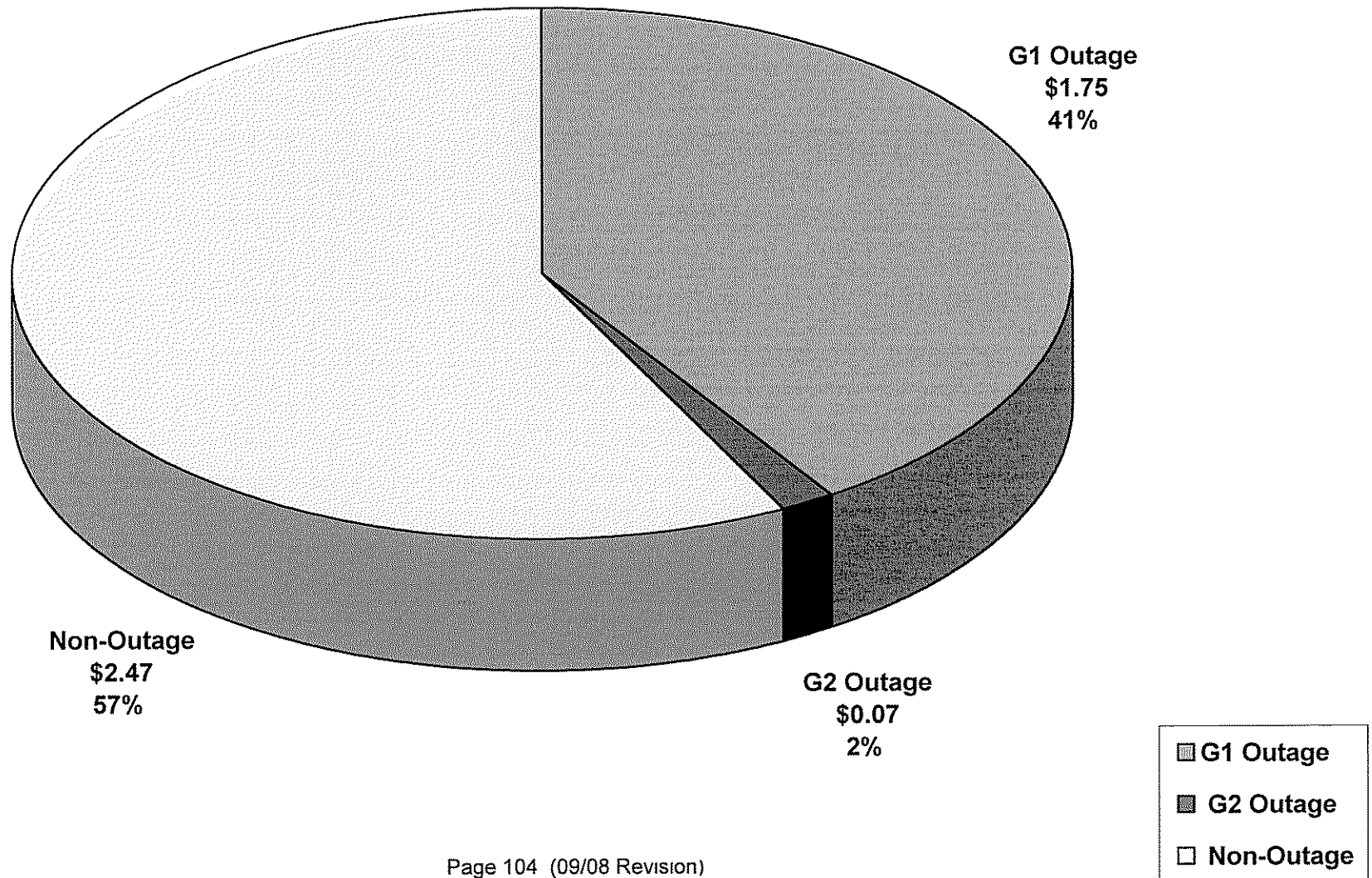


# 2010 Green Outage vs. Non-Outage Comparison \$3.66 / MWh





# 2011 Green Outage vs. Non-Outage Comparison \$4.29 / MWh



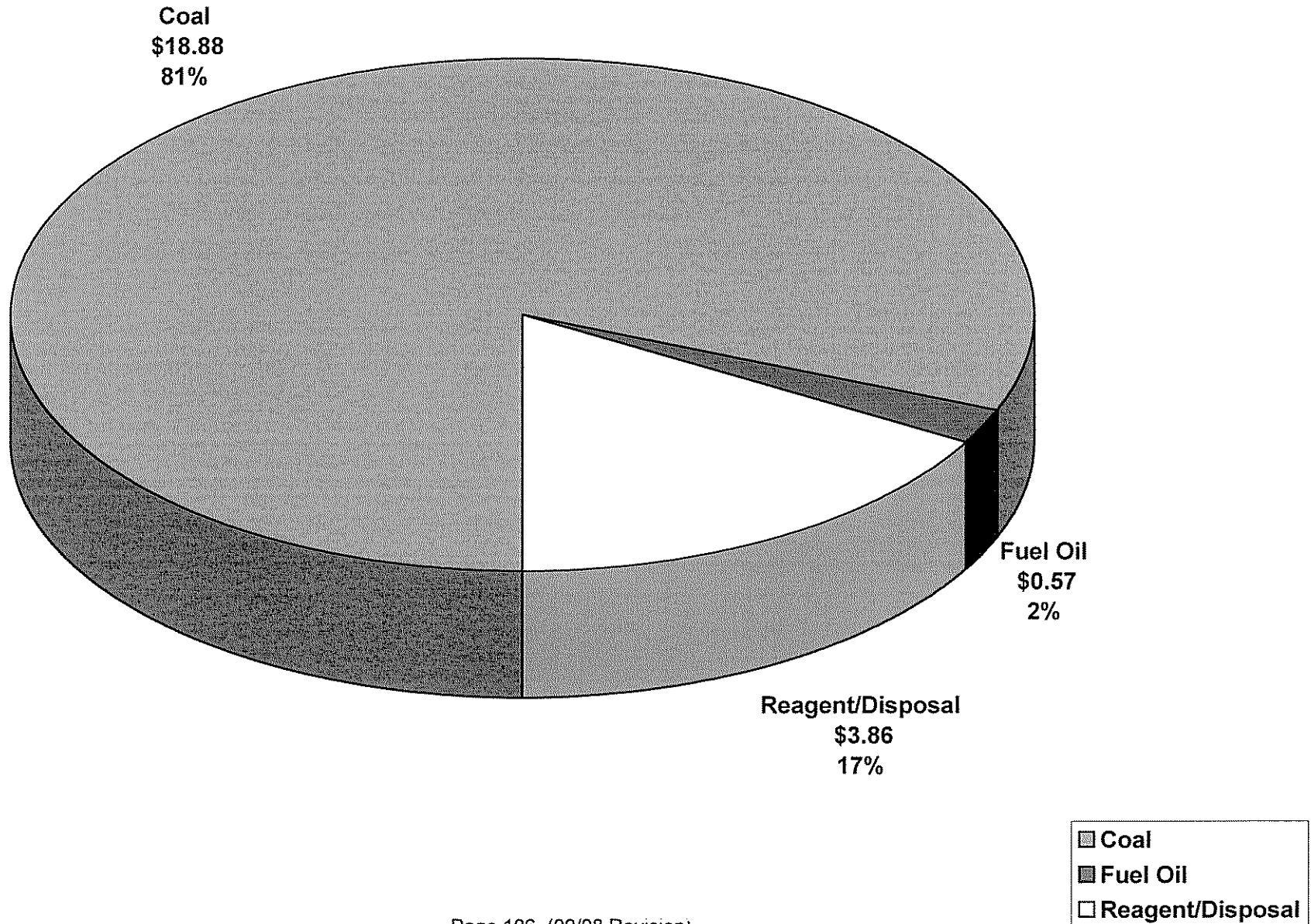
**Big Rivers Electric Cooperative  
Green Station Variable Costs Summary**

	2009	2010	2011
Coal (Fuel Cost)	69,269,880	82,790,616	85,948,905
Fuel Oil (Start Cost)	2,092,796	2,210,235	2,013,292
Reagent/Disposal (VOM)	14,168,556	15,278,714	16,170,780
<b>Total Variable Costs</b>	<b>\$ 85,531,232</b>	<b>\$ 100,279,564</b>	<b>\$ 104,132,977</b>
Generation @ Green	3,668,755	3,672,767	3,554,020
<b>Variable \$/MWH</b>	<b>\$ 23.31</b>	<b>\$ 27.30</b>	<b>\$ 29.30</b>

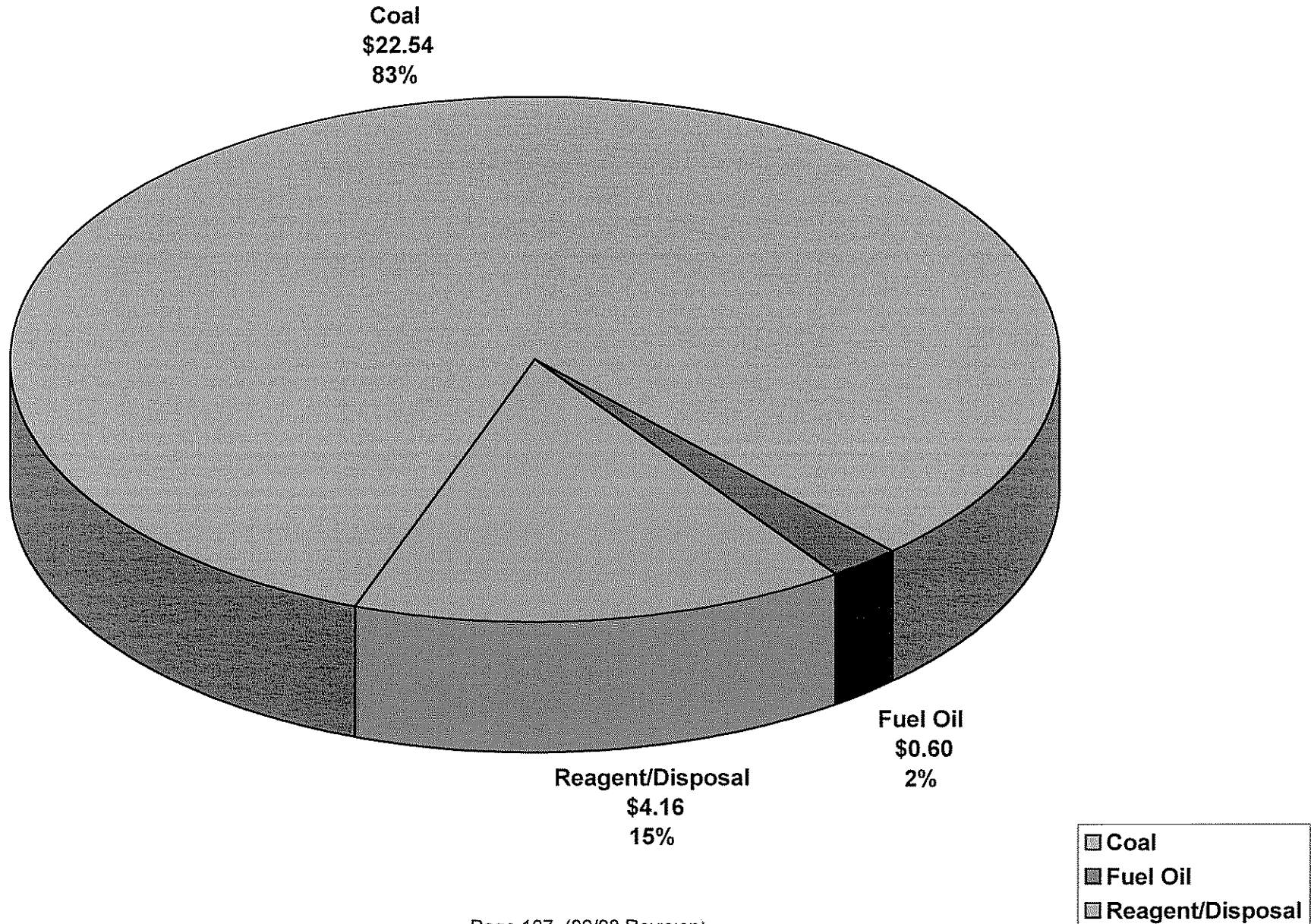
<i>\$/MWH</i>	2009	2010	2011
Coal	\$ 18.88	\$ 22.54	\$ 24.18
Fuel Oil	\$ 0.57	\$ 0.60	\$ 0.57
Reagent/Disposal	\$ 3.86	\$ 4.16	\$ 4.55
	<b>\$ 23.31</b>	<b>\$ 27.30</b>	<b>\$ 29.30</b>

<i>Percent</i>	2009	2010	2011
Coal	81%	83%	83%
Fuel Oil	2%	2%	2%
Reagent/Disposal	17%	15%	16%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

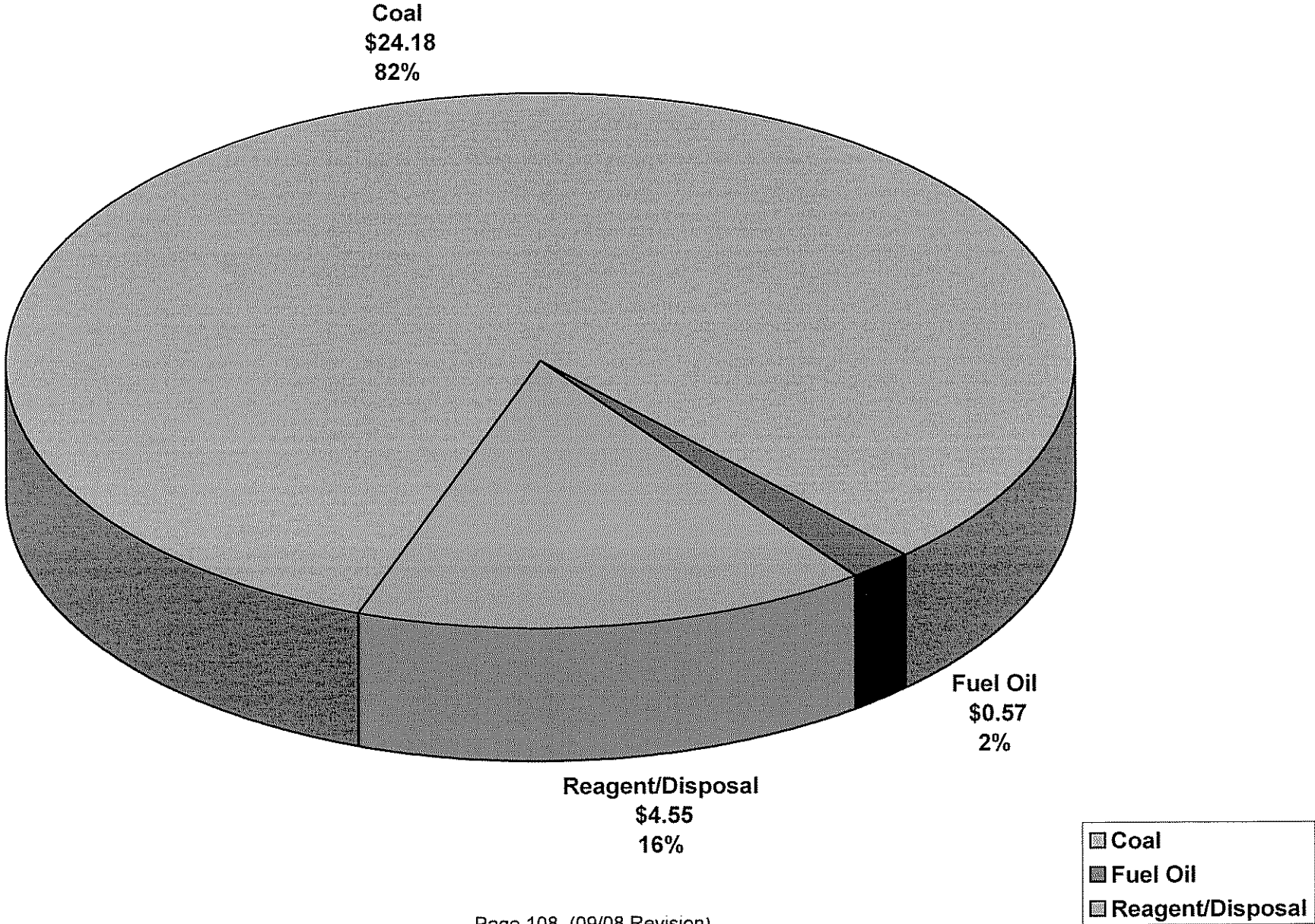
# 2009 Green Station Total Variable Cost is \$23.31 / MWh



# 2010 Green Station Total Variable Cost is \$27.30 / MWh



2011 Green Station Total Variable Cost is \$29.30 / MWh





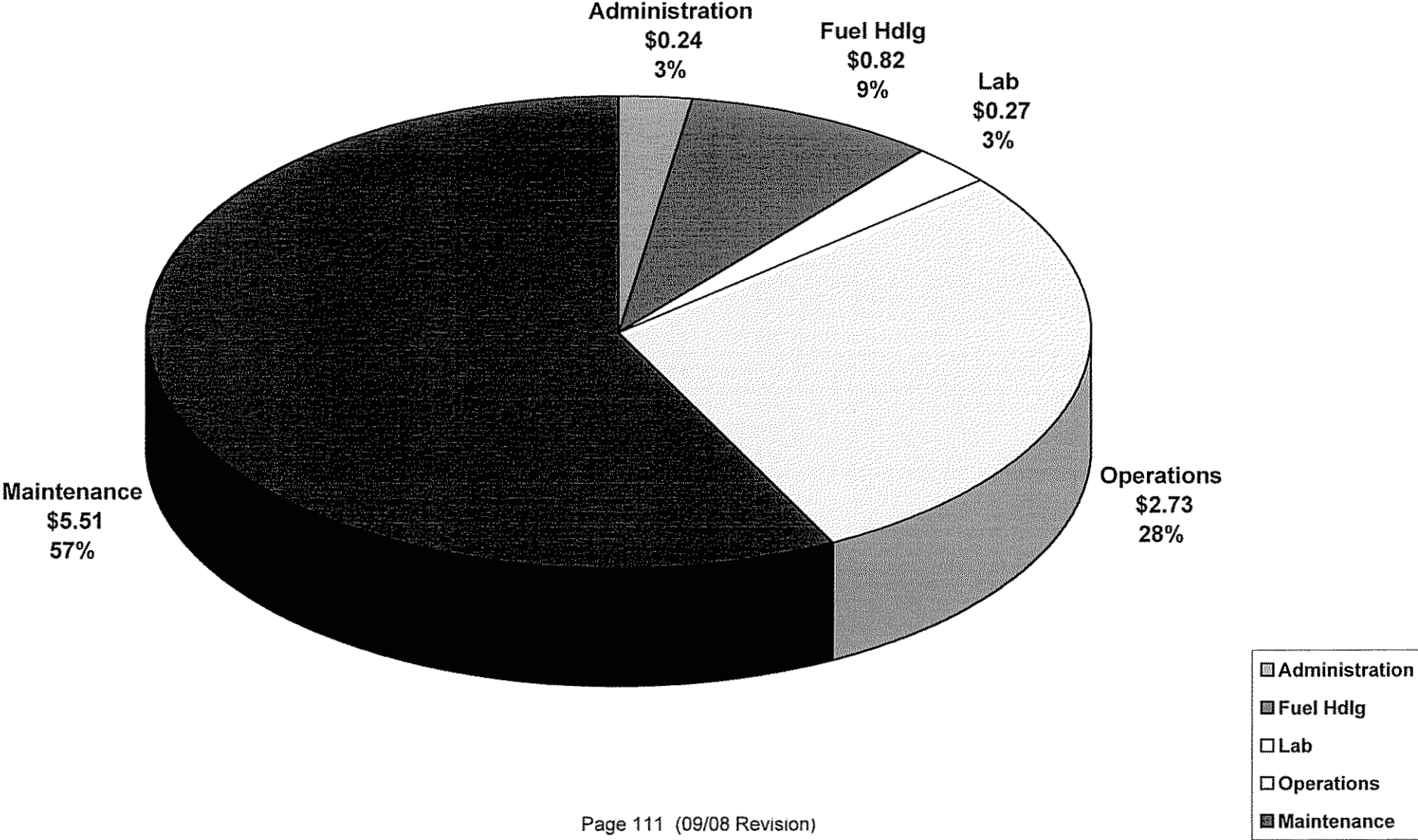
**Big Rivers Electric Cooperative**  
**Reid / Station II NET Total O&M Summary**

	2009	2010	2011
Administration	397,301	403,073	420,942
Fuel Hdlg	1,388,436	1,399,283	1,426,718
Lab	448,497	466,404	483,272
Operations	4,576,169	4,597,768	4,694,517
Maintenance	9,256,815	10,156,761	11,314,868
<b>Reid/Station II Total O&amp;M</b>	<b>\$ 16,067,218</b>	<b>\$ 17,023,289</b>	<b>\$ 18,340,316</b>
 Generation @ R/STII	 1,678,650	 1,685,963	 1,643,365
<b>Non-Labor \$/MWH</b>	<b>\$ 9.57</b>	<b>\$ 10.10</b>	<b>\$ 11.16</b>

<i>\$/MWH</i>	2009	2010	2011
Administration	\$ 0.24	\$ 0.24	\$ 0.26
Fuel Hdlg	\$ 0.82	\$ 0.83	\$ 0.87
Lab	\$ 0.27	\$ 0.28	\$ 0.29
Operations	\$ 2.73	\$ 2.73	\$ 2.86
Maintenance	\$ 5.51	\$ 6.02	\$ 6.88
	<b>\$ 9.57</b>	<b>\$ 10.10</b>	<b>\$ 11.16</b>

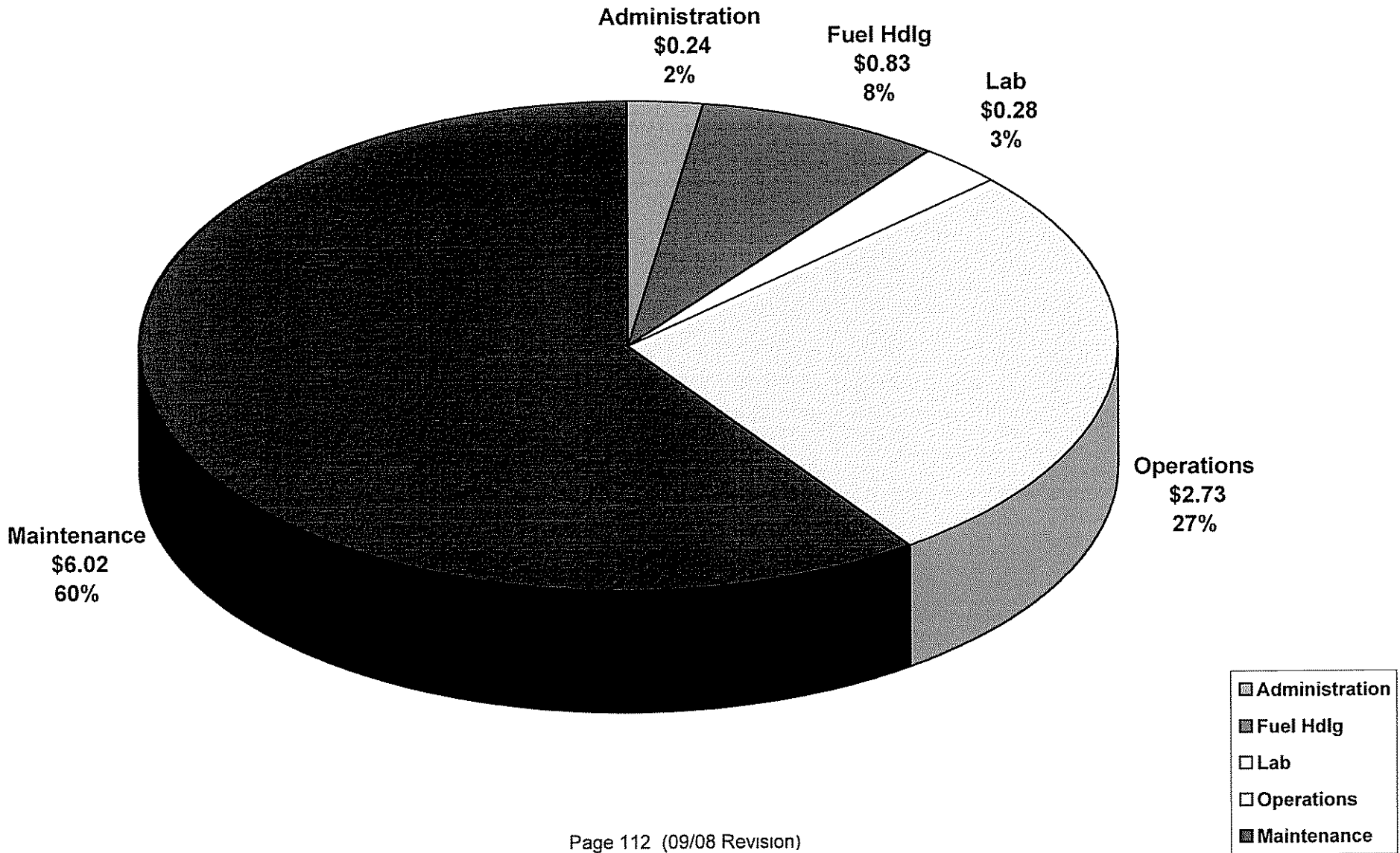
<i>Percent</i>	2009	2010	2011
Administration	3%	2%	2%
Fuel Hdlg	9%	8%	8%
Lab	3%	3%	3%
Operations	29%	27%	26%
Maintenance	58%	60%	62%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

2009 R/STII NET Total O&M is \$9.57 / MWh

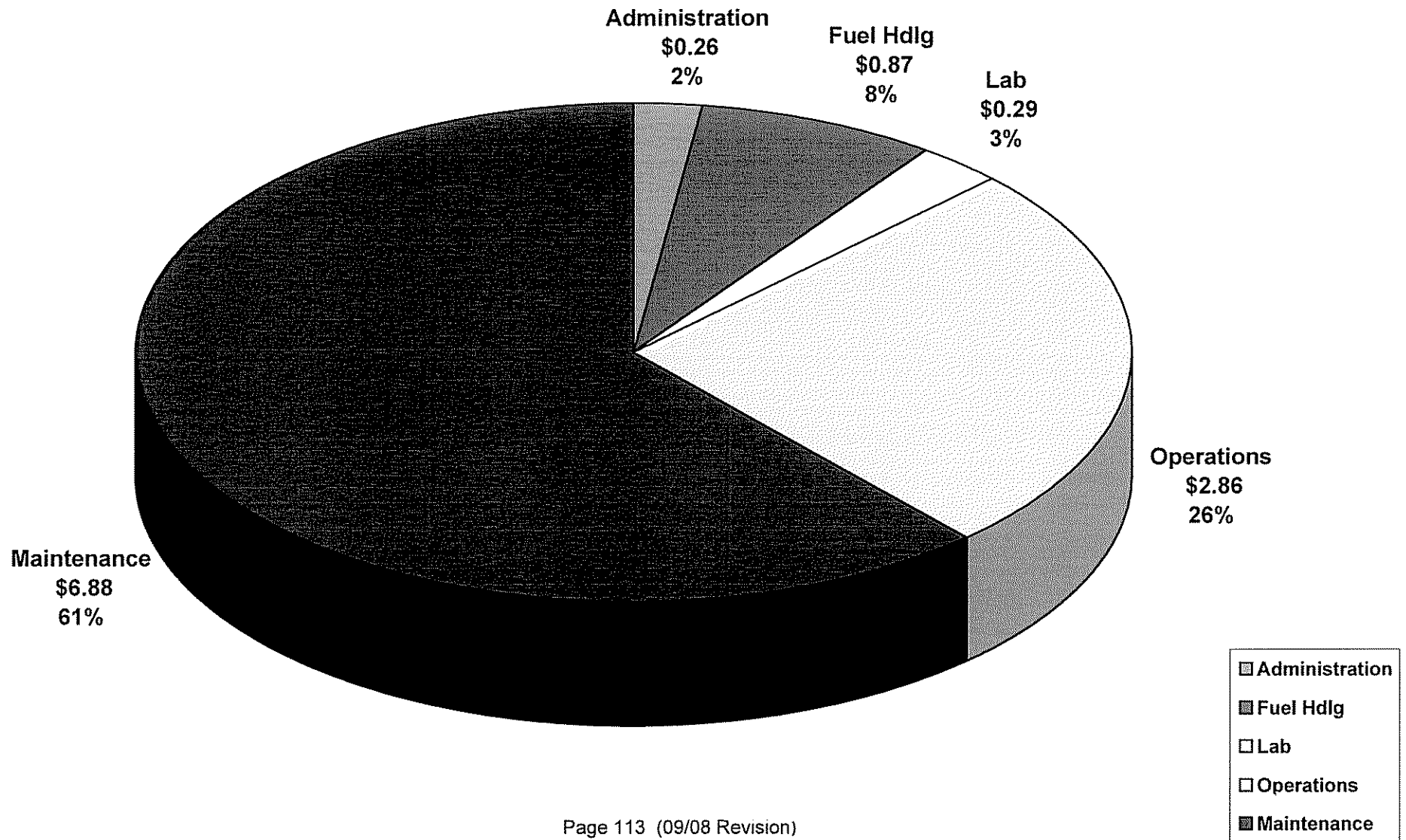




# 2010 R/STII NET Total O&M is \$10.10 / MWH



# 2011 R/STII NET Total O&M is \$11.16 / MWh



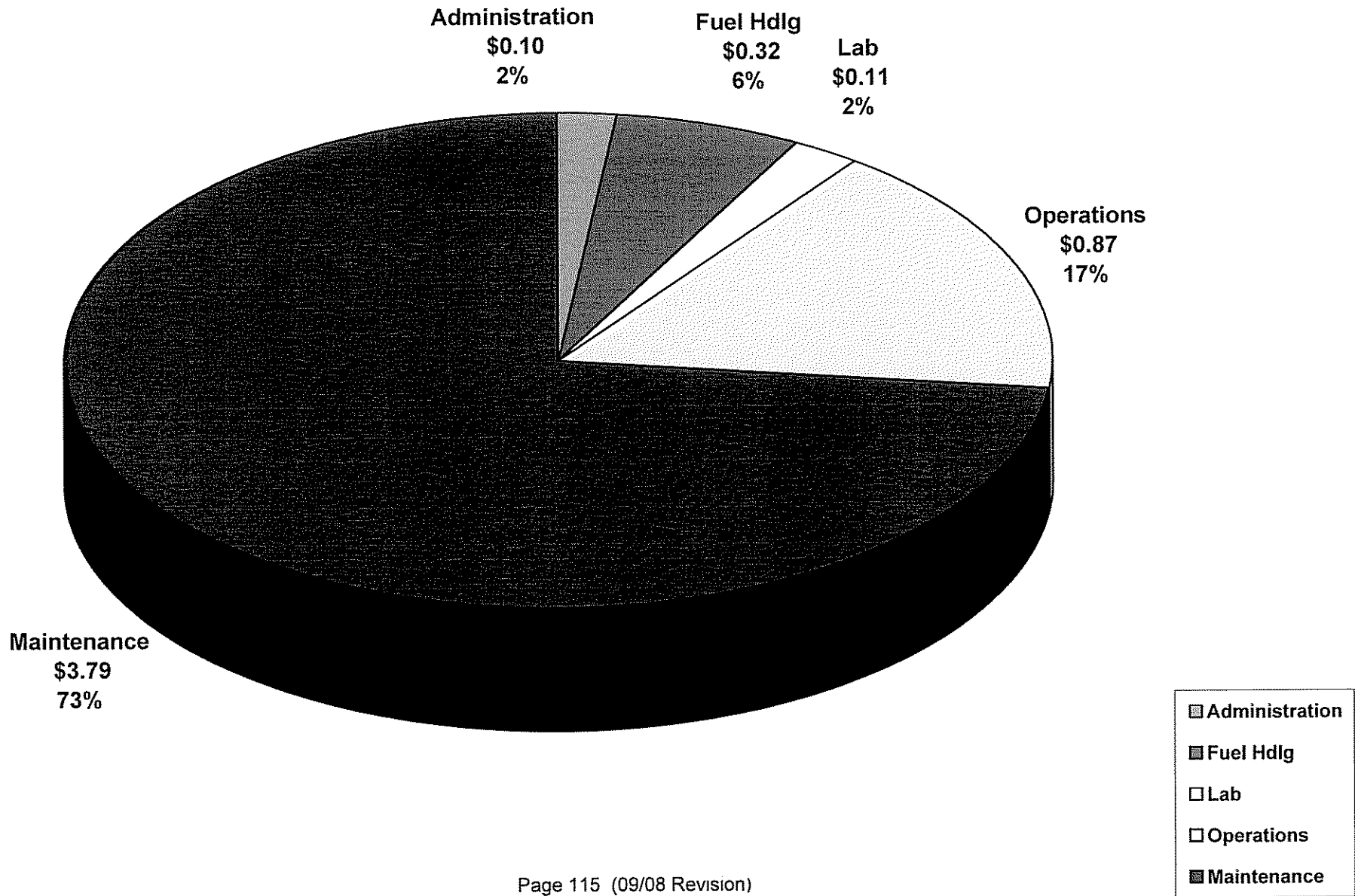
**Big Rivers Electric Cooperative**  
**Reid / Station II Net Non-Labor Summary**

	2009	2010	2011
Administration	176,051	175,186	186,218
Fuel Hdlg	532,045	517,200	518,172
Lab	190,690	200,863	209,765
Operations	1,454,354	1,382,298	1,382,583
Maintenance	6,363,536	7,084,106	8,054,679
<b>Reid/Station II Total O&amp;M Non-Labor</b>	<b>\$ 8,716,676</b>	<b>\$ 9,359,653</b>	<b>\$ 10,351,417</b>
Generation @ R/STII	1,678,650	1,685,963	1,643,365
<b>Non-Labor \$/MWH</b>	<b>\$ 5.19</b>	<b>\$ 5.55</b>	<b>\$ 6.30</b>

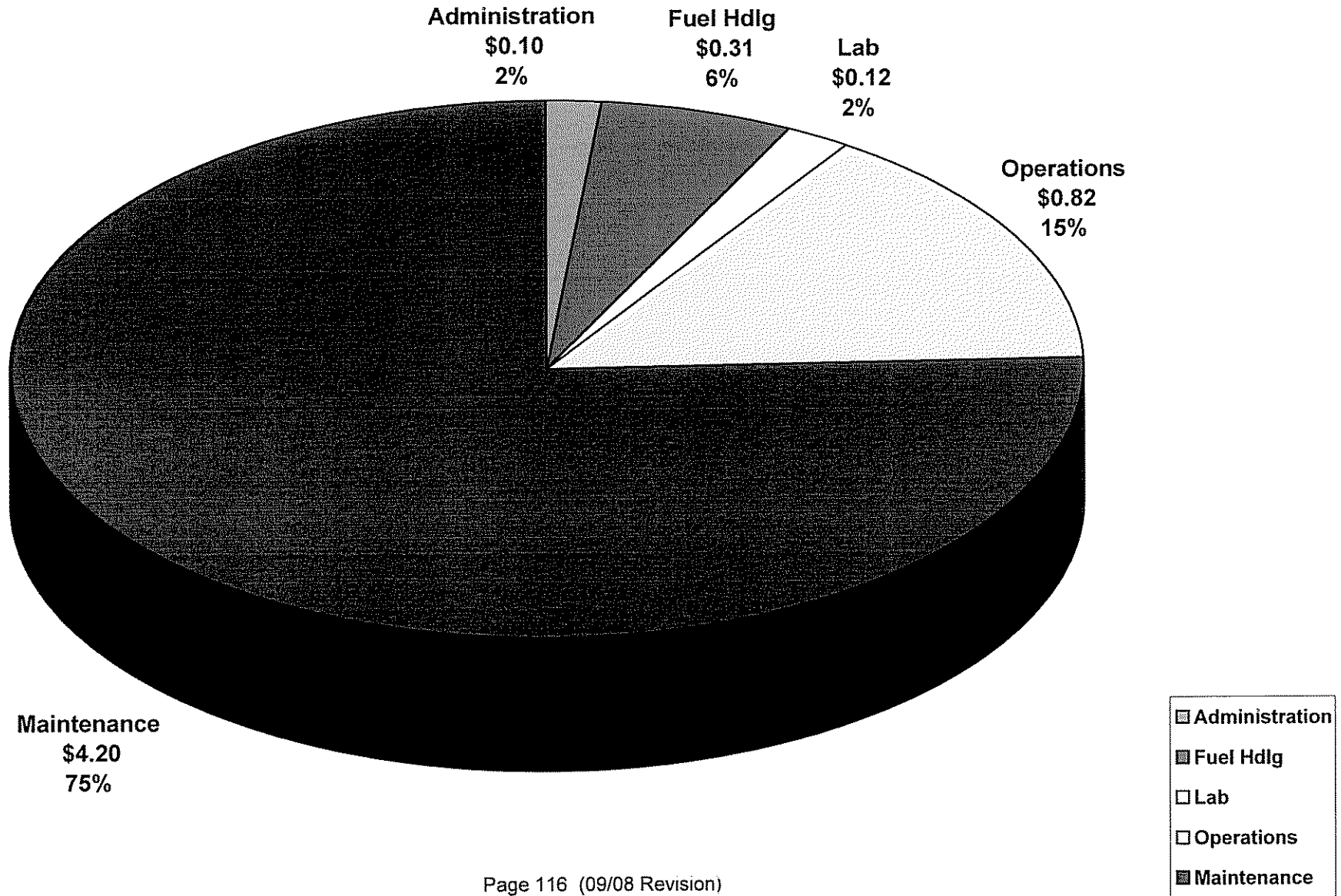
<i>\$/MWH</i>	2009	2010	2011
Administration	\$ 0.10	\$ 0.10	\$ 0.12
Fuel Hdlg	\$ 0.32	\$ 0.31	\$ 0.32
Lab	\$ 0.11	\$ 0.12	\$ 0.13
Operations	\$ 0.87	\$ 0.82	\$ 0.84
Maintenance	\$ 3.79	\$ 4.20	\$ 4.90
	<b>\$ 5.19</b>	<b>\$ 5.55</b>	<b>\$ 6.31</b>

<i>Percent</i>	2009	2010	2011
Administration	2%	2%	2%
Fuel Hdlg	6%	6%	5%
Lab	2%	2%	2%
Operations	17%	15%	13%
Maintenance	73%	76%	78%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

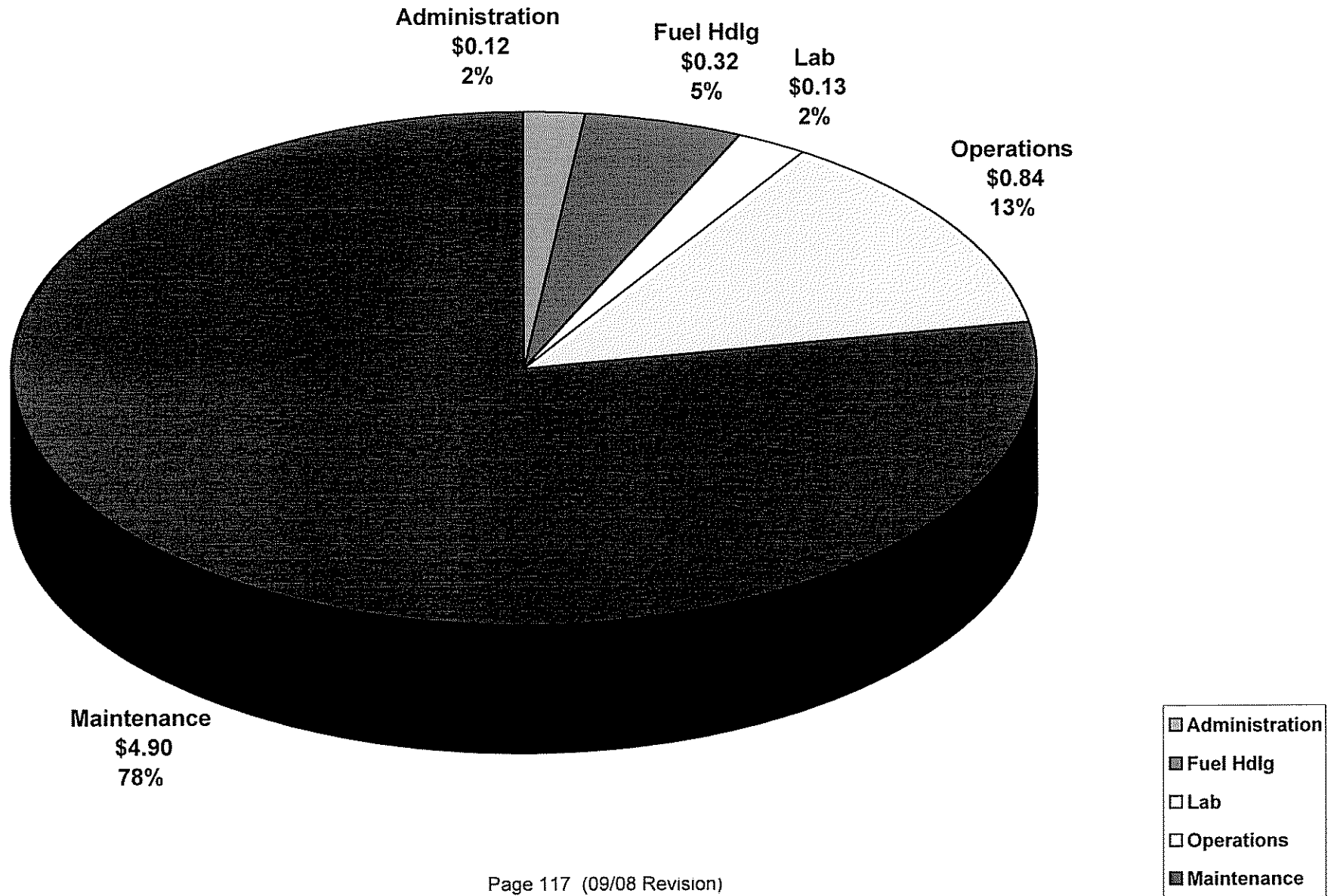
# 2009 R/STII Total O&M Non-Labor is \$5.19 / MWh



# 2010 R/STII Total O&M Non-Labor is \$5.55 / MWh



# 2011 R/STII Total O&M Non-Labor is \$6.30 / MWh



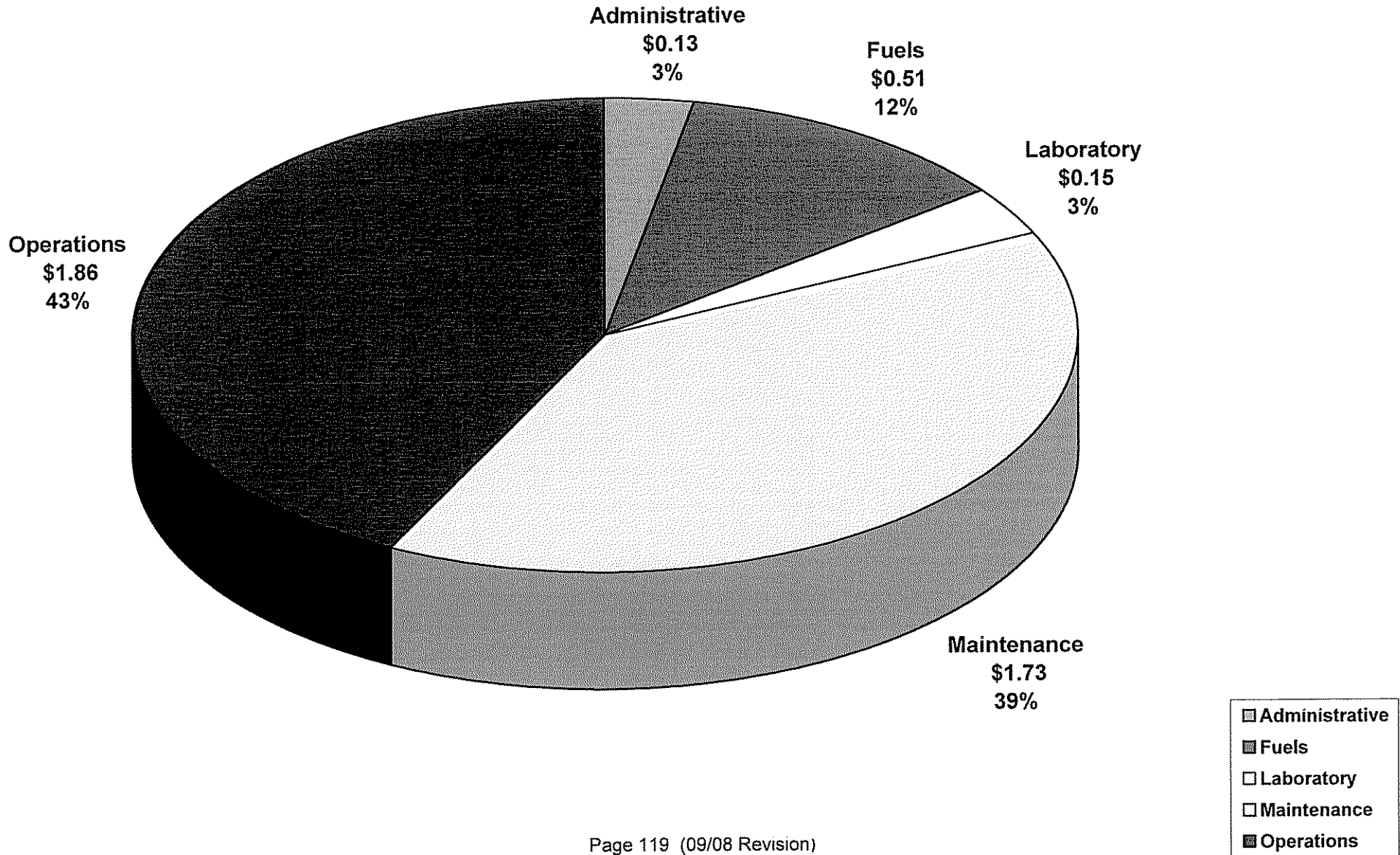
## Big Rivers Electric Cooperative Reid/Station II Net Labor Summary

	2009	2010	2011
Administrative	\$ 221,250	\$ 227,888	\$ 234,724
Fuels	856,391	882,083	908,546
Laboratory	257,807	265,541	273,507
Maintenance	2,893,279	3,072,655	3,260,189
Operations	3,121,815	3,215,469	3,311,934
<b>Net Labor and Labor Related Costs</b>	<b>\$ 7,350,542</b>	<b>\$ 7,663,636</b>	<b>\$ 7,988,899</b>
Generation @ R/STII	1,678,650	1,685,963	1,643,365
<b>Labor \$/MWH</b>	<b>\$ 4.38</b>	<b>\$ 4.55</b>	<b>\$ 4.86</b>

<i>\$/MWH</i>	2009	2010	2011
Administrative	\$ 0.13	\$ 0.14	\$ 0.14
Fuels	\$ 0.51	\$ 0.52	\$ 0.55
Laboratory	\$ 0.15	\$ 0.16	\$ 0.17
Maintenance	\$ 1.73	\$ 1.82	\$ 1.98
Operations	\$ 1.86	\$ 1.91	\$ 2.02
	<b>\$ 4.38</b>	<b>\$ 4.55</b>	<b>\$ 4.86</b>

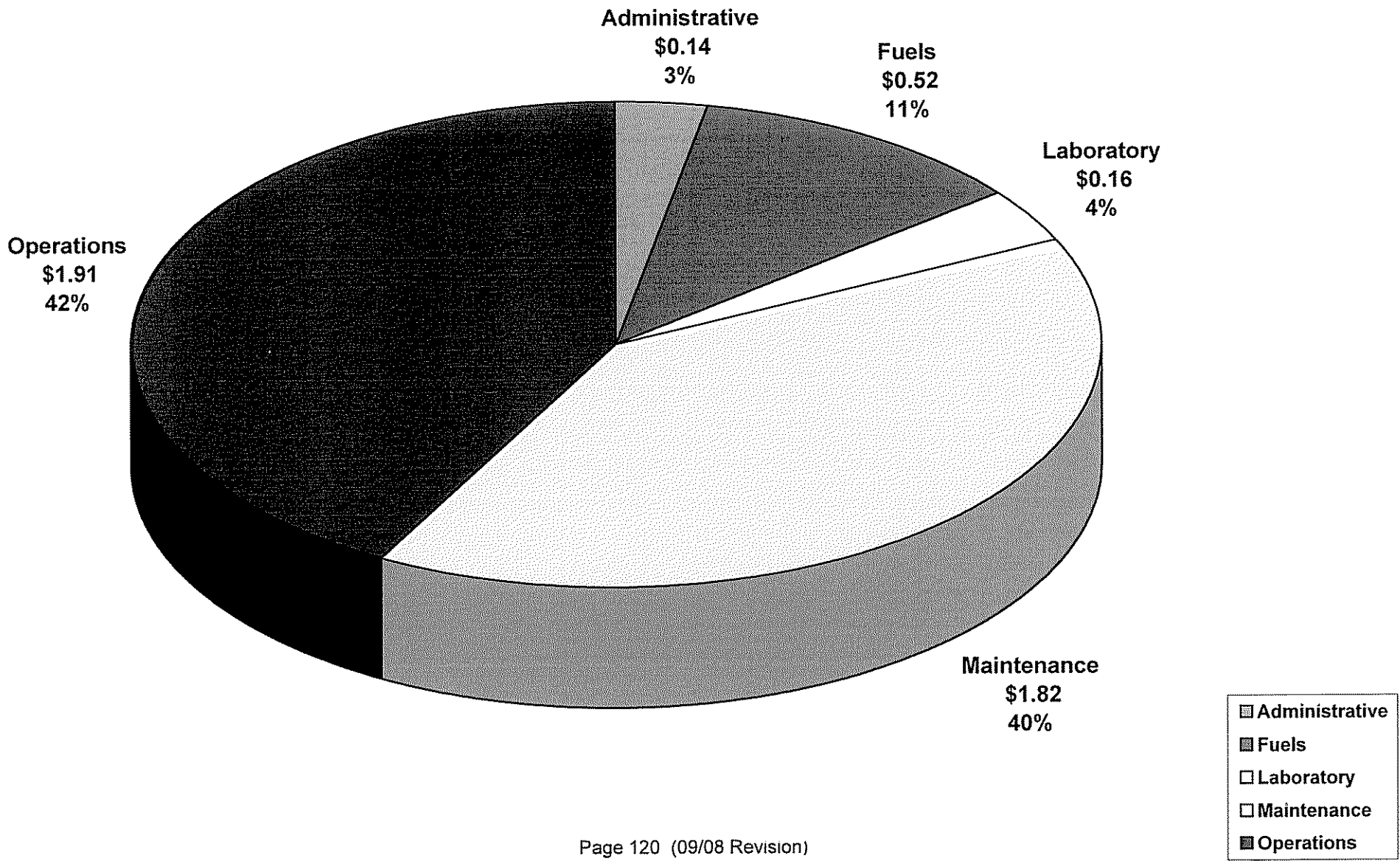
<i>Percent</i>	2009	2010	2011
Administrative	3%	3%	3%
Fuels	12%	11%	11%
Laboratory	3%	4%	3%
Maintenance	39%	40%	41%
Operations	42%	42%	42%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

# 2009 R/STII Total O&M Labor is \$4.38 / MWh

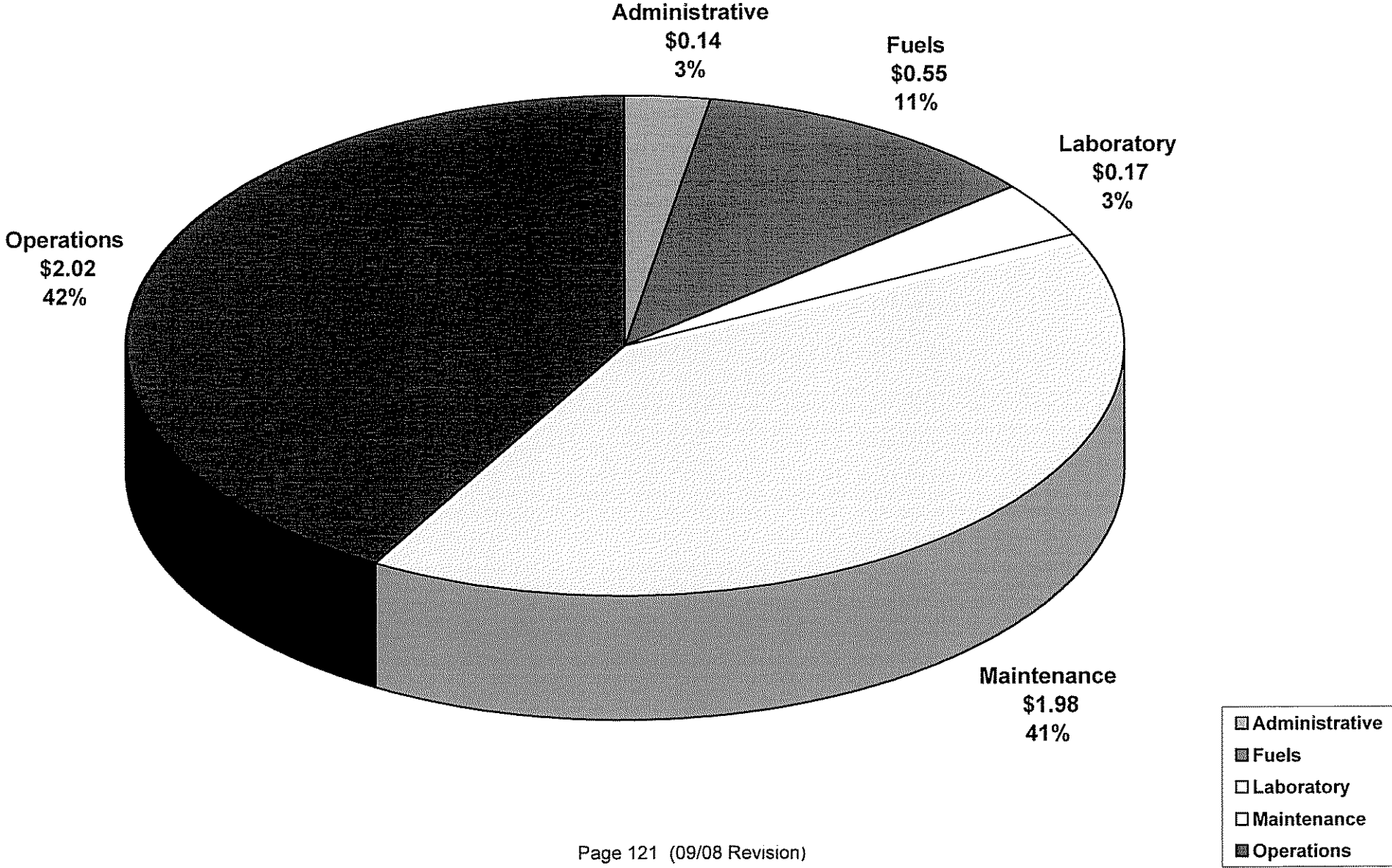




# 2010 R/STII Total O&M Labor is \$4.55 / MWh



# 2011 R/STII Total O&M Labor is \$4.86 / MWh



**Big Rivers Electric Cooperative**  
**Reid/Station II Outage vs. Non-Outage Comparison**

**Non-Labor (Net)**

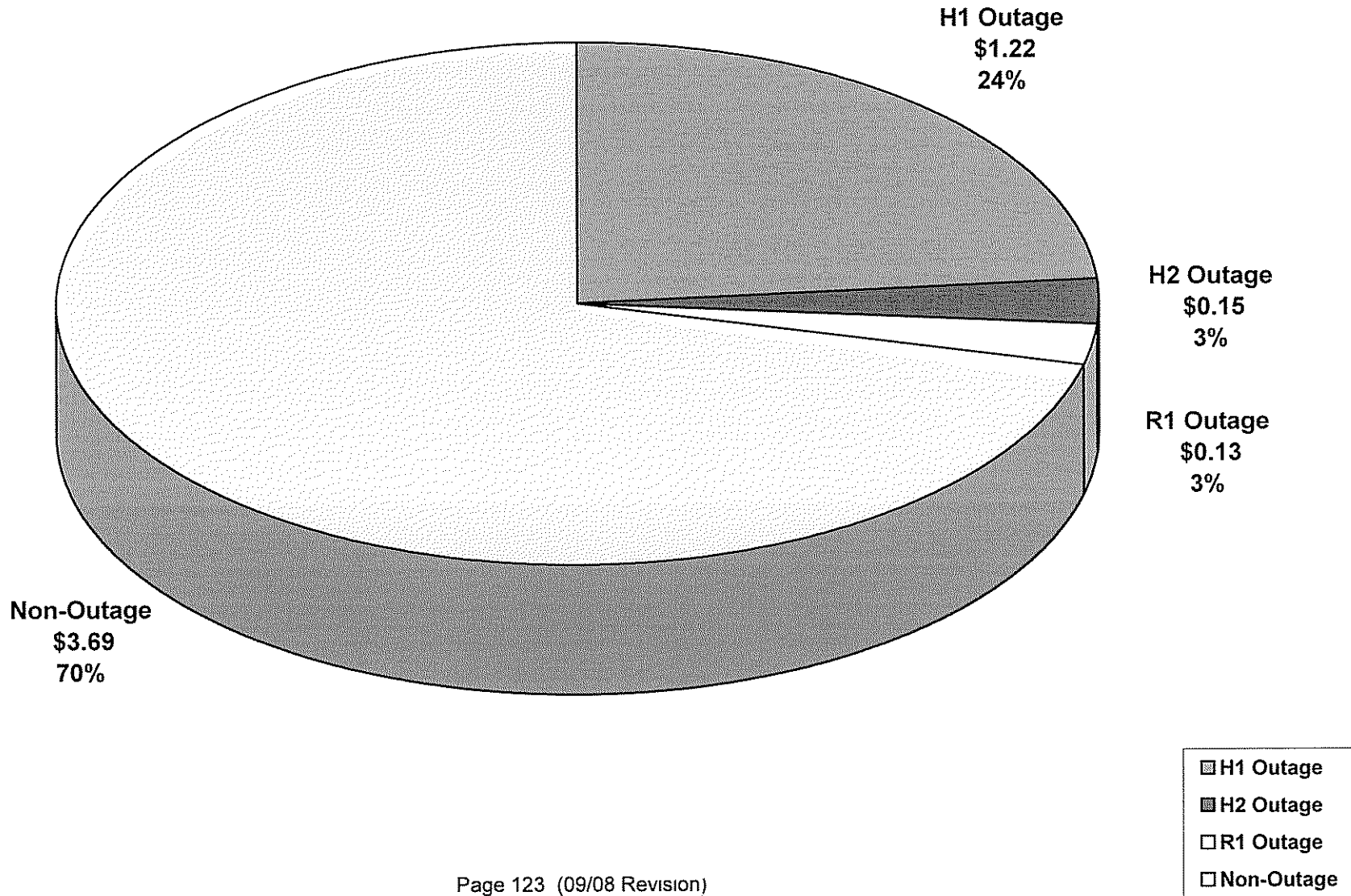
	2009	2010	2011
H1 Outage	2,043,465	250,385	3,801,329
H2 Outage	250,385	1,853,324	250,385
R1 Outage	210,000	-	-
Non-Outage	6,212,826	7,255,944	6,812,295
<b>Outage/Non-Outage Costs</b>	<b>\$ 8,716,676</b>	<b>\$ 9,359,653</b>	<b>\$ 10,864,009</b>

Generation @ R/SII	1,678,650	1,685,963	1,643,365
<b>Outage/Non-Outage \$/MWH</b>	<b>\$ 5.19</b>	<b>\$ 5.55</b>	<b>\$ 6.61</b>

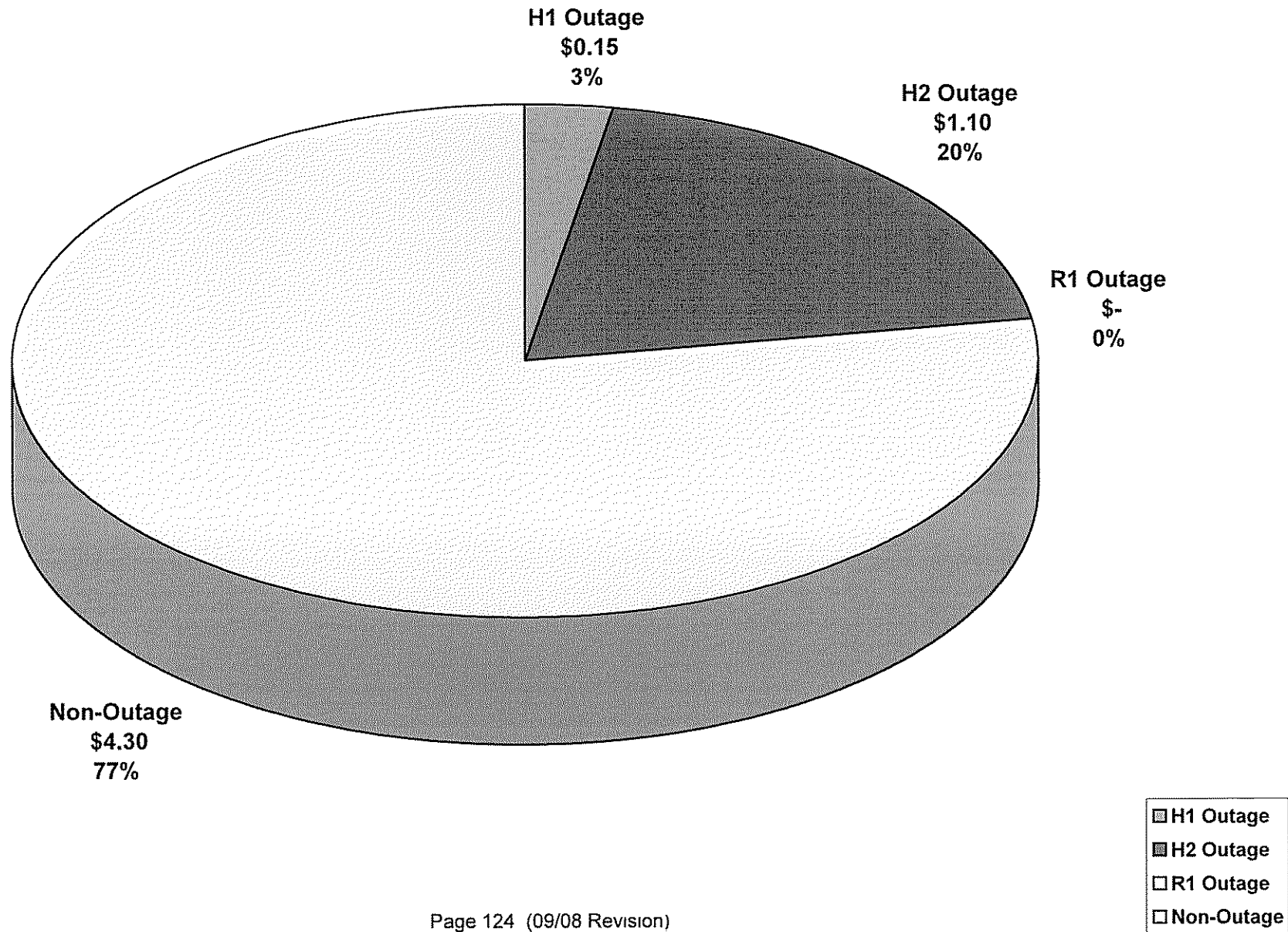
<i>\$/MWH</i>	2009	2010	2011
H1 Outage	\$ 1.22	\$ 0.15	\$ 2.31
H2 Outage	\$ 0.15	\$ 1.10	\$ 0.15
R1 Outage	\$ 0.13	\$ -	\$ -
Non-Outage	\$ 3.69	\$ 4.30	\$ 4.15
	<b>\$ 5.19</b>	<b>\$ 5.55</b>	<b>\$ 6.61</b>

<i>Percent</i>	2009	2010	2011
H1 Outage	21%	3%	35%
H2 Outage	3%	18%	2%
R1 Outage	3%	0%	0%
Non-Outage	74%	79%	63%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

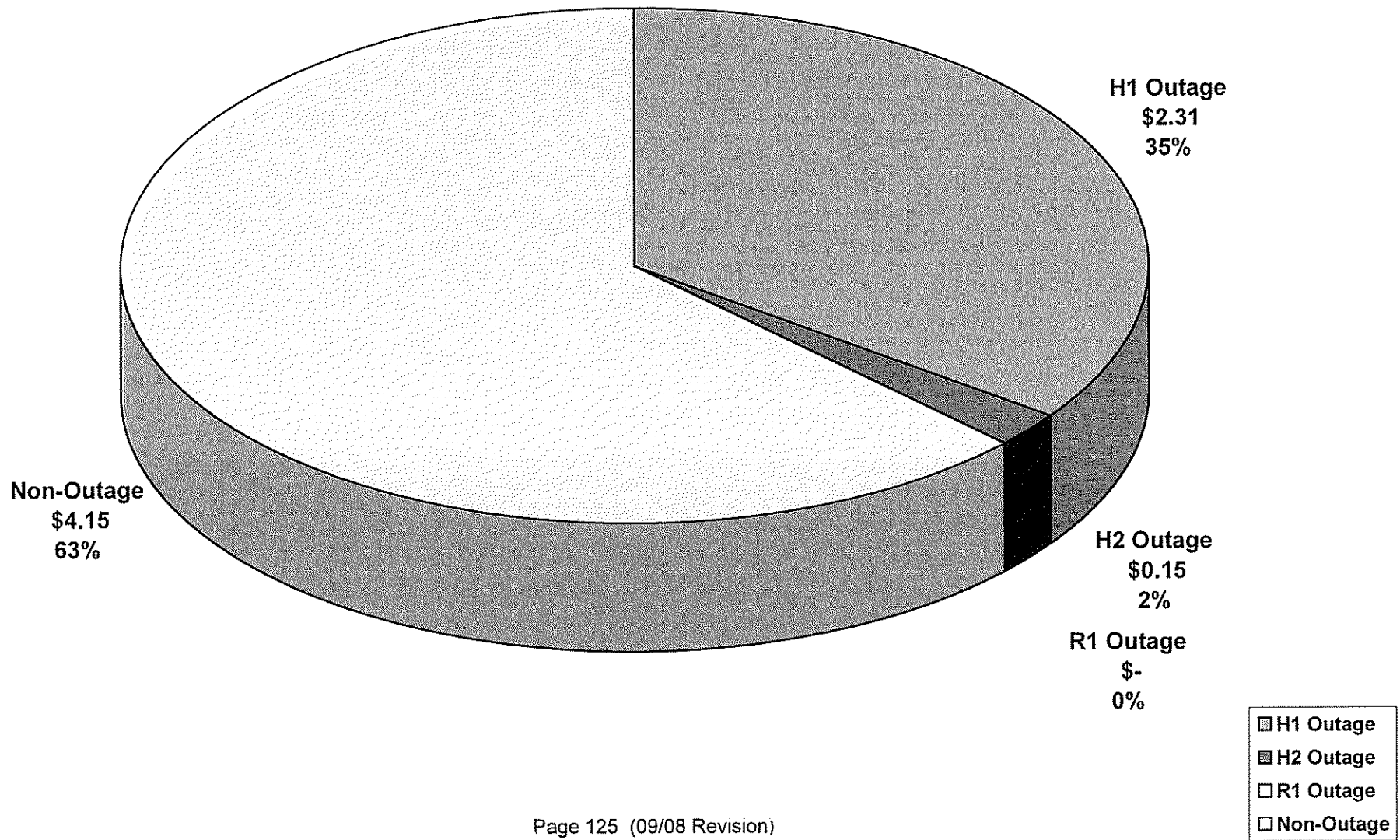
# 2009 R/ST II Outage vs. Non-Outage Comparison \$5.19 / MWh



# 2010 R/ST II Outage vs. Non-Outage Comparison \$5.55 / MWh



# 2011 R/STII Outage vs. Non-Outage Comparison \$6.61 / MWh



**Big Rivers Electric Cooperative  
Reid / Station II Variable Costs Summary\***

\* Both Total Variable Costs and Generation are represented NET of the HMPL split.

	2009	2010	2011
Coal (Fuel Cost)	35,529,002	47,558,129	48,779,126
Fuel Oil (Start Cost)	4,007,706	4,007,351	4,217,843
Reagent/Disposal (VOM)	5,016,982	5,515,355	6,802,524
<b>Total Variable Costs</b>	<b>\$ 44,553,689</b>	<b>\$ 57,080,834</b>	<b>\$ 59,799,493</b>
Generation @ R/STII	1,678,650	1,685,963	1,643,364
<b>Variable \$/MWH</b>	<b>\$ 26.54</b>	<b>\$ 33.86</b>	<b>\$ 36.39</b>

<i>\$/MWH</i>	2009	2010	2011
Coal	\$ 21.16	\$ 28.21	\$ 29.68
Fuel Oil	\$ 2.39	\$ 2.38	\$ 2.57
Reagent/Disposal	\$ 2.99	\$ 3.27	\$ 4.14
	<b>\$ 26.54</b>	<b>\$ 33.86</b>	<b>\$ 36.39</b>

<i>Percent</i>	2009	2010	2011
Coal	80%	83%	82%
Fuel Oil	9%	7%	7%
Reagent/Disposal	11%	10%	11%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Big Rivers Electric Cooperative**  
**Reid / Station II Variable Costs Summary\***

\* Both Total Variable Costs and Generation are represented NET of the HMPL split.

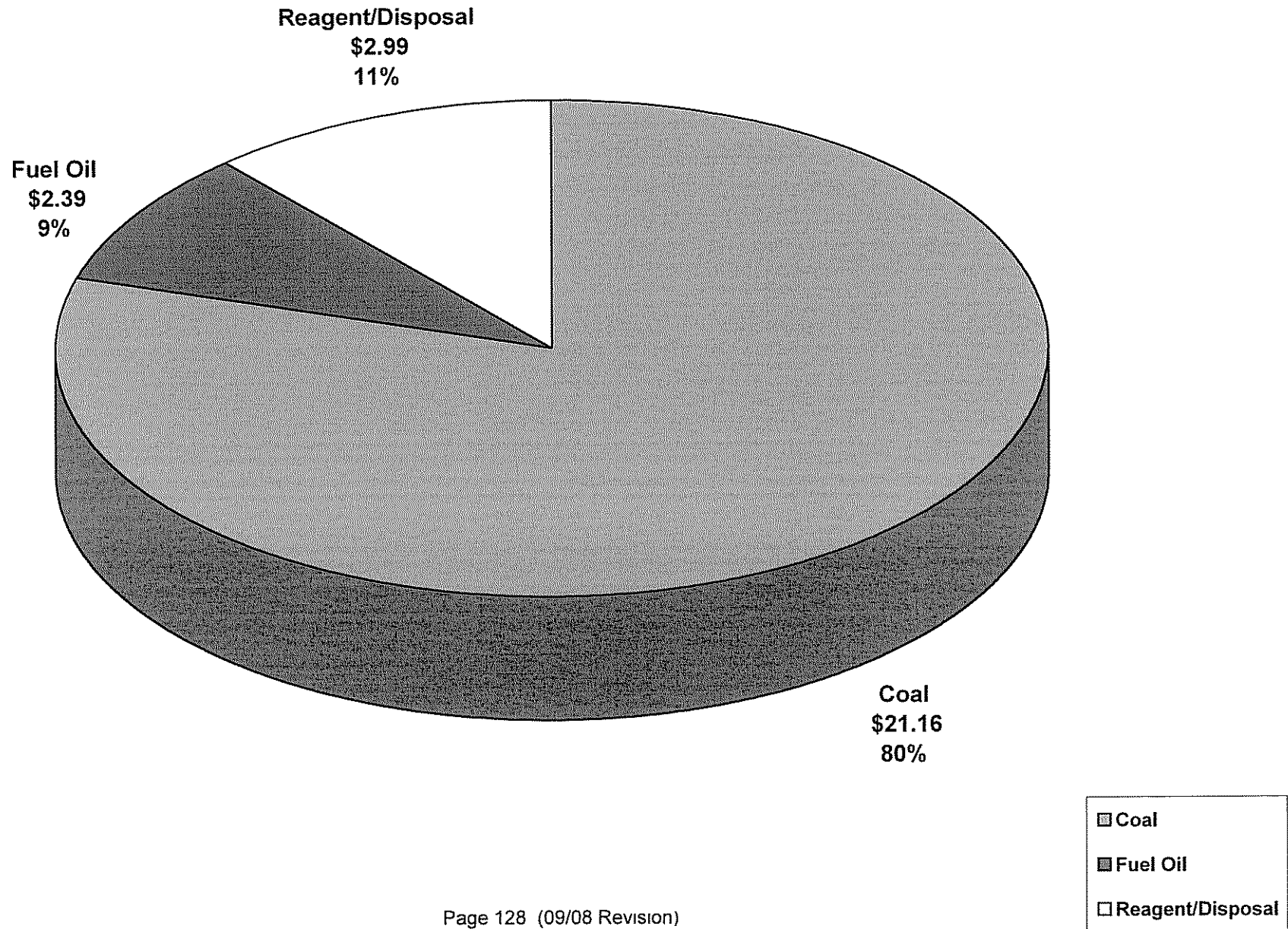
	2009	2010	2011
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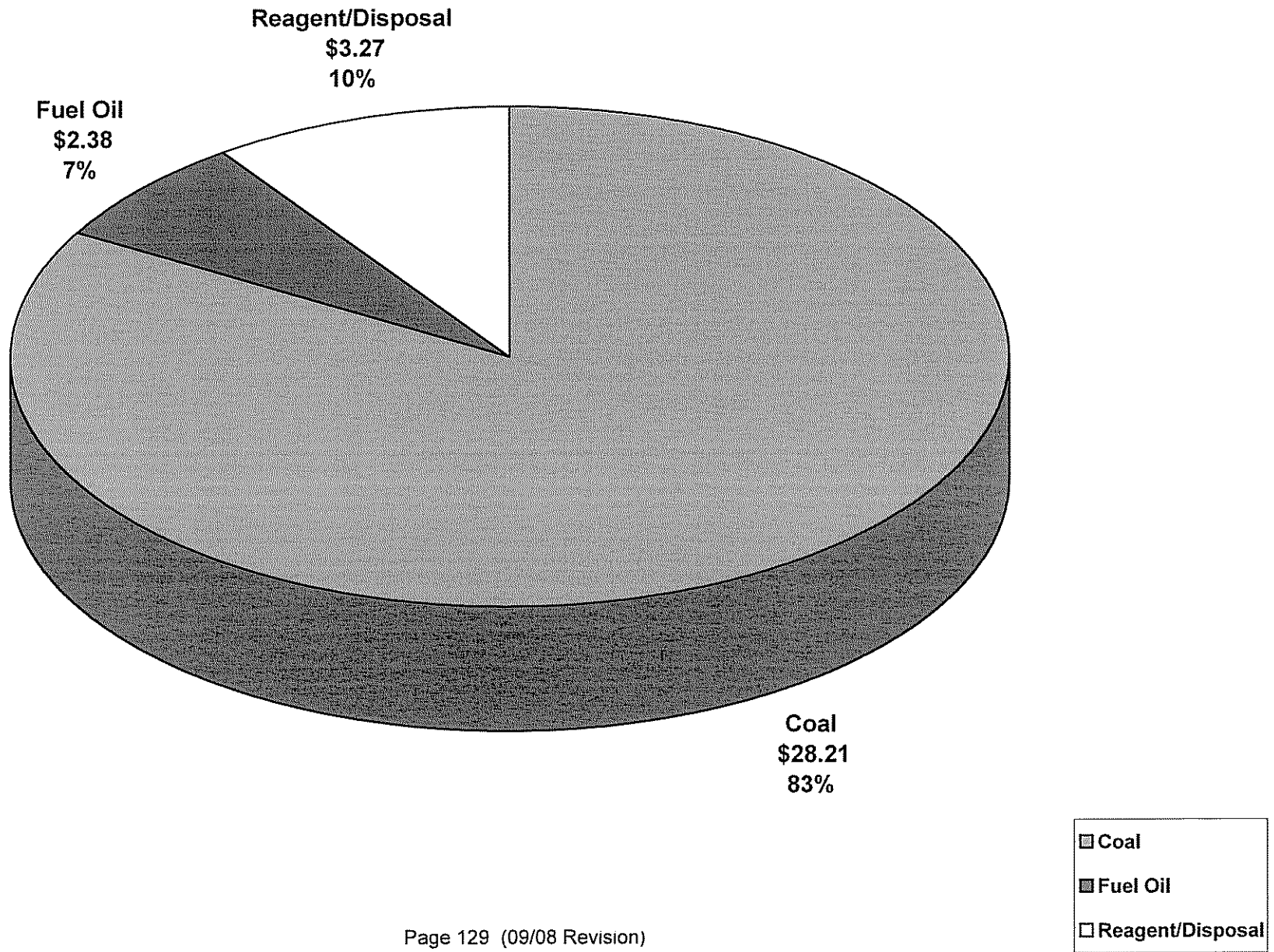
<i>Percent</i>	2009	2010	2011
Coal	80%	83%	82%
Fuel Oil	9%	7%	7%
Reagent/Disposal	11%	10%	11%
	<b>100%</b>	<b>100%</b>	<b>100%</b>



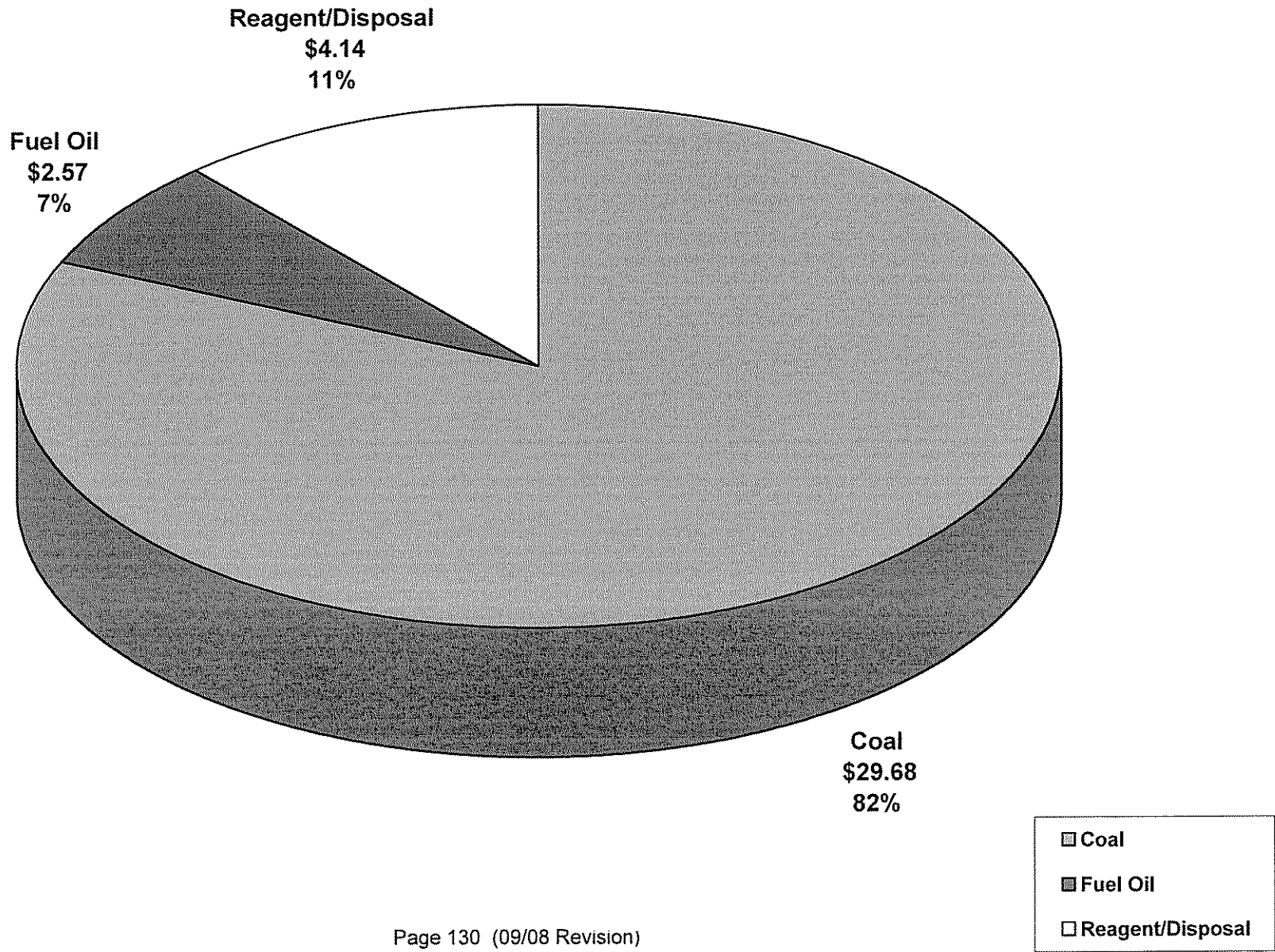
# 2009 R/STII NET Total Variable Cost is \$26.54 / MWh



# 2010 R/STII NET Total Variable Costs is \$33.86 / MWh



# 2011 R/STII NET Total Variable Costs is \$36.39 / MWh





## Safety

Safety will continue to be a top priority at Sebree, as we maintain a zero tolerance for injury and continually improve our safety record. The station has received the Governors Safety award four times over the last five years. The Governors Safety award recognizes industry for completing more than 500,000 man-hours without a lost time injury. Sebree recently received an award from the Edison Electric Institute for working more than 1,000,000 man-hours without a lost time injury. At the time of this publication the station has completed over 1,300,000 man-hours without a lost time injury. This is the first time any facility in the BREC system has surpassed 1,000,000 man-hours without a lost time injury. During this planning period Sebree's objective is to establish a culture that recognizes safe practices as the norm and rejects unsafe behaviors. The following are the KPI's for this planning period.

**Recordable Injury Incident Rate:**  
(Does not include hearing loss cases)

<u>2009</u>	<u>2010</u>	<u>2011</u>
3.0	3.0	3.0

**Lost Time Incident Rate:**

<u>2009</u>	<u>2010</u>	<u>2011</u>
.63	.63	.63

### Description of Activities to Meet this Objective

- Relentless repetition of the safety message at all levels of the organization.
- Improve the quality of the monthly and weekly safety instructional sessions as well as the daily job specific briefings.
- The plant Health and Safety Specialist will create a spreadsheet to put on the shared drive to help Leaders keep up with their crew's safety meeting performance. A compliance training matrix will be sent to all Leaders at the beginning of the year. The Health and Safety Specialist will update the on-line spread sheet in a timely manner so the Leader will be able to tell what his crew members have missed.
- The Leaders will be responsible for their crew meeting the mandated safety training requirements as defined by the training matrix.
- During this planning period Sebree will expect to see an increase in near miss reporting.
- Sebree will support the enhanced Passport Program that matches the level of training requirements to the appropriate level of risk, and continue the use of the "Seven Tools for Contractor Safety" program.
- Sebree will hold separate special called safety meetings with all contractors and with all plant employees prior to planned outages to review safety rules, particular outage hazards, confined space requirements, cutting and welding clearances, lock out/tag out procedures, barrier tape control, fall protection, etc.
- Continue to support the philosophy that everyone must take personal responsibility for their safety and the safety of others. Every Sebree employee is empowered to stop any job at any time if they feel the job is being performed unsafely. This includes jobs performed by BREC personnel or contractors.
- Encourage the Safety Committee to become a more proactive group that works on safety issues at a higher, more global level.
- Sebree will participate in and support the efforts of the BREC "Joint Safety Committee"
- Due to the size and complexity of Sebree Station, we will continue to utilize a bargaining unit employee to assist the Safety Coordinator during outages, and other times as needed.



## ENVIRONMENTAL

Title I (NOx SIP Call) legislation, Title V issues, CAIR, PM 2.5, 316b, Hg monitoring, and fuel selections present numerous environmental issues that Sebree Station must address during the next three years. Sebree Station will continue to follow procedures, use standards and make investments which will insure compliance with all environmental regulations. This Station has consistently passed environmental inspections in the areas of water, air, solid waste and general environmental stewardship.

Routine compliance is achieved through two primary methods; adjusting the operations and maintaining the monitoring instruments. Process data is accumulated and tracked against allowable limits and the process is adjusted by using fuel blends, scrubber chemistry, or load changes to stay in compliance. Sulfur is plotted against the annual limit and forecasts are made under various scenarios to make sure long range plans will achieve compliance. Preventative maintenance on opacity and gas monitors is logged and all procedures are followed according to the Quality Assurance guidelines. All logs, charts, and files are audited each month by the Environmental Department.

- Due to a volatile anhydrous ammonia market that might be further driven by pressure from corn based ethanol, operating costs for the SCR's are difficult to predict. SCR's will continue to operate at maximum control capabilities.
- Year round NOx compliance has been delayed due to a federal court ruling that vacated the EPA's CAIR rule. A new rule governing NOx emissions is expected to be in place by 2011.
- A design flaw in the HMPL SCR's may prompt engineering of a revised ammonia feed scheme. The current method of operating the anhydrous ammonia evaporators causes trace amounts of moisture in the ammonia to cycle up in the storage tanks. Continuous operation of the SCR's might make it difficult to periodically purge storage tanks of water contaminated ammonia.
- The installation of a wet stack particulate monitor in the H-2 stack has permitted full load operation without concern for in-duct opacity restrictions that formerly prompted 10 – 20 MW unit derates to attain compliance. A wet stack particulate monitor was installed on H-1 in early 2007.
- Reid/HMPL Ash Pond: The ash pond is filling from the west to the east at an accelerated rate due primarily to fly ash carryover from the R/H fly ash handling system. Over the years the Station has received several Notice of Violations (NOV's) from the Kentucky Department for Environmental Protection (KDEP) for TSS excursions at the ash pond effluent sampling point. A temporary injection system was installed to feed chemicals that aid settling of these solid particles. Options to address the TSS problem were studied by Sargent & Lundy, and the best solution was to convert the existing wet eductor system to a dry ash collection system. The new fly ash system was commissioned in March, 2008. The new dry fly ash system will significantly reduce the solids loading to the ash pond, reduce water flow to the pond and increase retention time in the pond.

- Green Ash Pond: The pond is 27 years old and is losing volume and retention time. Consequently, TSS will probably become a problem in the future when water is discharged from the pond. The Operating Plan includes improvements to the waste water clarification system to assist in removing total suspended solids from the effluent and selective dredging to increase pond area and capacity. The G-1 IW-1 line and the Green clarifier sump line that discharge into the Green ash pond have been relocated to divert solids away from the ash pump structure, thus reducing particulate loading in the effluent.
- Serial Discharge 011: Berm and grade work have been completed along the road leading to the 011 pond. A reinforced concrete berm is now in place along the entire length of the problem area. Solids deposition in the area continues to be a problem as material flows down grade from the solid waste lay down area to the lower road and surface and below grade drains.
- SO3 Control: There is no current SO3 control strategy for the Sebree facility.

#### Environmental Considerations for the 2009 – 2011 Business Plan

##### Water:

- Current KPDES Permit will remain in effect through November, 2009. No anticipated changes during the term of the existing Permit.
- A concrete berm has been installed on the road leading past the Solid Waste facility which has resulted in elimination of surface drainage to the Green River during high flow rain run off periods.
- The Green Waste Water clarifier has been painted inside and out and is in the process of receiving mechanical repairs to enable treatment of effluent from the Green ash pond.

##### Air:

- H1 PM Monitor was received and installed in early 2007
- At this time, Mercury Monitors are in the Environmental Dept budget for 2010 and we are still on course for them. This will likely include new CEM buildings.
- We are currently studying the feasibility of using sampling tubes to monitor Hg emissions instead of using continuous monitors. This plan has the potential to reduce the cost of compliance with the “Mercury Rule” until better CEM technology is developed.
- Testing has proved that both HMP&L units can be classed as “low emitting units” under the existing Mercury Rule as the units only emit about 50% of the mercury allowable for “low emitting units”.
- CEM monitor replacement, testing, and certification for the HMPL by-pass stack is scheduled to be completed in 2008.
- An environmental pollutant study has determined it is not economically feasible to install additional SCR’s on the Green units until the 2013 – 2014 time period.
- Semi-annual certification for personnel to read opacity per EPA Method 9 will be required during this planning period.
- Sebree will continue the Scrubber operations training program that began in 2005.
- Improved maintenance response for CEM’s.
- New CO2, SO2, and Flow CEM’s have been installed on H-1 and H-2. R-1 will get new monitors in 2008.
- Wet stack particulate monitors have been successfully installed to replace the H-1 and H-2 opacity monitors for state air quality compliance.



Solid Waste:

- The Green Station Landfill is in the process of being expanded to accommodate additional storage capacity. The expansion will require State approval for both horizontal and vertical expansion. Due to some of the target expansion area being a “wetland”, negotiations are underway to “trade” equivalent areas on the site for future wetland inclusion.
- The serial Discharge 012 landfill runoff settling pond has been increased in retention capacity and was dredged in 2006 to further increase capacity.
- There is an issue with ground water quality in the area of the landfill that is being reviewed by the State. No adverse financial impact is anticipated in this review.



**Big Rivers Electric Cooperative  
Reid/Green/Station Two Headcount**

Budgeted Headcount	2009			2010			2011		
	R/H	Green	G/A	R/H	Green	G/A	R/H	Green	G/A
Administration	2.25	2.75		2.25	2.75		2.25	2.75	
Central Machine Shop	4			4			4		
Lab	3.15	3.85		3.15	3.85		3.15	3.85	
Maintenance	37	46		38	47		39	47	
Materials Handling	12	9		12	9		12	9	
Operations	44	62		44	63		44	64	
Safety			1			1			1
<b>Subtotal</b>	<b>102</b>	<b>123</b>	<b>1</b>	<b>103</b>	<b>125</b>	<b>1</b>	<b>104</b>	<b>126</b>	<b>1</b>
<b>Grand Total</b>	<b>226.5</b>			<b>229.5</b>			<b>231.5</b>		

## Staffing

- Age demographics are a serious concern; 72.4% of the Station's Resource Leaders are greater than 50 years of age, 52% of the Bargaining Unit employees are greater than 50 years of age and 66.6% of the Managers are greater than 50 years of age. The average age of the Sebree workforce is 47.5 years of age. This does not accurately reflect the concerns of having trained personnel ready to move into critical positions. The addition of one employee per station per year is included in this plan to help address this critical issue.
- This plan assumes all open positions will be filled during the 2009 – 2011 planning cycle.
- This plan makes no assumptions for additional staff to support the SCR operation or maintenance, although the limited experience we have at this time indicates it will be more labor intensive than anticipated. Warranty improvements to correct the equipment issues will hopefully reduce the current maintenance and labor requirements.
- With the addition of wet stack particulate monitors, SCR NOx monitors, and additional maintenance that will be required following certification of the HMP&L bypass stack CEM's, a business case will be prepared during this cycle to hire additional maintenance technicians.
- During this planning period, Sebree Station will develop a succession plan for every employee from the manager's level down.
- Operator development will be a major point of interest during this planning period. Recent promotional opportunities and retirements have resulted in lost experience and over thirty operating employees are new to their current positions. With overtime already at higher than traditional levels, arranging and providing training time will be difficult. As part of the newly created succession plan, a special initiative will be followed to train operators to be able to upgrade to the next higher classification. A resource leader has been assigned the duties of operator training that will be performed both on and off shift.
- Over the next three years Sebree Station will provide existing and emerging leaders with the training and support to enhance leadership skills. This will be accomplished by identifying and cultivating leadership core competencies to reinforce and support the desired BREC work place culture.
- During this planning period, Sebree will continue to build on the synergies of one manager per station to enhance unit performance and reliability. Sebree will also continue to look for organizational opportunities that will provide value to BREC and enhance employee development.
- During this business plan cycle the station will support the corporate diversity initiative to seek out diverse employees with the potential to advance and grow within the organization.
- An enhanced focus will take place during the 2009 – 2011 business planning cycle to improve the top down and bottom up communications at the station level.
- The plant staffing plan is included in this section.



## RISKS

This segment of the business plan attempts to identify risk related to the plan over the three year planning cycle. It will identify the risk and sensitivities to meeting the station performance and investment activities. Sebree Station has attempted to arrive at a reasonable balance for performance goals and investments within the plan. However, the plan provides for no contingencies against major failures that might occur during the planning cycle.

### **Henderson Units 1 & 2 (General)**

The HMPL units present the most significant risks to achieving Sebree Station's short-term goals in 2009 through 2011. We have installed continuous particulate monitors on both HMP&L units to eliminate generation constraints due to opacity exceedences, and have replaced the H-2 high temperature reheater to reduce tube leaks, but EFOR and capacity will still suffer due to marginal fuel grinding and feeding systems and poor burner design, which causes furnace slugging and fouling. We will address these issues as the budget will allow within this business plan.

- Successful operation of the HMPL SCR's is essential to avoid a negative financial impact on BREC. The operation of the SCR's will present many challenges to Sebree Station during this planning period. Risk associated with the SCR's is as follows:
  - Year round operation of the SCR's is expected to begin by 2011. The station will be in a learning mode to determine the impact of year round operation.
  - During the ozone seasons the boiler combustion process has a significant impact on the base line generation of thermal NOx within both units. Combustion control and burner management activities will become performance challenges during each year of the plan. These two areas must be managed properly to ensure removal efficiencies for the SCR systems. Current removal efficiencies of at least 90% are required from each of the two Henderson units to allow BREC to meet the system NOx removal plan.
  - A greater risk factor has been added to the challenge of meeting NOx control primarily due to antiquated combustion control systems on both of the Henderson units. The Henderson boiler combustion controls were late 1960s vintage, not designed for the sophisticated control required to achieve an optimum base line NOx generation. Installation of new DCS combustion controls was completed on H-2 in 2008 and H-1 is scheduled for 2009. The complete DCS controls upgrade project is scheduled over four years from 2007-2010 and will require a capital expenditure of \$5,760,000.
  - The control and operation of the SCR system has the potential to create air preheater blockage due to ammonia sulfite buildup. The plan makes assumptions for at least three air preheater washes per unit per year during the plan. The impact of each air preheater wash is approximately 24 to 36 hours of unit downtime.
  - The FD fan capacity study related to the SCR installation identified that the FD fans are not large enough due to the additional pressure drop caused by the SCR retrofit. The decision was made not to increase the FD fan size, but rather increase the negative pressure produced by the booster fan.

- A catalyst management plan was developed and implemented in early 2008, however, a federal court ruling later in the year unexpectedly vacated the EPA's CAIR rule, substantially changing this management strategy. The third catalyst layer was installed in H-2 SCR in 2008, and the third layer will be installed in H-1 in 2009 according to the original plan, but the delay in year around SCR operation following the court ruling will force a revision going forward. BREC must wait until the new air quality rule is established in order to develop a new compliance strategy.
- At times both HMPL units suffer a small derate when the SCR's are in service. It appears the units could be derated due to fan limitations following installation of the third catalyst layer in the reactors.
- A potential risk exists to the performance of the FGD system due to the operation of the SCR systems on both units. The potential impact is from backend duct corrosion related to dew point excursions caused by reduced duct pressure. We are watching the ductwork closely, but results are still inconclusive. Further operation will have to occur to determine the full extent of the risk impact.
- During the first year of SCR system operation we confirmed shifting oxidation rates in the scrubbers. It was demonstrated that increased oxidation in the FGD inhibits bleed solids from precipitating correctly, creating thickener upsets. Close observation of FGD chemistries must be conducted to monitor the chemical imbalance caused by increased oxidation. Periodic tanker loads of emulsified sulfur injected into FGD system has proven to inhibit the effects of increased oxidation. During this planning period we intend to install permanent sulfur storage tanks, and an injection system.
- The existing low NOx burners create high air flow velocities within the furnace resulting in flame impingement on the water walls and superheater elements of the boiler. This flame impingement causes undue tube wear and reduces the life of the furnace. The high velocities also contribute to poor or incomplete combustion, which results in high LOI, heavy slagging, and opacity issues. Burner replacement is budgeted for H-1 in 2011 and H-2 in 2012.
- In January 2006 a continuous wet stack particulate monitor was installed on H-2. In May 2006, following State supervised certification testing; Sebree was issued a permit by the Kentucky Division of Air Quality to use the new PM CEM for particulate emission compliance instead of the relative opacity limit. This new technology allows Sebree to operate H-2 at much higher opacity, and still maintain particulate emission compliance. A continuous particulate monitor was installed on Henderson 1 in January, 2007 permitted by KDAQ as our official compliance monitor in May, 2007.
- The 2009 fuel strategy is to burn a higher BTU and lower ash fuel during peak periods to help reduce or eliminate unit derates.
- Excessive tube leak failures are a risk due to the inadequate low NOx burner design and the possibility of fireside corrosion from the NOx modifications. During this planning period Sebree will implement a comprehensive tube sampling program that includes wall condition mapping and life assessment studies for each section of the boilers. Funding for

overall boiler condition, water wall mapping, attemperator inspections and critical piping inspections has been incorporated into this plan.

- Milling capacity on the Henderson units will continue to present challenges to Sebree during this planning period. Marginal mill design has been exacerbated by the poor low NOx burner design and fuel selection. The marginal milling capacity is also a contributing factor to the number of wet fuel derates and to opacity issues. The ball type mills have traditionally been sensitive to moisture and hardness. Premium fuel blends during peak demand periods will help mitigate this risk.
- Sebree Station has been able to reduce the number of wet fuel derates on the Henderson units by adding a drying agent to the fuel during wet conditions. An investigation was performed in 2004 to determine if this additive would have any negative effect on the SCR catalyst. The catalyst OEM performed testing on the drying agent and could not confirm any negative results. Although they would make no guarantee, it was their opinion that the small amounts we use on a limited basis would not negatively impact catalyst life. If the HMPL units are significantly derated due to wet fuel, the SCR inlet temperatures will fall below the minimum acceptable level for operation (630F), and the SCR's will have to be removed from service.
- The Sebree landfill expansion was completed in 2007. The expansion was scheduled to be completed in several phases beginning in 2004. Even with this and other future expansions, the landfill will reach its maximum capacity in approximately ten to twelve years.
- Other environmental risks are detailed in the Environmental section of this plan.

#### **Specific Equipment Risk for the Reid / Henderson units include**

##### **Reid Unit 1**

- Reid 1 continues to experience an excessive number of tube leaks each year due to cycling the unit off each weekend.
- The boiler platform grating is very thin in many places and could be a safety risk. Random replacement of the worst sections is included in this plan.

##### **Henderson Units 1 & 2**

- Due to the ongoing problems with the HMP&L SCR system significant financial and reliability risk exists. HMP&L and BREC are attempting to resolve these issues with Alstom. The following are the current issues with the SCR:
  - Isolation dampers will not operate properly and leak through. The H-2 dampers were modified again in the spring of 2006 and larger more powerful actuators were installed on both units. Both units have passed the hot and cold cycle tests, but neither unit has passed all the qualifying tests for final acceptance.



- NOx emissions monitor probes are not reliable. The NEMs probes were modified in the spring of 2005 prior to the OTAG season. Some improvement in accuracy has been realized, but there are still issues with nozzles plugging. New filters must be installed in the probes weekly just to keep them in service.
  - SCR control logic problems
  - Ammonia injection grid (AIG) pipes and nozzles continue to plug due to roping at the nozzle. A higher capacity dilution air heater was temporarily installed on H-1 in the spring of 2007 in order to test Alstom's claim that the nozzle roping was due to inadequate dilution air temperature. New switchgear and a transformer have been installed to power a permanent installation on both units.
  - Five of the eight expansion joints on the SCR have failed prematurely. Alstom redesigned the expansion joints and installed the new design during the fall 2007 outages under warranty.
  - Significant ash build up in the SCR duct work continues to cover the ammonia tuning grid preventing the tuning of the SCR. Air cannons were installed in the spring of 2007 to force the ash into the hoppers for removal. The expected velocity increase following the third catalyst layer installation during this planning period should also reduce this ash build up.
- Henderson 1 & 2 Economizer tubes. This section is original to the unit and has developed an erosion pattern on the horizontal run next to the front wall. Perforated baffle plates were installed, sidewall to sidewall and extending into the gas stream, covering the affected area as a life extension measure. H-1 is scheduled for replacement in 2013 and H-2 is scheduled for replacement in 2014.
  - Henderson 1 High Temperature Reheater tubes. This boiler section suffers from severe coal ash corrosion that has significantly reduced the tube wall thickness. These tubes also have 16 - 18 mils of internal deposit that inhibits heat transfer and elevates tube metal temperature. During 2007 and 2008 the unit suffered numerous tube failures in this section. These tubes are scheduled for replacement in early 2009.
  - The new turbine controls provided by Siemens Westinghouse for H-2 in the spring of 2004 have not been stable. Siemens agreed to remove the defective system and to refund the purchase price. New turbine controls from ABB were installed during the fall 2007 outage.
  - The Cooling Tower distribution deck on H-1 is deteriorating and needs to be replaced. H-2's deck was replaced in 2008 and H-1 is scheduled to be replaced in 2009.

#### **Green Units 1 and 2 (General)**

- The water wall tube thickness is a major concern due to the NOx reduction strategy of the coal re-burn systems. This system causes fireside corrosion due to a reducing atmosphere. Weld overlay was installed on Green 2 in 2005 and installed on Green 1 in 2007. An inspection of Green 2 was completed in 2007. No excessive wall tube loss was noticed but annual monitoring will continue.

- Reheater tube failures present the next most significant risk for Green 2. Reheater is original to the unit and is suffering from cold ash corrosion. Random repairs have been made to the reheater in an attempt to extend its life; these random repairs will continue until the reheater is replaced on G-2 in 2009.
- Both Green units have been retrofitted with a coal re-burn system for NOx control. The re-burn system requires that "A" mill be totally dedicated to this process during the OTAG season. This eliminates the stations mill redundancy and could impact blending flexibility.
- Deterioration of the platforms and electrical conduit on the FGD modules continues to present challenges to Sebree Station. Funding for partial replacement of the conduit is included in each year of this plan; however, no funding is included for platform replacement. Deterioration of the structural steel and platforms has been monitored during 2007 and repairs will be ongoing through the 2008 – 2010 plan.
- Transformer bushing repairs are becoming more frequent on the Green units. During the last two outages bushing replacement has been necessary. No funding has been included in this plan for bushing replacements.
- Green 2 transition ducts between the ID fans and the FGD inlet area are failing due to severe corrosion. These ducts are corten material and are original to the units. There is funding in this plan to address this situation in 2009.
- The Green #2 barge mooring cell foundation shifted and the cell was leaning significantly. From vertical, it had a total tilt of 5.00 feet. This cell was removed in 2007 with replacement scheduled for 2008.

#### **Specific Equipment Issues for Green Units 1 and 2**

- The precipitator 4<sup>th</sup> and 5<sup>th</sup> field in both of the Green units suffer from severe corrosion due to exit gas temperatures reaching dew point in this area. Extensive field repair and replacement will be completed on Green 1 during the 2010 outage. Green 2 will be completed during the 2009 outage.
- Green 1 and Green 2 bottom ash controls are obsolete and parts are no longer available. Green 1 is scheduled for replacement in 2008. Green 2 is scheduled for replacement in 2009.
- Green 1 and Green 2 FGD mist eliminators are in need of replacement. Replacement is scheduled for Green 1 in 2008, Green 2 in 2009.
- Green 1 and Green 2 cooling tower fan shrouds are in a deteriorated condition and could cause a catastrophic failure. Their structural conditions warrant replacement. Green 1 is scheduled for replacement in 2008. Green 2 is scheduled for 2009.

- Green 1 and Green 2, 4160 volt breaker to bus connectors are in a deteriorated state. Scheduled repairs for Green 1 are in 2008. Green 2 is scheduled for partial replacement in 2008 and complete replacement in 2009 to coincide with outage schedules.
- Green 1 and Green 2, 480 volt breaker trip units are in a deteriorated state. Replacement is scheduled for Green 1 in 2008 and Green 2 in 2009.
- Green 2 generator retaining rings are of the 18-5 material with replacement scheduled during the 2011 turbine overhaul.
- Green 1 and Green 2 high energy piping hangers are the original equipment. An inspection and replacement program started in 2007 will continue throughout 2008 – 2010.
- The Green demineralized water plant is in a deteriorated condition. A reverse osmosis system is scheduled for installation in 2010.
- Unit substation transformers are of concern due to a failure occurring on Green 2 USS 2A3 in 2007. These step down 4160 volt to 480 volt transformers are of the Freon type cooled and are non-repairable. A schedule for replacement has been started in the 2010 plan.
- Boiler drains are in deteriorated condition and scheduled for replacement during this planning cycle.
- The plant industrial waste lines are in a deteriorated condition and replacement is scheduled in 2008, 2009 and 2010.
- Green 2 fly ash hoppers are the original hoppers and are in deteriorated state and scheduled for replacement in 2009.

The following is a list of items that are not included in this plan. These items fall into two categories, fire protection items and protective coatings.

**Fire Protection**

H-1 Cooling Tower fire protection	\$175,000
Reid Station Two coal conveyor	\$250,000
Extend fire protection to all levels (Reid Station)	\$125,000
Additional Turbine fire protection (Green)	\$250,000
Additional Turbine fire protection (Reid)	\$250,000
H-2 Cooling Tower fire protection	\$175,000

# **Big Rivers Electric Corporation Coleman Station 2009-2011 Business Plan**



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## Business Plan Summary

2009-2011

This document is produced through a combined effort of the Coleman Station management staff which attempts to outline and identify challenges and opportunities related to assumptions, key issues, fuel strategies, KPI's and staffing issues that face Coleman Station during the 2009-2011 planning cycle.

Big Rivers Electric Corporation (BREC) and Western Kentucky Energy (WKE) have signed a Termination Agreement ending the 25 year lease during the 10<sup>th</sup> year. BREC assumes operation and control of the generating units effective upon the closing date, currently planned for December 2008.

### Station Background:

Coleman Station consists of three generating units located near Hawesville, Kentucky and has a total generating capacity of 485 MWG and 443 MWN. (Identified below)

Unit	MWG	MWN
Coleman One	160	150
Coleman Two	160	138 (see note)
Coleman Three	165	155

Note: Coleman Two reduced by 12 MWN with the addition of FGD

- Coleman One - Foster Wheeler boiler and Westinghouse turbine generator, commercialized in 1969.
- Coleman Two – Foster Wheeler boiler and Westinghouse turbine generator, commercialized in 1970.
- Coleman Three - D. B. Riley boiler and General Electric turbine generator, commercialized in 1972.
- FGD System - Wheelabrator Air Pollution Control design. The unique design combines three generating units into a single FGD absorber that utilizes limestone as reagent and produces market grade gypsum. First operation occurred in February 2006 and was commercialized in May 2007.

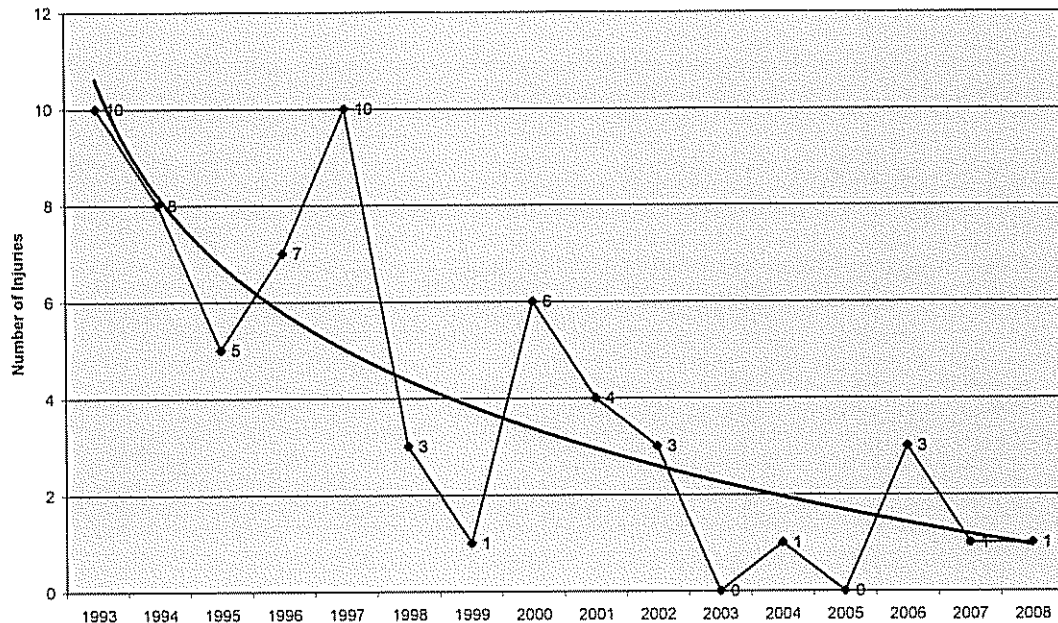
## Safety:

Safety continues to be a top priority at Coleman, as we maintain a zero tolerance for injury and continually improve our performance. Our joint Safety committee provides leadership, conducts several monthly safety meetings, and leads by example for others. The committee will not tolerate negative behavior of their coworkers or construction workers toward safety. At Coleman, every person on site has authority to immediately stop any work not performed safely.

The Governor's Safety award recognizes industry for completing more than 250,000 man-hours worked without a lost time injury. In recognition of Coleman's safety, the Station has been the recipient of the Governor's Safety award seven times. Coleman Plant received the Governor's Safety Award for the seventh time in August of 2008 for surpassing 500,000 consecutive man-hours without a lost time injury.

The chart below describes Coleman employees' safety history and commitment to work place safety.

### Coleman Safety History



Coleman employees OSHA recordable injuries in YTD September 2008:

- Station personnel – 1



An increased emphasis continues to be placed on Contractor Safety through use of the 7 steps program, pre-job meetings, requirement for documented tailgate sessions, weekly safety meeting and numerous other safety related activities. When we invite Contractors into our house, their safety becomes just as important as permanent Station employees. This increased emphasis will continue for 2008 and years to come.

OSHA recordable injuries at Coleman YTD September 2008:

- Contractor personnel - 1

**Safety Targets:**

**Recordable Incident Rate:**

<u>2009</u>	<u>2010</u>	<u>2011</u>
3.0	3.0	2.8

(Excludes HLC recordable)

<u>2009</u>	<u>2010</u>	<u>2011</u>
4.1	4.1	4.0

(Includes HLC recordable)

**Lost Time Incident Rate:**

<u>2009</u>	<u>2010</u>	<u>2011</u>
0.63	0.63	0.61

Note: Coleman has elected to set our Station Target for Lost Time Incident Rate at zero (0) as we do not plan for injuries.

Safety tab of this book identifies additional 2009-2011 business plan details.

**Generation:**

Generation targets identified in the 2009 – 2011 Business Plan have the units operating at 99% - 100% net generating capacity for all service hours. Station management believes the units are capable of generating the additional capacity. Short periods at this capacity have been demonstrated however continuous operation presents a new opportunity.

Historical generation average for the years 1993 through 2007 indicates 2009 – 2011 targets are > 600,000 net megawatt hour increase per year, after 105,000 net megawatt hour adjustments for the FGD.

## **Social Responsibility:**

The Station's 2009-2011 business planning cycle incorporates an emphasis on environmental compliance issues as a responsible facility to meet or exceed environmental compliance of all State and Federal statutes and regulations of the air, water, and land. Our objective is to be a valued corporate neighbor in the communities in which we work and maintain a positive working relationship with local, state, and federal agencies.

All three units have been updated over the years to meet new environmental regulations and fit inside a unified compliance plan for both Coleman Station and BREC.

The Station's Flue Gas Desulphurization (FGD) system designed for 95% SO<sub>2</sub> emission reduction began operation during the 1<sup>st</sup> quarter of 2006. Our business plan targets an aggressive SO<sub>2</sub> emission reduction rate of 95% in 2009, 97% in 2010, 95% in 2011 (2% less in FGD outage years) and producing market grade gypsum. In order to meet aggressive targets the FGD must meet 98% availability and be in service during unit start-up with by-pass hours minimized. The station currently has this procedure tested and considered normal practice.

In addition, with the FGD the Station was successful in testing and proving particulate compliance (0.27 lbs/mmBtu) downstream of the FGD raising Opacity Trigger Limits to 40% under the Station's Title V Air Quality permit. Previous limits required the units to operate under much tighter opacity trigger limits (<20%). However, when the units are operated through the by-pass stacks they are subject to opacity trigger limits of ~20%.

Coleman Station filed for a five year Kentucky Pollutant Discharge Elimination System (KPDES) permit in October 2004. Major concerns under this application are ash disposal and FGD waster water treatment. The Station's existing on site ash pond is full and beyond its useful life. In addition, the small volume of ash pond water increase cycles and shortens retention time, which presents a challenge managing pH levels. Areas of concern are metal piping, pumps, boiler seal materials, and boiler tubes. The Station is feeding a chemical solution to maintain pH levels.

Construction of a new \$3.5m Waste Water Treatment Facility (WWTF) completed in September 2008 on property approximately one mile from Coleman Station. Coleman ash and gypsum (unless marketed) will be placed in this facility. Material hauling and handling for both ash and gypsum are budgeted in "cost of sales" instead of O&M.

Social Responsibility tab of this book identifies additional 2009-2011 business plan details.

**Staffing:**

Coleman's guided by a dedicated and experienced workforce, which we consider our most valuable resource. Currently, 63% of our staff were part of BREC staff prior to the WKE lease and represents many years experience in operating, maintaining, problem solving, and overall success of the facility. In the last few years, 30% of station employees hired were due to retirements, long-term illness, termination, etc. The FGD increased staff account for 7% of the workforce. However, additional Coleman employees are nearing retirement age and attrition is becoming a major concern over the next three-year planning cycle.

To help ensure valuable resources, safety will continue to be the most important objective followed by training, process improvement, and succession planning for employees.

As identified by BREC Strategic Plan, Coleman Station will continue a "back to the basics" approach to the operation and maintenance activities required to meet Key Performance Indicators (KPI's) identified in this plan. Coleman Station will utilize basic utility practices such as routines, logs, operational procedure letters, preventive maintenance activities, and detailed maintenance and outage planning to meet or exceed our objectives.

A formal Performance Excellence Process (PEP) provides direction for each member of the Coleman organization to direct activities. PEP objectives include safety, availability, reliability, process improvement, cost control, social responsibility, integrity, and personal development.

Succession/Staffing tab of this book identifies additional 2009-2011 business plan details.

**Key Performance indicators (KPI's) identified by Coleman Station's 2009-2011 Business Plan:**

**Generation, EAF, EFOR, and Planned Outage Commitment:**

<b>Year</b>	<b>Net Generation</b>	<b>EAF</b>	<b>EFOR</b>	<b>Planned Outage Hours</b>
2009	3,434,877	89.7	7.33	Coleman 3- 768 hours boiler and chemical clean (32 days)
2010	3,457,502	90.4	7.33	Coleman 2 – 600 hours boiler and chemical clean (25 days)
2011	3,427,339	90.4	7.33	Coleman 1 – 600 hours boiler and chemical clean (25 days)

## Total Station Financial Commitment

TOTAL STATION COST (O&M & VARIABLE COSTS)			
	2009	2010	2011
Administration	1,153,116	1,177,409	1,216,316
Fuels	2,106,505	2,186,667	2,255,081
Operations	5,559,974	5,388,625	5,654,613
Lab	1,071,552	1,140,524	1,222,848
Maintenance	12,294,960	12,803,344	14,723,236
<b>Station O&amp;M Costs</b>	<b>\$ 22,186,107</b>	<b>\$ 22,696,569</b>	<b>\$ 25,072,094</b>
	2009	2010	2011
Coal (FUEL COST)	92,545,521	95,620,686	97,864,824
Natural Gas (START COST)	1,663,520	1,651,322	1,738,267
Reagent/Disposal (VOM)	3,984,459	4,149,004	4,284,174
<b>Station Variable Costs</b>	<b>\$ 98,193,500</b>	<b>\$101,421,012</b>	<b>\$103,887,265</b>
<b>Total Station Costs</b>	<b>\$120,379,607</b>	<b>\$124,117,581</b>	<b>\$128,959,359</b>
<b>Generation @ Coleman</b>	<b>3,434,877</b>	<b>3,457,502</b>	<b>3,427,339</b>

**Financial Targets – Total Operations and Maintenance:**

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	1,153,116	Administration	1,177,409	Administration	1,216,316
Fuels	2,106,505	Fuels	2,186,667	Fuels	2,255,081
Operations	5,559,974	Operations	5,388,625	Operations	5,664,613
Lab	1,071,552	Lab	1,140,524	Lab	1,222,848
Maintenance	12,294,960	Maintenance	12,803,344	Maintenance	14,723,236
	<b>\$22,186,107</b>		<b>\$22,696,569</b>		<b>\$ 25,072,094</b>

***\$/MWh***

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	\$ 0.34	Administration	\$ 0.34	Administration	\$ 0.35
Fuels	\$ 0.61	Fuels	\$ 0.63	Fuels	\$ 0.66
Operations	\$ 1.62	Operations	\$ 1.56	Operations	\$ 1.65
Lab	\$ 0.31	Lab	\$ 0.33	Lab	\$ 0.36
Maintenance	\$ 3.58	Maintenance	\$ 3.70	Maintenance	\$ 4.30
	<b>\$ 6.46</b>		<b>\$ 6.56</b>		<b>\$ 7.32</b>
<b>Net Generation</b>	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>

***Percent***

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	5%	Administration	5%	Administration	5%
Fuels	9%	Fuels	10%	Fuels	9%
Operations	25%	Operations	24%	Operations	23%
Lab	5%	Lab	5%	Lab	5%
Maintenance	55%	Maintenance	56%	Maintenance	59%
	<b>100%</b>		<b>100%</b>		<b>100%</b>

**Non-Labor - Summary by Department Operations and Maintenance  
Financial Targets:**

	<b>2009</b>		<b>2010</b>		<b>2011</b>	
Administration	706,146	Administration	717,030	Administration	742,126	
Fuels	826,313	Fuels	868,069	Fuels	896,925	
Operations	1,678,108	Operations	1,297,726	Operations	1,440,987	
Lab	600,287	Lab	655,121	Lab	722,883	
Maintenance	8,592,856	Maintenance	8,990,177	Maintenance	10,700,319	
	<b>\$12,403,710</b>		<b>\$12,528,123</b>		<b>\$14,503,240</b>	

***\$/MWh***

	<b>2009</b>		<b>2010</b>		<b>2011</b>	
Administration	\$ 0.21	Administration	\$ 0.21	Administration	\$ 0.22	
Fuels	\$ 0.24	Fuels	\$ 0.25	Fuels	\$ 0.26	
Operations	\$ 0.49	Operations	\$ 0.38	Operations	\$ 0.42	
Lab	\$ 0.17	Lab	\$ 0.19	Lab	\$ 0.21	
Maintenance	\$ 2.50	Maintenance	\$ 2.60	Maintenance	\$ 3.12	
	<b>\$ 3.61</b>		<b>\$ 3.62</b>		<b>\$ 4.23</b>	
Net Generation	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>	

***Percent***

	<b>2009</b>		<b>2010</b>		<b>2011</b>	
Administration	6%	Administration	6%	Administration	5%	
Fuels	7%	Fuels	7%	Fuels	6%	
Operations	14%	Operations	10%	Operations	10%	
Lab	5%	Lab	5%	Lab	5%	
Maintenance	69%	Maintenance	72%	Maintenance	74%	
	<b>100%</b>		<b>100%</b>		<b>100%</b>	

**Labor - Summary by Department Operations and Maintenance  
Financial Targets:**

	2009		2010		2011	
Administration	446,970	Administration	460,379	Administration	474,190	
Fuels	1,280,192	Fuels	1,318,598	Fuels	1,358,156	
Operations	3,881,866	Operations	4,090,899	Operations	4,213,626	
Lab	471,265	Lab	485,403	Lab	499,965	
Maintenance	3,702,104	Maintenance	3,813,167	Maintenance	4,022,917	
	<b>\$9,782,397</b>		<b>\$10,168,446</b>		<b>\$10,580,268</b>	

***\$/MWh***

	2009		2010		2011	
Administration	\$ 0.13	Administration	\$ 0.13	Administration	\$ 0.14	
Fuels	\$ 0.37	Fuels	\$ 0.38	Fuels	\$ 0.40	
Operations	\$ 1.12	Operations	\$ 1.19	Operations	\$ 1.23	
Lab	\$ 0.14	Lab	\$ 0.14	Lab	\$ 0.15	
Maintenance	\$ 1.07	Maintenance	\$ 1.11	Maintenance	\$ 1.17	
	<b>\$ 2.83</b>		<b>\$ 2.97</b>		<b>\$ 3.08</b>	
Net Generation	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>	

***Percent***

	2009		2010		2011	
Administration	5%	Administration	5%	Administration	4%	
Fuels	13%	Fuels	13%	Fuels	13%	
Operations	40%	Operations	40%	Operations	40%	
Lab	5%	Lab	5%	Lab	5%	
Maintenance	38%	Maintenance	37%	Maintenance	38%	
	<b>100%</b>		<b>100%</b>		<b>100%</b>	



**Outage/Non-Outage Summary of Non-Labor Financial Targets:**

	<b>2009</b>		<b>2010</b>		<b>2011</b>	
C1 Outage	-	C1 Outage	-	C1 Outage	3,002,904	
C2 Outage	-	C2 Outage	2,849,677	C2 Outage		
C3 Outage	2,501,572	C3 Outage	-	C3 Outage	-	
FGD Outage	833,477	FGD Outage	-	FGD Outage	982,733	
Non-outage	9,068,662	Non-outage	9,678,447	Non-outage	10,517,603	
	<b>\$12,403,711</b>		<b>\$12,528,124</b>		<b>\$14,503,240</b>	

***\$/MWh***

	<b>2009</b>		<b>2010</b>		<b>2011</b>	
C1 Outage	\$ -	C1 Outage	\$ -	C1 Outage	\$ 0.88	
C2 Outage	\$ -	C2 Outage	\$ 0.82	C2 Outage	\$ -	
C3 Outage	\$ 0.73	C3 Outage	\$ -	C3 Outage	\$ -	
FGD Outage	\$ 0.24	FGD Outage	\$ -	FGD Outage	\$ 0.29	
Non-outage	\$ 2.64	Non-outage	\$ 2.80	Non-outage	\$ 3.07	
	<b>\$ 3.61</b>		<b>\$ 3.62</b>		<b>\$ 4.23</b>	

Net Generation	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>	
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***Percent***

	<b>2009</b>		<b>2010</b>		<b>2011</b>	
C1 Outage	0%	C1 Outage	0%	C1 Outage	21%	
C2 Outage	0%	C2 Outage	23%	C2 Outage	0%	
C3 Outage	20%	C3 Outage	0%	C3 Outage	0%	
FGD Outage	7%	FGD Outage	0%	FGD Outage	7%	
Non-outage	73%	Non-outage	77%	Non-outage	73%	
	<b>100%</b>		<b>100%</b>		<b>100%</b>	

### Variable Cost – Summary

	2009	2010	2011
Coal (FUEL COST)	92,545,521	95,620,686	97,864,824
Natural Gas (START COST)	1,663,520	1,651,322	1,738,267
Reagent/Disposal (VOM)	3,984,459	4,149,004	4,284,174
<b>Total Variable Costs</b>	<b>\$ 98,193,500</b>	<b>\$ 101,421,012</b>	<b>\$ 103,887,265</b>

Generation @ Coleman	3,434,877	3,457,502	3,427,339
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Variable \$/MWh	\$ 28.59	\$ 29.33	\$ 30.31
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<i>\$/MWh</i>	2009	2010	2011
Coal (FUEL COST)	26.94	27.66	28.55
Natural Gas (START COST)	0.48	0.48	0.51
Reagent/Disposal (VOM)	1.16	1.20	1.25
	<b>\$ 28.59</b>	<b>\$ 29.33</b>	<b>\$ 30.31</b>

<i>Percent</i>	2009	2010	2011
Coal (FUEL COST)	94%	94%	94%
Natural Gas (START COST)	2%	2%	2%
Reagent/Disposal (VOM)	4%	4%	4%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

**Capital Investment Plan:**

Year	Capital Investment
2009	\$9,134,000
2010	\$7,858,500
2011	\$11,592,000

# Big Rivers Electric Cooperative

## 2009 Capital Budget - Coleman Station

Project Description	Gross Capital Budget
<b><u>Coleman Station</u></b>	
Misc Tools and Equipment	40,000
Misc Safety Equipment (8 SCBA's)	35,000
Misc Capital Projects	80,000
Coleman FGD Misc Pumps & Valves	125,000
C-1, C-2 Booster Fan Blades, 2 sets	467,000
Absorber Agitator Blades, B & D	65,000
C-3 Condenser Vacuum Pump Replacement	120,000
C-3 Deflector Wall Replacement	765,000
C-3 hot end primary tube replacement	1,920,000
C-3 Boiler Insulation	250,000
C-3 A Mill Liner Replacement with inlet auger	300,000
C-3 Soot Blower Replacement	100,000
C-3 A & B PA Fan Housing Replacement	300,000
C-3 PA Hot/Cold/Rating Damper Drivers	160,000
C-3 B Buss 4160v Switchgear Replacement	1,065,000
C-3 Slag Grinder Replacement	90,000
Capital Valve Replacement	100,000
Ash Sluice Pump	80,000
Circulating Water Pump	200,000
C-3 Expansion joints (4), air heater air side & gas side	270,000
Conveyor Belt Replacement	50,000
PI Server and SemAPI Replacement	20,000
Upgrade CEM's (hardware bypass stacks)	25,000
Purchase Conductor License (another client)	15,000
C3 DCS Sequence of Events (includes GPS Clock)	165,000
DMZ Server Replacement	15,000
Precipitator Controls/Kirk Key Upgrade	115,000
C3 monitor replacement including 40" alarm monitor	12,000
C3 DCS power supplies	70,000
Coal Handling flop gate 7, 9, and 11 replace	85,000
Replace number 1 and 17 belt scale	25,000
Barge Unloader Bucket	120,000
C-3 CEM Duct Gas Analyser	75,000
4160 Switchgear (2) Replacement for crusher house	65,000
Barge Unloader 480 Breaker Replacement	55,000
C-3 480 Volt MCC replacement (2)	160,000
C-3 DCS Controllers Replacement	65,000
Plant vibration monitoring replacement	65,000
Replace underground Natural Gas line	150,000
C3 Boiler Tube Weld Overlay	1,250,000
<b>Total Coleman Station</b>	<b>\$9,134,000</b>

# Big Rivers Electric Cooperative

## 2010 Capital Budget - Coleman Station

Project Description	Gross Capital Budget
<b>Coleman Station</b>	
Misc. Tools and Equipment	60,000
Misc. Safety Equipment	20,000
Misc. Capital Projects	100,000
Coleman FGD Misc. Pumps & Valves	125,000
FGD WWT replace PLC to DCS	15,000
Capital Valve Replacement	100,000
Ash Sluice Pump	125,000
C-2 Boiler Expansion Joint Replacement	250,000
C-2 #6 Feedwater Heater Tube Bundle Replacement	250,000
C-2 Boiler Insulation	250,000
C-2 Air Heater Hot End Basket Replacement	465,000
C-2 Hot Reheater Tube Replacement	1,981,000
CEMs Upgrade (FGD Stack)	90,000
Precipitator Inlet duct replacement	300,000
Circulating Water Pump Replacement	206,000
C-2 Soot Blower replacement & Control Panels	130,000
C-2 480 Volt MCC Replacement	165,000
C-2 Slag Grinder Replacement	95,000
A/C Replacement for C1 & C2 battery room	15,000
Conveyor Belt Replacement	50,000
C-2 Feed Water Discharge valve actuator replacement	50,000
C-2 CEM Duct Gas Analyzers Replacement	80,000
Replace DCS Communication Modules - CH	30,000
C-2 monitor replacement including 37" alarm monitor	12,000
C-2 DCS controller repl BRC 400	100,000
C-2 DCS power supplies replacement	76,000
C-2 feedwater bypass valve actuator	65,000
C-2 Vacuum Pump Replacement	125,000
C-2 Precipitator Controls Upgrade	125,000
C-3 Booster Fan Blades	233,500
Plant vibration monitoring replacement	70,000
C-2 FD fan housings, silencers & hoods	600,000
Replace Coal Handling Building	250,000
C2 Boiler Tube Weld Overlay	1,250,000
<b>Total Coleman Station</b>	<b>\$7,858,500</b>

# Big Rivers Electric Cooperative

## 2011 Capital Budget - Coleman Station

Project Description	Gross Capital Budget
<b>Coleman Station</b>	
Misc. Tools and Equipment	60,000
Misc Safety Equipment	20,000
Misc Capital Projects	100,000
Coleman FGD Misc Pumps & Valves	125,000
Capital Valve Replacement	100,000
Ash Sluice Pump	150,000
C-1 Boiler Expansion Joint Replacement	250,000
C-1 Tube Replacement Hot Reheat Section	2,050,000
Crusher Feeder Replacement	100,000
C-1 Slag Grinder Replacement	100,000
C-1 Boiler Insulation	250,000
C-1 Boiler penthouse casing	150,000
C-1 Drum Enclosure replacement	350,000
C-1 Superheat Spray Header Replacement 1 upper 2 lower	750,000
C-1 Critical Pipe System Hanger Replacements	40,000
Conveyor Belt Replacement	80,000
C-1 Hot/Cold/Rating Drive Replacement	180,000
C-1 Replace ILS controls	180,000
C-1 4160 V Motor replacements	160,000
Operator HMI's move to new control room	300,000
C-1 DCS controller repl BRC 400	100,000
C1, C2, C3 and CH EWS replacement	20,000
DCS FGD power supplies replacement	160,000
FGD server client and EWS replacement	30,000
Replace ILS Controls C3 (relay logic/motor starter)	20,000
C-3 DAS upgrade	200,000
C-1 monitor replacement including 37" alarm monitors	12,000
Absorber Agitator Blades, A, C & E	120,000
FGD waste water treatment replace PLC to DCS	135,000
Sootblower & control panel Replacements	150,000
Start Up 480v MCC Replacement (2)	150,000
Boiler seal air piping replacement	150,000
Limiterque Drive Replacement	50,000
Precipitator inlet and outlet expansion joints	150,000
New Control Room	1,500,000
FGD Server, Client and EWS Replacement	30,000
C-1 Vacuum Pump Replacement	130,000
Circulating Water Pump Replacement	210,000
Plant vibration monitoring replacement	75,000
Diesel Generator Emergency Power FGD	200,000
C-1 FD fan housings, silencers & hoods	620,000
C-1 CEM Duct Gas Analysers Replacement	85,000
C-1 Precipitator Inlet duct replacement	300,000
C3 Boiler Tube Weld Overlay	1,250,000
ROFA Fan Replacement	250,000
<b>Total Coleman Station</b>	<b>\$11,592,000</b>

**Coleman Station 2009-2011 Three-year Business Plan follows with detailed information related to activities above and others not included in Business Plan Summary:**





## Coleman Station KPI Objectives

	UNITS	2009	2010	2011
RIIR (- ** HLC)	#/200,000 man hours	3.0	3.0	2.8
RIIR (+ ** HLC)	#/200,000 man hours	4.1	4.1	4.0
LTIR	#/200,000 man hours	0.63	0.63	0.61
Net Capacity Factor	(%)	88.5%	89.1%	88.3%
EAF	% hours; available (include derates)	89.7	90.4	90.4
EFOR	% hours; unplanned & unavailable, (incl. derates)	7.33	7.33	7.33
SO2 Compliance Rate	% of time in compliance	98%	98%	98%
Nox Compliance Rate	% of time in compliance	98%	98%	98%
Opacity Compliance Rate	% of time in compliance	98%	98%	98%
O & M Expense	\$	\$22,186,107	\$22,696,569	\$25,072,094
Non-Labor	\$	\$12,403,710	\$12,528,123	\$14,503,240
Labor	\$	\$9,782,397	\$10,168,446	\$10,568,854

\*\* HLC = Hearing Loss Cases

## Coleman Unit One KPI Objectives

	2009	2010	2011
Generation Vol. (Net MWH's)	1,198,182	1,193,149	1,101,853
Net Capacity Factor	91.2%	90.8%	83.9%
EAF	93.0	93.0	86.2
EFOR	7.0	7.0	7.0
SO2 Compliance Rate	98%	98%	98%
Nox Compliance Rate	98%	98%	98%
Opacity Compliance Rate	98%	98%	98%

## Coleman Unit Two KPI Objectives

	2009	2010	2011
Generation Vol. (Net MWH's)	1,111,046	1,039,520	1,100,508
Net Capacity Factor	91.2%	85.4%	90.4%
EAF	93.0	86.2	93.0
EFOR	7.0	7.0	7.0
SO2 Compliance Rate	98%	98%	98%
Nox Compliance Rate	98%	98%	98%
Opacity Compliance Rate	98%	98%	98%

## Coleman Unit Three KPI Objectives

	2009	2010	2011
Generation Vol. (Net MWH's)	1,125,648	1,224,833	1,224,978
Net Capacity Factor	83.4%	90.8%	90.8%
EAF	83.2	92.0	92.0
EFOR	8.0	8.0	8.0
SO2 Compliance Rate	98%	98%	98%
Nox Compliance Rate	98%	98%	98%
Opacity Compliance Rate	98%	98%	98%



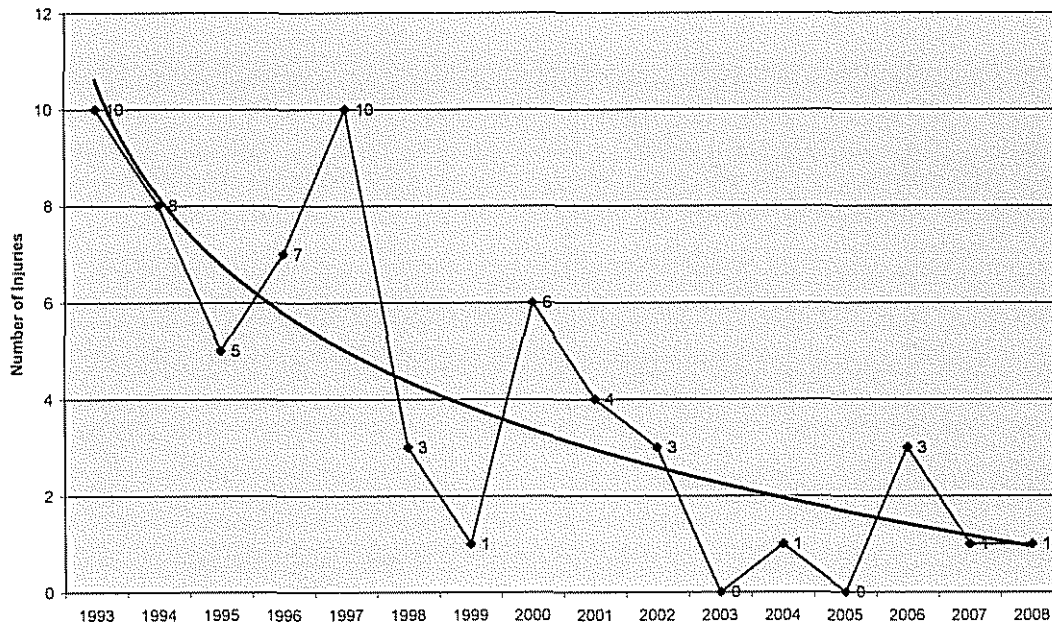
# Safety

Safety continues to be a top priority at Coleman, as we maintain a zero tolerance for injury and continually improve our performance. Our joint Safety committee provides leadership, conducts several monthly safety meetings, and leads by example for others. They will not tolerate negative behavior of their coworkers or construction workers toward safety, at Coleman every person on the site has authority to immediately stop any work not performed safely.

The Governor's Safety award recognizes industry for completing more than 250,000 man-hours worked without a lost time injury. In recognition of Coleman's safety, the Station has been the recipient of the Governor's Safety award seven times. Coleman Plant received the Governor's Safety Award for the seventh time in August of 2008 for surpassing 500,000 consecutive man-hours without a lost time injury.

The chart below describes Coleman employees' safety history and commitment to work place safety.

### Coleman Safety History



Coleman employees OSHA recordable injuries in YTD September 2008:

- Station personnel – 1

An increased emphasis continues to be placed on Contractor Safety through use of the 7 steps program, pre-job meetings, requirement for documented tail gate sessions, weekly safety meeting and numerous other safety related activities. When we invite Contractors into our house, their safety becomes just as important as permanent Station employees. This increased emphasis will continue for 2009 and years to come.

OSHA recordable injuries at Coleman YTD September 2008:

- Contractor personnel - 1

Station employees and contractors comply with State and Federal OSHA rules and regulations.

**Safety Targets:**

**Recordable Incident Rate:**

<u>2009</u>	<u>2010</u>	<u>2011</u>
3.0	3.0	2.8

(Excludes HLC recordable)

<u>2009</u>	<u>2010</u>	<u>2011</u>
4.1	4.1	4.0

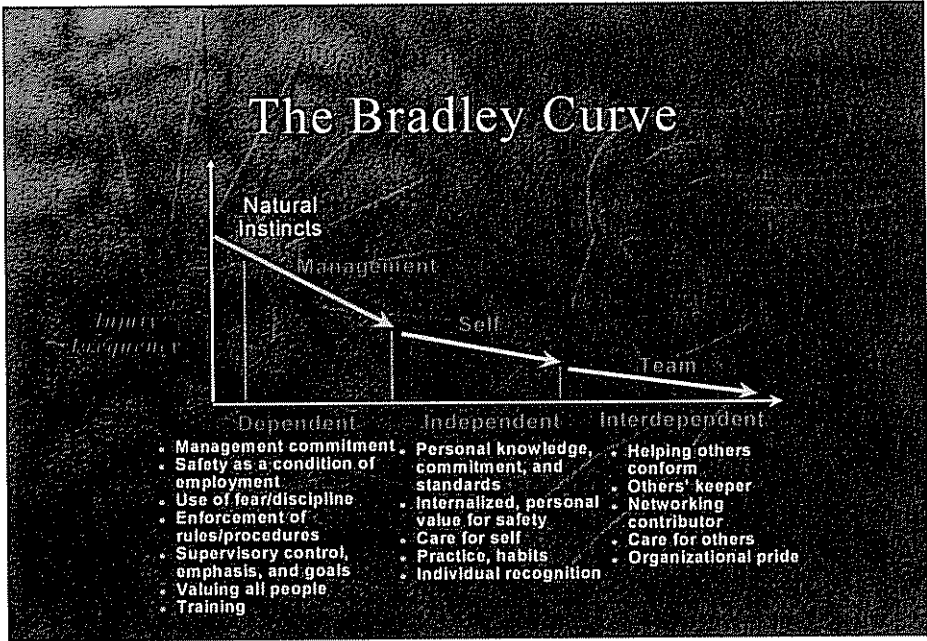
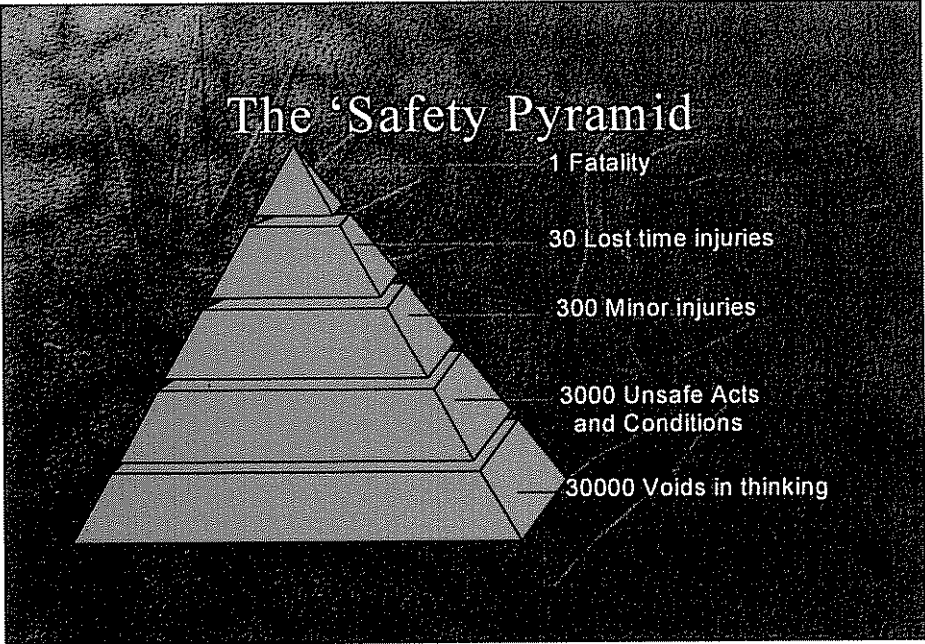
(Includes HLC recordable)

**Lost Time Incident Rate:**

<u>2009</u>	<u>2010</u>	<u>2011</u>
0.63	0.63	0.61

Note: Coleman has elected to set our Lost Time Incident Rate at zero (0) as we do not plan for injuries.

The Safety Pyramid and Bradley Curve shown below indicate the importance of controlling recordable injuries and near misses to avoid a serious injury or fatality.



## Activities to Meet Safety Objective:

- Encourage the joint safety committee to continue to grow and remain proactive with fellow employees and construction workers.
- The Safety committee meets monthly to review and evaluate safety related topics including; current and proposed projects, future monthly safety meeting topics, how to improve safety focus of others, review of BREC safety performance, etc
- Accident investigations are performed immediately 24/7 by management and members of the safety committee.
- Each year a selected number of safety committee members attend the Governors Safety and Health Conference.
- The Station conducts a Safety Slogan contest each year, the slogan is used to promote safety as a daily reminder.
- Coleman employees believe that if they can work one day without an injury, they can work everyday without an accident.
- "Safety Contact" is a method used to ensure fellow employees and contractors perform work in a safe manner.
- The Passport Contractor Safety Program ensures contractors working on site have all the required and general safety training to accomplish their work.
- Near Miss Reporting provides a mechanism to report incidents that occur but do not result in personal injury.
- Coleman's cross-functional safety committee is currently participating in investigations of Reported Injuries, First Aid Reports, and Near Miss Incidents.  
The Coleman safety committee participates in the joint meeting of all BREC Plant Safety committees.
- The safety committee is currently performing safety inspections, making recommendations and following up to ensure that all items are being addressed.
- Compliance training is in accordance with the Federal and State regulations.
- Continue to support the philosophy that everyone is a leader and responsible for their safety and the safety of others.
- Every Coleman employee has the authority to stop any job at any time if he/she feels the job is unsafe. This includes jobs performed by BREC personnel or contractors.  
All crews and contractors conduct daily job briefings at the beginning of each workday.
- Monthly safety meetings topics will be interesting and pertain to work place and home safety.





## **Social Responsibility/Environmental**

The Station's 2009-2011 business planning cycle incorporates an emphasis on environmental compliance issues as a responsible facility to meet or exceed environmental compliance of all State and Federal statutes and regulations of the air, water, and land. Our objective is to be a valued corporate neighbor in the communities in which we work and maintain a positive working relationship with local, state, and federal agencies.

All three units were updated to meet new environmental regulations over the years and fit inside a unified compliance plan for both the Station and BREC.

### **Title V Air Quality**

#### **SO<sub>2</sub> emissions**

- The Station's new Flue Gas Desulphurization (FGD) system designed for 95% SO<sub>2</sub> emission reduction began operation during the 1<sup>st</sup> quarter of 2006. Our business plan targets an aggressive SO<sub>2</sub> emission reduction rate of, 95% in 2009, 97% in 2010, 95% in 2011 (2% less in FGD outage years) and producing market grade gypsum. In order to meet aggressive targets the FGD must meet its 98% availability guarantee and be in service during unit start-up with by-pass hours minimized. The station currently has this procedure tested and considered normal practice.
- In addition, with the FGD the Station was successful in testing and proving particulate compliance (0.27 lbs/mmBtu) downstream of the FGD raising Opacity Trigger Limits to 40% under the Station's Title V Air Quality permit. Previous limits required the units to operate under much tighter opacity trigger limits (<20%). However, when the units are operated through the by-pass stacks they are subject to opacity trigger limits of ~20%.

#### **NO<sub>x</sub> emissions**

- During the years, 1993 and 1996 BREC installed B&W low NO<sub>x</sub> burners to reduce NO<sub>x</sub> emissions to a level of approximately 0.46 lbs/mmBtu per unit.
- NO<sub>x</sub> emissions again reduced to comply with OTAG requirements by WKE in 2002 through 2004. Advanced Over Fire Air systems were installed on all three units to reduce NO<sub>x</sub> emissions by approximately 30%, all three units are now operating at ~0.31 lbs/mmBtu.

- Successful operation of the NOx emission reduction systems, without effecting unit capacity must be managed and is necessary to meet the BREC NOx plan. BREC NOx plan calls for Coleman Station to operate at  $\leq 0.31$  lb/mmBtu in 2009 during the OTAG season. BREC NOx plan identifies Coleman operating at  $\leq 0.33$  lb/mmBtu during the non-OTAG season.

### **Stack Emission Limitations**

- Sulfur dioxide emission shall not exceed 5.2 lb/mmBtu, for each unit based on a twenty-four hour average.

### **Water**

- Coleman Station filed for a five year Kentucky Pollutant Discharge Elimination System (KPDES) permit in October 2004. Major concerns under this application are ash disposal and FGD waster water treatment. The Station's existing on site ash pond is full and beyond its useful life. In addition, the small volume of ash pond water increase cycles and shortens retention time, which presents a challenge managing pH levels. Areas of concern are metal piping, pumps, boiler seal materials, and boiler tubes. The station is feeding a chemical solution to maintain pH levels.
- Chloride discharge under the new KPDES permit will be a monitoring point. Under the previous permit, chloride discharge was not a measurement point. The new KPDES permit will limit chloride discharge to 1200 ppm.
- The Station constructed a new \$3.5m Waste Water Treatment Facility (WWTF) completed in September 2008 on property approximately one mile from Coleman Station. The plan assumes disposing of >400,000 tons of ash and gypsum per year in the new WWTF located approximately 1 mile from the Station. Coleman ash and gypsum not marketed will be placed in this facility. Material hauling and handling for both ash and gypsum are budgeted in "cost of sales" instead of O&M.

## Fuel

- Fuel quality may present a challenge for Coleman Station during this planning cycle. In order for the Station to achieve full capacity, meet environmental requirements, and maintain availability, the minimum fuel quality must be met. The fuel plan assumes no petroleum coke.
- The following table identifies Minimum Fuel properties required to achieve targeted capacity, meet environmental requirements, and maintain availability:

### **2009–2011 Fuel box parameters**

COAL	
BTU	No less than 11,200
HGI	No lower than 53
Ash	No more than 10%
SO <sub>2</sub>	No more than 5.5 lb mm/Btu
Moisture	No more than 10%



## Succession Plan and Staffing Levels

Age demographics are a serious concern; 62% of the Station's Resource Leaders are >50 years of age, 61% of the Bargain Unit employees are >50 years of age, and 100% of the Managers are >50 years of age. The average age of our workforce is 47 years but does not accurately reflect the concerns of having trained personnel and someone ready to move into open positions as they become available. Average age tends to mask the problem of attrition by simply doing the math.

Currently, 63% of our staff were part of BREC workforce prior to the WKE lease and represents many years experience in operating, maintaining, problem solving, and overall success of the facility. In the last few years, 30% of station employees hired was due to retirements, long-term illness, termination, etc. The FGD increased staff account for 7% of the workforce. However, additional Coleman employees are nearing retirement age and attrition is becoming a major concern over the next three-year planning cycle.

With 37% of our workforce having little power plant experience training plays a very important role in ability to meet KPI's identified by this document.

To prepare Coleman Station has instituted a succession planning process supporting near and long term BREC Corporation and the plants developmental concerns. Management's approach to achieve a successful plan is multi-phased.

### Phase One – On Going

#### Plant Staffing

- Rearranging positions in classifications, within the approved head count, that supports technology changes and plant needs.
- Develop and train control room operators, auxiliary operators, senior instrument techs, mechanics, etc
- Personnel realignments may be needed in 2009 – 2011 planning cycle.

### Phase Two – On Going

#### Staff Evaluation

- Evaluate current staffing and target those individuals that have demonstrated a propensity toward advancement.
  - Working to put the correct people in classifications to ensure they are prepared to move as openings occur.

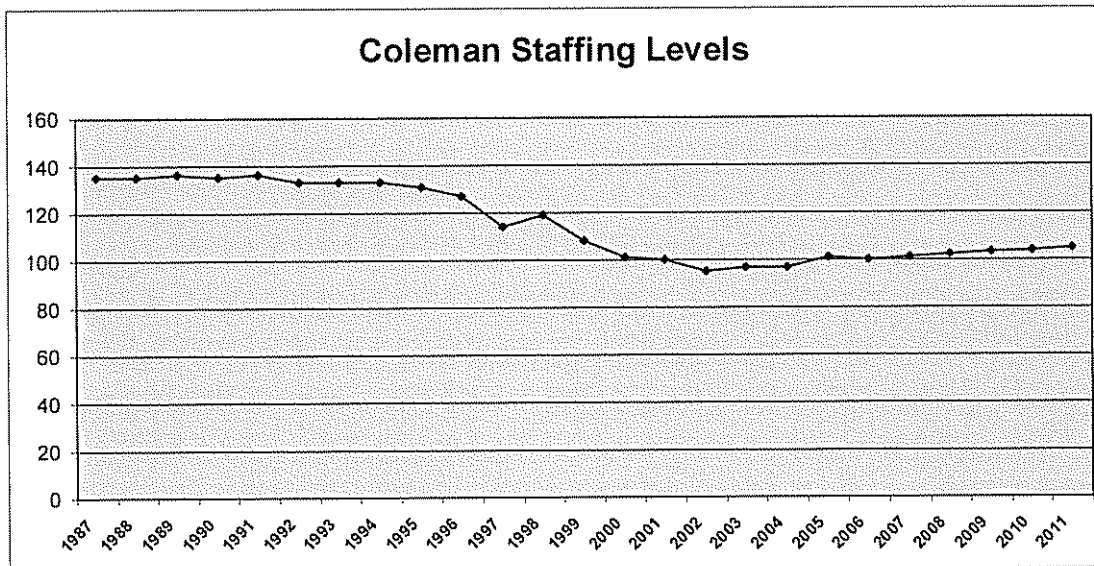
### Phase Three – On Going

#### Development

- Set goals and objectives for the individuals in the succession planning cycle.
- Mentor employees, provide specific training, and utilize them in a capacity that supports personal and professional enhancement.
- Developed a formalized training program incorporating Corporate and specific training materials.

Staffing levels at Coleman have been higher and lower in the history of the Station. Management is constantly reviewing and makes changes based on Plant needs in a changing environment. An example of such changes are the additional headcount increases identified by this plan as a first step to prepare for retirements, long term illness, terminations, training requirements, etc.

Coleman historical Staffing Levels are identified by the chart below:



Coleman's 2009-2011 planned Staffing. See chart below:

<b>Coleman Station Headcount</b>			
<b>Planned Headcount</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Administration	4	4	4
Fuels	14	14	14
Lab	5	5	5
Operations	41	42	42
Maintenance	39	39	40
Totals	<b>103</b>	<b>104</b>	<b>105</b>
<b>Budgeted Headcount</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Administration	4	4	4
Fuels	14	14	14
Lab	5	5	5
Operations	41	42	42
Maintenance	39	39	40
Totals	<b>103</b>	<b>104</b>	<b>105</b>





# Outage Plan

Coleman Station outage planning is an important part of the stations 2009–2011 Business Plan. The station performs scheduled outages as identified below:

- FGD outages – 2 year interval
- Boiler and turbine valve outages - 3 year interval
- Turbine generator major inspections - 9 year interval

In addition, to the identified outage plan above the Stations generation forecast includes 2% Maintenance Out Hours (MOH) to cover unplanned outages and 5.33% EFOR to cover forced unit shutdowns.

2009 - May 23, 2009 through June 23, 2009 (32 days) 768 hour outage

- Coleman Unit 3 major objectives
  - Boiler
    - Inspection
    - Replace rear furnace deflector wall
    - Replace primary superheater
    - Sootblower replacement
    - Boiler tube overlay
    - Boiler chemical clean
    - Furnace scaffolding
    - Penthouse casing repair
    - Insulation and lagging repairs
    - Expansion joint replacement
    - Gas leak repairs
    - Fan inspections
  - Turbine
    - Valve inspection
    - Replace condenser vacuum pump
  - FGD
    - Maintenance inspection of equipment that requires a FGD shutdown, etc
    - Scaffold absorber
    - Booster fan inspection & repair
      - Replacement of C1 & C2 fan blades
    - Storage tank inspection & repair
    - Agitator inspection & replacement
      - Replacement of B and D blades
    - Recycle pump overhaul
    - Oxidation Air Blower inspection & PM
    - Motor PMs
    - Limestone mill liner replacement
  - Balance of Plant
    - Replace A & B mill liners
    - Reclassify A & B mill balls

- Precipitator controls replacement
- Motor PMs
- Replace cold end airheater baskets
- "B:" side 4160 volt switch gear replacement
- A and C 480 volt MCC replacement
- Boiler feed pump overhaul

2010 – June 11, 2010 through July 5, 2010 (25 days) 600 hour outage

- Coleman Unit 2 major objectives
  - Boiler
    - Inspection
    - Replace re-heater hot end
    - Boiler tube overlay
    - Boiler chemical clean
    - Penthouse casing repair
    - Insulation and lagging repair
    - Expansion joint replacement
    - Gas leak repairs
    - Fan inspections
    - FD fan housings, silencers and hoods replacement
      - Sootblower replacement
      - Boiler chemical clean
  - Turbine
    - Valve inspection
    - Replace condenser vacuum pump
    - Repair HP IP steam seals
  - Balance of Plant
    - 480 volt MCC replacement
    - Motor PM'S
    - Boiler feed pump overhaul
    - Precipitator controls replacement

2011 – February 28, 2011 through March 24, 2011 (25 days) 600 hour outage

- Coleman Unit 1 major objectives
  - Boiler
    - Inspection
    - Replace re-heater hot end
    - Boiler tube overlay
    - Boiler chemical clean
    - Penthouse casing repair
    - Insulation and lagging repair
    - Expansion joint replacement
    - Gas leak repairs
    - Fan inspections
      - FD fan housings, silencers and hoods replacement
    - Sootblower replacement
    - Drum enclosure replacement
  - Turbine
    - Valve inspection
    - Replace condenser vacuum pump
  - Balance of Plant
    - 480 volt MCC replacement
    - Motor PM'S
    - Boiler feed pump overhaul
  - FGD
    - Maintenance inspection of equipment that requires a FGD shutdown, etc
    - Scaffold absorber
    - Booster fan inspection & repair
      - Replace C3 blades
    - Storage tank inspection & repair
    - Agitator inspection & replacement
      - Replacement of A, C, and E blades
    - Recycle pump overhaul
    - Oxidation Air Blower inspection & PM
    - Motor PMs
    - Limestone mill liner replacement



## Training Plan

Station management staff has identified critical positions where employee development must be focused during the 2009–2011 planning cycle. Considering an aging workforce, the Station faces significant attrition; preparing people to fill vacancies in a timely manner is a reality during this planning period.

All employees participate in developing a three-year training and two year development plan, which is included in their PEP. Following are examples of the more generic power plant training topics to be covered.

- Employees train on at least one OPL per week as set out in Coleman Station three-year training curriculum.
- Included in the three-year training curriculum is plant specific training pertaining to equipment and procedures as outlined by specific training manuals developed at the Station.
- Employees will complete all safety compliance training required by State and Federal regulations.
- Operations will utilize the shift leaders to facilitate the operator-training program. Most of this training will have to be “one on one” since there is limited extra people on shift. It is imperative that operators receive the necessary training in order to advance to the next classification. At least 40 hours per person of classroom training per classification will be required, although higher-level classifications will require additional training time. This is in addition to on the job training.
- Necessary education and training to acquire and/or maintain required licenses and certificates such as wastewater treatment.
- Each leader conducts succession planning and development sessions with *their manager to discuss and implement development methods for the individuals on their shift.*
- Delegation of authority is used for developmental purposes when managers or leaders are absent from work.



# **Risk**

## **Generation**

Generation targets identified in the 2009 – 2011 business plan have the units operating at 99% - 100% net generating capacity for all service hours.

Historical generation average for the years 1993 through 2007 indicates 2009 – 2011 targets are > 600,000 net mwh increase per year, after 105,000 net mwh adjustment for the FGD.

## **Succession Planning**

Age demographics are a serious concern; 62% of the Station's Resource Leaders are >50 years of age, 61% of the Bargain Unit employees are >50 years of age, and 100% of the Managers are >50 years of age. The average age of our workforce is 47 years but does not accurately reflect the concerns of having trained personnel and someone ready to move into open positions as they become available. Average age tends to mask the problem of attrition by simply doing the math.

With 37% of our workforce having little power plant experience training plays a very important role in ability to meet KPI's identified by this document.

## **Training**

Coleman Station employees will attend operation and maintenance training for power plant systems. Overtime is required for all Production employees attending training. Adding overtime to already high percentages presents another personnel challenge that must be managed. Maintenance personnel attending training will not require overtime due to use of outside contractors, within reason. Use of outside contractors requires experience and expertise that must be filled in from maintenance resource leaders.

## **Environmental Arena**

### **Air**

Coleman's FGD system began operation during February 2006 and remains critical to the business plan. Successful operation of the FGD provides fuel flexibility in a lower cost fuel market that reduces overall generation cost per MWh. The concern is finding fuel that allows for full load generation without load reductions due to environmental issues.



The FGD produces a market grade gypsum by-product and before January 1, 2008 was marketed by a third party. After January 1, 2008, the gypsum market has declined resulting in the majority of product being disposed of either at Wilson landfill or Coleman WWTF.

- Recent decline in housing market affected the demand for synthetic gypsum in the wallboard market.
- Fuel quality affects particulate carry over from the precipitators, which could affect the ability to produce market grade gypsum.

BREC in 1993 and 1996 installed B&W low NOx burners to reduce NOx emissions to a level of approximately 0.46 lbs/mmBtu per unit. As part of BREC NOx Plan emissions were once again reduced by approximately 30%, all three units are now operating at <0.31 lbs/mmBtu. Advanced Over Fire Air systems were installed as part of this plan; the station continues to evaluate the effect on boiler waterwall tubes as well as the effect on overall combustion and emissions, weld overlay (1000 Sq. ft.) is now included in this document but some concern related to the actual amount of weld overlay required.

### Water

Coleman Station filed for a five year Kentucky Pollutant Discharge Elimination System (KPDES) permit in October 2004. Major concerns under this application are ash disposal and FGD waster water treatment. The Station's existing, on site, ash pond is full and beyond its useful life. Our business plan does not assume additional tons of ash removed due to environmental permits or requirements. In addition, the small volume of ash pond water increase cycles and reduces retention time, which presents a challenge managing pH levels.

Completion of a new Waste Water Treatment Facility (WWTF) is critical to our business plan. Capital for the construction project is spread over 2006 \$300k, 2007 \$1.0m, and 2008 \$2.5m.

### Fuel

Achieving generation targets while burning economical fuels of choice. Fuel with low temperature ash fouling characteristics present a challenge and risk of meeting generation plan KPI's. Fuels below 11,200 btu, 55 HGI, >10% moisture and >10% ash deviate from the original equipment design and present operational challenges.

Minimum fuel requirement must be maintained in order for the Station to achieve full capacity, meet environmental requirements, and maintain availability.

The following table identifies Minimum Fuel properties required to achieve targeted capacity, meet environmental requirements, and maintain availability:

**2009–2011 Fuel box parameters**

COAL	
BTU	No less than 11,200
HGI	No lower than 53
Ash	No more than 10%
SO2	No more than 5.5 lb mm/Btu
Moisture	No more than 10%

With SO2 levels of 5.5 lb/mmBtu concerns of increased corrosion of boiler back pass areas, ducts, precipitators, and airheater are a concern and need to be monitored.

**Specific Equipment Risk**

- Coleman Station vintage:
  - Coleman One 40 years of operation
  - Coleman Two 39 Years of operation
  - Coleman Three 37 year of operation
- Coleman Station continues to perform condition assessments on critical piping systems along with those components operating at temperatures above creep range. One indication was discovered on C3 superheat outlet header during the spring 2006 outage, additional inspections are planned.
- Fire protection risks are identified by insurance and plant assessment reviews.
- Coleman One reheater tubes are nearing end of life. Replacement is budgeted for 2011; random replacements of leading edge tubes were performed during 2008 outage.
- Insurance recommendations are to install turbine water induction protection and transformer fire protection barrier wall with sprinkler system, neither are included in this planning cycle.
- Coleman Three economizer tubes are original to the unit and have developed an erosion pattern on the horizontal run next to the front wall. During the 2003 outage, a perforated baffle plate was installed sidewall-to-sidewall. The plate extended into the gas stream and covered the effected area as a life extension measure. This section is not targeted for replacement during the three-year planning period.
- Coleman Three primary superheater tubes are at end of life. Replacement is budgeted for June 2008 during this planning cycle;

Replacement was planned for 2012, but continued evaluation required moving this work into 2009 outage.

- Coleman One and Two economizer tubes are original to the unit and are experiencing gas related erosion. The economizer tubes are not targeted for replacement during the three-year planning period.
- High energy pipe life assessment inspections are performed on routine basis during scheduled outages (3 year cycle) using a variety of techniques such as; GUL ultrasonic, replications, shear wave UT, RT & PT, along with boroscopic examinations.
- Coleman Station is implementing a long-term strategic plan to deal with obsolescence and corrosion of electrical components. The C3 4160v Switchgear is obsolete with repair parts availability limited. This plan includes money for replacing the B-side Switchgear during the 2009 outage. A- side buss was replaced in 2006.
- The 4160v conductors to critical equipment are near end of life. A PM has been instituted which supports the replacement of critical equipment conductors during outage duration.
- Coleman Station boilers are all pressurized and as such, flue gas leakage is an on going issue. Flue gas leakage accelerates the corrosion of boiler components such as lagging, insulation, sootblowers, conduit & wiring, and structural steel. Considering the vintage of boilers; flue gas leaks presents a risk to the plan.
- Advanced Over Fired Air systems raise a reducing atmosphere concern of boiler components, specifically waterwall tubes. The station has developed a plan to measure tube wall thickness during scheduled outages to reduce this risk. However, with three-year outage schedules this condition continues to be investigated.



## **Fuels**

### **Fuel Burned at Coleman**

Achieving generation targets while burning economical fuels of choice. Fuel with low temperature ash fouling characteristics present a challenge and risk of meeting generation plan KPI's. Fuels below 11,200 btu, 55 HGI, >10% moisture and >10% ash deviate from the original equipment design and present operational challenges.

Minimum fuel requirement must be maintained in order for the Station to achieve full capacity, meet environmental requirements, and maintain availability.

Coleman now has the capability to blend different quality fuels. Blending is an important part of the process of lowering fuel cost while maintaining full generation of the units and meeting environmental regulations.

In 2009-2011, Coleman station will continue burning a blend of Western Kentucky fuels without Petroleum Coke due to the relative high price of coke. Should Petroleum Coke pricing become favorable, the Station would be required to install catch pans etc to maintain environmental compliance if delivery is by barge, no additional equipment is required if deliveries are by truck.

### **Inventory**

Installation of the blending equipment has decreased inventory space. A total maximum inventory of high sulfur and low sulfur compliance fuel is 130K tons or approximately 28 days, (120K tons of high sulfur fuel >5.2 lb/mmBtu and 10K tons of <5.2 lbs SO2 compliance fuel).

For 2009 Coleman Station's planned net generation is 3,487,000 MWh's (net) and will burn approximately 1.67m tons, or the equivalent of ~3.1 barges of fuel per day.

### **Fuel Specification:**

#### **COAL:**

BTU – No less than 11,200

HGI – No lower than 53

Ash – No more than 10%

SO2 – No more than 5.5 lb.

Moisture - No more than 10%

## Unit Capability

With the above-mentioned fuel, the Coleman units should achieve net generation of:

- Coleman 1 - 150 MW's
- Coleman 2 - 138 MW's (reduced by FGD parasitic load)
- Coleman 3 - 155 MW's
- Additional generation may be achievable by addition of natural gas

## Challenges

- Coleman is planning to burn washed western Kentucky / southern Indiana coal; moisture will continue to be an issue with the bulk handling system but will also have an impact on heat rate and production. With washed, high moisture fuel, weather will always be a factor in handling and combustion.
- Should Coleman reconsider petroleum coke as a fuel additive; off loading from the river as well as storage and subsequent run-off may present environmental challenges.
- The current choice of washed fuel in an unwashed condition carries a significant risk of slagging the furnaces to the point of having to shut the unit down and explosively remove the slag. Even in the washed condition very close attention must be paid to boiler observation and/or soot blowing schedules. Blending fuels from different seams and locations may also produce undesirable slagging conditions. Close attention must be paid to fuel analysis.
- Coleman bypass stacks are still constrained to SO<sub>2</sub> not exceeding 5.2 lb/mmBtu averaged over 24 hours; as such a ready supply of compliance fuel must be maintained should the FGD be out of service any appreciable amount of time. The inventory of ready compliance fuel must be consumed & replaced from time to time.
- Accurate blending of various fuels still presents challenges, additional training and experience is essential. DCS controls systems will require logic changes to allow for lower percentage blends for stacking tubes.
- Title V presents a challenge operating the units at the new opacity trigger limits, relative to the bypass chimneys, as defined under the tab Social Responsibility. Fuel constituents acceptable to the FGD will present environmental issues if allowed to flow to the bypass stacks.
- Maintaining ash pond pH is extremely difficult due to the available volume of water, which raises concerns of deterioration in structural components such as wet bottom materials, pumps, and bottom seal shirts as well as scaling concerns depending on the pH of the ash.
- Lower boiler water wall tubes are at risk of attack depending on pH and levels of chlorides in the ash.
- Ductwork and expansion joints are a continuous maintenance and environmental concern due to holes caused by high ash volume and SO<sub>3</sub>.

## Risk with FGD

It will be imperative that ash content of Coal not exceed 10%, if so it could mean that the Coleman units may have opacity concerns due to the ash and resulting LOI caused by over-loading of precipitators, which in turn would derate the units.

There is also a possibility of high levels of ash/LOI that could lower the quality of gypsum to the point that it becomes unmarketable. If that were to happen, Coleman would then have to dispose of gypsum without cost sharing by Synmat during this planning cycle.





## O&M EXPENSE CONTENTS

- Total Station Costs
- Variable Cost Charts
- Labor Charts
- Non Labor Charts
- Total O&M Charts
- Outage vs. Non-Outage Chart
- Detailed O&M Non-Labor Budget 2009
- Detailed O&M Non-Labor Budget 2010
- Detailed O&M Non-Labor Budget 2011



**TOTAL STATION COST (O&M & VARIABLE COSTS)**

	<b>2009</b>	<b>2010</b>	<b>2011</b>
Administration	1,153,116	1,177,409	1,216,316
Fuels	2,106,505	2,186,667	2,255,081
Operations	5,559,974	5,388,625	5,654,613
Lab	1,071,552	1,140,524	1,222,848
Maintenance	12,294,960	12,803,344	14,723,236
<b>Station O&amp;M Costs</b>	<b>\$ 22,186,107</b>	<b>\$ 22,696,569</b>	<b>\$ 25,072,094</b>

	<b>2009</b>	<b>2010</b>	<b>2011</b>
Coal (FUEL COST)	92,545,521	95,620,686	97,864,824
Natural Gas (START COST)	1,663,520	1,651,322	1,738,267
Reagent/Disposal (VOM)	3,984,459	4,149,004	4,284,174
<b>Station Variable Costs</b>	<b>\$ 98,193,500</b>	<b>\$ 101,421,012</b>	<b>\$ 103,887,265</b>

<b>Total Station Costs</b>	<b>\$ 120,379,607</b>	<b>\$ 124,117,581</b>	<b>\$ 128,959,359</b>
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<b>Generation @ Coleman</b>	<b>3,434,877</b>	<b>3,457,502</b>	<b>3,427,339</b>
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**Variable Cost Calculation**

	2009	2010	2011
Coal (FUEL COST)	92,545,521	95,620,686	97,864,824
Natural Gas (START COST)	1,663,520	1,651,322	1,738,267
Reagent/Disposal (VOM)	3,984,459	4,149,004	4,284,174
<b>Total Variable Costs</b>	<b>\$ 98,193,500</b>	<b>\$ 101,421,012</b>	<b>\$ 103,887,265</b>

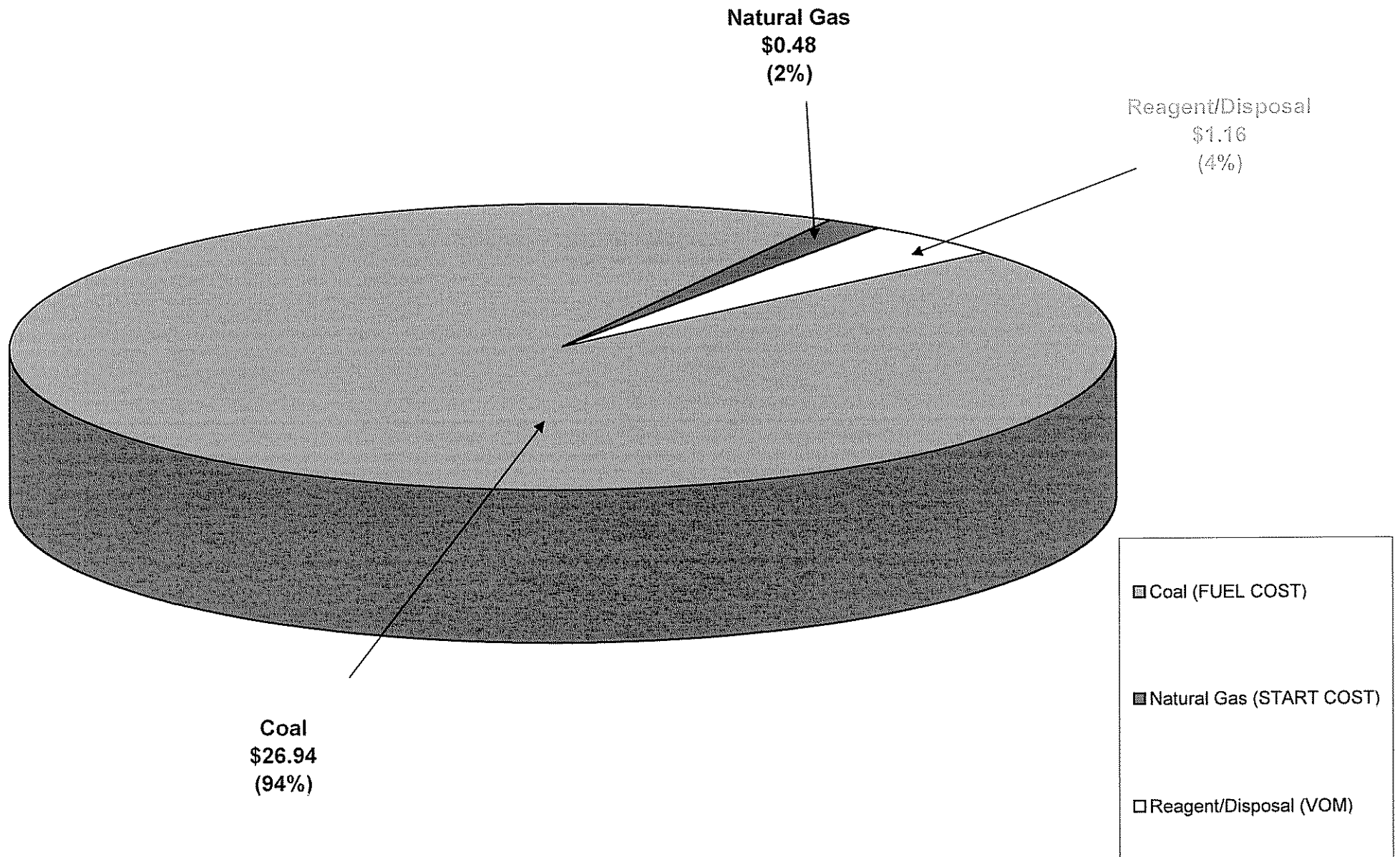
Generation @ Coleman (Net)	3,434,877	3,457,502	3,427,339
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<b>Variable \$/MWh</b>	<b>\$ 28.59</b>	<b>\$ 29.33</b>	<b>\$ 30.31</b>
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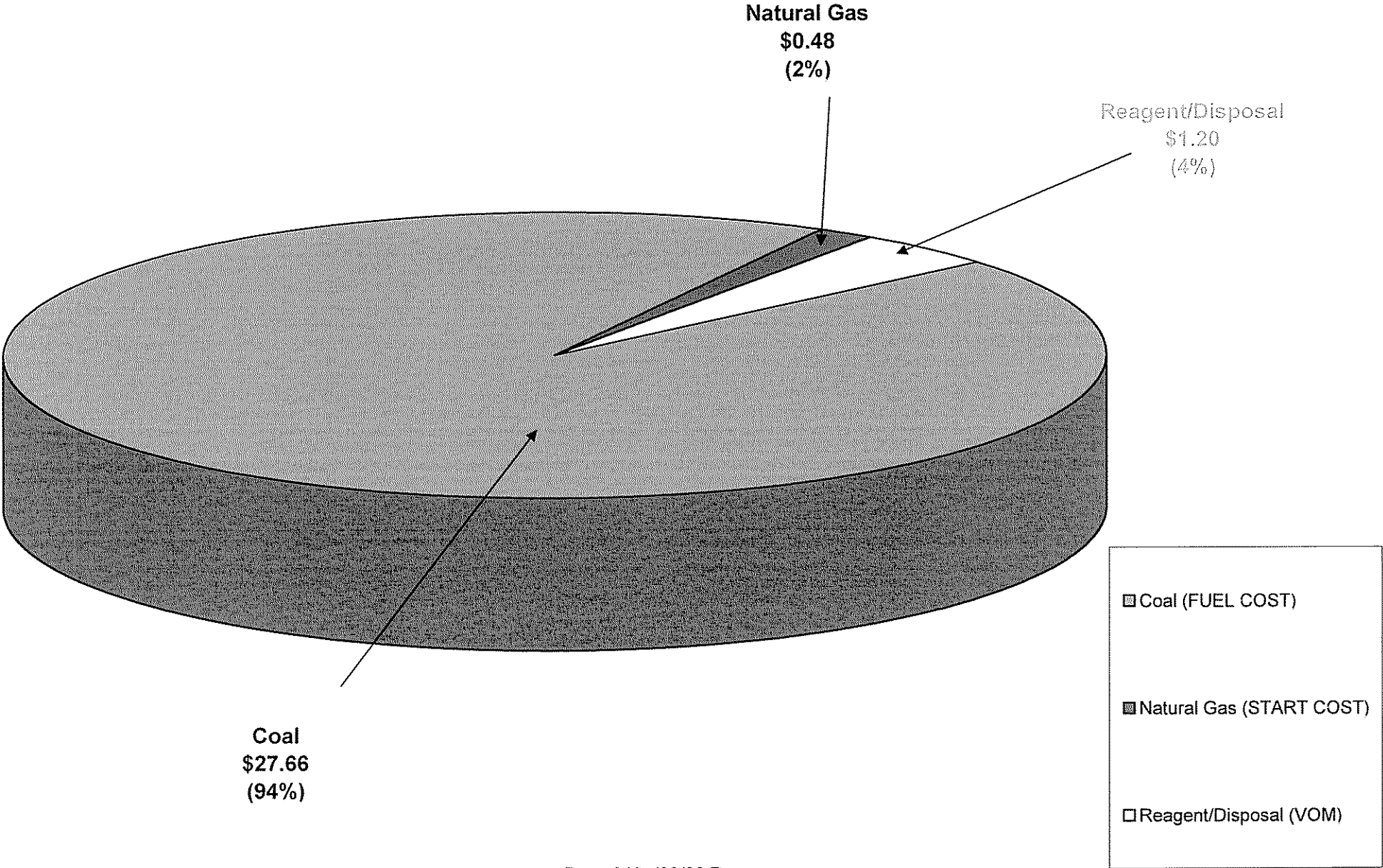
<i>\$/MWh</i>	2009	2010	2011
Coal (FUEL COST)	26.94	27.66	28.55
Natural Gas (START COST)	0.48	0.48	0.51
Reagent/Disposal (VOM)	1.16	1.20	1.25
	<b>\$ 28.59</b>	<b>\$ 29.33</b>	<b>\$ 30.31</b>

<i>Percent</i>	2009	2010	2011
Coal (FUEL COST)	94%	94%	94%
Natural Gas (START COST)	2%	2%	2%
Reagent/Disposal (VOM)	4%	4%	4%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

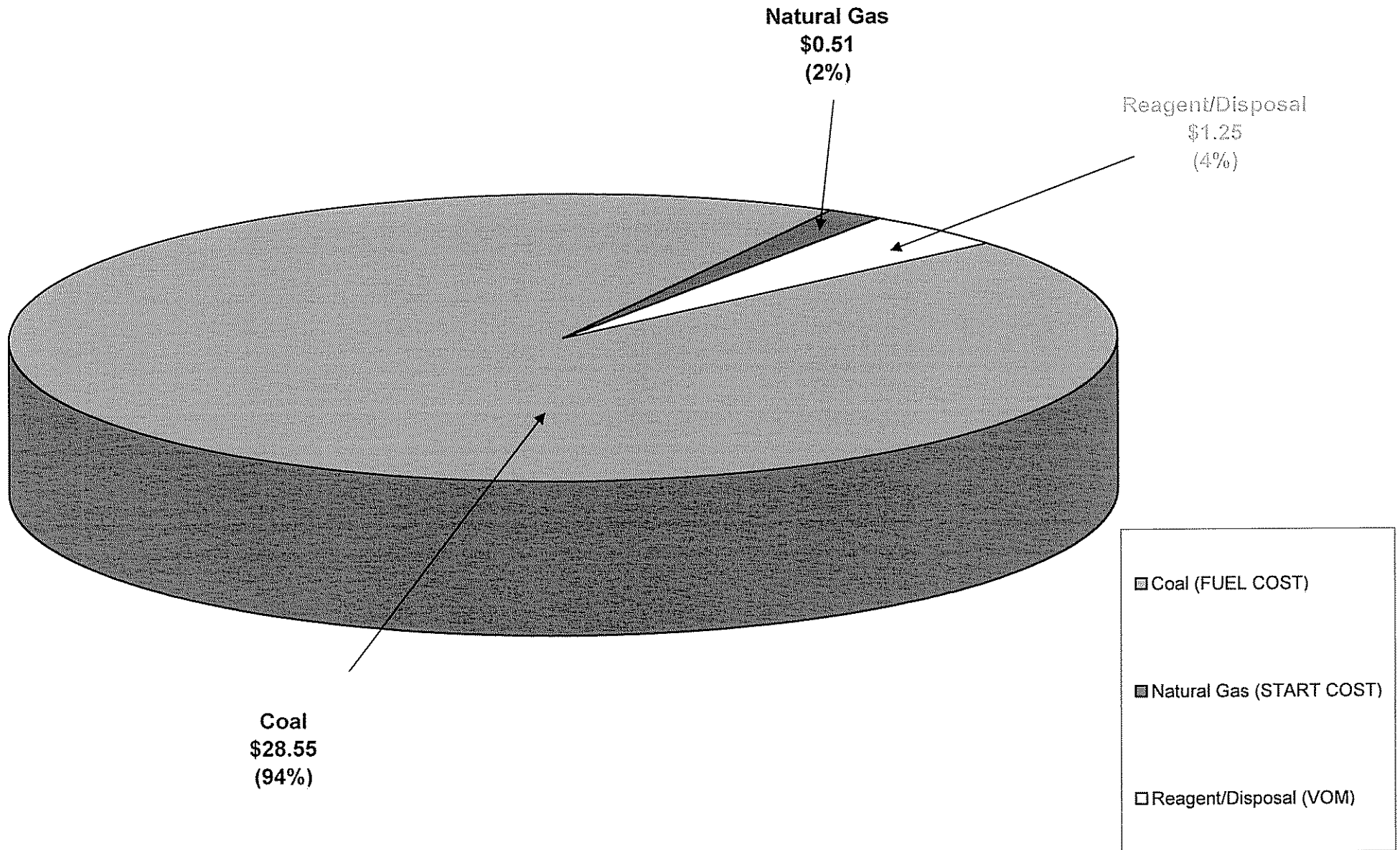
# Coleman 2009 Variable Cost is \$28.59 per MWh



# Coleman 2010 Variable Cost is \$29.33 per MWh



# Coleman 2011 Variable Cost is \$30.31 per MWh



**Coleman 2009-2011 Labor Budget**

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	446,970	Administration	460,379	Administration	474,190
Fuels	1,280,192	Fuels	1,318,598	Fuels	1,358,156
Operations	3,881,866	Operations	4,090,899	Operations	4,213,626
Lab	471,265	Lab	485,403	Lab	499,965
Maintenance	3,702,104	Maintenance	3,813,167	Maintenance	4,022,917
	<b>\$ 9,782,397</b>		<b>\$ 10,168,446</b>		<b>\$ 10,568,854</b>

**\$/MWh**

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	\$ 0.13	Administration	\$ 0.13	Administration	\$ 0.14
Fuels	\$ 0.37	Fuels	\$ 0.38	Fuels	\$ 0.40
Operations	\$ 1.12	Operations	\$ 1.19	Operations	\$ 1.23
Lab	\$ 0.14	Lab	\$ 0.14	Lab	\$ 0.15
Maintenance	\$ 1.07	Maintenance	\$ 1.11	Maintenance	\$ 1.17
	<b>\$ 2.83</b>		<b>\$ 2.97</b>		<b>\$ 3.08</b>

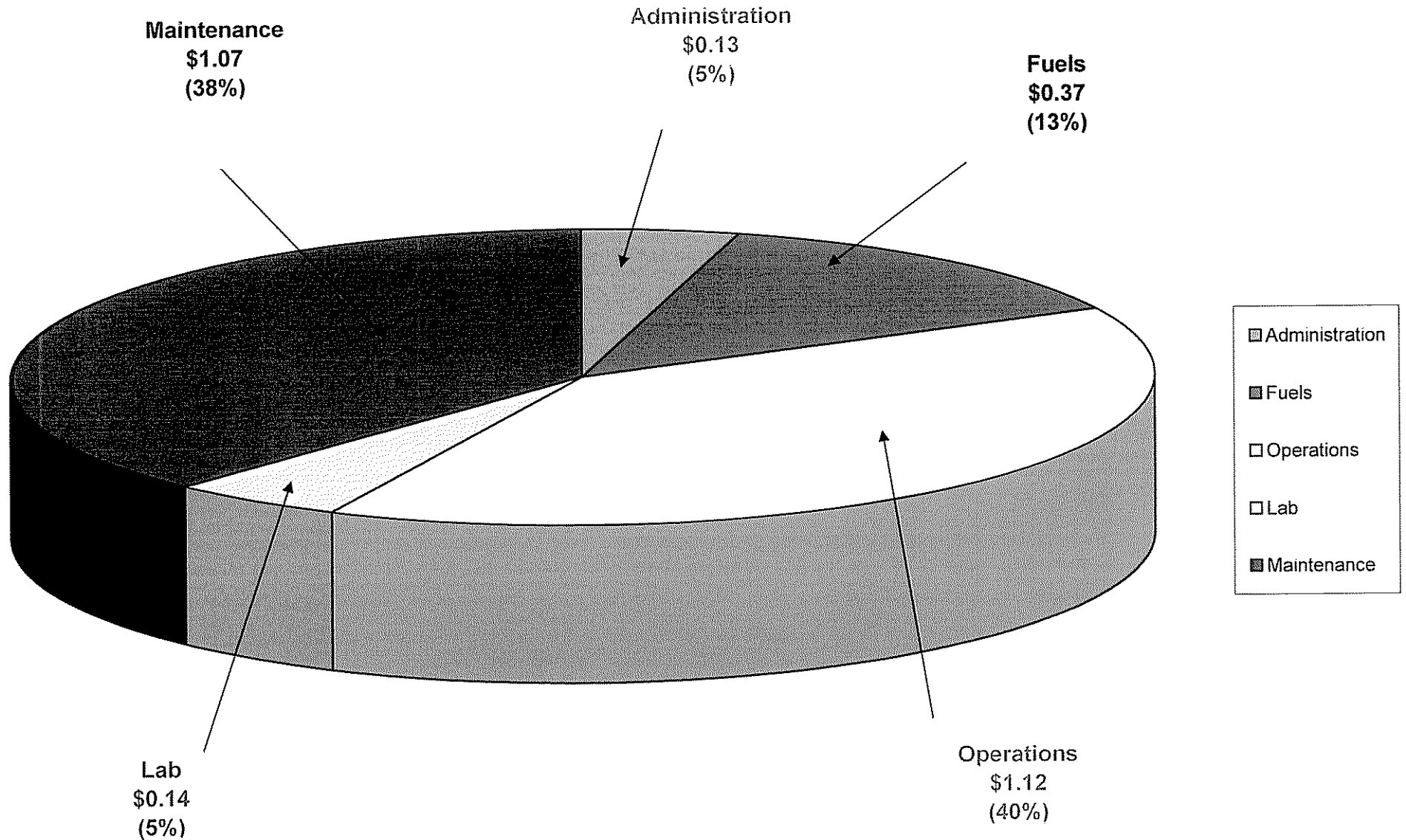
Net Generation	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>
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**Percent**

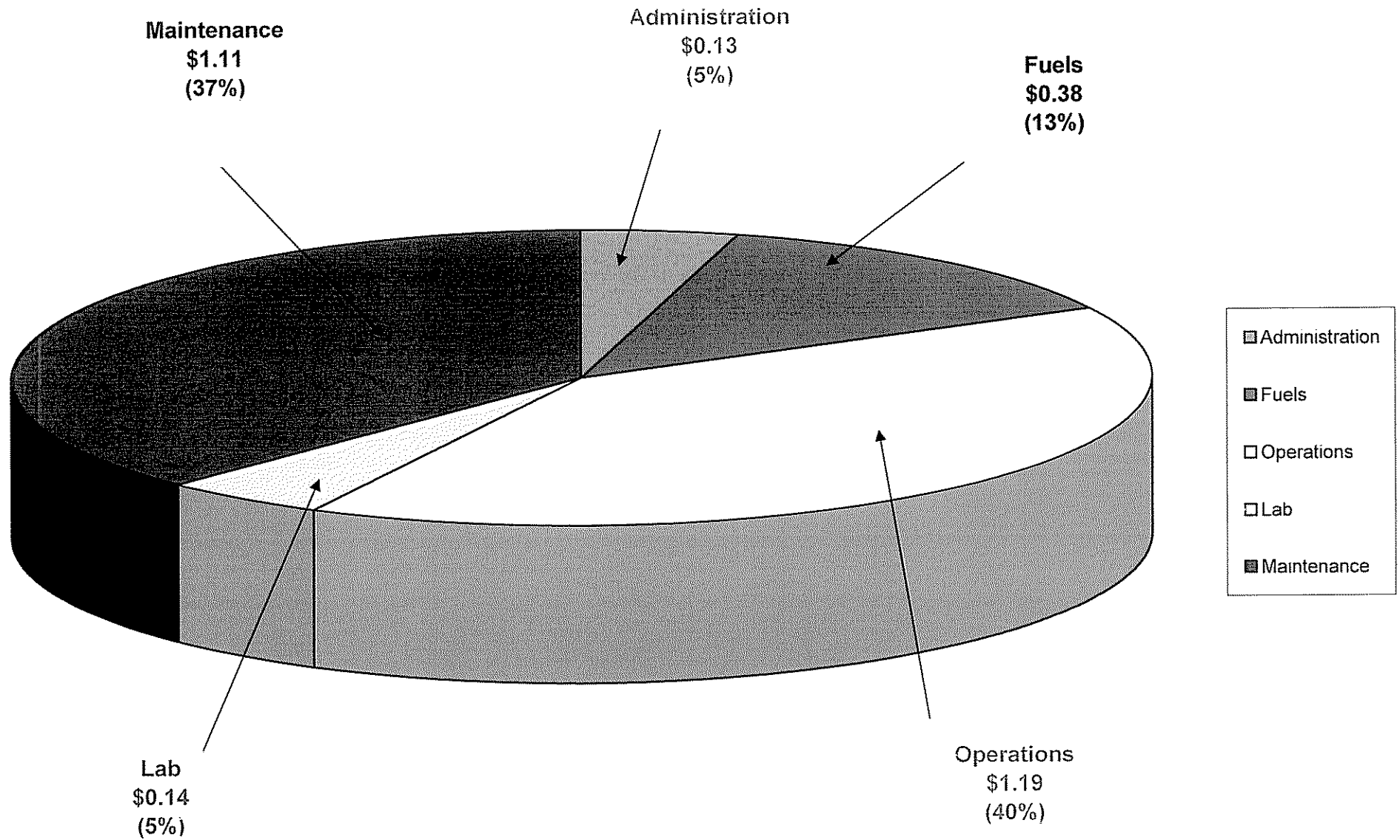
	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	5%	Administration	5%	Administration	4%
Fuels	13%	Fuels	13%	Fuels	13%
Operations	40%	Operations	40%	Operations	40%
Lab	5%	Lab	5%	Lab	5%
Maintenance	38%	Maintenance	37%	Maintenance	38%
	<b>100%</b>		<b>100%</b>		<b>100%</b>



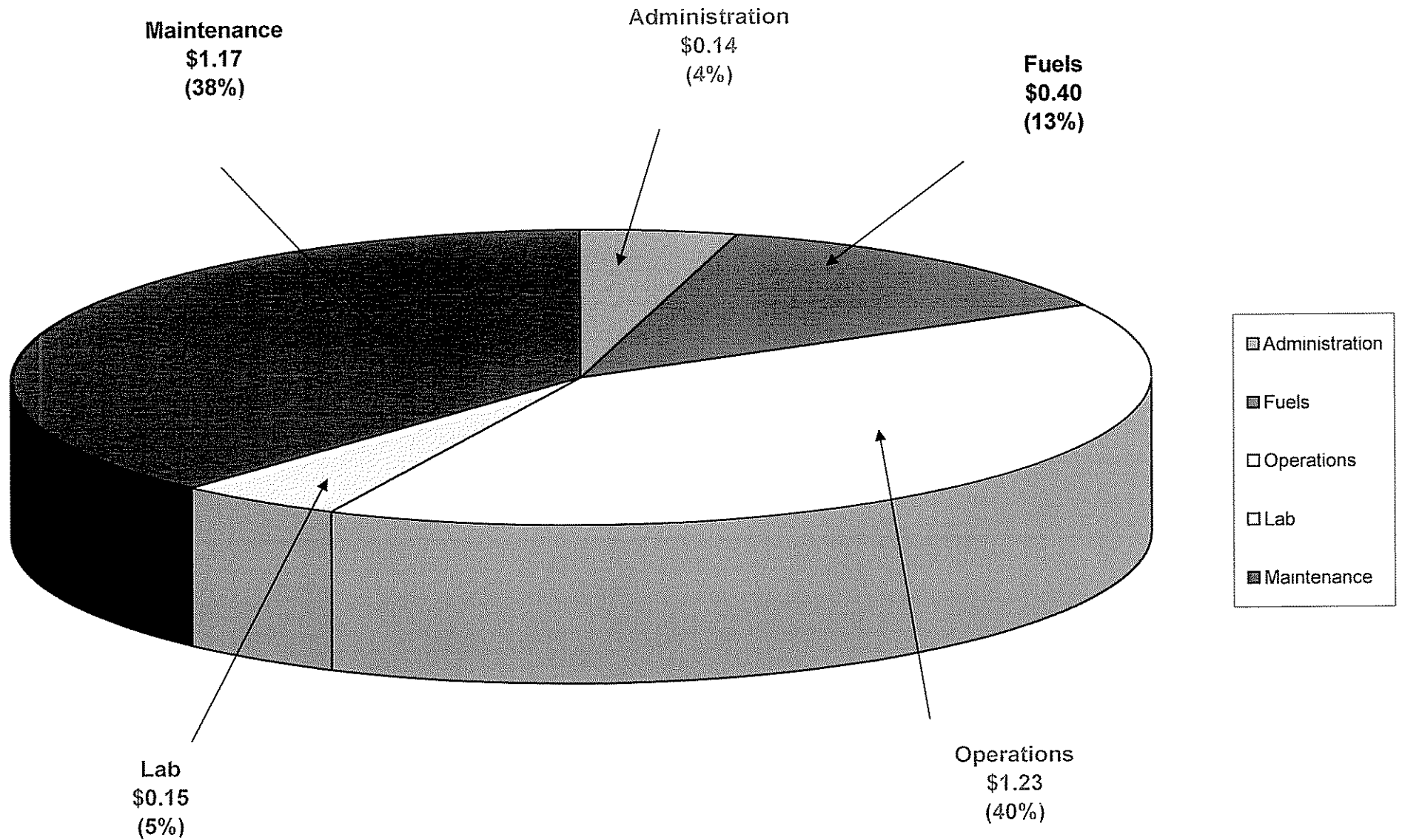
# Coleman 2009 Total O&M Labor is \$2.83 per MWh



# Coleman 2010 Total O&M Labor is \$2.97 per MWh



# Coleman 2011 Total O&M Labor is \$3.08 per MWh



**Coleman 2009-2011 Non Labor Budget**

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	706,146	Administration	717,030	Administration	742,126
Fuels	826,313	Fuels	868,069	Fuels	896,925
Operations	1,678,108	Operations	1,297,726	Operations	1,440,987
Lab	600,287	Lab	655,121	Lab	722,883
Maintenance	8,592,856	Maintenance	8,990,177	Maintenance	10,700,319
	<b>\$ 12,403,710</b>		<b>\$ 12,528,123</b>		<b>\$ 14,503,240</b>

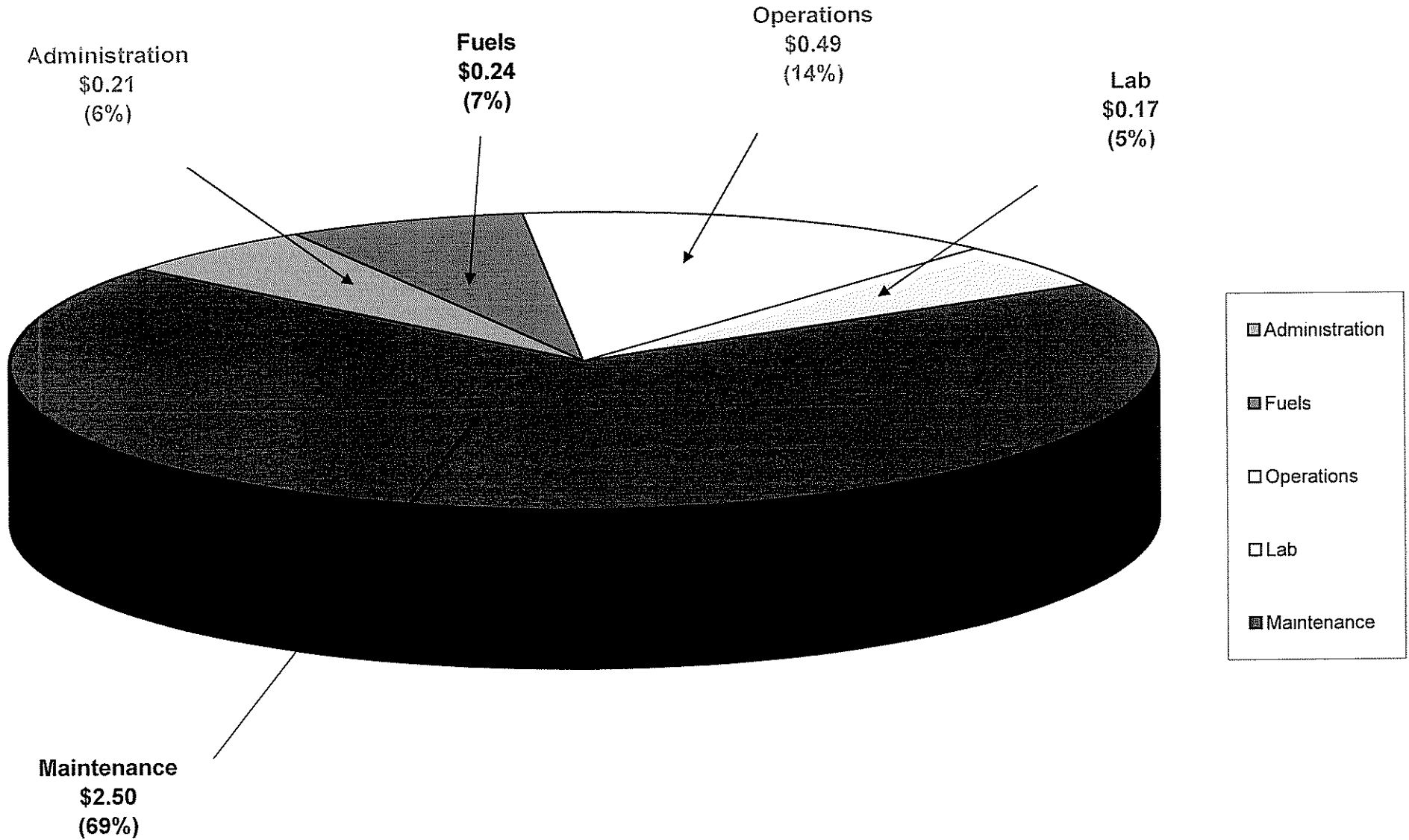
**\$/MWh**

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	\$ 0.21	Administration	\$ 0.21	Administration	\$ 0.22
Fuels	\$ 0.24	Fuels	\$ 0.25	Fuels	\$ 0.26
Operations	\$ 0.49	Operations	\$ 0.38	Operations	\$ 0.42
Lab	\$ 0.17	Lab	\$ 0.19	Lab	\$ 0.21
Maintenance	\$ 2.50	Maintenance	\$ 2.60	Maintenance	\$ 3.12
	<b>\$ 3.61</b>		<b>\$ 3.62</b>		<b>\$ 4.23</b>
Net Generation	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>

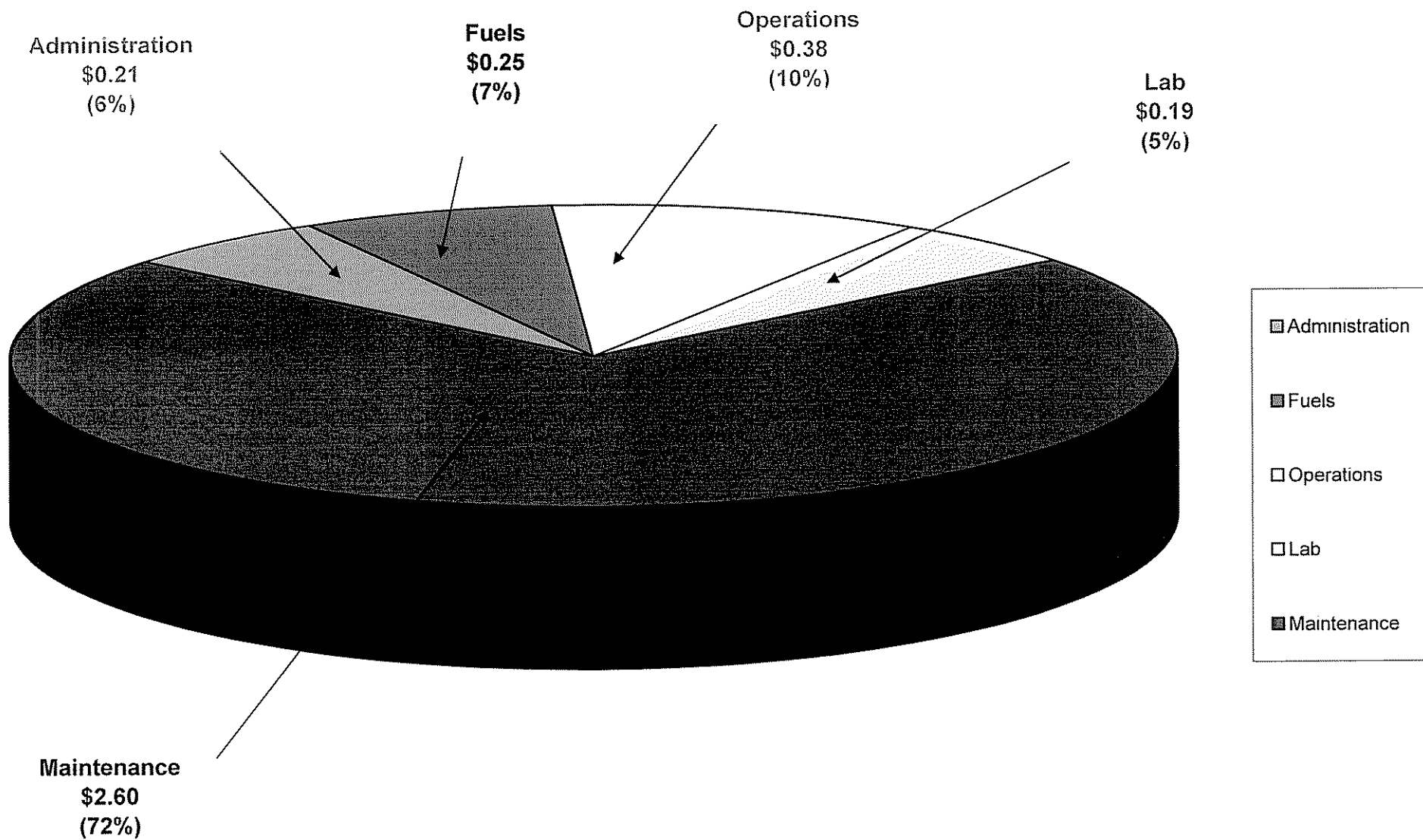
**Percent**

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	6%	Administration	6%	Administration	5%
Fuels	7%	Fuels	7%	Fuels	6%
Operations	14%	Operations	10%	Operations	10%
Lab	5%	Lab	5%	Lab	5%
Maintenance	69%	Maintenance	72%	Maintenance	74%
	<b>100%</b>		<b>100%</b>		<b>100%</b>

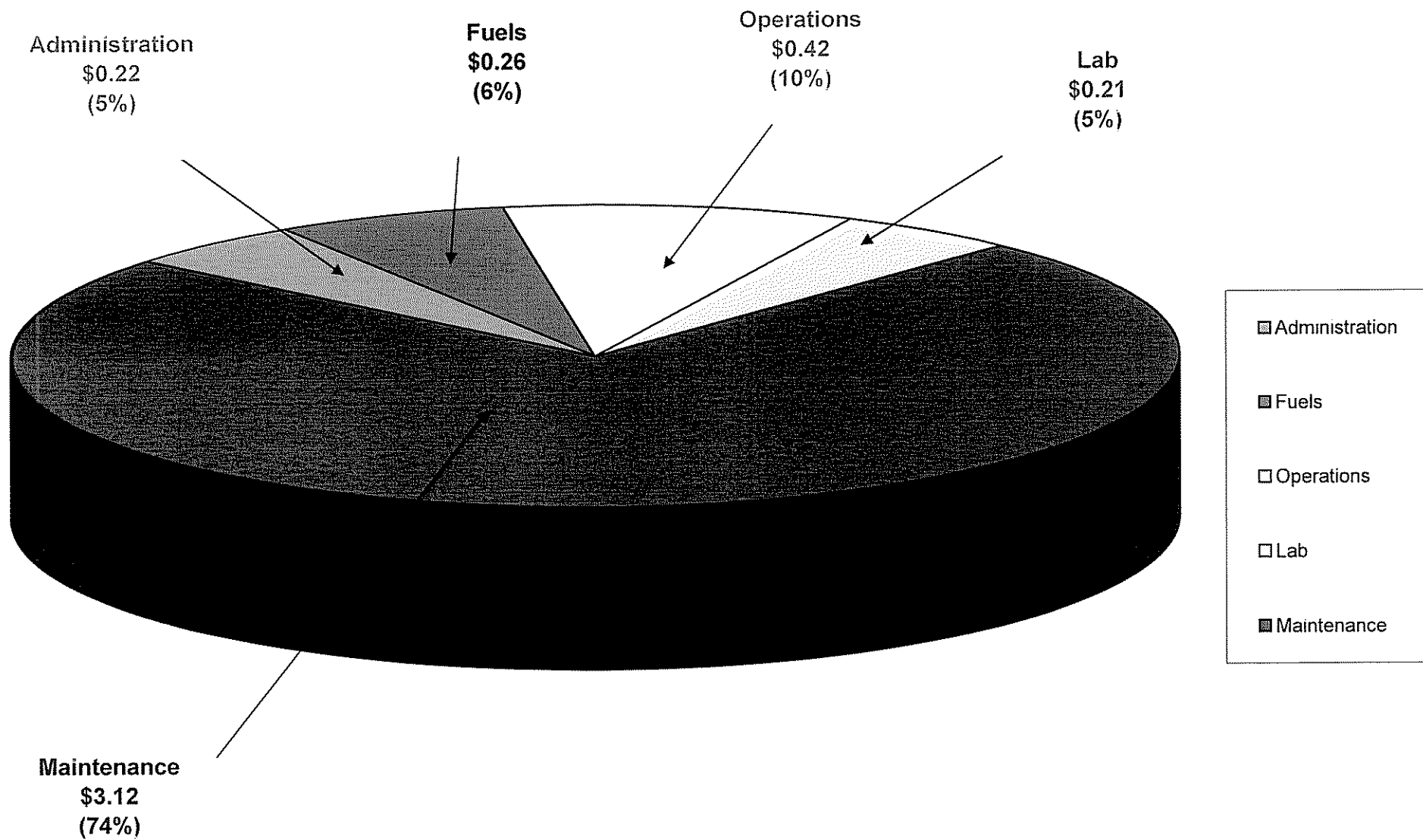
# Coleman 2009 Non-Labor is \$3.61 per MWh



# Coleman 2010 Non-Labor is \$3.62 per MWh



# Coleman 2011 Non-Labor is \$4.23 per MWh



**Coleman 2009-2011 Total O&M Budget**

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	1,153,116	Administration	1,177,409	Administration	1,216,316
Fuels	2,106,505	Fuels	2,186,667	Fuels	2,255,081
Operations	5,559,974	Operations	5,388,625	Operations	5,654,613
Lab	1,071,552	Lab	1,140,524	Lab	1,222,848
Maintenance	12,294,960	Maintenance	12,803,344	Maintenance	14,723,236
	<b>\$ 22,186,107</b>		<b>\$ 22,696,569</b>		<b>\$ 25,072,094</b>

***\$/MWh***

	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	\$ 0.34	Administration	\$ 0.34	Administration	\$ 0.35
Fuels	\$ 0.61	Fuels	\$ 0.63	Fuels	\$ 0.66
Operations	\$ 1.62	Operations	\$ 1.56	Operations	\$ 1.65
Lab	\$ 0.31	Lab	\$ 0.33	Lab	\$ 0.36
Maintenance	\$ 3.58	Maintenance	\$ 3.70	Maintenance	\$ 4.30
	<b>\$ 6.46</b>		<b>\$ 6.56</b>		<b>\$ 7.32</b>

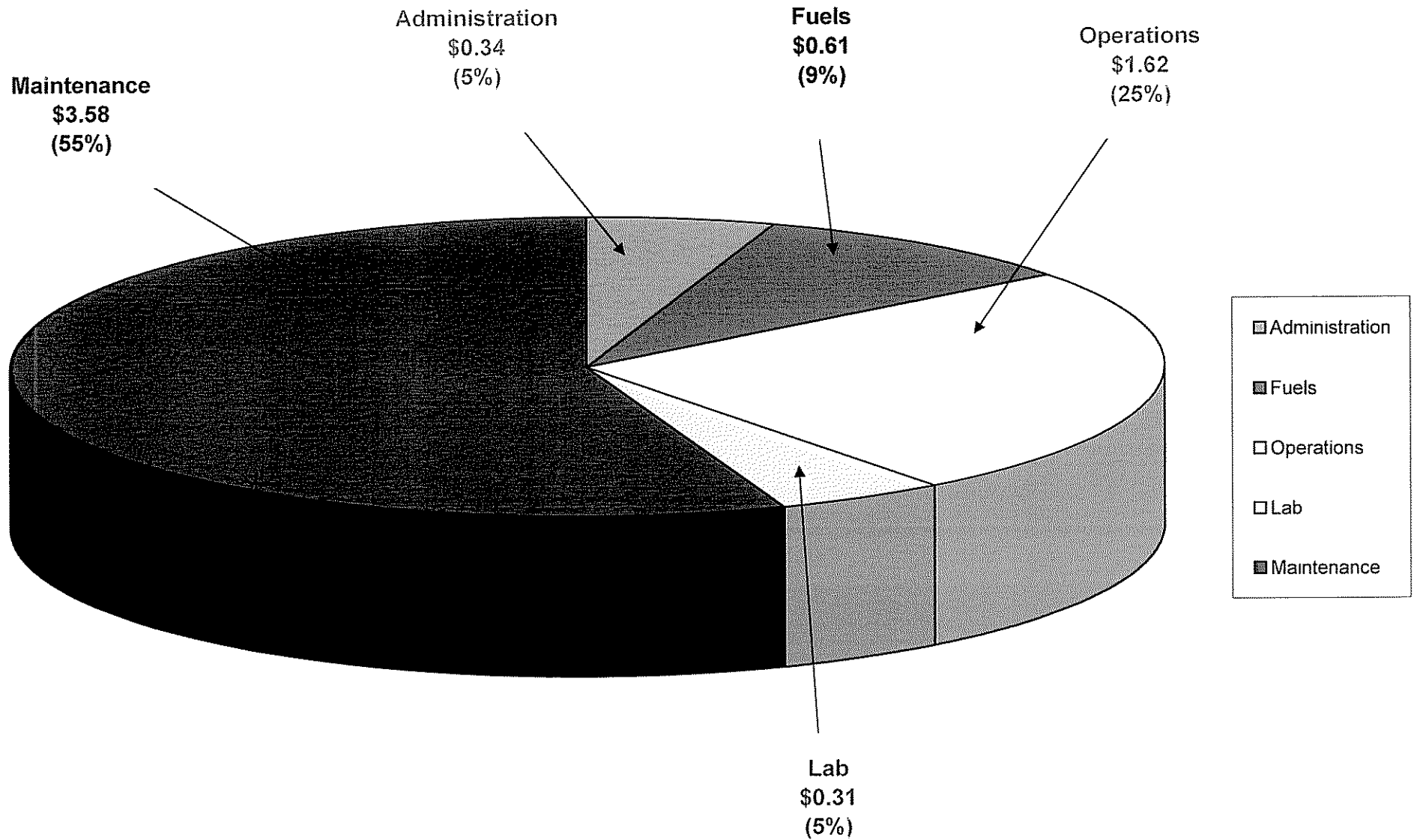
Net Generation	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>
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***Percent***

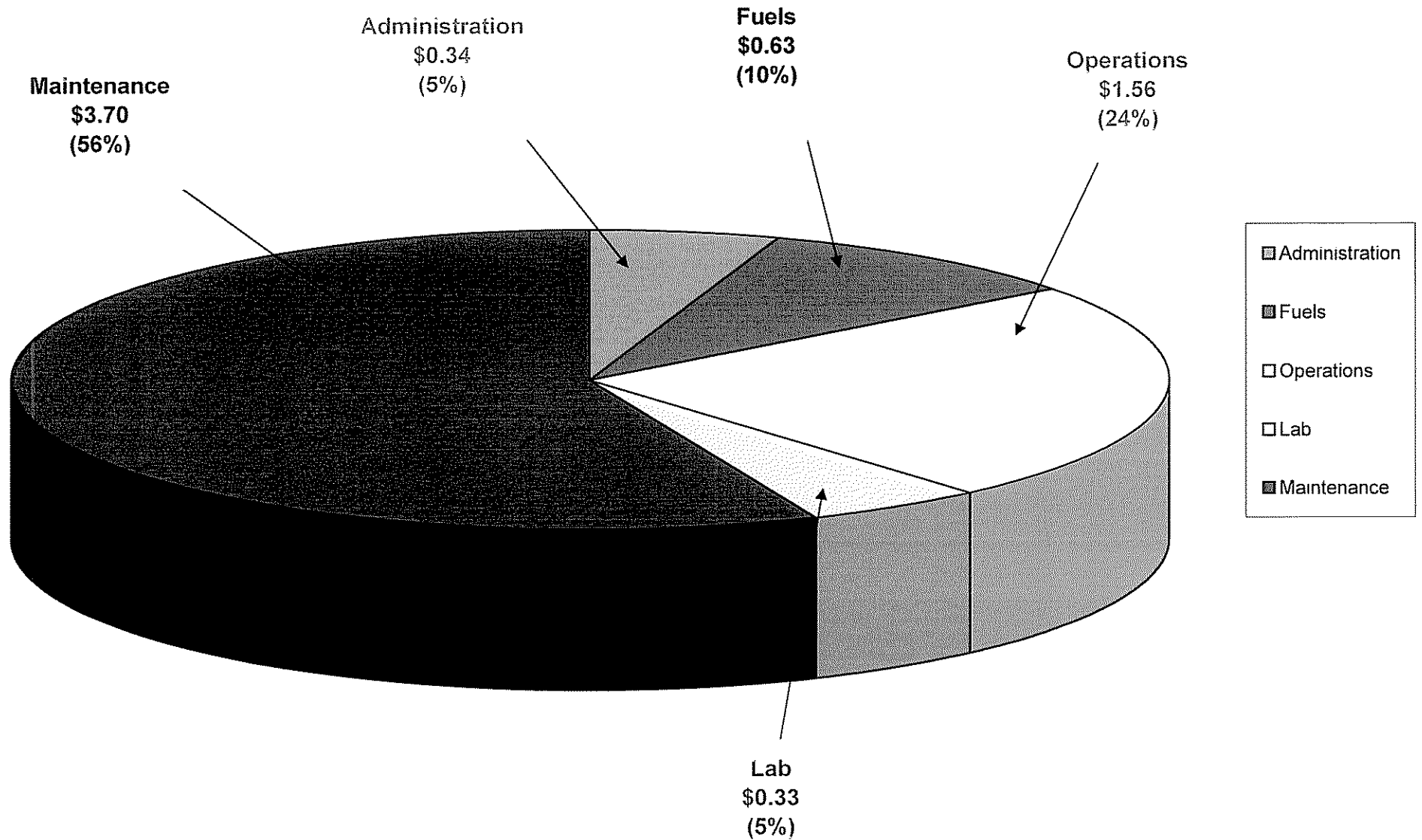
	<b>2009</b>		<b>2010</b>		<b>2011</b>
Administration	5%	Administration	5%	Administration	5%
Fuels	9%	Fuels	10%	Fuels	9%
Operations	25%	Operations	24%	Operations	23%
Lab	5%	Lab	5%	Lab	5%
Maintenance	55%	Maintenance	56%	Maintenance	59%
	<b>100%</b>		<b>100%</b>		<b>100%</b>



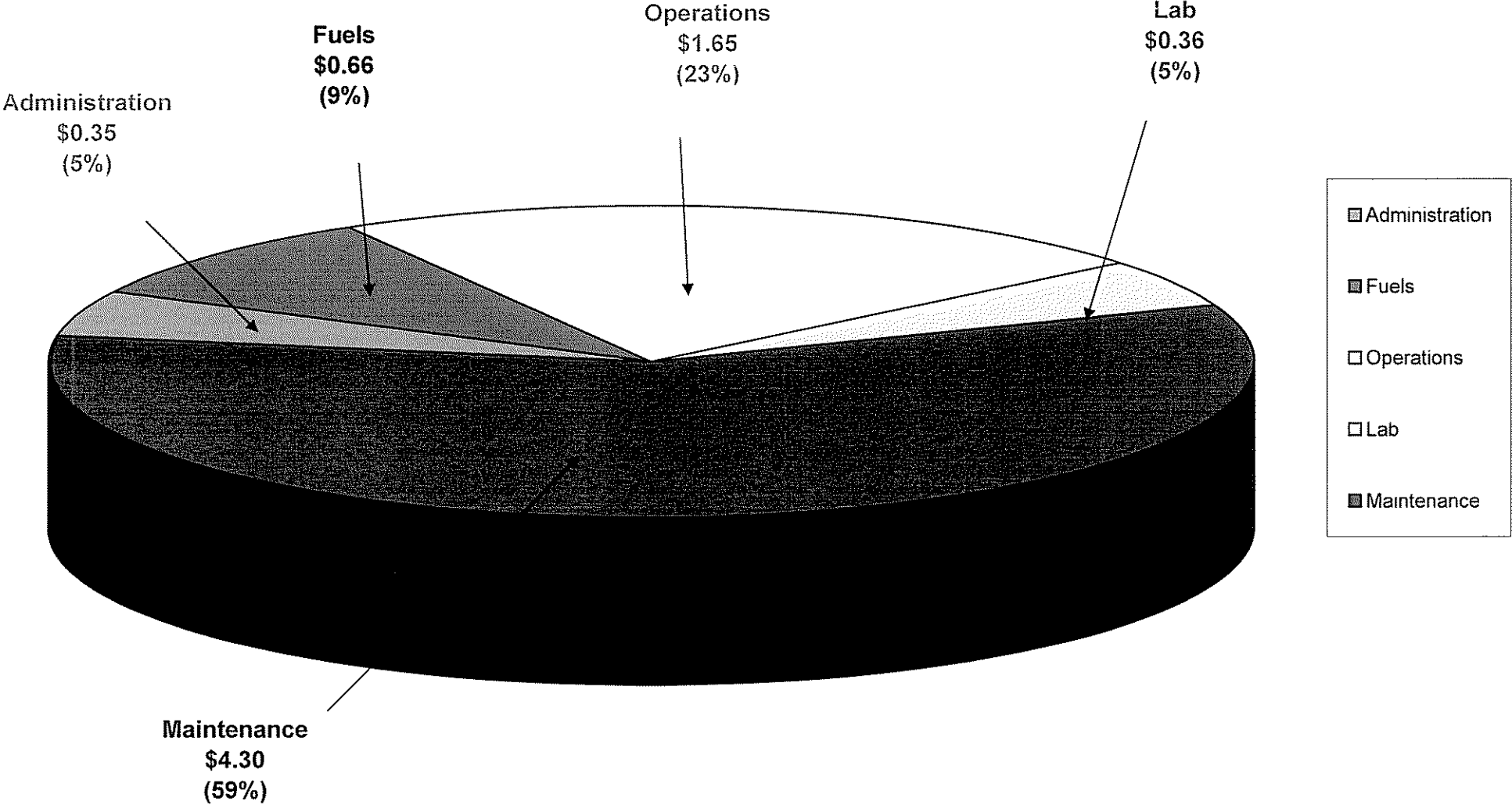
# Coleman 2009 Total O&M is \$6.46 per MWh



# Coleman 2010 Total O&M is \$6.56 per MWh



# Coleman 2011 Total O&M is \$7.32 per MWh



**Coleman 2009-2011 Outage vs. Non Outage Budget**

	2009		2010		2011
C1 Outage	-	C1 Outage	-	C1 Outage	3,002,904
C2 Outage	-	C2 Outage	2,849,677	C2 Outage	
C3 Outage	2,501,572	C3 Outage	-	C3 Outage	-
FGD Outage	833,477	FGD Outage	-	FGD Outage	982,733
Non-outage	9,068,662	Non-outage	9,678,447	Non-outage	10,517,603
	<b>\$ 12,403,711</b>		<b>\$ 12,528,124</b>		<b>\$ 14,503,240</b>

**\$/MWh**

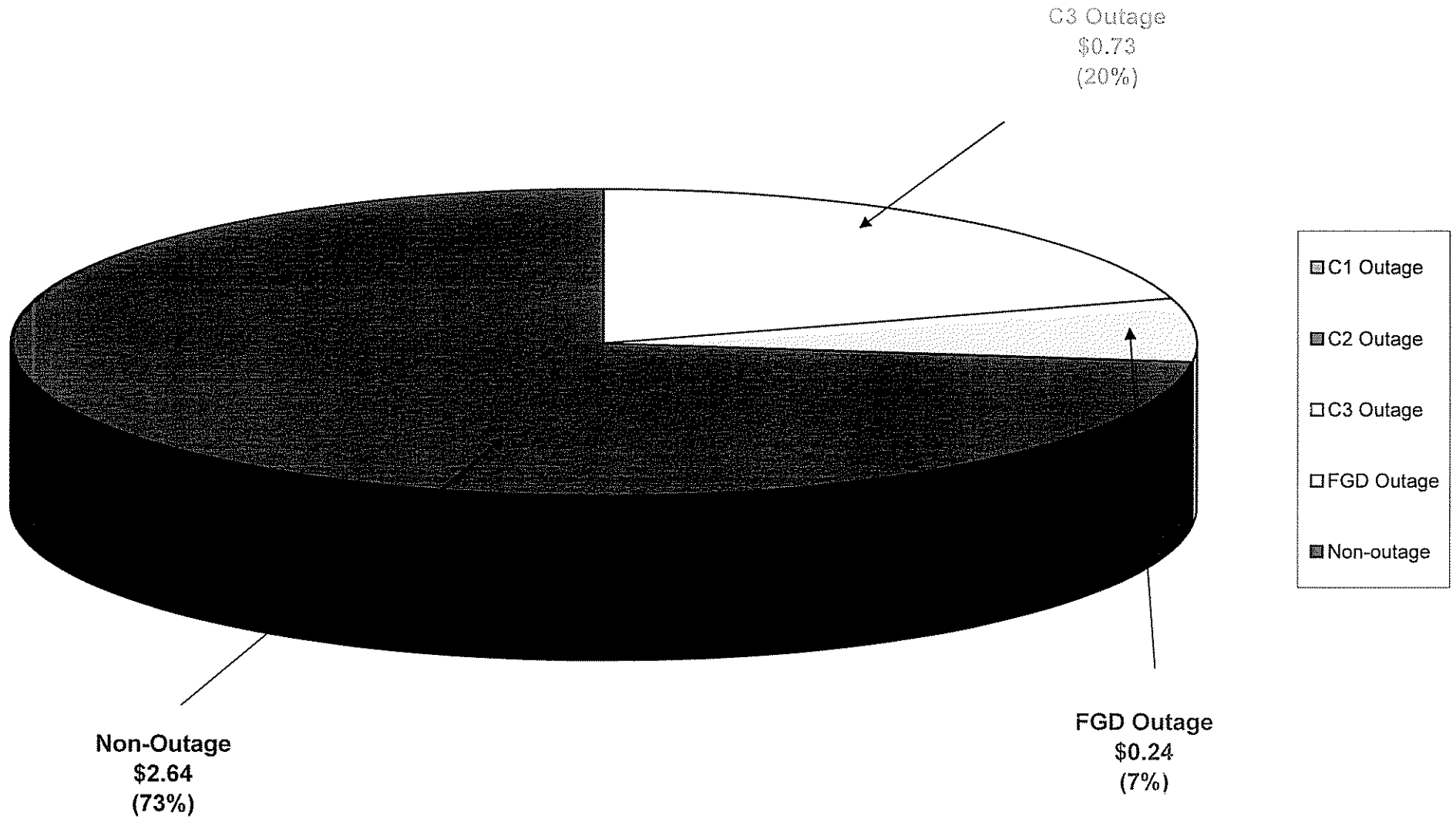
	2009		2010		2011
C1 Outage	\$ -	C1 Outage	\$ -	C1 Outage	\$ 0.88
C2 Outage	\$ -	C2 Outage	\$ 0.82	C2 Outage	\$ -
C3 Outage	\$ 0.73	C3 Outage	\$ -	C3 Outage	\$ -
FGD Outage	\$ 0.24	FGD Outage	\$ -	FGD Outage	\$ 0.29
Non-outage	\$ 2.64	Non-outage	\$ 2.80	Non-outage	\$ 3.07
	<b>\$ 3.61</b>		<b>\$ 3.62</b>		<b>\$ 4.23</b>

Net Generation	<b>3,434,877</b>		<b>3,457,502</b>		<b>3,427,339</b>
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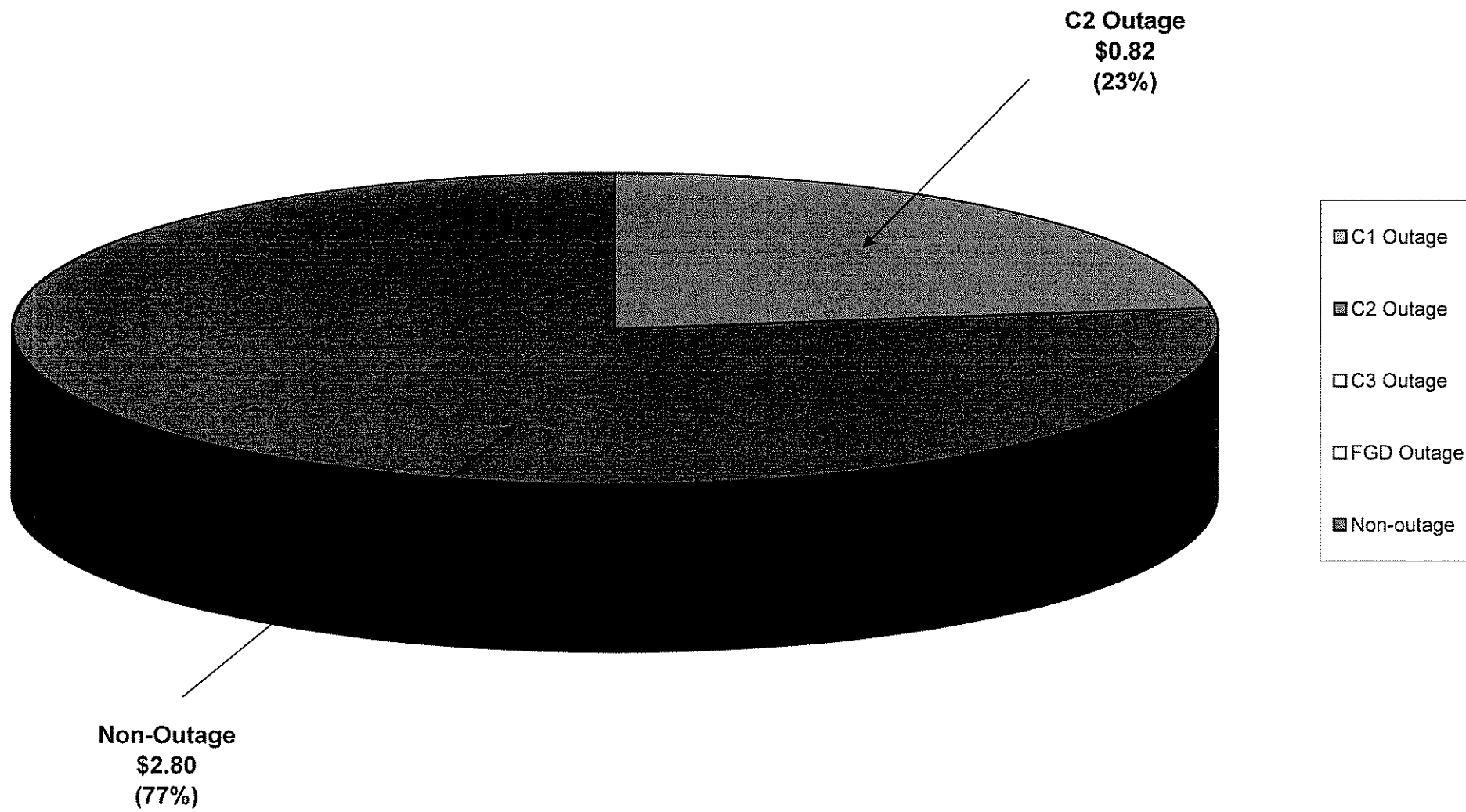
**Percent**

	2009		2010		2011
C1 Outage	0%	C1 Outage	0%	C1 Outage	21%
C2 Outage	0%	C2 Outage	23%	C2 Outage	0%
C3 Outage	20%	C3 Outage	0%	C3 Outage	0%
FGD Outage	7%	FGD Outage	0%	FGD Outage	7%
Non-outage	73%	Non-outage	77%	Non-outage	73%
	<b>100%</b>		<b>100%</b>		<b>100%</b>

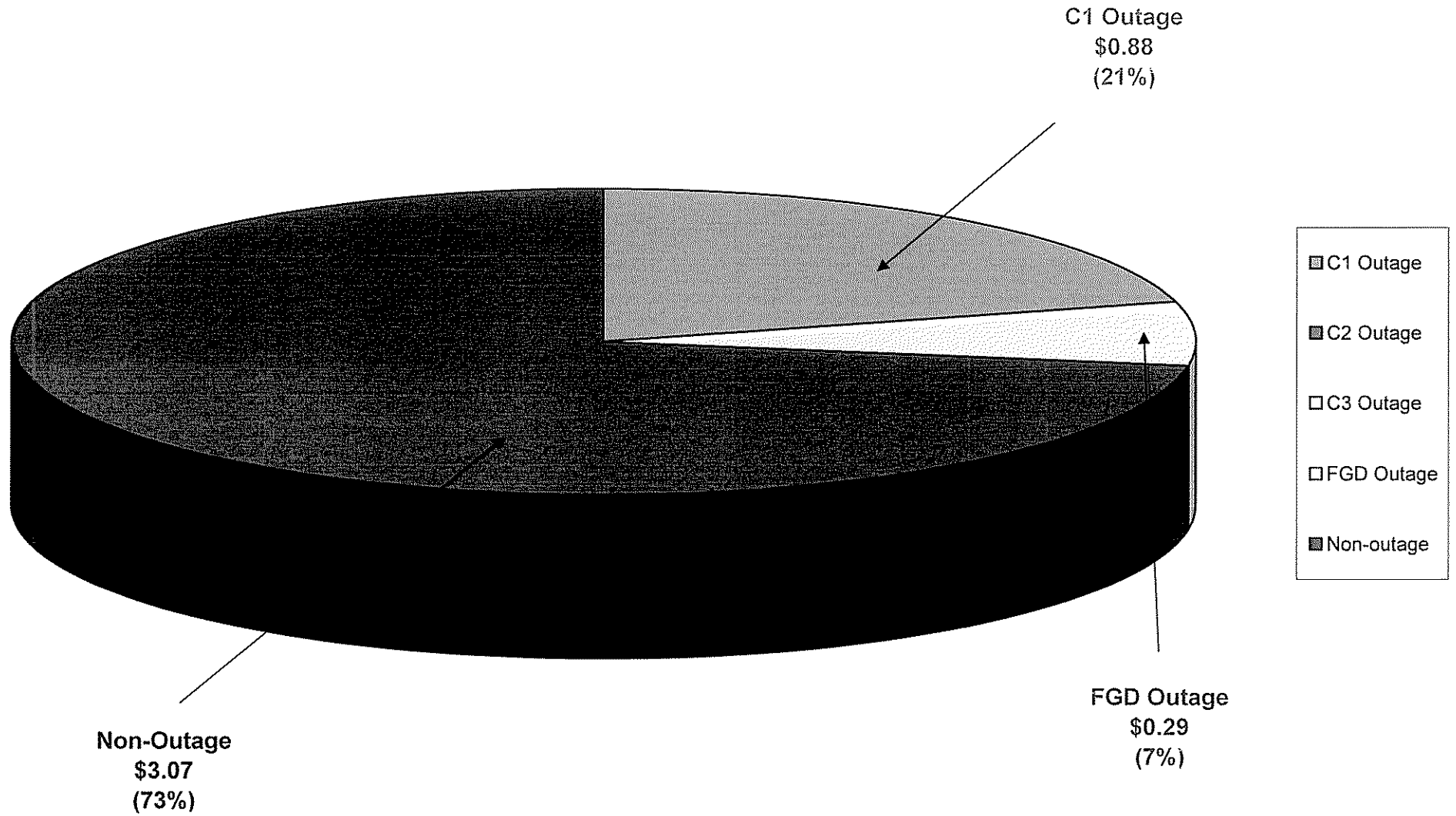
# Coleman 2009 Outage vs. Non-Outage Comparison Non-Labor \$/MWh



# Coleman 2010 Outage vs. Non-Outage Comparison Non-Labor \$/MWh



# Coleman 2011 Outage vs. Non-Outage Comparison Non-Labor \$/MWh







**Coleman Station - Nonlabor O&M Category Link**

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>	<u>Unit Outage</u>	<u>FGD Outage</u>
<b>2009</b>															
ADM	52,692	65,972	58,898	54,714	53,594	60,871	73,203	55,771	59,700	54,603	55,015	61,113	706,146		
FUELS	46,551	44,331	33,393	104,292	179,433	146,906	89,477	37,453	36,847	32,440	33,442	41,750	826,313		
LAB	25,696	23,896	28,096	24,996	323,496	29,696	34,196	21,996	25,796	17,696	29,296	15,431	600,287	C3	225,000
MTC	502,123	269,182	745,555	498,911	317,511	3,633,694	396,234	499,891	674,006	437,234	298,782	319,733	8,592,856	C3	2,108,258
OPS	121,138	117,268	161,283	98,117	184,415	330,023	120,659	111,276	116,170	91,956	112,497	113,307	1,678,108	C3	168,314
<b>TOTAL</b>	<b>748,200</b>	<b>520,649</b>	<b>1,027,225</b>	<b>781,030</b>	<b>1,058,449</b>	<b>4,201,189</b>	<b>713,769</b>	<b>726,387</b>	<b>912,518</b>	<b>633,929</b>	<b>529,032</b>	<b>551,334</b>	<b>12,403,711</b>		<b>833,477</b>



BREC - COLEMAN STATION OPS MTCE BUDGET 2009

Number	Description	task	I/S code	Exp Tyne	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Category
C309OUTB	Burner Inspection & Repair	512100-1422 M-O/S		0301						25,000							25,000	MTC
C309OUTB	Burner Inspection & Repair	512100-1422 M-OTHER		0427						60,000							60,000	MTC
C309OUTB	Boiler Inspection Ports	512100-1422 M-O/S		0301						10,000							10,000	MTC
C309OUTB	Boiler Inspection Ports	512100-1422 M-OTHER		0427						2,500							2,500	MTC
C309OUTB	Boiler Penthouse Inspection	512100-1422 M-O/S		0301						75,000							75,000	MTC
C309OUTB	Boiler Penthouse Inspection	512100-1422 M-OTHER		0427						25,000							25,000	MTC
C309OUTB	Boiler Doors	512100-1422 M-O/S		0301						4,800							4,800	MTC
C309OUTB	Boiler Doors	512100-1422 M-OTHER		0427						500							500	MTC
C309OUTB	Scaffold Furnace	512100-1422 M-O/S		0301						.							.	MTC
C309OUTB	Scaffold Furnace	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	Outage Contingencies	512100-1422 M-O/S		0301						9,000							9,000	MTC
C309OUTB	Outage Contingencies	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	PM-Sootblower Inspection	512100-1422 M-O/S		0301						10,000							10,000	MTC
C309OUTB	PM-Sootblower inspection	512100-1422 M-OTHER		0427						22,000							22,000	MTC
C309OUTB	Safety Valve inspection	512100-1422 M-O/S		0301						11,000							11,000	MTC
C309OUTB	Safety Valve Inspection	512100-1422 M-OTHER		0427						20,000							20,000	MTC
C309OUTB	Boiler Valves	512100-1422 M-O/S		0301						12,000							12,000	MTC
C309OUTB	Boiler Valves	512100-1422 M-OTHER		0427						10,000							10,000	MTC
C309OUTB	Steam Drum Inspection	512100-1422 M-O/S		0301						2,400							2,400	MTC
C309OUTB	Steam Drum Inspection	512100-1422 M-OTHER		0427						300							300	MTC
C309OUTB	Seal Air Line Inspection	512100-1422 M-O/S		0301						35,000							35,000	MTC
C309OUTB	Seal Air Line inspection	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	Critical Pipe Inspection	512100-1422 M-O/S		0301						106,970							106,970	MTC
C309OUTB	Critical Pipe inspection	512100-1422 M-OTHER		0427						28,230							28,230	MTC
C309OUTB	Mob & Demob	512100-1422 M-O/S		0301						28,800							28,800	MTC
C309OUTB	Mob & Demob	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	Contractor Administration	512100-1422 M-O/S		0301						75,600							75,600	MTC
C309OUTB	Contractor Administration	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	Contractor Supervision	512100-1422 M-O/S		0301						36,000							36,000	MTC
C309OUTB	Contractor Supervision	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	Hot Well Inspection & Repair	512100-1422 M-O/S		0301						3,600							3,600	MTC
C309OUTB	Hot Well Inspection & Repair	512100-1422 M-OTHER		0427						240							240	MTC
C309OUTB	#4 Heater Inspection	512100-1422 M-O/S		0301						9,000							9,000	MTC
C309OUTB	#4 Heater inspection	512100-1422 M-OTHER		0427						240							240	MTC
C309OUTB	CBD Tank Inspection & Repair	512100-1422 M-O/S		0301						1,200							1,200	MTC
C309OUTB	CBD Tank Inspection & Repair	512100-1422 M-OTHER		0427						6,000							6,000	MTC
C309OUTB	DA Storage Tank inspection & Repair	512100-1422 M-O/S		0301						12,200							12,200	MTC
C309OUTB	DA Storage Tank inspection & Repair	512100-1422 M-OTHER		0427						240							240	MTC
C309OUTB	BFP Motor PM	512100-1422 M-O/S		0301						10,000							10,000	MTC
C309OUTB	BFP Motor PM	512100-1422 M-OTHER		0427						3,000							3,000	MTC
C309OUTB	Economizer Inlet Check Valve	512100-1422 M-O/S		0301						6,000							6,000	MTC
C309OUTB	Economizer Inlet Check Valve	512100-1422 M-OTHER		0427						5,000							5,000	MTC
C309OUTB	Feed Water Pipe Assessment	512100-1422 M-O/S		0301						7,200							7,200	MTC
C309OUTB	Feed Water Pipe Assessment	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	3-B BFP Overhaul	512100-1422 M-O/S		0301						85,000							85,000	MTC
C309OUTB	3-B BFP Overhaul	512100-1422 M-OTHER		0427						22,800							22,800	MTC
C309OUTB	PM-Outage Air Htr. Inspection	512100-1422 M-O/S		0301						15,000							15,000	MTC
C309OUTB	PM-Outage Air Htr. inspection	512100-1422 M-OTHER		0427						12,200							12,200	MTC
C309OUTB	FD Fan Inspection	512100-1422 M-O/S		0301						.							.	MTC
C309OUTB	FD Fan Inspection	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	Stack Liner Repairs from 2005 Inspectio	512100-1422 M-O/S		0301						20,000							20,000	MTC
C309OUTB	Stack Liner Repairs from 2005 Inspectio	512100-1422 M-OTHER		0427						5,000							5,000	MTC
C309OUTB	Stack Repairs	512100-1422 M-O/S		0301						9,638							9,638	MTC
C309OUTB	Stack Repairs	512100-1422 M-OTHER		0427						.							.	MTC
C309OUTB	FD Fan Motor PM	512100-1422 M-O/S		0301						10,000							10,000	MTC
C309OUTB	FD Fan Motor PM	512100-1422 M-OTHER		0427						3,000							3,000	MTC
C309OUTB	Stack Breaching insp & repairs	512100-1422 M-O/S		0301						12,000							12,000	MTC
C309OUTB	Stack Breaching insp & repairs	512100-1422 M-OTHER		0427						4,700							4,700	MTC
C309OUTB	PM-Outage Gas Leak repairs	512100-1422 M-O/S		0301						50,000							50,000	MTC
C309OUTB	PM-Outage Gas Leak repairs	512100-1422 M-OTHER		0427						10,000							10,000	MTC
C309OUTB	Steam Coil Inspection & Repair	512100-1422 M-O/S		0301						2,400							2,400	MTC
C309OUTB	Asbestos Removal	512100-1422 M-OTHER		0427						9,000							9,000	MTC
C309OUTB	Asbestos Removal	512100-1422 M-O/S		0301						5,000							5,000	MTC
C309OUTB	Piping Insulation Repairs	512100-1422 M-OTHER		0427						9,000							9,000	MTC
C309OUTB	Piping Insulation Repairs	512100-1422 M-O/S		0301						2,500							2,500	MTC

BREC - COLEMAN STATION OPS MTCE BUDGET 2009

Number	Description	task	I/S code	Exp Type	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL	Category
C309OUTB	Boiler Wall Insulation	512100-1422 M-O/S	0301							21,000							21,000	MTC
C309OUTB	Boiler Wall Insulation	512100-1422 M-OTHER	0427							2,100							2,100	MTC
C309OUTB	Dead Air Space Insulation Renewal	512100-1422 M-O/S	0301							-							-	MTC
C309OUTB	Dead Air Space Insulation Renewal	512100-1422 M-OTHER	0427							-							-	MTC
C309OUTB	Condenser & Condenser Valve Inspecti	512100-1422 M-O/S	0301							7,200							7,200	MTC
C309OUTB	Condenser & Condenser Valve Inspecti	512100-1422 M-OTHER	0427							-							-	MTC
C309OUTB	Condenser Inlet Line Inspection	512100-1422 M-O/S	0301							3,600							3,600	MTC
C309OUTB	Condenser Inlet Line Inspection	512100-1422 M-OTHER	0427							2,000							2,000	MTC
C309OUTB	Hot Well Inspection	512100-1422 M-O/S	0301							2,400							2,400	MTC
C309OUTB	Hot Well Inspection	512100-1422 M-OTHER	0427							250							250	MTC
C309OUTB	Traveling Water Screen Inspection	512100-1422 M-O/S	0301							-							-	MTC
C309OUTB	Traveling Water Screen Inspection	512100-1422 M-OTHER	0427							-							-	MTC
C309OUTB	Precipitator Inspection & Repair	512100-1422 M-O/S	0301							10,000							10,000	MTC
C309OUTB	Precipitator Inspection & Repair	512100-1422 M-OTHER	0427							5,000							5,000	MTC
C309OUTB	Inspection & Repair	512100-1422 M-O/S	0301							-							-	MTC
C309OUTB	Inspection & Repair	512100-1422 M-OTHER	0427							-							-	MTC
C309OUTB	Ball Mill Inspection	512100-1422 M-O/S	0301							30,000							30,000	MTC
C309OUTB	Ball Mill Inspection	512100-1422 M-OTHER	0427							5,000							5,000	MTC
C309OUTB	Mill Trunion Bearing Inspection	512100-1422 M-O/S	0301							60,000							60,000	MTC
C309OUTB	Mill Trunion Bearing Inspection	512100-1422 M-OTHER	0427							24,000							24,000	MTC
C309OUTB	Coal Valve Inspection	512100-1422 M-O/S	0301							19,200							19,200	MTC
C309OUTB	Coal Valve Inspection	512100-1422 M-OTHER	0427							2,500							2,500	MTC
C309OUTB	Mill Motor PM	512100-1422 M-O/S	0301							5,000							5,000	MTC
C309OUTB	Mill Motor PM	512100-1422 M-OTHER	0427							3,000							3,000	MTC
C309OUTB	PA Fan Motor PM	512100-1422 M-O/S	0301							-							-	MTC
C309OUTB	PA Fan Motor PM	512100-1422 M-OTHER	0427							7,000							7,000	MTC
C309OUTB	Mill Seal Air Fan Motor PM	512100-1422 M-O/S	0301							1,000							1,000	MTC
C309OUTB	Mill Seal Air Fan Motor PM	512100-1422 M-OTHER	0427							1,000							1,000	MTC
C309OUTB	DCS Controls Maintenance	512100-1422 M-O/S	0301							-							-	MTC
C309OUTB	DCS Controls Maintenance	512100-1422 M-OTHER	0427							6,500							6,500	MTC
C309OUTB	Duct Inspection & Reapir	512100-1422 M-O/S	0301							15,000							15,000	MTC
C309OUTB	Duct Inspection & Reapir	512100-1422 M-OTHER	0427							5,000							5,000	MTC
C309OUTB	Stock Feeder inspection and Reapir	512100-1422 M-O/S	0301							-							-	MTC
C309OUTB	Stock Feeder inspection and Reapir	512100-1422 M-OTHER	0427							7,500							7,500	MTC
C309OUTB	Bunker & Bunker Piping Inspection	512100-1422 M-O/S	0301							4,800							4,800	MTC
C309OUTB	Bunker & Bunker Piping Inspection	512100-1422 M-OTHER	0427							-							-	MTC
C309OUTB	Routine Inspection & Repair	512100-1422 M-O/S	0301							-							-	MTC
C309OUTB	Routine Inspection & Repair	512100-1422 M-OTHER	0427							5,000							5,000	MTC
C309OUTB	4160v/480v MCC Inspection & Repair	512100-1422 M-O/S	0301							15,000							15,000	MTC
C309OUTB	4160v/480v MCC Inspection & Repair	512100-1422 M-OTHER	0427							7,500							7,500	MTC
C309OUTB	ECT Fuel flow upgrade	512100-1422 M-O/S	0301							10,000							10,000	MTC
C309OUTB	ECT Fuel flow upgrade	512100-1422 M-OTHER	0427							55,000							55,000	MTC
C309OUTB	Transformer Inspection & Repair	512100-1422 M-O/S	0301							5,000							5,000	MTC
C309OUTB	Transformer Inspection & Repair	512100-1422 M-OTHER	0427							2,500							2,500	MTC
C309OUTB	Turbine Valve Inspection & Repair	512100-1422 M-O/S	0301							290,000							290,000	MTC
C309OUTB	Turbine Valve Inspection & Repair	512100-1422 M-OTHER	0427							115,000							115,000	MTC
FGD09OUT	Absorber Module Inspection	512100-1410 M-O/S	0301							140,000							140,000	MTC
FGD09OUT	Absorber Module Inspection	512100-1410 M-OTHER	0427							53,478							53,478	MTC
FGD09OUT	Recirc Pump Inspection	512100-1410 M-O/S	0301							69,392							69,392	MTC
FGD09OUT	Recirc Pump Inspection	512100-1410 M-OTHER	0427							37,565							37,565	MTC
FGD09OUT	Inlet/Outlet Duct Inspection	512100-1410 M-O/S	0301							80,001							80,001	MTC
FGD09OUT	Inlet/Outlet Duct Inspection	512100-1410 M-OTHER	0427							21,651							21,651	MTC
FGD09OUT	Auxiliary Equipment Inspection	512100-1422 M-O/S	0301							53,478							53,478	MTC
FGD09OUT	Auxiliary Equipment Inspection	512100-1410 M-OTHER	0427							21,651							21,651	MTC
FGD09OUT	Absorber Cleaning	512100-1410 M-O/S	0301							16,347							16,347	MTC
FGD09OUT	Absorber Cleaning	512100-1410 M-OTHER	0427							-							-	MTC
FGD09OUT	Gypsum Plant Inspection	512100-1410 M-O/S	0301							42,869							42,869	MTC
FGD09OUT	Gypsum Plant Inspection	512100-1410 M-OTHER	0427							16,347							16,347	MTC
FGD09OUT	Mill Inspection	512100-1410 M-O/S	0301							58,783							58,783	MTC
FGD09OUT	Mill Inspection	512100-1410 M-OTHER	0427							16,347							16,347	MTC
FGD09OUT	Cyclone Inspection	512100-1410 M-O/S	0301							42,869							42,869	MTC
FGD09OUT	Cyclone inspection	512100-1410 M-OTHER	0427							11,042							11,042	MTC
FGD09OUT	Axiliary Equipment Inspection	512100-1410 M-O/S	0301							80,006							80,006	MTC
FGD09OUT	Axiliary Equipment Inspection	512100-1410 M-OTHER	0427							21,651							21,651	MTC
CLMPAS	3 Service Compressor Overhaul	512100-1410 M-O/S	0301															















**Coleman Station - Nonlabor O&M Category Link**

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>	<u>Unit Outage</u>	<u>FGD Outage</u>
<b>2010</b>															
ADM	54,277	57,655	60,669	56,358	55,204	62,699	75,403	57,445	61,493	56,245	56,669	62,913	717,030		
FUELS	50,469	48,148	36,400	95,029	238,937	124,624	63,522	52,148	40,549	35,855	36,909	45,479	868,069	C2	232,350
LAB	28,801	23,044	29,796	28,225	49,413	338,171	31,919	27,473	26,678	18,429	33,342	19,830	655,121	C2	2,443,016
MTC	312,412	764,671	505,055	462,381	763,092	2,941,815	671,429	665,787	600,318	549,566	328,678	424,972	8,990,177	C2	174,311
OPS	93,798	88,985	134,543	106,853	100,909	277,547	86,805	89,289	87,853	61,237	84,052	85,854	1,297,726		
<b>TOTAL</b>	<b>539,757</b>	<b>982,504</b>	<b>766,463</b>	<b>748,846</b>	<b>1,207,555</b>	<b>3,744,856</b>	<b>929,077</b>	<b>892,142</b>	<b>816,891</b>	<b>721,332</b>	<b>539,650</b>	<b>639,049</b>	<b>12,528,124</b>		<b>0</b>



Number	Description	task	I/S code	Exp.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
				Type													
C210OUTB	Boiler Doors	512100	M-OTHEI0427							615.25							615 MTC
C210OUTB	Scaffold Furnace	512100	M-O/S 0301							0							0 MTC
C210OUTB	Scaffold Furnace	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Outage Contingencies	512100	M-O/S 0301							10999							10,999 MTC
C210OUTB	Outage Contingencies	512100	M-OTHEI0427							1170.7							1,171 MTC
C210OUTB	PM-Sootblower Inspection	512100	M-O/S 0301							11903							11,903 MTC
C210OUTB	PM-Sootblower Inspection	512100	M-OTHEI0427							26185.5							26,186 MTC
C210OUTB	Safety Valve Inspection	512100	M-O/S 0301							21960							21,960 MTC
C210OUTB	Safety Valve Inspection	512100	M-OTHEI0427							23000							23,000 MTC
C210OUTB	Boiler Valves	512100	M-O/S 0301							14283							14,283 MTC
C210OUTB	Boiler Valves	512100	M-OTHEI0427							11902.5							11,903 MTC
C210OUTB	Steam Drum Inspection	512100	M-O/S 0301							2765							2,765 MTC
C210OUTB	Steam Drum Inspection	512100	M-OTHEI0427							615.25							615 MTC
C210OUTB	Seal Air Line Inspection	512100	M-O/S 0301							-41659							-41,659 MTC
C210OUTB	Seal Air Line Inspection	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Critical Pipe Inspection	512100	M-O/S 0301							8799							8,799 MTC
C210OUTB	Critical Pipe Inspection	512100	M-OTHEI0427							1829.65							1,830 MTC
C210OUTB	Mob & Demob	512100	M-O/S 0301							35196							35,196 MTC
C210OUTB	Mob & Demob	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Contractor Administration	512100	M-O/S 0301							92389							92,389 MTC
C210OUTB	Contractor Administration	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Contractor Supervision	512100	M-O/S 0301							43994							43,994 MTC
C210OUTB	Contractor Supervision	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Hot Well Inspection & Repair	512100	M-O/S 0301							4400							4,400 MTC
C210OUTB	Hot Well Inspection & Repair	512100	M-OTHEI0427							1220.15							1,220 MTC
C210OUTB	#4 Heater Inspection	512100	M-O/S 0301							10999							10,999 MTC
C210OUTB	#4 Heater Inspection	512100	M-OTHEI0427							615.25							615 MTC
C210OUTB	CBD Tank Inspection & Repair	512100	M-O/S 0301							1466							1,466 MTC
C210OUTB	CBD Tank Inspection & Repair	512100	M-OTHEI0427							7475							7,475 MTC
C210OUTB	DA Storage Tank Inspection & Repair	512100	M-O/S 0301							8799							8,799 MTC
C210OUTB	DA Storage Tank Inspection & Repair	512100	M-OTHEI0427							615.25							615 MTC
C210OUTB	BFP Motor PM	512100	M-O/S 0301							11903							11,903 MTC
C210OUTB	BFP Motor PM	512100	M-OTHEI0427							3565							3,565 MTC
C210OUTB	Seal Skirt Replacement	512100	M-O/S 0301							74750							74,750 MTC
C210OUTB	Seal Skirt Replacement	512100	M-OTHEI0427							86250							86,250 MTC
C210OUTB	Economizer Inlet Check Valve	512100	M-O/S 0301							7332							7,332 MTC
C210OUTB	Economizer Inlet Check Valve	512100	M-OTHEI0427							1463.95							1,464 MTC
C210OUTB	Feed Water Pipe Assessment	512100	M-O/S 0301							8799							8,799 MTC
C210OUTB	Feed Water Pipe Assessment	512100	M-OTHEI0427							7319.75							7,320 MTC
C210OUTB	I-B Boiler Feed Pump Overhaul	512100	M-O/S 0301							91503							91,503 MTC
C210OUTB	I-B Boiler Feed Pump Overhaul	512100	M-OTHEI0427							91503.2							91,503 MTC
C210OUTB	PM-Outage Air Htr. Inspection	512100	M-O/S 0301							53590							53,590 MTC
C210OUTB	PM-Outage Air Htr. Inspection	512100	M-OTHEI0427							36800							36,800 MTC
C210OUTB	FD Fan Inspection	512100	M-O/S 0301							11903							11,903 MTC
C210OUTB	FD Fan Inspection	512100	M-OTHEI0427							3565							3,565 MTC
C210OUTB	Stack Liner repairs	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Stack Liner repairs	512100	M-O/S 0301							22815							22,815 MTC
C210OUTB	FD Fan Motor PM	512100	M-O/S 0301							0							0 MTC
C210OUTB	FD Fan Motor PM	512100	M-OTHEI0427							12200.35							12,200 MTC
C210OUTB	Stack Breaching insp. & repairs	512100	M-O/S 0301							14283							14,283 MTC
C210OUTB	Stack Breaching insp. & repairs	512100	M-OTHEI0427							5750							5,750 MTC
C210OUTB	PM-Outage Gas Leak repairs	512100	M-O/S 0301							59513							59,513 MTC
C210OUTB	PM-Outage Gas Leak repairs	512100	M-OTHEI0427							11902.5							11,903 MTC
C210OUTB	Steam Coil Inspection & Repair	512100	M-O/S 0301							2933							2,933 MTC
C210OUTB	Asbestos Removal	512100	M-O/S 0301							10999							10,999 MTC
C210OUTB	Asbestos Removal	512100	M-OTHEI0427							5654.55							5,655 MTC
C210OUTB	Piping Insulation Repairs	512100	M-O/S 0301							10999							10,999 MTC
C210OUTB	Piping Insulation Repairs	512100	M-OTHEI0427							6100.75							6,101 MTC
C210OUTB	Boiler Wall Insulation	512100	M-O/S 0301							0							0 MTC
C210OUTB	Boiler Wall Insulation	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Dead Air Space Insulation Renewal	512100	M-O/S 0301							0							0 MTC
C210OUTB	Dead Air Space Insulation Renewal	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Condenser & Condenser Valve Inspection	512100	M-O/S 0301							8799							8,799 MTC
C210OUTB	Condenser & Condenser Valve Inspection	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Condenser Inlet Line Inspection	512100	M-O/S 0301							4400							4,400 MTC
C210OUTB	Condenser Inlet Line Inspection	512100	M-OTHEI0427							3049.8							3,050 MTC
C210OUTB	Hot Well Inspection	512100	M-O/S 0301							2933							2,933 MTC
C210OUTB	Hot Well Inspection	512100	M-OTHEI0427							0							0 MTC
C210OUTB	Traveling Water Screen Inspection	512100	M-O/S 0301							47661							47,661 MTC
C210OUTB	Traveling Water Screen Inspection	512100	M-OTHEI0427							9150.2625							9,150 MTC
C210OUTB	Precipitator Inspection & Repair	512100	M-O/S 0301							11500							11,500 MTC
C210OUTB	Precipitator Inspection & Repair	512100	M-OTHEI0427							5750							5,750 MTC











Table with columns: Number, Description, task, US code, Type, Exn, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, TOTAL. The table lists various maintenance and operational tasks such as 'Tug boat', 'Generator', 'Blue water pump', etc., with their corresponding budget allocations for each month and a total.

12,528,124



**Coleman Station - Nonlabor O&M Category Link**

	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>	<u>Unit Outage</u>	<u>FGD Outage</u>
<b>2011</b>															
ADM	56,177	59,673	62,792	58,331	57,136	64,893	78,042	59,456	63,645	58,214	58,652	65,115	742,126		
FUELS	49,198	46,653	84,630	173,951	116,135	95,994	47,068	122,999	47,307	33,832	35,446	43,712	896,925		
LAB	39,516	28,821	266,169	106,803	32,398	27,419	85,617	23,418	38,136	19,926	32,351	22,308	722,883	C1	241,000
MTC	323,620	800,844	3,987,748	479,471	1,218,417	516,935	694,946	689,510	630,739	577,294	340,578	440,217	10,700,319	C1	2,535,569
OPS	97,050	92,062	419,120	110,561	104,412	107,544	89,815	92,383	90,897	63,352	86,962	86,828	1,440,987	C1	53,561
<b>TOTAL</b>	<b>565,561</b>	<b>1,028,054</b>	<b>4,820,459</b>	<b>929,117</b>	<b>1,528,498</b>	<b>812,785</b>	<b>995,488</b>	<b>987,766</b>	<b>870,724</b>	<b>752,618</b>	<b>553,990</b>	<b>658,181</b>	<b>14,503,240</b>		<b>3,002,904</b>

2011

1.035

1.15

Table with columns: Number, Description, task, I/S code, Exp Type, JAN, FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC, TOTAL. Rows include various utility and maintenance tasks such as Office Supplies, Gas for Company Vehicles, Uniform Service, Trash Removal, Pest Control, Fees and permits, Subscriptions and Dues, Educational Training, Small Tools, Safety Support, Material Other, Mileage, Travel, Meals/Entertainment, Miscellaneous, Hazardous Waste Disposal, Janitorial cleaning service, Janitorial supplies, Gas/Water, Electricity, Caustic, Sulfuric Acid, Hydrazine, Phosphate, Ammonia, Salt, Cooling Water Corrosion, ARP Scale Inhibitor, ARP pH Control, Circ. Water Zebra Mussel Treatment, Chlorine & Soda Ash - Sewage Plant, WT Clarifier Coagulant, WT Clarifier Sodium Hypochlorite, WWT Clarifier Polymer, Lab Reagents, Lab Equipment, Lab Instruments Contract/Service, Silica Analyzer Reagents, Sodium Analyzer Reagents, C1 Sample panel repair / replacement, EPA Samples (Misc.), Boiler Tube Samples, Softener and Mixed Bed Resin, RO Membrane Cleaning, Misc. tools, gloves, etc., Boiler Chemical Clean, PM-Outage Wetbottom Insp., PM-Outage Wetbottom Insp., PM-Dust Vlv Inspection, PM-Dust Vlv Inspection, Air Separator Tank Inspection, Air Separator Tank Inspection, Grinder Doghouse Inspection, Grinder Doghouse Inspection, Hydrojector Inspection & Repair, Hydrojector inspection & Repair, Seal Skirt Replacement, Seal Skirt Replacement, Boiler Inspection & Repair, Boiler Inspection & Repair, Boiler Buckstay Inspection & Repair, Boiler Buckstay Inspection & Repair, Burner Inspection & Repair, Burner Inspection & Repair.

BREC - COLEMAN STATION OPS MTC BUDGET 2011

Number	Description	task	IS code	Exp Type	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C1110UTB	Boiler Inspection Ports	512100-1421	M-O/S	0301			12319										12,319 MTC
C1110UTB	Boiler Inspection Ports	512100-1421	M-OTHEF	0427			3570.75										3,571 MTC
C1110UTB	Boiler Penthouse Inspection	512100-1421	M-O/S	0301			11384										11,384 MTC
C1110UTB	Boiler Penthouse Inspection	512100-1421	M-OTHEF	0427			5722.722										5,723 MTC
C1110UTB	Boiler Doors	512100-1421	M-O/S	0301			6071										6,071 MTC
C1110UTB	Boiler Doors	512100-1421	M-OTHEF	0427			636.78375										637 MTC
C1110UTB	Scaffold Furnace	512100-1421	M-O/S	0301			0										0 MTC
C1110UTB	Scaffold Furnace	512100-1421	M-OTHEF	0427			0										0 MTC
C1110UTB	Outage Contingencies	512100-1421	M-O/S	0301			11384										11,384 MTC
C1110UTB	Outage Contingencies	512100-1421	M-OTHEF	0427			1211.6745										1,212 MTC
C1110UTB	PM-Sootblower Inspection	512100-1421	M-O/S	0301			12319										12,319 MTC
C1110UTB	PM-Sootblower Inspection	512100-1421	M-OTHEF	0427			27101.9925										27,102 MTC
C1110UTB	Safety Valve Inspection	512100-1421	M-O/S	0301			22729										22,729 MTC
C1110UTB	Safety Valve Inspection	512100-1421	M-OTHEF	0427			23805										23,805 MTC
C1110UTB	Boiler Valves	512100-1421	M-O/S	0301			14783										14,783 MTC
C1110UTB	Boiler Valves	512100-1421	M-OTHEF	0427			12319.0875										12,319 MTC
C1110UTB	Steam Drum Inspection	512100-1421	M-O/S	0301			2861										2,861 MTC
C1110UTB	Steam Drum Inspection	512100-1421	M-OTHEF	0427			636.78375										637 MTC
C1110UTB	Seal Air Line inspection	512100-1421	M-O/S	0301			43117										43,117 MTC
C1110UTB	Seal Air Line inspection	512100-1421	M-OTHEF	0427			0										0 MTC
C1110UTB	Critical Pipe inspection	512100-1421	M-O/S	0301			89554										89,554 MTC
C1110UTB	Critical Pipe inspection	512100-1421	M-OTHEF	0427			17853.75										17,854 MTC
C1110UTB	Mob & Demob	512100-1421	M-O/S	0301			36427										36,427 MTC
C1110UTB	Mob & Demob	512100-1421	M-OTHEF	0427			0										0 MTC
C1110UTB	Contractor Administration	512100-1421	M-O/S	0301			95622										95,622 MTC
C1110UTB	Contractor Administration	512100-1421	M-OTHEF	0427			0										0 MTC
C1110UTB	Contractor Supervision	512100-1421	M-O/S	0301			45534										45,534 MTC
C1110UTB	Contractor Supervision	512100-1421	M-OTHEF	0427			0										0 MTC
C1110UTB	Hot Well Inspection & Repair	512100-1421	M-O/S	0301			4554										4,554 MTC
C1110UTB	Hot Well Inspection & Repair	512100-1421	M-OTHEF	0427			1262.85525										1,263 MTC
C1110UTB	#4 Heater inspection	512100-1421	M-O/S	0301			11384										11,384 MTC
C1110UTB	#4 Heater inspection	512100-1421	M-OTHEF	0427			636.78375										637 MTC
C1110UTB	CBD Tank Inspection & Repair	512100-1421	M-O/S	0301			1518										1,518 MTC
C1110UTB	CBD Tank Inspection & Repair	512100-1421	M-OTHEF	0427			7736.625										7,737 MTC
C1110UTB	DA Storage Tank inspection & Rej	512100-1421	M-O/S	0301			9107										9,107 MTC
C1110UTB	DA Storage Tank inspection & Rej	512100-1421	M-OTHEF	0427			636.78375										637 MTC
C1110UTB	BFP Motor PM	512100-1421	M-O/S	0301			12319										12,319 MTC
C1110UTB	BFP Motor PM	512100-1421	M-OTHEF	0427			3689.775										3,690 MTC
C1110UTB	Seal Skirt Replacement	512100-1421	M-O/S	0301			77366										77,366 MTC
C1110UTB	Seal Skirt Replacement	512100-1421	M-OTHEF	0427			89268.75										89,269 MTC
C1110UTB	Economizer Inlet Check Valve	512100-1421	M-O/S	0301			7589										7,589 MTC
C1110UTB	Economizer Inlet Check Valve	512100-1421	M-OTHEF	0427			1515.18825										1,515 MTC
C1110UTB	Feed Water Pipe Assessment	512100-1421	M-O/S	0301			9107										9,107 MTC
C1110UTB	Feed Water Pipe Assessment	512100-1421	M-OTHEF	0427			7575.94125										7,576 MTC
C1110UTB	I-B Boiler Feed Pump Overhaul	512100-1421	M-O/S	0301			100050										100,050 MTC
C1110UTB	I-B Boiler Feed Pump Overhaul	512100-1421	M-OTHEF	0427			0										0 MTC
C1110UTB	PM-Outage Air Htr inspection	512100-1421	M-O/S	0301			55466										55,466 MTC
C1110UTB	PM-Outage Air Htr inspection	512100-1421	M-OTHEF	0427			38088										38,088 MTC
C1110UTB	FD Fan inspection	512100-1421	M-O/S	0301			12319										12,319 MTC
C1110UTB	FD Fan inspection	512100-1421	M-OTHEF	0427			3689.775										3,690 MTC
C1110UTB	Stack Liner repairs	512100-1421	M-OTHEF	0427			0										0 MTC
C1110UTB	Stack Liner repairs	512100-1421	M-O/S	0301			23613										23,613 MTC
C1110UTB	FD Fan Motor PM	512100-1421	M-O/S	0301			0										0 MTC
C1110UTB	FD Fan Motor PM	512100-1421	M-OTHEF	0427			12627.3623										12,627 MTC
C1110UTB	Stack Breaching insp.& repairs	512100-1421	M-O/S	0301			14783										14,783 MTC
C1110UTB	Stack Breaching insp.& repairs	512100-1421	M-OTHEF	0427			5951.25										5,951 MTC
C1110UTB	PM-Outage Gas Leak repairs	512100-1421	M-O/S	0301			61595										61,595 MTC
C1110UTB	PM-Outage Gas Leak repairs	512100-1421	M-OTHEF	0427			12319.0875										12,319 MTC
C1110UTB	Steam Coil Inspection & Repair	512100-1421	M-O/S	0301			3035										3,035 MTC
C1110UTB	Asbestos Removal	512100-1421	M-O/S	0301			11384										11,384 MTC
C1110UTB	Asbestos Removal	512100-1421	M-OTHEF	0427			5852.45925										5,852 MTC
C1110UTB	Piping Insulation Repairs	512100-1421	M-O/S	0301			11384										11,384 MTC
C1110UTB	Piping Insulation Repairs	512100-1421	M-OTHEF	0427			6314.27625										6,314 MTC
C1110UTB	Boiler Wall Insulation	512100-1421	M-O/S	0301			0										0 MTC
C1110UTB	Boiler Wall Insulation	512100-1421	M-OTHEF	0427			0										0 MTC

BREC - COLEMAN STATION OPS MTCE BUDGET 2011

Number	Description	task	I/S code	Exp Type	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
C1110UTB	Dead Air Space Insulation Renewal	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	Dead Air Space Insulation Renewal	512100-1421	M-OTHEF	0427				0									0 MTC
C1110UTB	Condenser & Condenser Valve Insps	512100-1421	M-O/S	0301			9107										9,107 MTC
C1110UTB	Condenser & Condenser Valve Insps	512100-1421	M-OTHEF	0427				0									0 MTC
C1110UTB	Condenser Inlet Line Inspection	512100-1421	M-O/S	0301				4554									4,554 MTC
C1110UTB	Condenser Inlet Line Inspection	512100-1421	M-OTHEF	0427			3156.543										3,157 MTC
C1110UTB	Hot Well Inspeicton	512100-1421	M-O/S	0301				3035									3,035 MTC
C1110UTB	Hot Well Inspeicton	512100-1421	M-OTHEF	0427				0									0 MTC
C1110UTB	Traveling Water Screen Inspection	512100-1421	M-O/S	0301				49329									49,329 MTC
C1110UTB	Traveling Water Screen Inspection	512100-1421	M-OTHEF	0427			9470.52169										9,471 MTC
C1110UTB	Precipitator Inspection & Repair	512100-1421	M-O/S	0301				11903									11,903 MTC
C1110UTB	Precipitator Inspection & Repair	512100-1421	M-OTHEF	0427				5951.25									5,951 MTC
C1110UTB	inspction & Repair	512100-1421	M-O/S	0301				11384									11,384 MTC
C1110UTB	inspction & Repair	512100-1421	M-OTHEF	0427			1893.68775										1,894 MTC
C1110UTB	Mill Inspection & Repair	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	Mill Inspection & Repair	512100-1421	M-OTHEF	0427				0									0 MTC
C1110UTB	Coal Valve Inspection	512100-1421	M-O/S	0301				24285									24,285 MTC
C1110UTB	Coal Valve Inspection	512100-1421	M-OTHEF	0427			18941.6385										18,942 MTC
C1110UTB	Mill Motor PM	512100-1421	M-O/S	0301				5951									5,951 MTC
C1110UTB	Mill Motor PM	512100-1421	M-OTHEF	0427				3570.75									3,571 MTC
C1110UTB	PA Fan Motor PM	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	PA Fan Motor PM	512100-1421	M-OTHEF	0427				8331.75									8,332 MTC
C1110UTB	Mill Seal Air Fan Motor PM	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	Mill Seal Air Fan Motor PM	512100-1421	M-OTHEF	0427			4797.89775										4,798 MTC
C1110UTB	DCS Controls maintenance	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	DCS Controls maintenance	512100-1421	M-OTHEF	0427				7736.625									7,737 MTC
C1110UTB	Duct Inspection & Repair	512100-1421	M-O/S	0301				18479									18,479 MTC
C1110UTB	Duct Inspection & Repair	512100-1421	M-OTHEF	0427			6159.54375										6,160 MTC
C1110UTB	Stock Feeder Inspection and Reapir	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	Stock Feeder Inspection and Reapir	512100-1421	M-OTHEF	0427			6314.27625										6,314 MTC
C1110UTB	Bunker & Bunker Piping Inspector	512100-1421	M-O/S	0301				6071									6,071 MTC
C1110UTB	Bunker & Bunker Piping Inspector	512100-1421	M-OTHEF	0427			1893.68775										1,894 MTC
C1110UTB	Routine Inspection & Repair	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	Routine Inspection & Repair	512100-1421	M-OTHEF	0427				0									0 MTC
C1110UTB	4160/480 V MCC Inspeicton & Req	512100-1421	M-O/S	0301				14206									14,206 MTC
C1110UTB	4160/480 V MCC Inspeicton & Req	512100-1421	M-OTHEF	0427			34830.2858										34,830 MTC
C1110UTB	ECT fuel flow upgrade	512100-1421	M-O/S	0301				12319									12,319 MTC
C1110UTB	ECT fuel flow upgrade	512100-1421	M-OTHEF	0427			68439.375										68,439 MTC
C1110UTB	Transformer inspection & Reapirs	512100-1421	M-O/S	0301				0									0 MTC
C1110UTB	Transformer inspection & Reapirs	512100-1421	M-OTHEF	0427			20095.1843										20,095 MTC
C1110UTB	Turbine Valve inspection & Repair	512100-1421	M-O/S	0301				355528									355,528 MTC
C1110UTB	Turbine Valve inspection & Repair	512100-1421	M-OTHEF	0427				122596									122,596 MTC
FGD110UT	Absorber Module Inspection	512100-1410	M-O/S	0301				166635									166,635 MTC
FGD110UT	Absorber Module Inspection	512100-1410	M-OTHEF	0427			63652.1895										63,652 MTC
FGD110UT	Recirc Pump inspection	512100-1410	M-O/S	0301				82594									82,594 MTC
FGD110UT	Recirc Pump Inspection	512100-1410	M-OTHEF	0427			44711.7413										44,712 MTC
FGD110UT	Inlet/Outlet Duct Inspection	512100-1410	M-O/S	0301				95221									95,221 MTC
FGD110UT	Inlet/Outlet Duct inspection	512100-1410	M-OTHEF	0427			25770.1028										25,770 MTC
FGD110UT	Auxiliary Equipment Inspection	512100-1422	M-O/S	0301				63652									63,652 MTC
FGD110UT	Auxiliary Equipment Inspection	512100-1410	M-OTHEF	0427			25770.1028										25,770 MTC
FGD110UT	Absorber Cleaning	512100-1410	M-O/S	0301				19457									19,457 MTC
FGD110UT	Absorber Cleaning	512100-1410	M-OTHEF	0427				0									0 MTC
FGD110UT	Gypsum Plant Inspection	512100-1410	M-O/S	0301				51025									51,025 MTC
FGD110UT	Gypsum Plant Inspection	512100-1410	M-OTHEF	0427			19457.0168										19,457 MTC
FGD110UT	Mill Inspection	512100-1410	M-O/S	0301				69966									69,966 MTC
FGD110UT	Mill Inspection	512100-1410	M-OTHEF	0427			19457.0168										19,457 MTC
FGD110UT	Cyclone Inspection	512100-1410	M-O/S	0301				51025									51,025 MTC
FGD110UT	Cyclone Inspection	512100-1410	M-OTHEF	0427			13142.7405										13,143 MTC
FGD110UT	Axiliary Equipment Inspection	512100-1410	M-O/S	0301				95227									95,227 MTC
FGD110UT	Axiliary Equipment inspection	512100-1410	M-OTHEF	0427			22409										22,409 MTC
CLMPAS	1B Compressor Overhaul	512100-1410	M-O/S	0301											35055		35,055 MTC
CLMPAS	1B Compressor Overhaul	512100-1410	M-OTHEF	0427										16043			16,043 MTC
CLMPAS	Coleman 01 Routine	512100-1410	M-O/S	0301									16992				16,992 MTC
CLMPAS	Coleman 01 Routine	512100-1410	M-OTHEF	0427		483	359	359	359	359	359	359	359	359			4,434 MTC
CLMPAS	Coleman 01 Routine	512100-1410	M-O/S	0301		0	1422										1,422 MTC









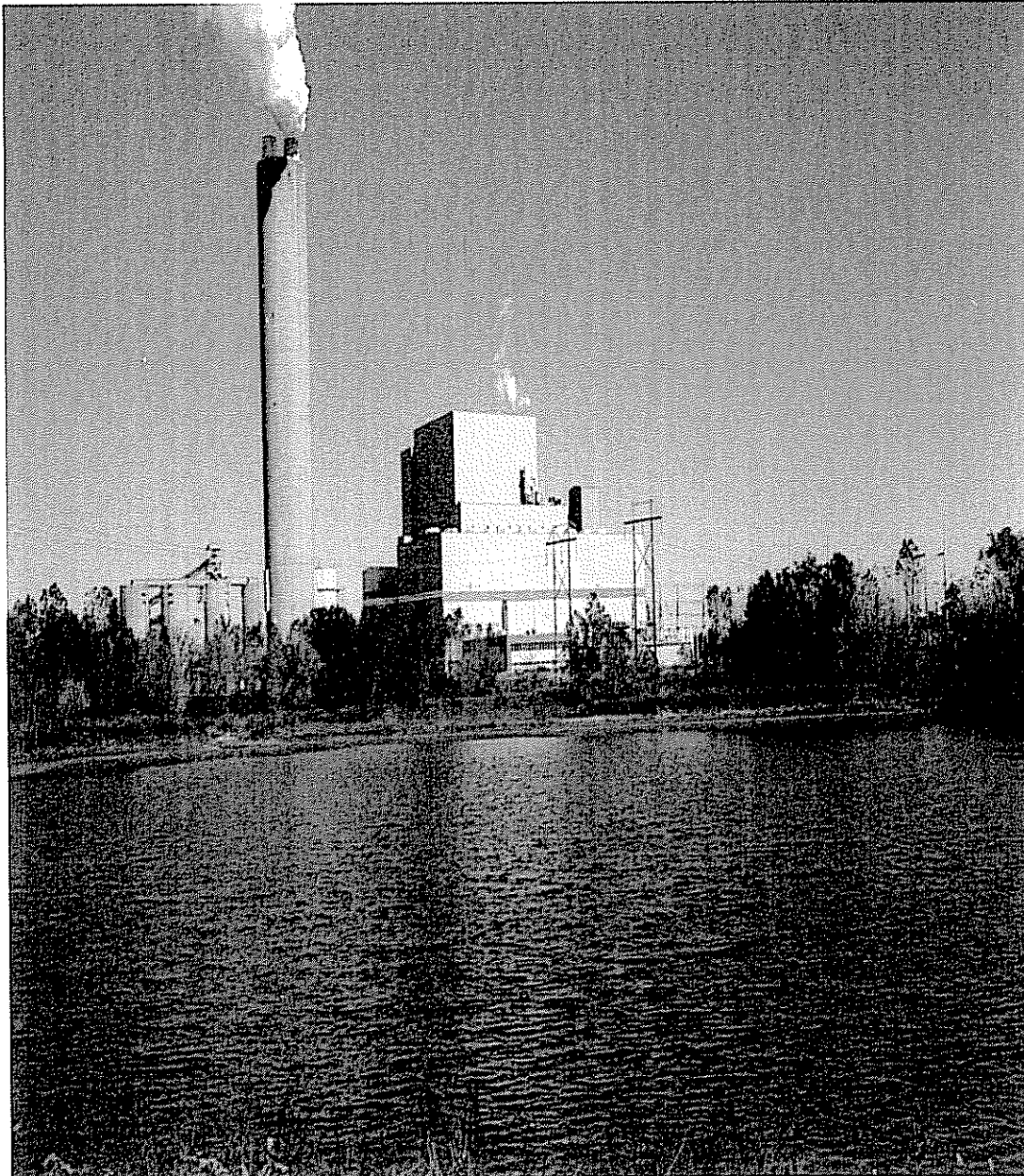




BREC - COLEMAN STATION OPS MTCE BUDGET 2011

<u>Number</u>	<u>Description</u>	<u>task</u>	<u>I/S code</u>	<u>Exp Type</u>	<u>JAN</u>	<u>FEB</u>	<u>MAR</u>	<u>APR</u>	<u>MAY</u>	<u>JUN</u>	<u>JUL</u>	<u>AUG</u>	<u>SEP</u>	<u>OCT</u>	<u>NOV</u>	<u>DEC</u>	<u>TOTAL</u>
																	<u>14,503,240</u>

# **Big Rivers Electric Corporation 2009-2011 Business Plan Wilson Station**



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# **Business Plan Summary**

## **Business Plan Summary 2009-2011**

This document is produced through a combined effort of the Wilson Station management staff which attempts to outline and identify challenges and opportunities related to assumptions, key issues, fuel strategies, KPI's and staffing issues that face Wilson Station during the 2009-2011 planning cycle.

*Big Rivers Electric Corporation (BREC) and Western Kentucky Energy (WKE) have signed a Termination Agreement ending the 25 year lease during the 10<sup>th</sup> year. BREC assumes operation and control of the generating units effective upon the closing date, currently planned for December 2008. Wilson Station Business Plan includes known changes associated with the lease unwind*

### **Station Background:**

Wilson Station consists of a single generating unit located near Centertown, Kentucky and has a total generating capacity of 440 MWG. (Identified below)

Unit	MW (Gross)	MW (Net)
Wilson Station	440	417

- Wilson Station - Foster Wheeler boiler and Westinghouse turbine generator, commercialized in 1986
- FGD System – Weirs-Kellogg horizontal wet limestone flue gas desulphurization (FGD) system. The FGD system consist of four lime reagent horizontal absorbers with a design SO<sub>2</sub> removal rate of 90% to comply with the emissions limit of 1.2 lbs/mmBtu
- Electrostatic Precipitator – The precipitator is designed to remove 99.87% of the particulate matter to be in compliance with emission limits of 0.03 lbs/mmBtu and 20% opacity
- SCR System - Babcock Borsig delta wing design for 90% NOx removal

## **Safety:**

Safety continues to be a top priority at Wilson, as we maintain a zero tolerance for injury and continually improve our performance. Wilson Station has a proactive Safety Committee that provides leadership and direction in the safety arena. The committee, along with all Wilson employees, is encouraged not to tolerate unsafe behavior by their coworkers or construction workers. At Wilson, every person on site has the authority to immediately stop any work not being performed safely.

Wilson Station initiated and organized Community Emergency Response Team (CERT) training for 118 ERT members from each of the three generating facilities. The training began in August and was completed in September of 2008.

Wilson Station sponsored rigging and mobile crane training in 2008. This training included crane operators from all three generating facilities.

The Governor's Safety award recognizes industry for completing more than 250,000 man-hours worked without a lost time injury. In recognition of Wilson's safety, the station has been the recipient of the Governor's Safety award 4 times.

Wilson Plant has previously achieved 419,966 man-hours or 837 days without a recordable injury.

Wilson employees OSHA recordable injuries:

2007 Station personnel - 1

2008 Station personnel - 0

An increased emphasis continues to be placed on Contractor Safety through use of the 5 step program, pre-job meetings, requirement for documented tailgate sessions, weekly safety meeting and numerous other safety related activities. When we invite contractors into our house, their safety becomes just as important as permanent station employees. This increased emphasis will continue for 2009 and years to come.

Wilson Station completed the 2008 scheduled outage working 125,993 contractor man-hours with zero recordable injuries.

Wilson contractor OSHA recordable injuries:

2007 Contractor personnel - 0

2008 Contractor personnel - 1

**Safety Targets:**

Safety Objectives	2009	2010	2011
RIIR (200k Man-Hrs)	3	3	2.8
LTR (1,00k Man-Hrs)	0.63	0.63	0.61

Note: Wilson has elected to set our Lost Time Incident Rate at zero (0) as we do not plan for injuries.

Safety tab of this book identifies additional 2009-2011 business plan details and activities.

**Generation:**

Generation targets identified in the 2009 – 2011 business plan

2009 - 3,003 GWh

2010 - 3,440 GWh

2011 - 3,141 GWh

Forced Outage Rate targets are set a 4% through the 2009-2011 planning cycle.

**Social Responsibility:**

Wilson Station’s 2009-2011 business planning cycle incorporates an emphasis on environmental compliance issues as a responsible facility to meet or exceed all State and Federal statutes and regulations of air, water, and land. Our objective is to be a valued corporate neighbor in the communities in which we work and maintain a positive working relationship with local, state, and federal agencies.

Social Responsibility tab of this book identifies additional 2009-2011 business plan details.

**Staffing:**

Wilson Station is guided by a dedicated and experienced workforce, which we consider our most valuable resource. Currently, 63% of our staff were part of BREC staff prior to the WKE lease and represents many years of experience in operating, maintaining, problem solving, and overall success of the facility. In the last few years, 30% of station employees hired were due to retirements, long-term illness, termination, etc. However, additional Wilson employees are nearing retirement age and attrition is becoming a major concern over the next three-year planning cycle.

To help ensure valuable resources, safety will continue to be the most important objective followed by succession planning, training and process improvement for employees.

As identified by BREC Strategic Plan, Wilson Station will continue a “back to the basics” approach to the operation and maintenance activities required to meet Key Performance Indicators (KPI’s) identified in this plan.

Wilson Station will utilize basic utility practices such as routines, logs, operational procedure letters, preventive maintenance activities, and detailed maintenance and outage planning to meet or exceed our objectives.

A formal Performance Excellence Process (PEP) provides direction for each member of the Wilson organization to direct activities. PEP objectives include safety, availability, reliability, process improvement, cost control, social responsibility, integrity, and personal development.

Succession/Staffing tab of this book identifies additional 2009-2011 business plan details.



**(KPI)**  
**Key Performance**  
**Indicators**

## KPI

Key Performance indicators (KPI's) identified by Wilson Station's 2009-2011 Business Plan:

KPI Initiative	Units	2009	2010	2011
RIIR (- ** HLC)	200k Man/Hrs	3.0	3.0	2.8
RIIR (+ ** HLC)	200k Man/Hrs	4.1	4.1	4.0
LTIR	1,000k Man/Hrs	0.63	0.63	0.61
Annual Capacity Factor	%	82	94	86
EFOR	%	4	4	4
EAF	%	82	94	88
Generation	GWh	3003	3440	3141
Heat Rate	lbs/mmBtu	11.099	11.099	11.138
SO2 Compliance Rate	30 day Rolling AVG	1.2 lbs/mmBtu 90% Removal	1.2 lbs/mmBtu 90% Removal	1.2 lbs/mmBtu 90% Removal
NOx Compliance Rate	30 day Rolling AVG	0.6 lbs/mmBtu	0.6 lbs/mmBtu	0.6 lbs/mmBtu
Opacity Compliance Rate	6 Minute AVG	20%	20%	20%

### Key performance indicators

Year	Net Generation	Annual Capacity Factor	FOR	EAF	Planned Outage hrs.
2009	3,018,776	82.0%	4%	83%	1176
2010	3,432,875	93.3%	4%	94%	168
2011	3,140,591	85.3%	4%	88%	672



**Financial Summary**

<b>Financial Summary</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Non-labor O&M - routine	\$9,085,178	\$9,717,258	\$10,285,499
Outages	9,168,800	1,087,817	5,918,874
Life Assessments (NL)	265,225	-	-
Boiler Cleaning (NL)	106,090	-	-
Labor	9,556,478	9,935,750	10,329,177
Reagent material	7,351,855	8,453,928	10,677,996
Fuel	60,096,560	65,622,441	62,199,036
Fuel Oil (Startup Cost)	3,542,334	3,869,841	3,656,349
<b>Total</b>	<b>\$99,172,520</b>	<b>\$98,687,035</b>	<b>\$103,066,931</b>
Capital Investments	\$30,139,218	\$10,359,149	\$24,403,489

**Financial Summary \$/MWh**

<b>Financial Summary \$/MWh</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Non-labor O&M	\$3.13	\$2.83	\$3.28
Outages	3.04	0.32	1.88
Labor	3.17	2.89	3.29
Reagent material	2.44	2.46	3.40
Fuel	19.91	19.12	19.80
Fuel Oil (Startup Cost)	1.17	1.13	1.16
<b>Total</b>	<b>\$32.85</b>	<b>\$28.75</b>	<b>\$32.82</b>
Capital Investments	\$9.98	\$3.02	\$7.77

*Non-labor Departmental Summary*

<i>Departmental Summary Non-labor O&amp;M</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>
Admin	420,772	511,663	523,739
Operations	991,140	992,050	944,050
Fuel Handling	1,167,000	1,327,941	1,303,488
Lab	1,055,005	974,935	958,697
Maintenance	14,991,376	6,998,486	12,474,399
<b>Total</b>	<b>\$18,625,293</b>	<b>\$10,805,075</b>	<b>\$16,204,373</b>



## **Assumptions:**

The key planning assumptions are as follows:

- Budget is approved as identified by this document
- Staffing approved as identified by this document
- All capital projects submitted in this plan will be approved and executed
- Station will meet or exceed identified Social Responsibility
- Fuel will meet minimum quality identified by Fuels tab section of the three year Business Plan.
- The plan does not include catastrophic events either natural or major equipment
- Training of Wilson employees is essential to develop and prepare employees for their next level position.
- Retention of qualified employees is a concern because of BREC unwind and the uncertainty of future benefits, compensation, etc
- The plan does not include financial cost of Pandemic situations
- The plan assumes Wilson Station will burn a 30% petcoke 70% coal blend through 2011
- The plan assumes fuel with low ash temperature fouling characteristics will not limit generation or ability to meet KPI's.
- This plan assumes meeting or exceeding O&M targets as identified in three-year business plan.
- Zero unit derates due to Title V Air Quality permit particulate limits of 0.03 lbs/mmBtu for a 6-hour average
- Business plan assumes that altered CAIR regulations or legislation will not impact the station in this planning cycle
- The plan does not include Homeland Security issues surrounding the Business Continuity Plan
- The plan does not include outage schedule extensions or funding as a result of the HP/IP rotor hardened spots identified during the 2002/2003 turbine event
- The plan does not include outage schedule extensions or funding as a result of shorted turns or retaining ring replacement on the generator field



## Key Issues

- Wilson Station's capacity factor expectations are at the edge of the envelope
- FGD liquid carryover into the outlet duct and stack cause slurry buildup that must be monitored and removed.
- *Low quality of current coal inventory promotes slagging issues in the boiler's superheat section. Slagging condition will result in boiler tube wall wastage due to excessive soot blower operation.*
- Operating #3 coal pulverizer will result in higher NOx inlet loading. This pulverizer can only be operated utilizing coal. Low Btu fuel in current inventory can result in boiler slagging. Slagging and reduced heat input (low Btu) can result in potential generation derates while #3 pulverizer is in service.
- There is a risk in meeting generation requirements burning 30/70 percent blend of petcoke/coal with the existing inventory coal quality. Details are posted in the fuel section.
- The existing hydrated lime injection system for SO<sub>3</sub> formation control is marginal. This system injects hydrated lime prior to the unit's precipitators inhibiting acid (H<sub>2</sub>SO<sub>4</sub>) formation which causes to stack plumb downwash.
- Wilson Station's 2008 Title V particulate emission testing trigger limits have been set at 11.1% opacity for a 3-hour average. During the testing period Wilson Station exceeded particulate emissions of 0.03 lbs/mmBtu when opacity exceeded 11.1%
- During a 2002/2003 turbine failure hardened spots were identified in the HP/IP rotor. The plan does not include outage schedule extensions or funding as a result of the HP/IP rotor identified hardened spots
- Wilson Station has been operating with shorted turns in the generator field prior to 1998. The plan does not include outage scheduled extensions or funding as a result of shorted turns in the generator field.
- Wilson Station generator is equipped with 18/5 retaining rings. Recommendations have been made for the replacement of these rings with upgraded non-magnetic 18/18 rings. This is not included in this business planning cycle
- Wilson Station is equipped with 12 fuel transfer point dust collectors. The collectors are in poor to extremely poor condition.
- Cooling tower concrete structural integrity is a concern. Wilson Station used Structural Preservations Inc. in 2008 to analyze structural conditions. Currently waiting on a final report but, verbally no major concerns have been communicated



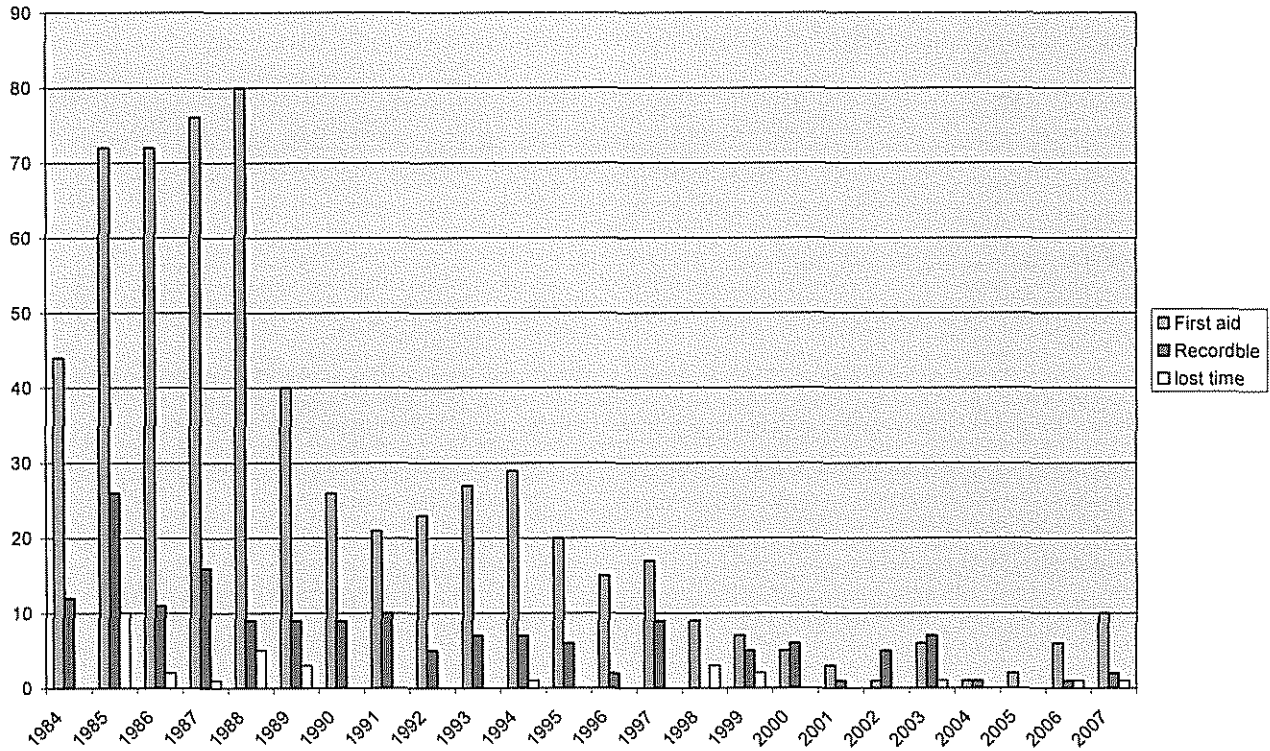




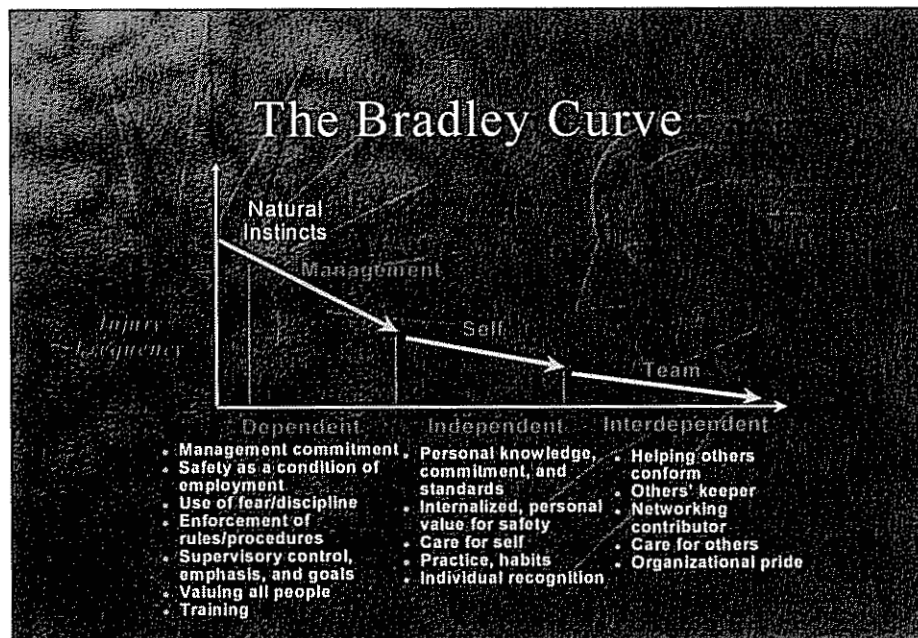
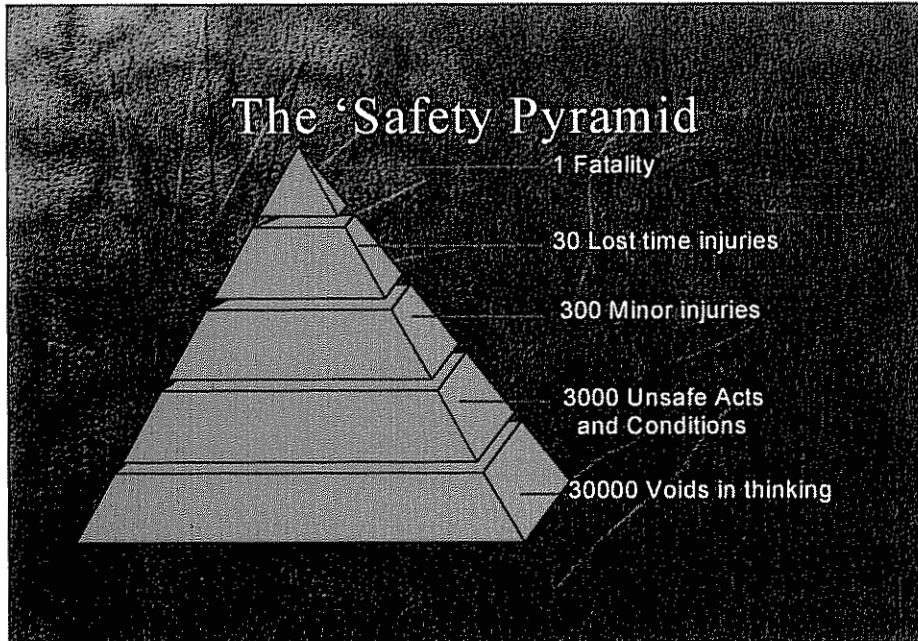
# Safety

## Wilson Station safety record historical trends

2007



The Safety Pyramid and Bradley Curve shown below indicate the importance of controlling recordable injuries and near misses to avoid a serious injury or fatality.



### **Activities to Meet Safety Objective:**

- Encourage the joint safety committee to continue to grow and remain proactive with fellow employees and construction workers
- The Safety Committee meets monthly to review and evaluate safety related topics including: current and proposed projects, future monthly safety meeting topics, how to improve safety focus of others, review of BREC safety performance, etc
- Each year a selected number of Safety Committee members attend the Governors Safety and Health Conference
- The Station conducts a Safety Slogan contest each year, the slogan is used to promote safety as a daily reminder
- Wilson employees believe that if they can work one day without an injury, they can work everyday without an accident
- “Safety Contact” is a method used to ensure fellow employees and contractors perform work in a safe manner
- The CSCAPE Safety Program ensures contractors working on site have all the required and general safety training to accomplish their work
- Near Miss Reporting provides a mechanism to report incidents that occur but do not result in personal injury
- Wilson’s Cross-functional Safety Committee is currently participating in investigations of Reported Injuries, First Aid Reports, and Near Miss Incidents
- The Wilson Safety Committee participates in the joint meeting of all BREC Plant Safety Committees
- The safety committee is currently performing safety inspections, making recommendations and following up to ensure that all items are being addressed
- Compliance training is in accordance with the Federal and State regulations
- Continue to support the philosophy that everyone is a leader and responsible for their safety and the safety of others
- Every Wilson employee has the authority to stop any job at any time if he/she feels the job is unsafe. *This includes jobs performed by BREC personnel or contractors*
- All crews and contractors conduct daily job briefings at the beginning of each workday
- Monthly safety meetings topics will be interesting and pertain to work place and home safety



## Social Responsibility/Environmental

### Air Quality

*Note: Wilson Station is a Subpart Da facility and the only Subpart Da facility in the BREC fleet*

<b>Fugitive Air Emission Limitations</b>		
<b>Source/Location</b>	<b>Limits</b>	<b>Effective Date</b>
Coal Handling Transfer Points	20% Opacity by Method 9	pre 2003
Stockpiles, Haul Roads, and all areas* and equipment except boiler	No fugitives across property line	pre 2003
* Limestone located on-site is excluded from the current 20% opacity limits, however, fugitive dust from limestone is covered by the regulations if the fugitives cross the property line.		

<b>Air Emission Limitation (boiler emissions)</b>			
<b>Pollutant</b>	<b>Limit</b>	<b>Compliance Period</b>	<b>Effective Date</b>
SO <sub>2</sub>	1.2 lbs/mmBtu / 90% removal or 0.6 lbs/mmBtu / 70% removal	30-day rolling average	pre 2003
	12,023 tons	12 month rolling average	pre 2003
NO <sub>x</sub>	0.6 lbs/mmBtu	30-day rolling average	pre 2003
	.46 lbs/mmBtu	annual average	pre 2003
	1,242 tons	May-September	2004
Opacity	20%	6-minute average	pre 2003
Particulate	.03 lbs/mmBtu	6-hour average	pre 2003
	11.1% opacity trigger limit	3-hour average	pre 2003

#### **SO<sub>2</sub> emissions**

- Wilson Station continuously meets all regulatory requirements related to SO<sub>2</sub> emissions
- Wilson is challenged with a high SO<sub>2</sub> to SO<sub>3</sub> conversion rate related to the current fuel and NO<sub>x</sub> reduction strategy. High SO<sub>3</sub> levels contribute to “blue plume” and stack downwash

#### **NO<sub>x</sub> emissions**

- Wilson SCR was installed for NO<sub>x</sub> reduction in late 2003
- Wilson must reduce NO<sub>x</sub> emissions to less than 0.05 lbs/mmBtu in order to reach the system NO<sub>x</sub> compliance target
- Wilson must achieve a minimum 90% reduction based on an inlet NO<sub>x</sub> loading of 0.50 lbs/mmBtu in order to meet the targeted emission rate of ≤ 0.05 lbs/mmBtu. Wilson is limited to 320 tons of annual NO<sub>x</sub> emissions

- Wilson's SCR is designed for four layers of catalyst and is currently equipped with two layers of Hitachi plate catalyst. Operating experience over a five year period demonstrated the need to develop a catalyst management strategy that considers SO<sub>2</sub> to SO<sub>3</sub> conversion rates and the resulting stack plume downwash
- Wilson has adopted a two layer catalyst management strategy requiring annual catalyst regeneration. The catalyst regeneration schedule is supported within the current business planning cycle

#### **Opacity/Particulate emissions**

- Wilson continuously meets opacity and particulate emission requirements
- Wilson is challenged with an 11.1% opacity trigger limit associated with particulate emission
- Title V compliance testing performed in 2008 resulted in a trigger limit shift from 20.3% to 11.1%
- CEM monitor opacity exceedances require the plant to perform a Method 9 visual inspection
- Meeting the 20% opacity Method 9 inspection limit may be difficult due to SO<sub>3</sub> emission while the SCR is in service

#### **Water**

- Wilson meets or exceeds all regulatory water discharge requirements
- Wilson has developed an internal water balance strategy that maximizes water conservation
- Wilson filed for a Kentucky Pollutant Discharge Elimination System (KPDES) permit in October 2004. Approval of this permit will add four additional discharge points
- Wilson produces potable water using an R.O. treatment system

#### **Waste Management**

- Ground water monitoring well have indicated elevated chloride levels. Waste management has indicated this could develop into an out year issue
- Phase 2 landfill expansion



## Wilson Station Workforce Planning 2009 - 2011

Wilson Station succession planning strategy is based upon current assumptions for operation of the facility as identified within the 2009 – 2011 Business Plan.

### Objective

To sustain a knowledgeable station core work group over the planning cycle years. This approach to staffing is essential in ensuring personnel safety and unit reliability. A balanced home to work lifestyle is an important aspect to ensure a quality work force for the station.

### Methodology

The plan has identified all of the core group classifications and cataloged them based upon the age of the person filling a given classification. The plan identifies people turning 62 years of age for the period 2009 to 2020. People that turn age 62 enter into group that has a high potential for retirement. As an employee's age increases the potential for retirement increases with an assumption that most all people will separate from the organization at age 65. The plan assumes that once a person reaches age 65 this person would roll off the station's head count assumptions.

<b>Wilson 2008 Staffing</b>			
Sr. Secretary	1	Manager of Production	1
Manager of Maintenance	1	Dept. Secretary	1
Dept. Secretary	1	Production Resource Leaders	6
Plant Engineers	2	Control Room Operators	6
Maintenance Resource Leaders	7	Auxiliary Operators	6
Drafter	1	Utility Operators	2
Sr. Mechanic	11	Solid Waste Operator	4
Mechanic	4	Auxiliary Scrubber Operator	4
Sr. Electrician	5	Fuels Leader	1
Electrician	3	Fuels Secretary	1
Sr. Technician	7	Sr. Equipment Operator	5
Instrument Tech	1	Equipment Operator	6
		Sr. Equipment Mechanic	2
		Performance/Environmental Specialist	1
		Chemical Engineer	1
		Lab Techs	4
<b>Total Wilson Employees</b>	<b>95</b>		
Plant Manager	1		
Storekeeper	1		
Budget Analyst	1		
Procurement Agents	2		
Health and Safety Specialist	1		
<b>Total Support Staff</b>	<b>6</b>		
<b>Total including support Staff</b>	<b>101</b>		

Station management has identified its core group staff at 96 people for 2009. Current assumptions have included the addition of 1 person in 2009 and 1 additional person in 2010 and remain flat through the balance of the business planning cycle 2011. These 2 additions are assumed to cover potential attrition requirements.



It is the strategy of this succession plan to identify the core skill requirements during the business planning years. Each department has been broken down by classification. This breakdown is an attempt to identify the level of criticality each classification has upon the station. As bargaining unit personnel separate from the organization utilizing outsource services will place additional expectations on plant leadership to manage contract labor.

The individual work classifications were ranked to identify potential skills needed for replacement. Classification assessment included an evaluation of a learning curve time table for each classification. The learning curve and the level of difficulty of replacement personnel will determine when a skill might be back filled.

<b>Classification</b>	<b>Learning Curve</b>	<b>Target Replacement Age</b>	<b>Replacement Risk factor</b>
Maintenance Leader	3 years	62	High
Sr. Mechanic	6 months	64	Med/Low
Mechanic	6 months	64	Med/Low
Sr. Instrument Tech.	3 years	62	High
Instrument Tech.	2 years	63	High/Med
Sr. Electrician	2 years	63	Med
Electrician	1 year	64	Med/Low
Production Leader	3 years	62	High
Fuels Leader	3 years	62	High
Control Room Oper.	3 years	62	High
Aux. Operator	2 years	63	High/Med
FGD Aux. Operator	2 years	63	High/Med
SW Aux. Operator	2 years	63	High/Med
Sr. Lab Tech.	2 years	63	Med
Lab Tech.	2 years	63	Med
Sr. Equipment Oper.	1 year	64	Med/Low
Equipment Oper.	6 months	64	Med/Low
Sr. Equipment Mechanic	6 months	64	Med/Low
Equipment Mechanic	6 months	64	Med/Low

### **Outsourcing Availability**

Understanding the regional area demographics has indicated that certain skills must be developed internally to the station. These classification skills require a high level of difficulty to recruit externally, therefore require internal development. The internal development time line for critical positions is 3 years. The learning curve for Auxiliary Operators and Instrument Techs is in the 2 year range.

Mechanical maintenance personnel can be outsourced within this region fairly easy without a significant cost increase over internal staffing personnel. Fuel handlers fall within this area of availability and cost assumptions as well. (Internal skill \$43.00/hr vs. External Staff \$55.00/hr)

Electrical maintenance personnel availability can be outsourced within this region relatively easy as well. Labor cost as compared to internal labor cost increases due to skill requirements. (Internal skill \$43.00/hr vs. External \$80.00/hr)

Instrumentation personnel availability within this regional area exist, however the level of difficulty of outsourcing this skill comes at a much higher cost when compared to internal staff. (Internal skill \$43.00/hr vs. External \$125.00/hr)

Outsource services will not provide the technical skills required to troubleshoot plant systems. This will result in decreased reliability and availability.

## **Workforce Considerations**

### **Station Maintenance**

During the 2009 – 2011 planning cycle a number of Wilson employees will enter the age group of 62 to 65. Management has attempted to identify a risk strategy for each of the classifications at Wilson during this planning cycle as related to potential retirements.

Mechanical Maintenance: 81.25% of the group will enter the potential retirement group. (Thirteen of the sixteen people within this group)

Electrical Maintenance: 12.5% of this classification will enter the potential retirement group. (One of eight people within the group.)

Instrument Maintenance: 37.5% of this classification will enter the potential retirement group. (Three of eight people within this group.)

Maintenance Leaders: 30% of this classification will enter the potential retirement group. (Two of six people within this group.)

### **Operations**

Production Leaders: 30% of this classification will enter the potential retirement group. (Two of six people within this group.)

Control Room Operators: 16% One person will enter from this group of 6. Replacement of this person would rank within the high risk assumptions.

Auxiliary Operators: 38% of this classification has 4 people assigned to Solid Waste Handling, 4 people assigned to the FGD system and 8 people assigned to plant operations. (Six of sixteen people within this group.)

Lab Personnel: 50% of this classification will enter the potential retirement group. (Two of four people within this group.)

Fuel Handling: One person will enter from this group of 13. Replacement of these people would rank within the low risk assumptions.



## Outage Plan

Wilson Station outage planning is an important part of the station's 2009–2011 Business Plan. The station performs scheduled outages as identified below:

- Boiler & SCR Catalyst - 2 year intervals
- Turbine Valves – 4 year intervals
- Turbine generator major inspections – 8 year intervals
- Pit stop outage planned in 2010

Outage Hours		
2009	2010	2011
1,248	168	672

### 2009 – 2011 Outage Non Labor O&M Plan

Outage Project Description	2009	2010	2011
Electrical Distribution & Motors	287,865	20,000	338,924
Ash System	62,833	40,000	239,708
Boiler Feed Water System	65,110	5,000	62,432
Boiler (SGU)	1,487,279	197,817	1,345,512
Circulating Water System	128,627		135,166
Cooling Water Systems	1,440		25,632
Condensate System	60,550		77,075
Door inspections	0		21,510
Flue Gas & Desulphurization	1,037,860	150,000	1,066,000
Fans & Draft System	673,139	2,500	714,133
Fuel Processing Systems	86,840	4,500	52,019
General Outage	437,379	144,500	428,404
Outage Insulation	75,000	3,000	80,000
Outage Lubrication	7,500		20,000
Outage Scaffolding	22,986	15,000	30,000
Turbine & Generator Systems	4,026,377		523,917
Valve repair & replacements	221,120		236,869
Electrical & Instrument	5,395	5,500	5,778
Operation	481,500	500,000	515,795
Project Total	9,168,800	1,087,817	5,918,874

2009 Outage Capital Projects	Budget
FGD Concrete roof repairs & tile replacement	\$6,480,000
B 'Platen Superheat replacement	\$2,100,000
FGD Inlet Guillotine Damper Replacement (4 of 4)	\$2,004,900
FGD Outlet Guillotine Damper Replacement (4 of 4)	\$1,734,900
Precip Outlet Modulating Dampers (prepay listed separately) \$1.6m in total	\$1,600,000
FGD Replace absorber mist eliminator panels & mounting frames	\$1,597,740
Replace 1st Stage Turbine Blades	\$1,500,000
Cooling Tower Fill Replacement, 4 cells	\$1,015,620
FGD Inlet transition modification clad C276 (4 of 4)	\$655,000
Replace Wetbottom seal trough	\$650,000
Burner replacement (12 each)	\$650,000
Primary Air Preheater Basket Replacement (2-sets of 2-Sets)	\$600,000
FGD Riser Duct	\$503,000
FGD Replace mist eliminator piping & nozzles	\$470,000
Tube Weld Overlay	\$450,000
Reverse Osmosis Water Treatment System	\$450,000
Cooling tower fan replacement (#1 #2, #3, #4,#6 & #9)	\$400,000
Expansion joints (units of property to be determined)	\$350,000
TR and Rapper Precip control replacement	\$300,000
FGD Electrical Refurbishment (Phase 1 of 4)	\$300,000
FGD Recycle Pump Suction Valve Replacement (8)	\$280,000
FGD Inlet Duct & Turning Vanes Flow Distribution Improvements	\$235,996
Supervisory instruments, boiler feed pump turbines	\$205,000
Turbine Driven Boiler Feed Pump Rotating Element replacement No. 2	\$175,000
FGD Inlet duct insulation and lagging	\$150,000
Drag Chain replacement	\$150,000
Bed Replacement for the Drag Chain	\$150,000
FGD Outlet Expansion Joint Replacement (4 of 4)	\$130,331
FGD Inlet Expansion Joint Replacement(4 of 4)	\$130,331
PA Fan Silencers	\$130,000
FGD Slurry circulation header & piping replacement (4 of 16)	\$127,200
FGD Stack Slurry Buildup	\$110,000
Burner Scanner Replacement	\$100,000
FGD Louver Damper	\$97,000
BFPT Control Valve Position	\$90,000
FGD #1,2,3,4 perforated plates installation	\$51,200
FGD 'pH measurement modification	\$50,000

**Total** \$26,173,218

<b>2011 Outage Capital Projects</b>	<b>Budget</b>
FGD Repair ductwork hot and wet sides	\$3,114,272
FGD Structural Improvements	\$2,425,000
Platen Superheater replacement - Section A Year 2	\$2,400,000
Tube Weld Overlay (UOP TBD by 2010 inspection)	\$1,530,000
FGD Inlet and outlet damper replacement 2 absorbers	\$1,200,000
Secondary Air Heater Baskets	\$950,000
FGD Module Alloy roof nozzle penetrations (2 of 4)	\$764,904
Burner replacement - (15 each) Phase I of II	\$750,000
FGD Electrical Refurbishment (Phase 4 of 4) scope increase	\$550,000
FGD Riser Duct	\$520,000
Replace 6.9kv feed to Fuels	\$500,000
Conveyor Belt Replacements (3-1, #2 Boom Conveyor, 7-3)	\$500,000
Expansion joints	\$475,000
FGD #1 'Module ME panel replacement w/drain boxes	\$347,740
Replace 6.9kv feed Ball Mill	\$325,000
Cooling Tower Fans Variable Frequency Drives (VFD)	\$250,000
FGD Inlet Duct & Turning Vanes Flow Distribution Improvements	\$235,996
Supervisory instruments, ID, FD and PA Fans	\$205,000
Cooling tower fan replacement (#5, #7 & #8)	\$200,000
Drag Chain replacement	\$150,000
FGD Slurry Circulation Piping, Replace (8 of 16)	\$139,920
FGD Slurry Circulation Header Replacement (4 of 16)	\$131,016
Remaining BTG Board Control Switches into DCS	\$125,000
Capital Valves	\$125,000
Burner Flame Scanners	\$100,000
FGD Stack Restoration	\$50,000
Replace Scanner Air Fan	\$35,000
FGD PLC FGD/Flyash Control System Replacement	\$20,000
<b>Total</b>	<b>\$20,357,848</b>



## **Training Plan**

Station management staff has identified critical positions where employee development must be focused during the 2009–2011 planning cycle. Considering an aging workforce, the Station faces significant attrition; preparing people to fill vacancies in a timely manner is a reality during this planning period.

*All employees participate in developing a three-year training and two year development plan, which is included in their PEP. Following are examples of the more generic power plant training topics to be covered.*

- Employees train on at least one OPL per week
- Included in the station's training curriculum is plant specific training pertaining to equipment and procedures as outlined by specific training manuals developed at the Station
- Employees will complete all safety compliance training required by State and Federal regulations
- Operations will utilize the shift leaders to facilitate the operator-training program. Most of this training will have to be "one on one" since there is limited extra people on shift. It is imperative that operators receive the necessary training in order to advance to the next classification. At least 40 hours per person of classroom training per classification will be required, although higher-level classifications will require additional training time. This is in addition to on the job training
- Necessary education and training to acquire and/or maintain required licenses and certificates such as wastewater treatment
- Each leader conducts succession planning and development sessions with their manager to discuss and implement development methods for the individuals on their shift
- Delegation of authority is used for developmental purposes when managers or leaders are absent from work





## **Fuel**

Fuel quality and strategy will certainly present a challenge for Wilson Station during this planning cycle. In order for the station to achieve full capacity, meet environmental requirements, and maintain availability; the minimum fuel quality must be met.

Wilson Station strategy during this planning cycle assumes a 30% petcoke blend ratio. The minimum fuel blend (petcoke/coal) Btu required for continuous full load operation can be no less than the following table:

<b>30/70 Percent Petcoke to Coal Ratio</b>		
<b>Value</b>	<b>Minimum Blended Fuel Quality</b>	<b>Minimum Coal Quality Prior to Blend</b>
BTU, Min	12,000 *	11,140
Ash %, Max	8.5	12.5
Moisture %, Max	8.5	8.5
SO <sub>2</sub> lbs/mmBtu, Max	7.6	6.8

\* Original design required minimum of 10,700 BTU for full load. The 30% petcoke requires higher minimum Btu due to increased unburned carbon.



# **Risk**

## **Generation**

- Aggressive generating target complicated by low quality stock pile coal
- Turbine generator and rotor issues
- Boiler platen superheat tube condition
- Component part lead times

## **Succession Planning & Training**

- Reduction in qualified workforce due to retirements
- Workforce skill level decrease resulting in unit reliability and availability concerns

## **Environmental Arena**

- Plume downwash on neighboring community could result in environmental regulatory oversight
- SO<sub>3</sub> mitigation
- Opacity trigger limits 11.1%
- Dust collector condition
- Fuel conveyor water runoff management
- Fuel inventory management

## **Fuel**

- Inventory of low Btu coal
- Rolling equipment age
- Fuel and reagent contracts

### **Specific Equipment Risk**

- Wilson Station commercialized in 1986
- Wilson Station continues to perform condition assessments on critical piping systems along with those components operating at temperatures above creep range.
- B Platen superheater tubes are nearing end of life. This section is planned for replacement in 2009
- Finishing superheater tube assemblies are nearing end of life. Replacement of these tube assemblies are targeted for 2011
- Wilson Station HP/IP rotor is operating with identified hardened spots. The risk of rotor body cracking is present especially in hardened areas. A HP/IP and generator inspection is scheduled in 2009
- High energy pipe life assessment inspections are performed on routine basis during scheduled outages (2 year cycle) using a variety of techniques such as; GUL ultrasonic, replications, shear wave UT, RT & PT, along with boroscopic examinations
- Wilson Station is implementing a long-term strategic plan to deal with obsolescence and corrosion of electrical components. An on going investment strategy to replace 6.9kv/480kv switchgear breakers is in the plan and will continue throughout this planning cycle
- The 6.9kv underground conductors to critical equipment and unit substations are in poor condition. The business plan supports a replacement strategy for critical underground conductors
- Lightning strikes have caused several forced outages including black plant conditions. A lightning/grounding system audit was performed with specific recommendation to reduce the effectiveness of lightning related events
- Conveyor transfer point dust collectors are in extremely poor condition. There is a minimal amount of money budgeted in this planning cycle to restore this system
- FGD related gas leaks and equipment condition is a risk during this planning cycle. This business planning cycle supports a renovation strategy that will reduce the risk in this area
- Mist Eliminator liquid carryover. Liquid carryover into the outlet duct and stack pose a risk of slurry buildup and potentially overloading the structure

## Challenges

- Wilson is scheduled to burn 30/70 percent blend of petcoke/coal during this planning cycle. With this blend it will be a challenge to sustain peak loads with the low Btu fuel currently in inventory
- Effective utilization of #3 coal pulverizer. This pulverizer supplies fuel to the top most burners in the boiler and cannot burn blended fuel. Burning the low quality fuel currently in inventory results in higher NO<sub>x</sub> inlet loading and contributes to boiler slagging
- Title V presents a challenge operating the unit at the new opacity trigger limits
- Boiler backend corrosion remains a challenge during this planning cycle
- Mist Eliminator cleaning is a challenge. Wilson cleans each module's mist eliminators monthly. The current procedure is to high pressure wash the panels. High pressure washing leads to panel and drain box damage allowing excessive liquid carryover. Plant engineers are working with a mist eliminator manufacturers to assist in this process
- Wilson's stack is an ongoing concern. There is a significant slurry buildup on the internal stack walls and stack pan area. These areas are targeted for cleaning during the 2009 7-week outage
- Stack band replacement is an on going project that will be completed by the end of this planning cycle



WILSON STATION 2009 O&M Non-Labor (BREC)

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CHENVIRO	FUEL SPILL MAINTENANCE	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	\$ 72,000
FGDCLEAN	FGD/CSI	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	\$ 80,000
MECLEANING	Mist Eliminator	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	\$ 174,000
OPCLEAN	operational cleaning csp	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	\$ 48,000
WBRECINT	structural life assessments											265,225		\$ 265,225
WBRECINT	clean coal dust form boilers, etc													\$ 106,090
WBRECINT (W99DUTPL)	Outage shift (2010 to 2009)										106,090			\$ 106,090
WL544C	544 LOADER MAINTENANCE	200	200	200	200	200	200	200	200	200	200	200	200	\$ 9,168,800
WL544C	544 LOADER PM's	75	75	75	75	75	75	75	75	75	75	75	75	\$ 2,400
WL992CAT	992 CAT MAINTENANCE	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	\$ 450
WL992CAT	PM-200 HOUR SERVICE FOR 992 LOADER	500	500	500	500	500	500	500	500	500	500	500	500	\$ 26,400
WL992CAT	PM-400 HOUR SERVICE FOR 992 LOADER	200	200	200	200	200	200	200	200	200	200	200	200	\$ 6,000
WL992CAT	PM-1000 HOUR SERVICE FOR 992 CAT LOADER	500												\$ 1,200
WL992CAT	PM-2000 HOUR SERVICE FOR 992 CAT LOADER		500											\$ 1,000
WL992CAT	Re-condition Transmissior										500			\$ 1,000
WLD9HCAT	D9H Maintenance	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	\$ 40,000
WLD9HCAT	PM-200 HOUR SERVICE FOR D9H	250	250	250	250	250	250	250	250	250	250	250	250	\$ 12,000
WLD9HCAT	PM-400 HOUR SERVICE FOR D9H		250		250		250		250		250		250	\$ 3,000
WLD9HCAT	PM-1000 HOUR SERVICE FOR D9-H			500									250	\$ 2,500
WLD9HCAT	PM-2000 HOUR SERVICE FOR D9-H												500	\$ 1,000
WLD9HCAT	Re-pace engine					500								\$ 1,000
WLD9R	D9R MAINTENANCE	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	1,800	\$ 55,000
WLD9R	PM-200 HOUR SERVICE FOR D9R	500	500	500	500	500	500	500	500	500	500	500	500	\$ 21,600
WLD9R	PM-400 HOUR SERVICE FOR D9R	250	250	250	250	250	250	250	250	250	250	250	250	\$ 6,000
WLD9R	PM-1000 Hour Service For D9R													\$ 2,750
WLD9R	PM-2000 HOUR SERVICE FOR D9R	1,200												\$ 4,800
WLD9R	Steering/ hydraulic							1,200						\$ 1,200
WLMASH	ROUTINE MAINTENANCE (ASH HANDLING) OUTSIDE L&F				2,987	2,987	2,472	2,987	2,987	2,472	2,987	2,472	2,987	\$ 25,000
WLMASH	Airlock maintenance (10 Per Month)	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	\$ 28,441
WLMASH	PM-Lubrication general ash area	206	206	206	206	206	206	206	206	206	206	206	206	\$ 6,000
WLMASH	Clean & Inspect Flyash Silc													\$ 2,472
WLMASH	Clean Flyash Transport Line								110,000					\$ 110,000
WLMASH	PM-36 Month Inspection, #2 Bottom Ash Recirc Pump				3,090									\$ 3,090
WLMASH	PM-Filter Change, Flyash Blowers (2ea)											900		\$ 900
WLMASH	PM-Recondition #2 Flyash Blower Moto							12,360						\$ 12,360
WLMASH	PM-Recondition #3 Flyash Blower Moto													\$ 12,360
WLMASH	Economizer Sluice Pump #1		2,500											\$ 2,500
WLMASH	Bottom ash chute repairs				309								309	\$ 927
WLMASH	Economizer ash tank repairs (2ea)	206			206								206	\$ 624
WLMASH	Ash area sump pump repairs (2ea)			1,030			1,030						1,030	\$ 4,120
WLMASH	DRAG CHAIN REPAIR	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	\$ 14,400
WLMASH	PM- #2 BFPT "A" side change oil filters, 6-month frequ													\$ 824
WLMASH	PM- #2 BFPT "B" side change oil filters, 6-month frequ													\$ 824
WLMASH	PM- #1 BFPT "B" side change oil filters, 6-month frequ													\$ 824
WLMASH	PM- #1 BFPT "A" side change oil filters, 6-month frequ													\$ 824
WLMCDS	ROUTINE MAINTENANCE (CONDENSATE SYSTEMS)	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	\$ 29,046
WLMCDS	PM-Lubrication, water treatment	155	155	155	155	155	155	155	155	155	155	155	155	\$ 1,854
WLMCDS	PM- Inspection, Condenser Vacuum Pump #1													\$ 618
WLMCDS	PM- # 2 Condensate Pump Overhaul			24,720										\$ 24,720
WLMCDS	PM- # 2 Condensate Pump Overhaul			18,540										\$ 18,540
WLMCHS	ROUTINE MAINTENANCE (COAL HANDLING) (outside mech. )	19,096	19,096	19,096	19,096	19,096	19,096	19,096	19,096	19,096	19,096	19,096	19,096	\$ 228,000
WLMCHS	ROUTINE MAINTENANCE (COAL HANDLING)	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	\$ 34,769
WLMCHS	CONVEYOR CONTROLS MAINTENANCE	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMCHS	Truck & Main Gate Scales	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	\$ 20,885
WLMCHS	SAMPLER MAINTENANCE (AS FIRED & RECEIVED)	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	\$ 14,400
WLMCHS	AUGER SAMPLER	1,030												\$ 4,000
WLMCHS	PM-Inspection, Sample System Bucket Elev													\$ 721
WLMCHS	IDLER REPLACEMENT	6,251	6,251	6,251	6,251	6,251	6,251	6,251	6,251	6,251	6,251	6,251	6,251	\$ 75,000
WLMCHS	BELT CLEANER MAINTENANCE	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	\$ 19,776
WLMCHS	Stacker & Reclaimer repair	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	\$ 18,540
WLMCHS	SCALE CALIBRATIONS AND REPAIR (Other than Truck and M	2,086	1,622	1,622	2,086	1,622	1,622	2,086	1,622	1,622	2,086	1,622	1,001	\$ 20,760
WLMCHS	Tripper Car Maint. (2ea.)				4,120									\$ 8,240
WLMCHS	Crusher A&B Overhaul				10,300									\$ 20,600
WLMCHS	PM-Lubrication, General Coal Handling Area	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	\$ 19,776
WLMCHS	COAL CHUTE MAINTENANCE	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	\$ 83,160
WLMCSM	MAINTENANCE AND PRODUCTION CONSUMABLES	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	\$ 144,000
WLMCSMIE	I&E Consumables	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	\$ 54,000
WLMCW	PM-CC-P-1 Closed Cooling Water, Heat Exchanger 6 month inspection			515										\$ 1,030





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WLMFGDLSF	7-2 Conveyor gear reducer overhau						15,450							\$ 15,450
WLMFGDLSF	7-2 Conveyor gear reducer overhau						15,450							\$ 15,450
WLMFGDLSF	PM-6 Month Inspection, #2 Ball Mill										1,030		1,030	\$ 2,060
WLMFGDLSF	PM-6 Month Inspection, #2 Ball Mill										1,030		1,030	\$ 2,060
WLMFGDLSF	PM-12 Month Inspection, #1 Ball Mill Cyclone											1,030		\$ 1,030
WLMFGDLSF	PM-12 Month Inspection, #2 Ball Mill Cyclone												1,030	\$ 1,030
WLMFGDLSF	Limestone feeder repair						618			9,500		9,500		\$ 618
WLMFGDLSF	Limestone feeder repair	9,500		9,500		9,500		9,500		9,500		9,500		\$ 57,000
WLMFGDSCB	BARGE MAINTENANCE & CABLE REPLACEMENT	500		750	500	750		500	750		500	750		\$ 5,800
WLMFGDSCB	Tugboat Maintenance	400					400						400	\$ 1,200
WLMFGDSCB	PM-6 MONTH Lube Service, Tugboat													\$ 30,000
WLMFGDSCB	Tug Engine work									30,000				\$ 5,500
WLMFGDSCB	Barge Unloader Cab - A/C Seat etc													\$ 111,240
WLMFGDSCB	ROUTINE MAINTENANCE (BARGE UNLOADER SYSTEM)	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	\$ 50,000
WLMFGDSCB	Barge Bucket Replacemen										25,000			\$ 25,000
WLMFGDSCB	Barge Bucket Replacemen										515	515	515	\$ 6,180
WLMFPPS	Fire Protection Panel Module	515	515	515	515	515	515	515	515	515	515	515	515	\$ 6,180
WLMFPPS	Fire Protection Panel Maintenance	515	515	515	515	515	515	515	515	515	515	515	515	\$ 7,416
WLMFPPS	FIREWATER PIPE & SYSTEM MAINTENANCE	618	618	618	618	618	618	618	618	618	618	618	618	\$ 515
WLMFPPS	PM-12 Month inspection, Diesel Fire Pump		515											\$ 4,944
WLMFPPS	Piping Repairs			1,236			1,236			1,236				\$ 6,592
WLMFPPS	Piping Repairs			1,648			1,648			1,648				\$ 1,030
WLMGDU	PM-6 Month Lube Service & Repairs Gas Welding Machines (Jea	515						515		515			515	\$ 1,545
WLMGDU	Routine Repairs to Electric welding machine													\$ 618
WLMGDU	PM-6 Month Lube Service & Repairs Portable Air Compressor (Zea			309								309		\$ 5,150
WLMGDU	PM-Spider hoist, service and safety inspection		5,150											\$ 59,740
WLMHVC	MONTHLY SERVICE & HVAC FILTER CHANGEOUT FOR A/C	4,120	4,120	4,120	9,270	4,120	4,120	4,120	4,120	4,120	9,270	4,120	4,120	\$ 80,000
WMLLAB	Fuel Handling runoff intake/cleaning													\$ 12,000
WMLLAB	M.U. Clarifier			12,000										\$ 10,000
WMLLAB	M.U. Clarifier			10,000										\$ 8,200
WMLLAB	Sand Filters							8,200						\$ 8,200
WMLLAB	Sand Filters							8,200						\$ 1,640
WMLLAB	Filtered Water Tanks					1,640								\$ 16,400
WMLLAB	Carbon Filters					16,400								\$ 16,400
WMLLAB	Carbon Filters					16,400								\$ 15,500
WMLLAB	Demineralizer		15,500											\$ 12,900
WMLLAB	Demineralizer		12,900											\$ 1,640
WMLLAB	Condensate Storage Tanks					1,640								\$
WMLLAB	Neutralization Pits													\$
WMLLAB	Condensate Polishers													\$
WMLLAB	Condensate Polishers													\$ 2,790
WMLLAB	Potable R O						2,790							\$ 8,250
WMLLAB	Potable R O						8,250							\$ 5,000
WMLLAB	Potable Clarifier				5,000									\$ 8,000
WMLLAB	Potable Clarifier				8,000									\$ 2,200
WMLLAB	Sewage Treatment System			2,200										\$ 2,500
WMLLAB	Chlorine System						2,500							\$ 6,000
WMLLAB	Industrial Cleanout								3,500					\$ 60,000
WMLLAB	Acid Tanks - Replace liner, East Tank			60,000										\$ 23,000
WMLLAB	WW Clarifier						23,000							\$ 10,000
WMLLAB	WW Clarifier						10,000							\$ 2,200
WLMMEEX	PM-200 HOUR SERVICE	600	600	600	600	600	600	600	600	600	600	600	600	\$ 9,600
WLMMEEX	PM-400 HOUR SERVICE									600				\$ 1,800
WLMMEEX	PM-1000 HOUR SERVICE	600			600									\$ 9,600
WLMMEEX	PM-2000 HOUR SERVICE	800	800	800	800	800	800	800	800	800	800	800	800	\$ 3,000
WLMMEEX	637 Cat Maintenance	250	250	250	250	250	250	250	250	250	250	250	250	\$ 1,600
WLMMEEX	PM-200 HOUR SERVICE FOR 637 Cat				800									\$ 2,000
WLMMEEX	PM-400 HOUR SERVICE FOR 637 Cat		1,000											\$ 1,500
WLMMEEX	PM-1000 HOUR SERVICE FOR 637 Cat						1,500							\$ 9,600
WLMMEEX	PM-2000 HOUR SERVICE FOR 637 Cat	800	800	800	800	800	800	800	800	800	800	800	800	\$ 1,800
WLMMEEX	280 Michigan Maintenance	600								600				\$ 800
WLMMEEX	PM-200 HOUR SERVICE FOR 280													\$ 2,300
WLMMEEX	PM-400 HOUR SERVICE FOR 280					800								\$ 1,500
WLMMEEX	PM-1000 HOUR SERVICE FOR 280						2,300							\$ 1,500
WLMMEEX	PM-2000 HOUR SERVICE FOR 280												1,500	\$ 120,000
WLMMEEX	ROUTINE MAINTENANCE	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	\$ 6,000
WLMMEEX	Euclid Water Truck Maintenance	500	500	500	500	500	500	500	500	500	500	500	500	\$ 10,000
WLMMEEX	two tires								12,750					\$ 400
WLMMEEX	Re-condition Engine													\$
WLMMEEX	JD Tractor		100		100		100					100		\$

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WLMMEEX	PM-200 HOUR SERVICE					200				200				\$ 400
WLMMEEX	PM-500 HOUR SERVICE												500	\$ 500
WLMMEEX	PM-Priestman excavator, 250 hr. service hrs	150			500			150			500			\$ 1,300
WLMMEEX	JD Backhoe	150		150		150		150		150		150		\$ 900
WLMMEEX	Dump Truck	150			150			150						\$ 1,100
WLMMEEX	Truck w/ welder	150		150		150		150			150		500	\$ 1,100
WLMMEEX	PM-6 Month Lube Service, JD 770A Grader	250			500			250		150				\$ 750
WLMMEEX	Road Mice	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	\$ 19,200
WLMMEEX	Tires								1,500					\$ 1,500
WLMMEEX	Liquid heat for conveyors													\$ 15,000
WLMMEEX	Part time support for scales	1,600	1,600	1,600	1,600	1,600	1,600	1,600	1,600	15,000		1,600	1,600	\$ 19,200
WLMMEEX	Operator Training												1,600	\$ 1,600
WLMMEEXNFC	Routine Maintenance Heavy Equipment								3,500					\$ 3,500
WLMMEEXNFC	PM-6 Month Lube Service, Forklifts (4ea)	618	618	618	618	618	618	618	618	618	618	618	618	\$ 7,416
WLMMEEXNFC	PM-6 Month Lube Service, Bobcat (2ea)					309						618		\$ 1,236
WLMMEEXNFC	PM-6 Month Lube Service, Broderson	309			309						309			\$ 618
WLMMEEXNFC	PM-6 Month Lube Service, Terex Crane	309						309						\$ 618
WLMMEEXNFC	PM-6 Month Lube Service, JLG Lifts (2ea)	618						618						\$ 618
WLMOHC	PM- Annual Crane Inspections & Repairs			25,750										\$ 1,236
WLMPAS	Routine maintenance	41	1,545	1,545	41	1,545	1,545	41	1,545	1,545		1,545	1,545	\$ 103,000
WLMPAS	"Air Care" Preventative Maintenance	1,504			1,504			1,504						\$ 12,525
WLMPAS	PM-12 Month Inspection, #1 Centac Air Compressor													\$ 6,015
WLMPAS	PM-12 Month Desiccant Change, CA-Q-1 Inst. Air Dryer									1,030				\$ 1,030
WLMPAS	PM-12 Month Desiccant Change, CA-Q-1 Inst. Air Drie													\$ 2,060
WLMPCM	Monitoring equipment												2,060	\$ 2,060
WLMPCM	Plant Communication (Gai Tronic) Repairs (O/S)	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	7,210	3,090	\$ 41,200
WLMPCM	Plant Communication (Gai Tronic) Repairs (Main)			12,731					12,731					\$ 12,731
WLMPCSHIT	BLDG. & GROUNDS: WINTERIZATION (including heat trace			8,487					8,487					\$ 8,487
WLMPLS	Plant Lighting System					5,150		5,150		8,487			15,914	\$ 33,949
WLMPLS	ROUTINE MAINTENANCE (INCLUDING PAINT		20,600			20,600		20,600		15,914				\$ 55,764
WLMPLS	#2 Conveyor Cover (Paint)	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090		20,600		\$ 82,400
WLMPLS	#2 Conveyor Cover (Paint)					3,606								\$ 3,606
WLMPLS	#4 Conveyor Covers (Paint)					2,404								\$ 2,404
WLMPLS	#4 Conveyor Covers (Paint)					3,606								\$ 3,606
WLMPLS	5A & 5B Conveyor Covers					2,404								\$ 2,404
WLMPLS	5A & 5B Conveyor Covers						11,539							\$ 11,539
WLMPLS	DOOR REPLACEMENTS						17,309							\$ 17,309
WLMPLS	ROUTINE MAINTENANCE (POTABLE WATER SYSTEM								5,150	5,150		5,150		\$ 15,450
WLMPLS	POTABLE WTR PSI AND TEMP TRANSMITTERS ( Monthly Ma	824	824	824	824	824	618	824	824	824		824	618	\$ 9,476
WLMPLS	Potable water pump repairs (2ea )	309	309	309	309	309	309	309	309	309		309	309	\$ 3,708
WLMPLS	Repair floor pumps (2ea )							1,030						\$ 1,030
WLMPLS	PM-Lubrication, potable water building, 6-month frequenc							3,090						\$ 3,090
WLMRID	Nuclear Recording & Indicating devices (disposal & repair							206						\$ 206
WLMRID	Wipe Tests													\$ 412
WLMRID	Nuclear Recording & Indicating devices (scaffolding			30,000			5,000							\$ 30,000
WLMRID	Retiring Nuclear Source						5,000							\$ 10,000
WLMRID	Ammonia & Nox Analyzer Monthly Maintenance	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288		9,000		\$ 9,000
WLMSCR	SCR Tuning													\$ 12,875
WLMSCR	SCR Mice	5,150	10,300	10,300	10,300	10,300	10,300	10,300	10,300	10,300				\$ 10,300
WLMMSGU	ROUTINE SOOTBLOWER MAINTENANCE	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180				\$ 51,500
WLMMSGU	ROUTINE MAINTENANCE (BOILER)	6,710	6,710	6,710	6,710	6,710	6,710	6,710	6,710	6,710	6,710	6,710	6,710	\$ 74,160
WLMMSGU	ROUTINE MAINTENANCE (BOILER), OUTSIDE LDR	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708				\$ 78,980
WLMMSGU	ROUTINE SOOTBLOWER MAINTENANCE I/E	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030				\$ 44,496
WLMMSGU	Motor Rewinds, Repair and Replacement			11,670				11,670						\$ 12,360
WLMMSGU	Motor lubrication	2,266	2,266	2,266	2,266	2,266	2,266	2,266	2,266	2,266				\$ 46,680
WLMMSGU	Motor lubrication	258	258	258	258	258	258	258	258	258				\$ 27,192
WLMMSGU	Motor filter maintenance			592				592						\$ 4,429
WLMMSGU	Vibration analysis			876				876						\$ 1,751
WLMMSGU	BURNER MAINTENANCE	4,738	4,738	4,738	4,738	4,738	4,738	4,738	4,738	4,738				\$ 56,856
WLMMSGU	PM-LUBRICATION, GENERAL BOILER BUILDING	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180				\$ 71,160
WLMMSGU	Sootblower lance replacement	1,751	1,751	1,751	1,751	1,751	1,751	1,751	1,751	1,751				\$ 21,012
WLMMSGU	Superheat Tube Leak Repair	10,300	103	10,300			10,300							\$ 61,903
WLMMSGU	Drum Gauge Glass Repairs													\$ 66,950
WLMMSGU	Boiler Tuning						1,545							\$ 1,545
WLMMSGU	PM-Oil samples, 4-week frequency, Wilson Station	77	77	77	77	77	77	77	77	77				\$ 15,965
WLMMSGU	PM-Scanner filter changeout													\$ 927
WLMMSGU	Repair Damper REXA Driver	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318	2,318				\$ 3,090
WLMMSGU	ROUTINE MAINTENANCE (MILLS & FEEDERS	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,318	2,318	2,318	\$ 27,810
WLMMSGU	Coal Feeder Maintenance	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	\$ 24,102
WLMMSGU														\$ 15,450

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WLMMSGUPPE	Replace Defective Pulverizer Instrumentation	515	515	515	515	515	515	515	515	515	515	515	515	\$ 6,180
WLMMSGUPPE	Mill Bearing Failure											90,125		\$ 90,125
WLMMSGUPPE	Mill Bearing Failure													\$
WLMMSGUPPE	Fuel Fineness Testing		10,300						10,300					\$ 20,600
WLMMSGUPPE	PM-Pulverizer 3000 hr Inspections (5ea.)			10,300						10,300				\$ 20,600
WLMMSGUPPE	PM-Pulverizer 3000 hr Inspections (5ea.)			8,240						8,240				\$ 16,480
WLMMSGUPPE	PM-Coal Feeder 3000 hr Inspections (5ea.)			515						515				\$ 1,030
WLMMSGUPPE	PM-Coal Feeder 3000 hr Inspections (5ea.)			1,030						1,030				\$ 2,060
WLMMSGUPPE	Replace Pulverizer Raw Coal Pipes (3ea.)			1,545					1,545	1,545				\$ 4,635
WLMMSGUPPE	Replace Pulverizer Raw Coal Pipes (3ea.)			1,236					1,236	1,236				\$ 3,708
WLMMSGUPPE	Replace Coal Feeder Trans Chute (1ea.)								5,150					\$ 5,150
WLMMSGUPPE	Replace Coal Feeder Trans Chute (1ea.)								1,236					\$ 1,236
WLMMSGUPPE	Coal Feeder Belt replacements (2ea.)				824				824					\$ 1,648
WLMMSGUPPE	Pyrite Gate Replacements			6,180			6,180			6,180			6,180	\$ 24,720
WLMMSGUPPE	#1 Pulverizer Overhaul	85,560												\$ 85,560
WLMMSGUPPE	#1 Pulverizer Overhaul	162,610												\$ 162,610
WLMMSGUPPE	#2 Pulverizer Overhaul			85,560										\$ 85,560
WLMMSGUPPE	#2 Pulverizer Overhaul			162,610										\$ 162,610
WLMMSGUPPE	#5 Pulverizer Overhaul											85,560		\$ 85,560
WLMMSGUPPE	#5 Pulverizer Overhaul											162,610		\$ 162,610
WLMMSGUPCP	EMISSION CONTROLS PRECIPITATORS	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMMSGUPCP	Rapper Maintenance			2,652					2,652	2,652				\$ 10,609
WLMMSGUPCP	Rapper Maintenance			10,609					10,609	10,609				\$ 42,436
WLMMSWD	ROUTINE MAINTENANCE (SOLID WASTE)	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	\$ 44,496
WLMMSWD	ELECTRIC MOTOR REPAIR & REPLACEMENT	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMMSWD	SCALE CALIBRATION AND REPAIR	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	\$ 16,068
WLMMSWD	FILTER DRUM RECLOTH	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	\$ 28,428
WLMMSWD	PM-Lubrication, General Solid Waste Area	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	\$ 18,540
WLMMSWD	Uni-Wash dust collector drag chair				4,120				4,120					\$ 12,360
WLMMSWD	PM-6 Month Inspection, 141A Flyash Screw Conveyo							515						\$ 1,030
WLMMSWD	PM-6 Month Inspection, 141B Flyash Screw Conveyo							515						\$ 1,030
WLMMSWD	PM-6 Month Inspection, 142A Flyash Screw Conveyo						515							\$ 1,030
WLMMSWD	PM-6 Month Inspection, 142B Flyash Screw Conveyo											515		\$ 1,030
WLMMSWD	PM-6 Month Inspection CO-143A Screw Conveyo	515							515					\$ 1,030
WLMMSWD	PM-6 Month Inspection CO-143B Flyash Conveyo	515							515					\$ 1,030
WLMMSWD	PM-6 Month Inspection, 144A Flyash Conveyo		500							500				\$ 1,000
WLMMSWD	PM-6 Month Inspection, 144B Flyash Conveyo		500							500				\$ 1,000
WLMMSWD	PM-6 Month Inspection, 144C Flyash Conveyo		500							500				\$ 1,000
WLMMSWD	PM-6 Month Inspection, 145A Flyash Screw Conveyo		515							515				\$ 1,030
WLMMSWD	PM-6 Month Inspection, 145B Flyash Screw Conveyo				515						515			\$ 1,030
WLMMSWD	PM-6 Month Inspection, 145C Flyash Screw Conveyo	515						515						\$ 1,030
WLMMSWD	PM- Conveyor, replace v-belts and insp sheaves & drives on est conveyor							5,974						\$ 5,974
WLMMSWD	Replace conveyor belt pulleys (2ea.)												7,210	\$ 7,210
WLMMSWD	PM- Annual inspection, Vacuum Pump replace v-belts & inspect sheaves (4ea)							4,120						\$ 4,120
WLMMSWD	PM- Annual inspection, Filtrate Return Pump replace v-belts & inspect sheaves (4ea)							618					618	\$ 1,236
WLMMSWD	PM- Annual inspection, 171 A&B 172 A&B Pump replace v-belts &													\$ 1,236
WLMMSWD	PM-Annual inspection replace v-belts & inspect sheaves mixer gear reducers (2ea)			3,090						3,090				\$ 3,090
WLMMSWD	PM-Annual inspection mixer									3,090				\$ 3,090
WLMMSWD	PM- Overhaul Surge Tank gear reducer P-112A		9,270											\$ 9,270
WLMMSWD	PM- Overhaul Surge Tank gear reducer P-112A		21,630											\$ 21,630
WLMMSWD	Filter Feed Pump P111A				3,090									\$ 3,090
WLMMSWD	Filter Feed Pump P111C					3,090								\$ 3,090
WLMMSWD	Filter Feed Pump P112B						3,090							\$ 3,090
WLMMSWD	Filter Feed Pump P112C							3,090						\$ 3,090
WLMMSWD	Filtrate Pump P126								3,090					\$ 3,090
WLMMSWD	Filter Water Pump WC-P-2									3,090				\$ 3,090
WLMMSWD	PM- Annual inspection replace v-belts & inspect sheaves Silo Flyash	2,060												\$ 2,060
WLMMSWD	PM- Annual inspection flyash rotary feeders (4ea)										1,030			\$ 1,030
WLMMSWD	Overhaul area Sumps (2ea)							3,090						\$ 3,090
WLMMSWD	A Thickner rake drive replace belt									515				\$ 515
WLMMSWD	B Thickner rake drive replace belt													\$ 515
WLMMSWD	Product Sump Pump J1A1									7,300				\$ 7,300
WLMMSWD	Product Sump Pump J1A2											7,300		\$ 7,300
WLMMSWD	Thickner underflow pump inspection (2ea)											2,060		\$ 2,060
WLMMSWD	Replace Defective Filter Drum Transmitters and Switches (5)	2,575			2,575									\$ 10,300
WLMMSGN	ROUTINE MAINTENANCE (TURBINE)	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	\$ 43,260
WLMMSGN	Turbine Supervisor Instruments Monthly Maintenance	824	824	824	824	824	824	824	824	824	824	824	824	\$ 9,888
WLMMSGN	Turbine Control Valve Monthly Maintenance	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	\$ 15,456
WLMMSGN	PM-Lubrication, general turbine building	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	\$ 12,360

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WLMTGN	Turbine Air Leakage Test	4,000						4,000						\$ 8,000
WLMTGN	Turbine Vibration Monitoring			6,438			6,438			6,438			5,687	\$ 25,000
WLMTGN	PM-12 Month Insp. clean and insp flame arrestors, lube oil				309									\$ 309
WLMTGN	PM-12 Month Turbine Lube Oil Cooler Cleaning (2ea.)				309					309				\$ 618
WLMTGN	Turbine area Sump Pump repairs (4EA.)						5,150							\$ 5,150
WLMTGN	PM-Hydrogen Dryer, change desiccant in dryer								412					\$ 412
WLMTGN	PM-6 Month EH Filter Change			1,751						1,649				\$ 3,400
WLMTR	ROUTINE TOOL REPAIR MECHANICAL	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,085	\$ 18,000
WLMTR	ROUTINE TOOL REPAIR I/E	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	\$ 19,096
WLMVEH	Routine Maintenance (Vehicles)	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	\$ 18,540
WLMVEH	PM-Quarterly Service all vehicles	4,172					4,172							\$ 4,172
WLMWWS	ROUTINE MAINTENANCE (WATER TREATMENT)	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	1,108	\$ 13,296
WLMWWS	Repairs Sewage Lift Stations (R&E)	412	412	412	412	412	412	412	412	412	412	412	412	\$ 4,944
WLMWWS	Neutralization Pit pump repairs (2ea)											3,090		\$ 3,090
WLMWWS	Upgrade Impoundment Pond Pump Control:				26,000									\$ 26,000
WLMWWS	REFURB SOLID WASTE SUMP LEVEL CONTROLS					6,000								\$ 6,000
WLMWWS	Repairs to waste water pond pumps (4ea.)										6,180			\$ 6,180
WLMWWS	Site Drainage Pump P-1		1,030											\$ 1,030
WLMWWS	Site Drainage Pump P-2			1,030										\$ 1,030
WLMWWS	Site Drainage Pump P-3				1,030									\$ 1,030
WLMWWS	PM-Waste Water Clarifier Annual Inspector									515				\$ 515
WLMWWS	Repairs Sewage Lift Stations Mech				515				515				470	\$ 1,500
WLOADM	Janitorial Supplies	3,464	3,464	3,464	3,464	3,464	3,464	3,464	3,464	3,464	3,464	3,464	3,464	\$ 41,568
WLOADM	Trash Removal	1,676	1,676	1,676	1,676	1,676	1,676	1,676	1,676	1,676	1,676	1,676	1,676	\$ 20,112
WLOADM	Pest Control	396	396	396	396	396	396	396	396	396	396	396	396	\$ 4,752
WLOADM	Septic Tank Service	57	57	57	57	57	57	57	57	57	57	57	57	\$ 684
WLOADM	ABB Maintenance Contract	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	\$ 30,000
WLOADM	Neuro Maintenance Contract						20,000							\$ 20,000
WLOADM	DB Doc Software						1,800							\$ 1,800
WLOADM	Stark North America monitoring						1,600							\$ 1,600
WLOADM	Inland Finance Co	750	750	750	750	750	750	750	750	750	750	750	750	\$ 9,000
WLOADM	Other Labor (\$)	824	824	824	824	824	824	824	824	824	824	824	824	\$ 11,124
WLOADM	Office Supplies & Equip.	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	2,144	\$ 25,728
WLOADM	Protective Clothing (\$)	89	89	89	2,411	89	89	89	89	89	89	89	89	\$ 3,200
WLOADM	Uniform Rental	3,040	3,040	3,040	3,040	3,040	3,040	3,040	3,040	3,040	3,040	3,040	3,040	\$ 36,480
WLOADM	Safety													\$
WLOADM	Safety Supplies (\$)	2,163	2,163	2,163	2,163	2,163	2,163	2,163	2,163	2,163	2,163	2,163	2,163	\$ 25,956
WLOADM	PM OTHER													\$
WLOADM	Bottled Water	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	\$ 30,900
WLOADM	Floor Replacements	23,175												\$ 23,175
WLOADM	Lease Rental - Office Equip													\$
WLOADM	Tri-State Mailing Systems	114	114	114	114	114	114	114	114	114	114	114	114	\$ 1,368
WLOADM	Xerox	193	193	193	193	193	193	193	193	193	193	193	193	\$ 2,316
WLOADM	FRES, PERMITS & LICENSES	400	400	400	400	400	400	400	400	400	400	400	400	\$ 4,800
WLOADM	FRES, PERMITS & LICENSES (\$)				2,060		824							\$ 2,884
WLOADM	EDUCATION TRAINING COURSE FEES	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	2,575	\$ 30,900
WLOADM	EDUCATION TRAINING COURSE FEES (\$)	515	721	515	515	515	515	515	515	515	515	515	515	\$ 6,386
WLOADM	MILEAGE REIMBURSEMENT	972	972	972	972	972	972	972	972	972	972	972	972	\$ 11,664
WLOADM	MILEAGE REIMBURSEMENT (\$)	103	103	103	103	309	103	103	103	103	103	103	103	\$ 1,442
WLOADM	TRAVEL	2,592	2,592	2,592	2,592	2,592	2,592	2,592	2,592	2,592	2,592	2,592	2,592	\$ 31,104
WLOADM	TRAVEL (\$)	515	515	515	515	1,030	515	515	515	515	515	515	515	\$ 6,695
WLOADM	MEALS ENTER PART DEDUCT	620	620	620	620	620	620	620	620	620	620	620	620	\$ 7,440
WLOADM	MEALS ENTER PART DEDUCT (\$)													\$
WLOADM	MEALS FULLY DEDUCTIBLE	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	\$ 13,596
WLOADM	FREIGHT - (UPS, FED-EX)	438	438	438	438	438	438	438	438	438	438	438	438	\$ 5,256
WLOADM	MISC													\$
WLOADM	MISC (\$)	721	721	721	721	721	721	721	721	721	721	721	721	\$ 8,652
WLOCHS	Fuels Analysis	10,000			10,000			10,000			10,000			\$ 40,000
WLOENV	On-Site Environmental Cleanup	500	500	500	500	500	500	500	500	500	500	500	500	\$ 6,000
WLOENV	Environmental Supplies	500			500			500			500			\$ 2,000
WLOENV	Off-Site Environmental Disposal	500	500	25,000	500	500	500	500	500	500	500	500	500	\$ 30,500
WLOENV	Annual Inspection of Shelter In Place HVAC/Isolation device				2,000									\$ 2,000
WLOFGD	Descale Modules							90,000						\$ 90,000
WLOFGD	mill balls/sorting	19,000		19,000		19,000	66,000	19,000		19,000		19,000		\$ 180,000
WLOLAB	BRE-11				11,300						11,300			\$ 22,600
WLOLAB	PL-3610 (For CSI Surge Tank treatment)		4,000			4,000			4,000					\$ 16,000
WLOLAB	PL-3625			10,700										\$ 32,100
WLOLAB	PDC9321		10,700					10,700						\$ 10,700
WLOLAB	Facessiter Plus	170	170	170	170	170	170	170	170	170	170	170	170	\$ 2,040

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WLOLAB	MD4100	1,175			1,175			1,175			1,175			\$ 4,700
WLOLAB	Clarification Services	15,000	15,000	15,000	15,000	9,000	9,000	9,000	9,000	9,000	9,000	15,000	15,000	\$ 144,000
WLOLAB	Sulfuric Acid	9,750	9,750	9,750	9,750	9,750	9,750	9,750	9,750	9,750	9,750	9,750	9,750	\$ 117,000
WLOLAB	Sodium Hydroxide 50% Rayor	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	\$ 120,000
WLOLAB	Sodium Hydroxide 50% or 20%						2,575							\$ 2,575
WLOLAB	Ferrie Sulfate				6,200									\$ 6,200
WLOLAB	Chlorine Cylinders	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	\$ 19,800
WLOLAB	Ammonia	475	475	475	475	475	475	475	475	475	475	475	475	\$ 5,700
WLOLAB	Sodium Hypochlorite	410			410			410			410			\$ 1,640
WLOLAB	Bio-Bags		570				570							\$ 1,140
WLOLAB	Chlorine Tablets		260							260				\$ 520
WLOLAB	Lab Supplies	825	825	825	825	825	825	825	825	825	825	825	825	\$ 9,900
WLOLAB	Bromine	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	\$ 12,000
WLOLAB	Shock Cooling Tower	12,400					12,360							\$ 24,760
WLOLAB	Pond Chemical Treatments (AHW)										30,000			\$ 30,000
WLOLAB	Contract Lab Sampling for Lab/Potable Water System	2,000			1,000			1,000			1,000			\$ 5,000
WLOLAB	Tank Inspection--DBA, SBS, Sulfur, etc.				10,000									\$ 10,000
WLOMEX	Mobile Fuels Eqmt Diesel Fuel Oil	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	28,000	\$ 336,000
WLOPWS	Potable Water Filter replacement and Membrane Cleanin	800	800	800	800	800	800	800	800	800	800	800	800	\$ 9,600
WLOPID	Nuclear Personnel Dosimetry	2,000												\$ 2,000
WLOSCR	SCR sampling									20,000				\$ 20,000
WLOSCR	SCR Testing									70,000				\$ 70,000
WLOSGU	On-line desleg	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	\$ 60,000
WLOSGU	SO3 Tank Rental	3,200	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	\$ 18,050
WLOSGU	airheater wash						35,000							\$ 35,000
WLOSGUPPE	Fuel Fineness						20,000							\$ 20,000
WLOTGN	Cond /cooler cleaning			35,000										\$ 35,000
WLOTGN	Cond. air-in-leakage			15,000										\$ 15,000
WLOTGN	H2/CO2/EHC & LO filters	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	\$ 36,000
WLOTGN	Helium /Goodway Machines										4,000			\$ 4,000
WLTIGER	Re-line blade (moved from Tiger to 9R greater need							12,000						\$ 12,000
WLTIGER	TIGER MAINTENANCE	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	\$ 26,400
WLTIGER	PM-200 HOUR SERVICE FOR 690D Tiger	500		500		500		500		500		500		\$ 3,000
WLTIGER	PM-400 HOUR SERVICE FOR 690D Tiger		200		200		200		200		200		200	\$ 1,200
WLTIGER	PM-1000 HOUR SERVICE FOR 690D Tiger		500			1,400					1,400			\$ 3,300
WLTIGER	PM-2000 HOUR SERVICE FOR 690D Tiger	500									500			\$ 1,000
WLTIGER	Replace Engine										75,000			\$ 75,000
WLTIGER	tiger final drives & differentia									65,000				\$ 65,000
<b>TOTAL NON-LABOR O&amp;M PLAN FOR WILSON STATION</b>		<b>\$ 751,695</b>	<b>\$ 556,492</b>	<b>\$ 1,088,082</b>	<b>\$ 709,516</b>	<b>\$ 700,330</b>	<b>\$ 808,089</b>	<b>\$ 767,680</b>	<b>\$ 646,523</b>	<b>\$ 901,922</b>	<b>\$ 9,981,967</b>	<b>\$ 1,206,261</b>	<b>\$ 506,738</b>	<b>\$ 18,625,293</b>



### WILSON STATION 2010 O&M Non-Labor (BREC)

Number	Description	JAN-10	FEB-10	MAR-10	APR-10	MAY-10	JUN-10	JUL-10	AUG-10	SEP-10	OCT-10	NOV-10	DEC-10	TOTAL
CHENVIRO	FUEL SPILL MAINTENANCE	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	6,900	82,800
FGDCLEAN	FGD/CSU/Stack Cleaning	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	80,000
MECLEANING	Mist Eliminator	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	174,000
OPCLEAN	operational cleaning exp	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	48,000
WBREC INT (WK) 2010 Scheduled Outage Contract Labor											400,000			400,000
WBREC INT (WK) 2010 Scheduled Outage Purchased Materia											687,817			687,817
WL544C	544 LOADER MAINTENANCE	214	214	214	214	214	214	214	214	214	214	214	214	2,568
WL544C	544 LOADER PM's	85		85		85		85		85		85		510
WL544C	Tires							8,560						8,560
WL92CAT	992 CAT MAINTENANCE	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	31,200
WL92CAT	PM-2000 HOUR SERVICE FOR 992 CAT LOADER			800							800			1,600
WL92CAT	PM-1000 HOUR SERVICE FOR 992 CAT LOADER		800						800					1,600
WL92CAT	PM-400 HOUR SERVICE FOR 992 LOADER				214			214					214	1,306
WL92CAT	PM-200 HOUR SERVICE FOR 992 LOADER	535	535	535	535	535	535	535	535	535	535	535	535	6,420
WL92CAT	Re-condition Hydraulics					50,000								50,000
WLD9HCAT	D9H Maintenance	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	14,400
WLD9HCAT	PM-2000 HOUR SERVICE FOR D9-H					535							535	1,070
WLD9HCAT	PM-1000 HOUR SERVICE FOR D9-H			535									535	1,070
WLD9HCAT	PM-100 HOUR SERVICE FOR D9H				214			214				214		1,284
WLD9HCAT	PM-200 HOUR SERVICE FOR D9H		214						214				214	854
WLD9HCAT	PM-200 HOUR SERVICE FOR D9H				214								214	854
WLD9R	D9R MAINTENANCE	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	1,284	15,408
WLD9R	PM-2000 HOUR SERVICE FOR D9R					300		300				300		1,800
WLD9R	PM-1000 HOUR SERVICE FOR D9R	300		300		300		300		300		300		3,600
WLD9R	PM-400 HOUR SERVICE FOR D9R	535	535	535	535	535	535	535	535	535	535	535	535	6,420
WLD9R	PM-200 HOUR SERVICE FOR D9R										535		535	1,070
WLD9R	Turbo charger / fuel injector						10,000							10,000
WLMASH	ROUTINE MAINTENANCE (ASH HANDLING) OUTSIDE LBF			119	3,446	3,446	2,852	4,040	3,446	2,852	4,040	2,971	2,258	29,470
WLMASH	Airlock maintenance (10 Per Month)	5,835	5,835	5,835	5,835	5,835	5,835	5,835	5,835	5,835	5,835	5,835	5,835	66,000
WLMASH	PM-Lubrication general ash arer	212	212	212	212	212	212	212	212	212	212	212	212	2,546
WLMASH	Clean & Inspect Flyash Silo													
WLMASH	Clean Flyash Transport Line					37,094			123,200					160,294
WLMASH	PM-12 Month Filter Change, Flyash Blowers (3ea)											900		900
WLMASH	PM-36 Month Inspection, #1 Bottom Ash Recirc Pump				3,000									3,000
WLMASH	Economizer Sluice Pump #1			2,575										2,575
WLMASH	Bottom ash chute repair													
WLMASH	Economizer ash tank repairs (3ea)				318					318			318	955
WLMASH	Ash area sump pump repairs (2ea)	212			212					212			212	849
WLMASH	DRAG CHAIN REPAIR	1,273	1,273	1,061	1,273	1,061	1,061	1,273	1,061	1,061	1,273	1,061	1,061	14,244
WLMBFW	PM-. #2 BFPT "A" side change oil filters, 6-month frequ												396	396
WLMBFW	PM-. #2 BFPT "B" side change oil filters, 6-month frequ							849		849				1,698
WLMBFW	PM-. #1 BFPT "B" side change oil filters, 6-month frequ							849		849				1,698
WLMBFW	PM-. #1 BFPT "A" side change oil filters, 6-month frequ								849					849
WLMCCW	PM-CC-P-1 Closed Cooling Water, Heat Exchanger 6 month inspection			530							530			1,061
WLMCCW	PM-CC-P-2 Closed Cooling Water, Heat Exchanger 6 month inspection		530											1,061
WLMCDS	ROUTINE MAINTENANCE (CONDENSATE SYSTEM)	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	2,493	29,917
WLMCDS	PM-Lubrication, water treatment, 12-month frequency	159	159	159	159	159	159	159	159	159	159	159	159	1,911
WLMCDS	PM-18 Month Inspection, Condenser Vacuum Pump #1						637							637
WLMCDS	PM-18 Month Inspection, Condenser Vacuum Pump #1									637				637
WLMCDS	PM-# 3 Condensate Pump 7yr Overhaul			25,462										25,462
WLMCDS	PM-# 3 Condensate Pump 7yr Overhaul			21,388										21,388
WLMCHS	ROUTINE MAINTENANCE (COAL HANDLING) (outside mech. & elec	7,000	17,000	7,000	17,000	7,000	17,000	7,000	17,000	17,000	17,000	17,000	17,000	164,000
WLMCHS	ROUTINE MAINTENANCE (COAL HANDLING)	2,984	2,984	2,984	2,984	2,984	2,984	2,984	2,984	2,984	2,984	2,984	2,984	35,812
WLMCHS	CONVEYOR CONTROLS MAINTENANCE	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	13,113
WLMCHS	Truck & Main Gate Scales	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	1,724	20,688
WLMCHS	SAMPLER MAINTENANCE (AS FIRED & RECEIVED)	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	1,273	14,400
WLMCHS	AUGER SAMPLER	1,061			1,061				1,061					4,060
WLMCHS	PM-12 Month Inspection, Sample System Bucket Elev												743	743
WLMCHS	Conveyor Idler Replacement	6,252	6,252	6,252	6,252	6,252	6,252	6,252	6,252	6,252	6,252	6,252	6,252	75,019
WLMCHS	BELT CLEANER MAINTENANCE	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	20,369
WLMCHS	Sucker & Reclaimer repair	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	19,096
WLMCHS	SCALE CALIBRATIONS AND REPAIR (Other than Truck and Main Gate Scales)	2,148	1,671	1,671	2,148	1,671	1,671	2,148	1,671	1,671	1,671	1,671	1,671	20,700
WLMCHS	Scale Calibration 10/1 Conveyor													
WLMCHS	Tripper Csr Maint. (2ea.)				4,244				4,244					8,488
WLMCHS	Crusher A&B Overhaul				9,391			10,609						20,000
WLMCHS	PM-Lubrication, General Coal Handling Area	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	20,369
WLMCHS	FUEL HANDLING MAINTENANCE													
WLMCHS	PART-TIME SUPPORT FOR SCALES													
WLMCHS	COAL CHUTE MAINTENANCE	7,352	7,352	7,352	7,352	7,352	7,352	7,352	7,352	7,352	7,352	7,352	7,352	88,224
WLMCHS	7-3 Conveyor gear reducer overhaul						15,914							15,914
WLMCHS	7-3 Conveyor gear reducer overhaul						17,823							17,823
WLMCHS	7-1 Conveyor gear reducer overhaul						15,914							15,914



**WILSON STATION 2010 O&M Non-Labor (BREC)**

Number	Description	JAN-10	FEB-10	MAR-10	APR-10	MAY-10	JUN-10	JUL-10	AUG-10	SEP-10	OCT-10	NOV-10	DEC-10	TOTAL
WLMCHS	7-4 Conveyor gear reducer overhaul													17,823
WLMCSM	MAINTENANCE AND PRODUCTION CONSUMABLES													\$
WLMCSME	I&E Consumables	12,731	12,731	12,731	12,731	12,731	12,731	12,731	12,731	3,961	12,731	12,731	12,731	\$ 144,000
WLMCWS	ROUTINE MAINTENANCE (CIRC WATER)	4,933	4,933	4,933	4,933	4,933	4,933	1,066	4,933	(265)	4,933	4,933	4,933	\$ 50,133
WLMCWS	Electric motor repair & replacement	4,031	4,031	4,031	1,910	4,031	4,031	4,031	4,031	1,910	4,031	4,031	4,031	\$ 44,133
WLMCWS	Cooling Water Control System Maintenance	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	\$ 13,113
WLMCWS	PM-Inspection, Sample System Bucket Elec	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	\$ 14,004
WLMCWS	PM-Inspection, #2 River Water Pump													\$
WLMCWS	PM-Inspection, #3 River Water Pump													\$
WLMCWS	PM-IWC-P-5 Clarified Water Pump													\$
WLMCWS	PM-Inspection, Condensator Vacuum Pump #1													\$
WLMCWS	PM-Inspection, Condensator Vacuum Pump #2													\$
WLMCWS	PM-Lubrication, general water treatment													\$
WLMCWS	PM-Annual inspection River Water Make-Up Clarifiers (2ea)	212	212	212	212	212	212	212	212	212	212	212	212	\$ 2,546
WLMCWS	Replace Cooling Tower Nozzle				2,122			21,218						\$ 21,218
WLMCWS	Replace Cooling Tower drive gear reducer Lube oil pumps (2ea)			530						2,122				\$ 4,244
WLMCWS	Repairs to cooling tower circulating water screen				1,061						530			\$ 1,061
WLMCWSINT	PM-Lubrication, intake area		53										1,061	\$ 3,183
WLMCWSINT	PM-Inspection Screen Wash Pump Strainer (1ea)			53	53	53	53	53	53	53	53	53	53	\$ 583
WLMCWSINT	PM-Inspection Traveling Wtr. Screen (2ea)													\$ 6,000
WLMCWSINT	PM-Inspection, River Water Pump (3ea)													\$ 2,400
WLMCWSINT	Acid pump repairs													\$ 1,591
WLMCWSINT	PM-Demineralizer PSI & Temp Transmitter	212	212	212	212	212	212	212	212	212	212	212	212	\$ 2,546
WLMEDT	Infrared Thermography Scan	637	637	637	637	637	637	637	637	637	637	637	637	\$ 7,638
WLMEDT	Switchgear/Buss						2,122							\$ 2,122
WLMEDT	6.9 Cable Repair	3,289	3,289	3,289	3,289	2,423	2,423	2,423	2,422	3,289	3,289	3,289	3,289	\$ 36,000
WLMEDT	Cab Safety Replacement			25,000						25,000				\$ 50,000
WLMEDT	Breaker Starter replacement												15,000	\$ 15,000
WLMEDT	Lighting Mice	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	4,167	\$ 50,000
WLMEDT	Veratop Mice													\$
WLMEDT	BREC Transformer Mice				8,487									\$
WLMEDT	Elevator Contractor Service Agreement	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	\$ 25,462
WLMENV	CEMS ANALYTICAL MAINTENANCE (Technical Support)	4,244	4,244	4,244	4,244	4,244	4,244	4,244	4,244	4,244	4,244	4,244	4,244	\$ 50,923
WLMENV	ENV GAS DETECTORS Monthly Maintenance													\$
WLMENV	MONTHLY MAINTENANCE OF CEMS EQUIPMENT	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	\$ 19,096
WLMENV	Returning Nuclear Source	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	\$ 24,800
WLMENV	EMISSIONS CONTROLS RATA TESTING													\$ 3,183
WLMENV	SO3 maintenance					10,000								\$ 10,000
WLMENV	SO3 maintenance					3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	\$ 19,096
WLMERC	Calibration Mercury Monitors					3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	\$ 21,390
WLMERC	Parts/Consumables Merc. Monitors													\$
WLMFGD	ROUTINE MAINTENANCE (FGD)													\$
WLMFGD	ROUTINE MAINTENANCE (FGD), OUTSIDE LBR	9,442	9,442	8,381	9,442	9,442	8,381	9,442	5,623	8,381	9,442	9,442	8,381	\$ 105,241
WLMFGD	DESCALE MODULES	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	2,222	\$ 26,664
WLMFGD	Stack Band Replacement (15)													\$
WLMFGD	Stack Band Replacement (15)													\$
WLMFGD	Electric motor repair & replacement	1,644	1,644	1,644	1,644	1,644	1,644	1,644	1,644	1,644	1,644	1,644	1,644	\$ 19,733
WLMFGD	LIMESTONE SCALE CAL AND MAINT	477			477									\$ 1,910
WLMFGD	Maintenance on #1 MODULE	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	1,110	3,565	3,565	3,565	\$ 40,325
WLMFGD	Maintenance on #2 MODULE	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	\$ 40,325
WLMFGD	Maintenance on #3 MODULE	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	\$ 40,325
WLMFGD	Maintenance on #4 MODULE	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	3,565	1,110	3,565	\$ 40,325
WLMFGD	PM-Lubrication, general scrubber area, weekly frequenc													\$
WLMFGD	SO2 System Mice													\$
WLMFGD	Slurry Recirc Motor PDM Program													\$
WLMFGD	FGD Wiring Repairs	934	934	934	934	934	934	934	934	934	934	934	934	\$ 11,203
WLMFGD	PM-2 Year Inspection, 203J Mist Eliminator Wash Pump			15,914			15,914			15,914				\$ 60,000
WLMFGD	PM-2 Year Inspection, 203JA Mist Eliminator Wash Pump							7,426						\$ 7,426
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul								7,426					\$ 8,912
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul									8,912				\$ 8,912
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul									31,381				\$ 31,381
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul													\$ 8,912
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul									31,381				\$ 31,381
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul										8,912			\$ 8,912
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul													\$ 31,381
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul													\$ 8,912
WLMFGD	PM-Slurry Recycle Pump Scheduled Overhaul													\$ 31,381
WLMFGD	PM-Inspection, #11 Product Sump Pump													\$
WLMFGD	PM-Inspection, 303JA Reclaim Wtr. Pump									10,000				\$ 10,000
WLMFGD	Slurry recycle pump belt replacements (4ea)										10,609			\$ 10,609
WLMFGD	PM-Inspection, 303J Reclaim Wtr. Pump													\$ 5,517
WLMFGD	PM-Inspection, 301 JA Blowdown Sump Pump Overhaul					11,882	7,426							\$ 11,882
														\$ 7,426

WILSON STATION 2010 O&M Non-Labor (BREC)

Number	Description	JAN-10	FEB-10	MAR-10	APR-10	MAY-10	JUN-10	JUL-10	AUG-10	SEP-10	OCT-10	NOV-10	DEC-10	TOTAL
WLMFGD	PM-Recondition 201-JA Blowdown Sump Pump Moto		2,652											\$ 2,652
WLMFGD	PM-Inspection, 203J Mist Eliminator Wash Pump							7,426						\$ 7,426
WLMFGD	PM-Inspection, 203JA Mist Eliminator Wash Pump								7,426					\$ 7,426
WLMFGD	PM-Inspection Stack Roof													\$
WLMFGD	Replace module inlet & outlet damper seal air blower									7,129				\$ 7,129
WLMFGD	Replace module inlet & outlet damper seal air blowers (4ea)							10,609						\$ 10,609
WLMFGD	PM-Module agitator overhauls (4ea)		42,436											\$ 42,436
WLMFGD	Replace ME Wash Valves ( 4ea)			1,061			1,061			1,061			1,061	\$ 4,244
WLMFGD	Slurry Recirc Spray Nozzles & Hoses	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	1,697	\$ 20,369
WLMFGDLSP	ROUTINE MAINTENANCE (LIMESTONE PROCESSING)	3,183	3,183	3,183	3,183	3,183	2,546	3,183	3,183	3,183	3,183	3,183	1,627	\$ 36,000
WLMFGDLSP	ELECTRIC MOTOR REPAIR & REPLACEMENT	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185	2,185	\$ 26,225
WLMFGDLSP	PM-Recondition #1 Ball Mill Motor		6,000											\$ 6,000
WLMFGDLSP	PM-Recondition #2 Ball Mill Motor		6,000											\$ 6,000
WLMFGDLSP	#2 Ball mill liner replacemen				29,705									\$ 29,705
WLMFGDLSP	#2 Ball mill liner replacemen				58,350									\$ 58,350
WLMFGDLSP	PM-6 Month Inspection, #2 Ball Mill										1,188		1,052	\$ 2,240
WLMFGDLSP	PM-Inspection, #1 Ball Mill										1,052		1,188	\$ 2,240
WLMFGDLSP	PM-Inspection, #1 Ball Mill Cyclone											1,000		\$ 1,000
WLMFGDLSP	PM-Inspection, #2 Ball Mill Cyclone												1,000	\$ 1,000
WLMFGDLSP	PM-110-LJ-11 Product Sump Pump scheduled Overhaul				10,609									\$ 10,609
WLMFGDLSP	PM-110-LJ-1A2 Product Sump Pump month scheduled Inspector				7,426									\$ 7,426
WLMFGDLSP	PM-Inspection, 101J Slurry Feed Pump		3,183											\$ 3,183
WLMFGDLSP	PM-Inspection, 101JA Slurry Feed Pump		3,183											\$ 3,183
WLMFGDSCB	Tugboat Maintenance			856		535		856				535	856	\$ 5,564
WLMFGDSCB	PM-6 MONTH Lube Service, Tugboat	428					428						428	\$ 1,284
WLMFGDSCB	Paint rug									8,000				\$ 8,000
WLMFGDSCB	steering pumps etc									5,000				\$ 5,000
WLMFGDSCB	Inspect Hull				6,000									\$ 6,000
WLMFGDSCB	Barge Haul Accessories (Sheave, Clevis, Chain, Cable		400				400		400				400	\$ 2,400
WLMFGDSCB	BARGE MAINTENANCE & CABLE REPLACEMENT	10,165		10,165		10,165		10,165		10,165		10,165		\$ 60,990
WLMFGDSCB	ROUTINE MAINTENANCE (BARGE UNLOADING SYSTEM	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	9,548	\$ 114,577
WLMFPS	Fire Protection Panel Module	530	530	530	530	530	530	530	530	530	530	530	530	\$ 6,365
WLMFPS	Fire Protection Panel Maintenance	530	530	530	530	530	530	530	530	530	530	530	530	\$ 6,365
WLMFPS	FIREWATER PIPE & SYSTEM MAINTENANCE	637	637	637	637	637	637	637	199	637	637	637	637	\$ 7,200
WLMFPS	PM-Inspection, Diesel Fire Pump		530											\$ 530
WLMFPS	Piping Repairs			1,426			1,099			1,426			1,426	\$ 5,377
WLMFPS	Piping Repairs			1,697			1,697			1,697			1,307	\$ 6,399
WLMFPS	PM-Inspection, FP-J-3 Jockey Fire Pump		1,522											\$ 1,522
WLMGEU	PM-Month Lube Service & Repairs Gas Welding Machines (2ea)	530						530					530	\$ 1,591
WLMGEU	Routine Repairs to Electric welding machine			318		530			530		318			\$ 637
WLMGEU	PM-Lube Service & Repairs Portable Air Compressor (2ea)		5,305											\$ 5,305
WLMGEU	PM-Spider hoist, service and safety inspection		4,244		9,548	4,244	4,244	4,244	4,244	4,244	9,548	4,244	4,244	\$ 61,532
WLMHVC	MONTHLY SERVICE & HVAC FILTER CHANGEOUT FOR A/C UNITS	4,244	4,244	4,244										\$ 80,000
WMLLAB	Fuel Handling runoff mntnc/cleaning							80,000						\$ 80,000
WMLLAB	M.U. Clarifier			12,000										\$ 12,000
WMLLAB	M.U. Clarifier			10,000										\$ 10,000
WMLLAB	Sand Filters							8,500						\$ 8,500
WMLLAB	Sand Filters							8,500						\$ 8,500
WMLLAB	Filtered Water Tanks					1,640								\$ 1,640
WMLLAB	Carbon Filters									17,000				\$ 17,000
WMLLAB	Carbon Filters									17,000				\$ 17,000
WMLLAB	Demineralizer		16,000											\$ 16,000
WMLLAB	Demineralizer		13,250											\$ 13,250
WMLLAB	Condensate Storage Tanks					1,640								\$ 1,640
WMLLAB	Neutralization Pits													\$
WMLLAB	Condensate Polishers													\$
WMLLAB	Condensate Polishers						2,900							\$ 2,900
WMLLAB	Potable R.O.						8,500							\$ 8,500
WMLLAB	Potable R.O.													\$
WMLLAB	Potable Clarifier													\$
WMLLAB	Sewage Treatment System			2,200										\$ 2,200
WMLLAB	Chlorine System						2,500							\$ 2,500
WMLLAB	Industrial Cleaning								3,500					\$ 6,000
WMLLAB	Acid Tanks													\$
WMLLAB	WW Clarifier							23,000						\$ 23,000
WMLLAB	WW Clarifier							10,000						\$ 10,000
WLMNEX	637 Cat Maintenance	856	856	856	856	856	856	856	856	856	856	856	856	\$ 10,272
WLMNEX	PM-2000 HOUR SERVICE FOR 637 Cat				1,500									\$ 1,500
WLMNEX	PM-1000 HOUR SERVICE FOR 637 Cat	1,000									1,000			\$ 2,000
WLMNEX	PM-100 HOUR SERVICE FOR 637 Cat					856					856			\$ 1,712
WLMNEX	PM-200 HOUR SERVICE FOR 637 Cat	856				856					856		856	\$ 4,280
WLMNEX	Hydraulic cylinders, and pump					15,000								\$ 15,000

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WLMMEEX	Replace rear engine													\$
WLMMEEX	280 Michigan Maintenance	800	800	800	800	800	800	800	800	12,000			800	\$ 12,000
WLMMEEX	PM-2000 HOUR SERVICE FOR 280									800				\$ 800
WLMMEEX	PM-1000 HOUR SERVICE FOR 280										1,500			\$ 1,500
WLMMEEX	PM-200 HOUR SERVICE FOR 280				800									\$ 800
WLMMEEX	Euclid Water Truck Maintenance	600			600				600					\$ 1,800
WLMMEEX	PM-2000 HOUR SERVICE	535	535	535	535	535	535	535	535	535	535	535	535	\$ 6,420
WLMMEEX	PM-1000 HOUR SERVICE												535	\$ 535
WLMMEEX	PM-400 HOUR SERVICE		214		214	214				214				\$ 428
WLMMEEX	PM-200 HOUR SERVICE	214	214	214	214	214	214	214	214	214	214		214	\$ 1,284
WLMMEEX	Re-Place engine					40,000								\$ 40,000
WLMMEEX	280 Michigan Maintenance	642	642	642	642	642	642	642	642	642	642	642	642	\$ 7,704
WLMMEEX	PM-2000 HOUR SERVICE FOR 280													\$
WLMMEEX	PM-1000 HOUR SERVICE FOR 280										1,605			\$ 1,605
WLMMEEX	PM-200 HOUR SERVICE FOR 280	642			642	800			642					\$ 800
WLMMEEX	New engine													\$ 1,926
WLMMEEX	ROUTINE MAINTENANCE	12,000	12,000	12,000	30,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	\$ 30,000
WLMMEEX	PM-6 Month Lube Service, JD 770A Grader	268			535			268			535			\$ 1,400
WLMMEEX	Tires									5,000				\$ 5,000
WLMMEEX	Forklift	535						535						\$ 1,070
WLMMEEX	Broderson	150		150		150		150		150				\$ 1,400
WLMMEEX	JD Backhoe	150		150		150		150	650					\$ 900
WLMMEEX	JD Tractor		100			100		100				150		\$ 400
WLMMEEX	Dump Truck	160			160			160						\$ 1,175
WLMMEEX	Routine Maintenance												535	\$ 1,000
WLMMEEX	PM-Prestiman excavator, 250 hr. service list	160			535			160			1,000			\$ 1,390
WLMMEEX	Routine maintenance										535			\$ 1,605
WLMMEEX	Truck w/ welder	160		160		160			1,605		160			\$ 800
WLMMEEX	Replace / Rebuild Crane													\$ 23,000
WLMMEEX	Part time support for scales							25,000						\$ 17,504
WLMMEEX	Building & Grounds (road maintenance etc.	1,442	1,442	1,442	1,442	1,442	1,442	1,442	1,442	1,442	1,442	1,442	1,442	\$ 22,000
WLMMEEX	Dredging			2,200	2,200	2,200	2,200	2,200	2,200	2,200				\$ 135,000
WLMMEEX	Operator Training										2,200	2,200	2,200	\$ 6,000
WLMMEEX	Liquid heat for conveyors							6,000						\$ 18,000
WLMMEEX	Fed X Coal Receipts to 1 1/2 yds	500	500	500	500	500	500	500	500	500	500	500	500	\$ 6,000
WLMMEEXNFC	Routine Maintenance Heavy Equipment	637	637	637	637	637	637	637	637	637	637	637	637	\$ 7,638
WLMMEEXNFC	PM- Lube Service, Forklifts (4ea)													\$ 1,273
WLMMEEXNFC	PM- Lube Service, Bobcat (2ea)				318									\$ 637
WLMMEEXNFC	PM- Lube Service, Broderson	318					318				318			\$ 637
WLMMEEXNFC	PM- Lube Service, Terex Crane	318					318							\$ 637
WLMMEEXNFC	PM- Lube Service, JLG Lifts (2ea)	637					637							\$ 1,273
WLMEOHC	PM- Annual Crane Inspections & Repair			26,523			26,523			26,523			26,523	\$ 106,090
WLMPPAS	Routine maintenance	42	1,591	1,591	42	1,591	1,591	1,103	1,591	1,591	1,103	1,591	1,591	\$ 15,022
WLMPPAS	"Air Care" Preventative Maintenance	1,549			1,549			1,549						\$ 6,196
WLMPPAS	PM-12 Month Inspection, #1 Centac Air Compressor										1,061			\$ 1,061
WLMPPAS	#1 Centac Air Compressor (TUNE UP)													\$
WLMPPAS	PM-Desiccant Change, CA-Q-3 Inst. Air Dryer													\$
WLMPPAS	PM-Desiccant Change, CA-Q-4 Inst. Air Dryer													\$
WLMPPAS	PM-Desiccant Change, CA-Q-1 Inst. Air Dryer													\$
WLMPCM	Vibration monitoring equipment	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	7,426	3,183	\$ 2,122
WLMPCM	Plant Communication (Gai Tronic) Repairs (O/S)			13,113			13,113							\$ 2,122
WLMPCM	Plant Communication (Gai Tronic) Repairs (Mat)			8,742			8,742							\$ 42,436
WLMPCM	PLANT CONTROL SYSTEM MTCE									8,742				\$ 52,481
WLMPCSHIT	BLDG. & GROUNDS WINTERIZATION (including heat trace													\$ 34,967
WLMPLS	Plant Lighting System					5,305	5,305	5,305	8,742	16,391	16,391			\$
WLMPPST	ROUTINE MAINTENANCE (INCLUDING PAINT)	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183	3,183		21,218		\$ 57,437
WLMPPST	7-1, 7-2, 7-3 7-4 Conveyor Cover (Paint)													\$ 84,872
WLMPPST	Vessel Paint				29,713									\$ 38,010
WLMPPST	DOOR REPLACEMENTS				19,809									\$ 29,713
WLMPPWS	ROUTINE MAINTENANCE (POTABLE WATER SYSTEM)	849	849	849	849	849	637	849	5,305	5,305	5,305			\$ 19,809
WLMPPWS	County Water Stud)											849	637	\$ 15,914
WLMPPWS	POTABLE WTR PSI AND TEMP TRANSMITTERS ( Monthly Maintenance	318	318	318	318	318	318	318	70,000					\$ 9,760
WLMPPWS	Potable water pump repairs (2ea)								318		318	318	318	\$ 70,000
WLMPPWS	Repair floor sump pump (2ea)						1,061							\$ 3,819
WLMPPWS	PM-Lubrication, potable water building, 6-month frequency						3,183							\$ 1,061
WLMRID	Nuclear Recording & Indicating devices (disposal & repair							212						\$ 3,183
WLMRID	Wipe Tests					5,000							212	\$ 424
WLMRID	Nuclear Personnel Dosimeters	2,000												\$ 5,000
WLMRID	Nuclear Recording & Indicating devices (scaffolding						5,500							\$
WLMRID	Retiring Nuclear Sources											5,500		\$ 2,000
												9,000		\$ 11,000
														\$ 9,000

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WLMRID	Recording & Indicating device													\$
WLMSCR	Ammonia & NOx Analyzer Monthly Maintenance	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326			\$ 13,261
WLMSCR	SCR Tuning				10,609									\$ 10,609
WLMSCR	SCR Mtc	5,305	10,609	10,609	10,609	1,061	1,061	1,061	1,061	1,061	10,609			\$ 53,045
WLMSCR	BREC Share 20%													\$
WLMSCG	ROUTINE SOOTBLOWER MAINTENANCE	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	\$ 76,385
WLMSCG	ROUTINE MAINTENANCE (BOILER)	6,912	6,912	6,912	6,912	6,912	5,320	6,912	6,912	6,912	6,912	6,912	6,912	\$ 81,350
WLMSCG	ROUTINE MAINTENANCE (BOILER), OUTSIDE LBR	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	4,278	\$ 51,336
WLMSCG	ROUTINE SOOTBLOWER MAINTENANCE I/F	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMSCG	Motor Rewinds, Repair and Replacement			12,020										\$ 12,020
WLMSCG	Motor Lubrication	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	\$ 28,008
WLMSCG	Motor Lubrication	265	265	610	265	265	610	265	265	610	265	265	610	\$ 4,562
WLMSCG	Motor filter maintenance				902									\$ 902
WLMSCG	Vibration analysis	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880	4,880	\$ 58,561
WLMSCG	BURNER MAINTENANCE	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	6,365	\$ 76,385
WLMSCG	PM-LUBRICATION, GENERAL BOILER BUILDING	1,804	1,804	1,804	1,804	1,804	1,804	1,804	1,804	1,804	1,804	1,804	1,804	\$ 21,642
WLMSCG	Sootblower Lance replacement	10,609		10,609		10,609		10,609		10,609		10,609		\$ 63,654
WLMSCG	Superheat Tube Leak Repair										77,234			\$ 77,234
WLMSCG	Drum Gauge Glass repairs						1,591							\$ 1,591
WLMSCG	PM-Oil samples, 4-week frequency, Wilson Station	80	80	80	80	80	80	80	80	80	80			\$ 955
WLMSCG	PM-Scanner filter changeout							3,183						\$ 3,183
WLMSCG	Repair Damper REXA Drives	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	2,387	\$ 28,644
WLMSCG	PM-Lubrication, ID Fans/Precep Dmpmts, 6-month frequency													\$
WLMSCG	ROUTINE MAINTENANCE (MILLS & FEEDERS)	2,069	2,069	2,069	2,069	2,069	2,069	2,069	2,069	2,069	2,069	2,069	2,069	\$ 24,825
WLMSCG	Coal Feeder Maintenance	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	\$ 15,914
WLMSCG	Replace Defective Pulverizer Instrumentation	530	530	530	530	530	530	530	530	530	530	530	530	\$ 6,365
WLMSCG	Mill Bearing Failure											92,829		\$ 92,829
WLMSCG	Mill Bearing Failure											103,968		\$ 103,968
WLMSCG	Fuel Fineness Testing		10,609						10,609					\$ 21,218
WLMSCG	Steam Coil Drain Pump DR-P-2			7,500										\$ 7,500
WLMSCG	Steam Coil Drain Pump DR-P-3				7,500									\$ 7,500
WLMSCG	Steam Coil Drain Pump DR-P-4					7,500								\$ 7,500
WLMSCG	Steam Coil Drain Pump DR-P-5						7,500							\$ 7,500
WLMSCG	PM-Pulverizer 3000 hr Inspections (Sea)			10,609						10,609				\$ 21,218
WLMSCG	PM-Pulverizer 3000 hr Inspections (Sea)			9,506						9,506				\$ 19,012
WLMSCG	PM-Coal Feeder 3000 hr Inspections (Sea)			530						530				\$ 1,061
WLMSCG	PM-Coal Feeder 3000 hr Inspections (Sea)			1,188						1,188				\$ 2,376
WLMSCG	Replace Pulverizer Raw Coal Pipes ( 3ea)			1,591					1,591					\$ 4,774
WLMSCG	Replace Pulverizer Raw Coal Pipes ( 3ea)			1,426					1,426					\$ 4,278
WLMSCG	Replace Coal Feeder Trans. Chute (1ea)								5,305					\$ 5,305
WLMSCG	Replace Coal Feeder Trans. Chute (1ea)								1,426					\$ 1,426
WLMSCG	Coal Feeder Belt replacements (2ea)				849				849					\$ 1,697
WLMSCG	Pyrite Gate Replacements			6,365			6,365			6,365			6,365	\$ 25,462
WLMSCG	PM-2 Year Inspection, #3 Pyrite Sluice Pump				4,774									\$ 4,774
WLMSCG	PM-2 Year Inspection, #4 Pyrite Sluice Pump					4,774								\$ 4,774
WLMSCG	#3 Pulverizer Overhaul											98,702		\$ 98,702
WLMSCG	#3 Pulverizer Overhaul											167,488		\$ 167,488
WLMSCG	#4 Pulverizer Overhaul				98,702									\$ 98,702
WLMSCG	#4 Pulverizer Overhaul				167,488									\$ 167,488
WLMSCG	EMISSION CONTROLS PRECIPITATORS	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	\$ 13,113
WLMSCG	Rapper Maintenance				2,732									\$ 2,732
WLMSCG	Rapper Maintenance						10,927							\$ 10,927
WLMSCG	ROUTINE MAINTENANCE (SOLID WASTE)	3,819	3,819	3,819	3,819	3,819	3,819	3,819	3,819	3,819	3,819	3,819	3,819	\$ 45,831
WLMSCG	ELECTRIC MOTOR REPAIR & REPLACEMENT	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	1,093	\$ 13,113
WLMSCG	SCALE CALIBRATION AND REPAIR	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	1,379	\$ 16,550
WLMSCG	FILTER DRUM RECLOTH	2,440	2,440	2,440	2,440	2,440	2,440	2,440	2,440	2,440	2,440	2,440	2,440	\$ 29,281
WLMSCG	Mixer Overhaul													\$
WLMSCG	#1 Thickener Inspection & repair							10,000						\$ 10,000
WLMSCG	#1 Thickener Inspection & repair							10,000						\$ 10,000
WLMSCG	#2 Thickener Inspection & repair								10,000					\$ 10,000
WLMSCG	#2 Thickener Inspection & repair								10,000					\$ 10,000
WLMSCG	PM-CO-137 Conveyor, replace v-belt and insp sheave													\$
WLMSCG	PM-CO-135 Conveyor, change v-belts and insp sheave													\$
WLMSCG	PM-Lubrication, General Solid Waste Area	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	\$ 19,096
WLMSCG	Uri-Wash dust collector drag chain				4,244					4,244				\$ 4,244
WLMSCG	PM-6 Month Inspection, 141A Flyash Screw Conveyo						530							\$ 1,061
WLMSCG	PM-2 Year Inspection, 141A Flyash Conveyo						1,591							\$ 1,591
WLMSCG	PM-6 Month Inspection, 141B Flyash Screw Conveyo						530							\$ 1,061
WLMSCG	PM-2 Year Inspection, 142A Flyash Conveyo					1,591								\$ 1,591
WLMSCG	PM-6 Month Inspection, 142A Flyash Screw Conveyo					469								\$ 469
WLMSCG	PM-6 Month Inspection, 142B Flyash Screw Conveyo					469								\$ 469
WLMSCG	PM-6 Month Inspection CO-143A Screw Conveyo	469												\$ 469

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WLMSSWD	PM-6 Month Inspection CO-143B Flyash Conveyor	469						469						\$ 939
WLMSSWD	PM-6 Month Inspection, 144A Flyash Conveyor		469						469					\$ 939
WLMSSWD	PM-6 Month Inspection, 144B Flyash Conveyor		469						469					\$ 939
WLMSSWD	PM-6 Month Inspection, 144C Flyash Conveyor		469						469					\$ 939
WLMSSWD	PM-6 Month Inspection, 145A Flyash Screw Conveyor		469						469					\$ 939
WLMSSWD	PM-2 Year inspection, 145A Flyash screw conveyor		1,910						1,910					\$ 3,819
WLMSSWD	PM-2 Year inspection, 145B Flyash Screw Conveyor				1,910						1,910			\$ 3,819
WLMSSWD	PM-6 Month Inspection, 145B Flyash Screw Conveyor				469						469			\$ 939
WLMSSWD	PM-6 Month Inspection, 145C Flyash Screw Conveyor		469					469						\$ 939
WLMSSWD	PM-2 Year inspection, 145C Flyash Screw Conveyor		1,910					1,910						\$ 3,819
WLMSSWD	PM- Conveyor, replace v-belts and insp sheaves & drives on csi conveyor						6,153							\$ 6,153
WLMSSWD	PM-Recondition VP-124 Vacuum Pump Motor		2,500											\$ 2,500
WLMSSWD	Replace conveyor belt pulleys (5ea)													\$ 7,426
WLMSSWD	PM-3 Year Inspection, P112A Filter Feed Pump												7,426	\$ 7,426
WLMSSWD	PM-3 Year Overhaul, Vacuum Pump 124				16,974								3,183	\$ 3,183
WLMSSWD	PM-3 Year Overhaul, Vacuum Pump 124				1,901									\$ 1,901
WLMSSWD	PM- Annual inspection, Vacuum Pump replace v-belts & inspect sheaves (4ea)						4,244							\$ 4,244
WLMSSWD	PM- Overhaul, Filtrate Return Pump replace v-belts & inspect sheaves (4ea)						637						637	\$ 1,273
WLMSSWD	PM-Overhaul, Filtrate Return Pump (2ea)				3,183					3,183				\$ 6,365
WLMSSWD	PM-Inspection, 171 A&B 172 A&B Pump replace v-belts & inspect sheaves (4ea)	1,273												\$ 1,273
WLMSSWD	PM-Overhaul, 171 A&B Floor Sump Pump (2ea)				2,652					2,652				\$ 5,305
WLMSSWD	PM-Inspection replace v-belts & inspect sheaves mixer gear reducers (2ea)			3,183										\$ 3,183
WLMSSWD	PM-Overhaul mixer gear reduce:								19,096					\$ 19,096
WLMSSWD	PM-Overhaul mixer gear reduce:								8,317					\$ 8,317
WLMSSWD	PM-Inspection mixer								3,183					\$ 3,183
WLMSSWD	PM- Overhaul Surge Tank gear reducer P-111A		15,914											\$ 15,914
WLMSSWD	PM- Overhaul Surge Tank gear reducer P-111A		17,823											\$ 17,823
WLMSSWD	PM-Inspection replace v-belts & inspect sheaves Silo Flyash Blowers (4ea)	2,122												\$ 2,122
WLMSSWD	PM-Inspection Flyash rotary feeders (4ea)										1,061			\$ 1,061
WLMSSWD	Overhaul area Sump Pump (2ea)							3,183						\$ 3,183
WLMSSWD	A Thickner rake drive replace belt:									530				\$ 530
WLMSSWD	B Thickner rake drive replace belt:									530				\$ 530
WLMSSWD	A Thickner rake drive Gear reducer Overhaul (10 yr.													\$ 3,183
WLMSSWD	B Thickner rake drive Gear reducer Overhaul (10 yr.						3,183							\$ 3,183
WLMSSWD	Thickner underflow pump inspection (2ea)													\$ 2,122
WLMSSWD	Replace Defective Filter Drum Transmitters and Switches (5	2,652					2,652							\$ 2,652
WLMSSWD	ROUTINE MAINTENANCE (TURBINE)	3,713	3,713	3,713	3,713	3,713	3,713	3,713	3,713	3,713	3,713	3,713	3,713	\$ 44,558
WLMSSWD	Turbine Supervisor Instruments Monthly Maintenance	849	849	849	849	849	849	849	849	849	849	849	849	\$ 10,185
WLMSSWD	Turbine Control Valve Monthly Maintenance	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	1,326	\$ 15,914
WLMSSWD	PM-Lubrication, general turbine building	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMSSWD	Turbine Air Leakage Test	3,257						4,244						\$ 8,000
WLMSSWD	Turbine Vibration Monitoring			6,631										\$ 6,631
WLMSSWD	PM-Insp, clean and insp flame arrestors, lube oil				318									\$ 318
WLMSSWD	PM-Turbine Lube Oil Cooler Cleaning (2ea)				318									\$ 318
WLMSSWD	Turbine area Sump Pump repairs (4EA)						5,305							\$ 5,305
WLMSSWD	PM-Hydrogen Dryer, change desiccant in dryer													\$ 637
WLMSSWD	PM-Month EIH Filter Change								424					\$ 424
WLMSSWD	ROUTINE TOOL REPAIR MECHANICAL	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	\$ 18,274
WLMSSWD	ROUTINE TOOL REPAIR I/E	1,639	1,639	1,639	1,639	1,639	1,639	1,639	1,639	1,639	1,639	1,639	1,639	\$ 19,669
WLMSSWD	Routine Maintenance (Vehicles)	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	\$ 19,096
WLMSSWD	PM-Quarterly Service all vehicles	4,297					4,297							\$ 4,307
WLMSSWD	ROUTINE MAINTENANCE (WATER TREATMENT)	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	\$ 14,400
WLMSSWD	Repairs Sewage Lift Stations (I&E)	424	424	424	424	424	424	424	424	424	424	424	424	\$ 5,092
WLMSSWD	Neutralization Pit pump repairs (3ea)													\$ 1,591
WLMSSWD	Neutralization Pit sump pump repairs (2ea)			1,591										\$ 1,591
WLMSSWD	Sewage Treatment Plant Vessel Refurbishment									125,000				\$ 125,000
WLMSSWD	Sewage Treatment Plant Vessel Refurbishment									75,000				\$ 75,000
WLMSSWD	REFURB SOLID WASTE SUMP LEVEL CONTROLS						6,000							\$ 6,000
WLMSSWD	Repairs to waste water pond pumps (4ea)										6,365			\$ 6,365
WLMSSWD	Site Drainage Pump P-1							1,060						\$ 1,060
WLMSSWD	Site Drainage Pump P-2								1,060					\$ 1,060
WLMSSWD	Site Drainage Pump P-3									1,060				\$ 1,060
WLMSSWD	Waste Water Clarifier Annual inspection									530				\$ 530
WLMSSWD	Repairs Sewage Lift Stations Mech													\$ 530
WLMSSWD	Janitorial Supplies	3,568	3,568	3,568	3,568	3,568	3,568	3,568	3,568	3,568	3,568	3,568	3,568	\$ 42,816
WLMSSWD	Trash Removal	1,726	1,726	1,726	1,726	1,726	1,726	1,726	1,726	1,726	1,726	1,726	1,726	\$ 20,712
WLMSSWD	Pest Control	408	408	408	408	408	408	408	408	408	408	408	408	\$ 4,896
WLMSSWD	Septic Tank Service	59	59	59	59	59	59	59	59	59	59	59	59	\$ 708
WLMSSWD	ABB Maintenance Contract	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	\$ 30,000
WLMSSWD	Neuco Maintenance Contract						20,000							\$ 20,000
WLMSSWD	DB Doc Software						1,800							\$ 1,800
WLMSSWD	Stark North America monitoring						1,600							\$ 1,600

WILSON STATION 2010 O&M Non-Labor (BREC)

Number	Description	JAN-10	FEB-10	MAR-10	APR-10	MAY-10	JUN-10	JUL-10	AUG-10	SEP-10	OCT-10	NOV-10	DEC-10	TOTAL
WLOADM	ABB - remote diagnostic service	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	\$ 56,000
WLOADM	Inland Finance Co	773	773	773	773	773	773	773	773	773	773	773	773	\$ 9,276
WLOADM	Floor Replacements	23,870												\$ 23,870
WLOADM	Other Labor (S)	849	849	849	849	849	849	849	849	2,122	849	849	849	\$ 11,461
WLOADM	Office Supplies & Equip	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	2,208	\$ 26,496
WLOADM	Protective Clothing (S)	92	92	92	2,483	92	92	92	92	92	92	92	92	\$ 3,495
WLOADM	Uniform Rental	3,131	3,131	3,131	3,131	3,131	3,131	3,131	3,131	3,131	3,131	3,131	3,131	\$ 37,572
WLOADM	Safety													\$
WLOADM	Safety Supplies (S)	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	2,228	\$ 26,736
WLOADM	FAI OTHER													\$
WLOADM	Bottled Water		2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	\$ 31,824
WLOADM	Floor Replacements	23,870												\$ 23,870
WLOADM	Lease Rental - Office Equip													\$
WLOADM	Tri-State Mailing Systems	117	117	117	117	117	117	117	117	117	117	117	117	\$ 1,404
WLOADM	Xerox	199	199	199	199	199	199	199	199	199	199	199	199	\$ 2,388
WLOADM	FEES, PERMITS & LICENSES	412	412	412	412	412	412	412	412	412	412	412	412	\$ 4,944
WLOADM	FEES, PERMITS & LICENSES (S)				2,122			849						\$ 2,971
WLOADM	EDUCATION TRAINING COURSE FEES	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	2,652	\$ 31,824
WLOADM	EDUCATION TRAINING COURSE FEES (S)	530	743	530	530	530	530	530	530	530	530	530	530	\$ 6,573
WLOADM	MILEAGE REIMBURSEMENT	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	1,001	\$ 12,012
WLOADM	MILEAGE REIMBURSEMENT (S)	106	106	106	106	318	106	106	106	106	106	106	106	\$ 1,484
WLOADM	TRAVEL	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	2,670	\$ 32,040
WLOADM	TRAVEL (S)	530	530	530	530	1,061	530	530	530	530	530	530	530	\$ 6,891
WLOADM	MEALS ENTER PART DEDUCT	639	639	639	639	639	639	639	639	639	639	639	639	\$ 7,668
WLOADM	MEALS ENTER PART DEDUCT (S)													\$
WLOADM	MEALS FULLY DEDUCTIBLE	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	1,167	\$ 14,004
WLOADM	FREIGHT - (UPS, FED-EX)	451	451	451	451	451	451	451	451	451	451	451	451	\$ 5,412
WLOADM	MISC													\$
WLOADM	MISC. (S)	743	743	743	743	743	743	743	743	743	743	743	743	\$ 8,916
WLOCHS	Fuels Analysis	10,000			10,000			10,000			10,000			\$ 40,000
WLOENV	On-Site Environmental Cleanup	500	500	500	500	500	500	500	500	500	500	500	500	\$ 6,000
WLOENV	Environmental Supplies	500			500			500			500			\$ 2,000
WLOENV	Off-Site Environmental Disposal	500	500	25,000	500	500	500	500	500	500	500	500	500	\$ 30,500
WLOENV	UST Cathodic Protection Inspection (tube oil tanks)						6,000							\$ 6,000
WLOENV	UST liner inspection (Lube Oil Tanks)													\$
WLOENV	Ammonia Tanks Internal Inspector													\$
WLOENV	Replacement of Safety Relief Valves on Ammonia Tank													\$
WLOENV	Annual Inspection of Shelter In Place HVAC/Isolation device				2,200									\$ 2,200
WLOFGD	Descale Module							92,000						\$ 92,000
WLOFGD	mill balls/sorting	19,000		19,000		19,000	66,000	19,000		19,000		19,000		\$ 180,000
WLOLAB	BRE-J				11,300						11,300		19,000	\$ 22,600
WLOLAB	PL-3610 (For CSI Surge Tank treatment)		4,000			4,000			4,000			4,000		\$ 16,000
WLOLAB	PL-3625			10,700				10,700				10,700		\$ 32,100
WLOLAB	PDC9321													\$ 10,700
WLOLAB	Pacesetter Plus	170	170	170	170	170	170	170	170	170	170	170	170	\$ 2,040
WLOLAB	MD4100	1,175			1,175			1,175			1,175			\$ 4,700
WLOLAB	Clarification Services	15,000	15,000	15,000	15,000	9,000	9,000	9,000	9,000	9,000	9,000	15,000	15,000	\$ 144,000
WLOLAB	Sulfuric Acid	10,238	10,238	10,238	10,238	10,238	10,238	10,238	10,238	10,238	10,238	10,238	10,238	\$ 122,850
WLOLAB	Sodium Hydroxide 50% Raw or	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	\$ 126,000
WLOLAB	Sodium Hydroxide 50% or 20%						2,575							\$ 2,575
WLOLAB	Ferric Sulfate				6,200									\$ 6,200
WLOLAB	Chlorine Cylinders	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	\$ 19,800
WLOLAB	Ammonia	499	499	499	499	499	499	499	499	499	499	499	499	\$ 5,985
WLOLAB	Sodium Hypochlorite	410			410			410			410			\$ 1,640
WLOLAB	Bio-Bags		570				570							\$ 1,140
WLOLAB	Chlorine Tablets		260							260				\$ 520
WLOLAB	Lab Supplies	866	866	866	866	866	866	866	866	866	866	866	866	\$ 10,395
WLOLAB	Bromine	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	\$ 12,000
WLOLAB	Shock Cooling Tower	12,400					12,360							\$ 24,760
WLOLAB	Pond Chemical Treatments (AIHW)										30,000			\$ 30,000
WLOLAB	Contract Lab Sampling for Lab/Potable Water System	2,000			1,000			1,000			1,000			\$ 5,000
WLOLAB	Tank Inspection-DBA, SBS, Sulfur, etc				10,000									\$ 10,000
WLOMEX	Mobile Fuels Equip Diesel Fuel Oil	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	\$ 360,000
WLOPWS	Potable Water System Filters & Membrane Cleanin	800	800	800	800	800	800	800	800	800	800	800	800	\$ 9,600
WLOSCR	SCR sampling									20,000				\$ 20,000
WLOSCR	SCR Testing									70,000				\$ 70,000
WLOSGU	On-line deslag	5,000	5,000	5,000	60,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	\$ 115,000
WLOSGU	SO2 Tank Rental	3,200	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	\$ 18,050
WLOSGU	airheater wash						35,000							\$ 35,000
WLOSGU	Fuel Fineness						20,000							\$ 20,000
WLOTGN	Cond /cooler cleanin			35,000										\$ 35,000
WLOTGN	Cond air-in-leakage			15,000										\$ 15,000

**WILSON STATION 2010 O&M Non-Labor (BREC)**

Number	Description	JAN-10	FEB-10	MAR-10	APR-10	MAY-10	JUN-10	JUL-10	AUG-10	SEP-10	OCT-10	NOV-10	DEC-10	TOTAL
WLOTGN	H2/CO2/EHC & L.O filters	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	\$ 36,000
WLOTGN	Purchase Lube Oil			50,000										\$ 50,000
WLOTGN	Helium /Goodway Machine										4,000			\$ 4,000
WLTIGER	TIGER MAINTENANCE	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	2,600	\$ 31,200
WLTIGER	PM-2000 HOUR SERVICE FOR 690D Tiger	800									800			\$ 1,600
WLTIGER	PM-1000 HOUR SERVICE FOR 690D Tiger		800							800				\$ 1,600
WLTIGER	PM-100 HOUR SERVICE FOR 690D Tiger		214		214		214		214		214		214	\$ 1,284
WLTIGER	PM-200 HOUR SERVICE FOR 690D Tiger	536		535		535		535		535		535		\$ 3,211
WLTIGER	Re-condition Transmission								45,000					\$ 45,000
<b>TOTAL NON-LABOR O&amp;M PLAN FOR WILSON STATION</b>														
		\$ 545,653	\$ 605,388	\$ 830,527	\$ 1,089,773	\$ 728,017	\$ 835,517	\$ 814,777	\$ 782,391	\$ 1,124,900	\$ 1,804,089	\$ 847,679	\$ 796,465	\$ 10,805,075





WILSON STATION 2011 O&M Non-Labor (BREC)

Number	Description	JAN-11	FEB-11	MAR-11	APR-11	MAY-11	JUN-11	JUL-11	AUG-11	SEP-11	OCT-11	NOV-11	DEC-11	TOTAL
CHENVIRO	FUEL SPILL MAINTENANCE	7,200	7,200	7,200		7,200	7,200	7,200	7,200	7,200	7,200	7,200	7,200	\$ 79,200
FGDCLEAN	FGDC/CSI	5,000	5,000	5,000	5,000	15,000	15,000	5,000	5,000	5,000	5,000	5,000	5,000	\$ 80,000
MIECLEANING	Mist Eliminator	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	14,000	15,000	\$ 174,000
OPCLEAN	operational cleaning exp	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	4,000	\$ 48,000
WBRECINT (W110U2011)	Scheduled Outage Contract Labor									1,280,000	2,236,652			\$ 3,516,652
WBRECINT (W110U2011)	Scheduled Outage Purchased Material									960,889	1,441,333			\$ 2,402,222
WL544C	544 LOADER MAINTENANCE	214	214	214	214	214	214	214	214	214	214	214	214	\$ 2,568
WL544C	544 LOADER PM's	80		80		80		80		80		80		\$ 480
WL544C	re-cond hydraulics										5,000			\$ 5,000
WL992CAT	992 CAT MAINTENANCE	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	1,820	\$ 21,840
WL992CAT	PM-2000 HOUR SERVICE FOR 992 CAT LOADER			550							550			\$ 1,100
WL992CAT	PM-1000 HOUR SERVICE FOR 992 CAT LOADER		550											\$ 1,100
WL992CAT	PM-400 HOUR SERVICE FOR 992 LOADER		220		220		220		220		220		220	\$ 1,320
WL992CAT	PM-2000 HOUR SERVICE FOR 992 LOADER	550	550	550	550	550	550	550	550	550	550	550	550	\$ 6,600
WL992CAT	Re-place engine								75,000					\$ 75,000
WLD99HCAT	D9H Maintenance	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	\$ 16,200
WLD99HCAT	PM-2000 HOUR SERVICE FOR D9-H					550								\$ 1,100
WLD99HCAT	PM-1000 HOUR SERVICE FOR D9-H			550										\$ 1,100
WLD99HCAT	PM-400 HOUR SERVICE FOR D9H		300		300		300		300		300		300	\$ 1,720
WLD99HCAT	PM-200 HOUR SERVICE FOR D9H													\$
WLD99HCAT	PM-200 HOUR SERVICE FOR D9H	300	300	300	300	300	300	300	300	300	300	300	220	\$ 3,520
WLD99HCAT	Re-place turbo charger and assoc. equip								20,000					\$ 20,000
WLD99R	D9R MAINTENANCE	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	\$ 15,420
WLD99R	PM-2000 HOUR SERVICE FOR D9R	1,285									1,285			\$ 3,855
WLD99R	PM-1000 HOUR SERVICE FOR D9R	750					750					750		\$ 2,250
WLD99R	PM-400 HOUR SERVICE FOR D9R	325		325		325		325		325		325		\$ 1,845
WLD99R	PM-200 HOUR SERVICE FOR D9R	550	550	550	550	550	550	550	550	550	550	550	550	\$ 6,600
WLD99R	Re-place engine										60,000			\$ 60,000
WLMASH	ROUTINE MAINTENANCE (ASH HANDLING) OUTSIDE LDR			118	3,435	3,435	2,843	4,027	1,435	2,843	4,027	2,961	2,251	\$ 29,376
WLMASH	Airlock maintenance (10 Per Month)	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	5,665	\$ 67,980
WLMASH	PM-Lubrication general ash area	206	206	206	206	206	206	206	206	206	206	206	206	\$ 2,472
WLMASH	Clean & Inspect Flyash Silo								126,925					\$ 126,925
WLMASH	Clean Flyash Transport Line					39,231								\$ 39,231
WLMASH	PM-Filter Change, Flyash Blowers (3ea.)											927		\$ 927
WLMASH	Bottom Ash Recirc Pump #1					3,278								\$ 3,278
WLMASH	Circulating Water Booster Pump CW-P-4										3,500			\$ 3,500
WLMASH	Circulating Water Booster Pump CW-P-5											3,500		\$ 3,500
WLMASH	Bottom ash chute repairs				309				309				309	\$ 927
WLMASH	Economizer ash tank repairs (3ea.)	206			206				206				206	\$ 824
WLMASH	Economizer Sluice Pump Inspections						4,000							\$ 4,000
WLMASH	Bottom Ash Recirc Pump Inspection								3,000					\$ 3,000
WLMASH	Ash area sump pump repairs (3ea.)			1,030			1,030			1,030			1,030	\$ 4,120
WLMASH	DRAG CHAIN REPAIR	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	\$ 14,832
WLMBFW	PM-. #2 BFPT "A" side change oil filters, 6-month freq									824				\$ 824
WLMBFW	PM-. #2 BFPT "B" side change oil filters, 6-month freq							824						\$ 824
WLMBFW	PM-. #1 BFPT "B" side change oil filters, 6-month freq							824						\$ 824
WLMBFW	PM-. #1 BFPT "A" side change oil filters, 6-month freq							824						\$ 824
WLMCCW	PM-CC-P-1 Closed Cooling Water, Heat Exchanger 6 month inspection			515						515				\$ 1,030
WLMCCW	PM-CC-P-2 Closed Cooling Water, Heat Exchanger 6 month inspection		515											\$ 1,030
WLMCDS	ROUTINE MAINTENANCE (CONDENSATE SYSTEM)	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	2,421	\$ 29,046
WLMCDS	PM-Recondition #1 Condensate Pump Motor		12,000											\$ 12,000
WLMCDS	PM-Lubrication, water treatment, 12-month frequency	155	155	155	155	155	155	155	155	155	155	155	155	\$ 1,854
WLMCDS	PM-Condenser Vacuum Pump #2						618							\$ 618
WLMCDS	PM-Condenser Vacuum Pump #1							618						\$ 618
WLMCDS	PM- Circulating Water Pump Overhaul			24,720										\$ 24,720
WLMCDS	PM- Circulating Water Pump Overhaul			18,540										\$ 18,540
WLMCHS	ROUTINE MAINTENANCE (COAL HANDLING) (outside mech. & c	9,096	19,096	9,096	19,096	9,096	19,096	9,096	19,096	19,096	19,096	19,096	19,096	\$ 189,155
WLMCHS	ROUTINE MAINTENANCE (COAL HANDLING)	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	2,897	\$ 34,769
WLMCHS	CONVEYOR CONTROLS MAINTENANCE	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMCHS	Track & Main Gate Scales	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	1,674	\$ 20,085
WLMCHS	SAMPLER MAINTENANCE (AS FIRED & RECEIVED)	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	\$ 14,832
WLMCHS	AUGER SAMPLER	1,030			1,030			1,030			1,030			\$ 4,120
WLMCHS	PM-12 Month Inspection, Sample System Bucket Elev.									721				\$ 721
WLMCHS	IDLER REPLACEMENT	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	8,230	\$ 98,756
WLMCHS	BELT CLEANER MAINTENANCE	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	\$ 19,776
WLMCHS	Scale Calibration 10/1 Conveyor													\$
WLMCHS	Stacker & Reclaimer repairs	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	\$ 18,540

WILSON STATION 2011 O&M Non-Labor (BREC)

Number	Description	JAN-11	FEB-11	MAR-11	APR-11	MAY-11	JUN-11	JUL-11	AUG-11	SEP-11	OCT-11	NOV-11	DEC-11	TOTAL
WLMCHS	SCALE CALIBRATIONS AND REPAIR (Other than Truck and Main	2,086	1,622	1,622	2,086	1,622	1,622	2,086	1,622	1,622	2,086	1,622	1,622	\$ 21,321
WLMCHS	8-1 Conveyor gear reducer overhaul						15,450							\$ 15,450
WLMCHS	8-1 Conveyor gear reducer overhaul						15,450							\$ 15,450
WLMCHS	8-2 Conveyor gear reducer overhaul						15,450							\$ 15,450
WLMCHS	8-2 Conveyor gear reducer overhaul						15,450							\$ 15,450
WLMCHS	PM-Lubrication, General Coal Handling Area	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	\$ 19,776
WLMCHS	FUEL HANDLING MAINTENANCE													\$
WLMCHS	PART-TIME SUPPORT FOR SCALES													\$
WLMCHS	COAL CHUTE MAINTENANCE	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	7,138	\$
WLMCSM	MAINTENANCE AND PRODUCTION CONSUMABLES	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	12,360	\$ 85,655
WLMCSMIE	I&E Consumables	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	4,790	\$ 148,320
WLMCWS	ROUTINE MAINTENANCE (CIRC. WATER)	4,501	4,501	4,501	2,132	4,501	4,501	4,501	4,501	2,132	4,501	4,501	4,501	\$ 57,474
WLMCWS	Electric motor repair & replacement - CIRC WATER SYS	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 49,275
WLMCWS	PM-12 Month Inspection, Sample System Bucket Elev.													\$
WLMCWS	PM-12 Month Inspection, #2 River Water Pump													\$
WLMCWS	PM-12 Month Inspection, #3 River Water Pump													\$
WLMCWS	PM-4 Year Inspection, WC-P-1 Filter Water Pump													\$
WLMCWS	PM-4 Year Inspection, WC-P-1 Filter Water Pump									5,463				\$ 5,463
WLMCWS	PM-18 Month Inspection, Condenser Vacuum Pump #2										5,463			\$ 5,463
WLMCWS	PM-1WC-P-6 Clarified Water Pump, 4 year inspection													\$
WLMCWS	PM-4 Year Inspection, WC-P-1 Filter Water Pump													\$
WLMCWS	Cooling Water Control System Maintenance	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	1,133	\$ 13,596
WLMCWS	PM-18 Month Inspection, Condenser Vacuum Pump #1													\$
WLMCWS	PM-Lubrication, general water treatment	206	206	206	206	206	206	206	206	206	206	206	206	\$ 2,472
WLMCWS	PM-Annual inspection River Water Make-Up Clarifiers (2ea.)													\$ 20,600
WLMCWS	Replace Cooling Tower Nozzles				2,060					2,060				\$ 4,120
WLMCWS	Replace Cooling Tower drive gear reducer Lube oil pumps (2ea.)			515							515			\$ 1,030
WLMCWS	Repairs to cooling tower circulating water screens				1,030				1,030				1,030	\$ 3,090
WLMCWSINT	PM-Lubrication, intake area		52		52		52		52			52	52	\$ 567
WLMCWSINT	PM-Annual Insp. Screen Wash Pump Strainer (3ea)													\$ 6,180
WLMCWSINT	PM-Annual Inspection Traveling Wtr. Screen (2ea.)									6,180				\$ 6,180
WLMCWSINT	PM-Screen Wash Pump Inspection									2,472				\$ 2,472
WLMCWSINT	PM-12 Month Inspection, River Water Pump (3ea.)													\$
WLMDW5	Acid pump repairs	206	206	206	206	206	206	206	206	1,545				\$ 1,545
WLMDW5	Clarified Water Pump 1WC-P-5									206	206	206	206	\$ 2,472
WLMDW5	Clarified Water Pump 1WC-P-6									4,775				\$ 4,775
WLMDW5	DEMINEALIZER PSI AND TEMP TRANSMITTERS (Monthly Main	618	618	618	618	618	618	618	618	618	618	618	618	\$ 7,416
WLMEDT	Infrared Thermography Scan						2,060							\$ 2,060
WLMEDT	SWITCHGEAR/BUS	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	3,193	\$ 38,316
WLMEDT	6.9 Cable Repair			26,523						26,523				\$ 53,045
WLMEDT	Lighting MTCE													\$
WLMEDT	Breaker Starter replacement	4,429	4,429	4,429	4,429	4,429	4,429	4,429	4,429	4,429	4,429	4,429	4,429	\$ 53,148
WLMEDT	Versatmp Mitec				8,240				8,240					\$ 8,240
WLMEDT	BREC Transformer Mitec	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	\$ 24,720
WLMEL	PM-Replace Safeties on Upper & Lower Stack Elevators (labor)		10,000											\$ 10,000
WLMEL	PM-Replace Safeties on Upper & Lower Stack Elevators (Matl)		10,000											\$ 10,000
WLMEL	CONTRACT LABOR TO SERVICE & REPAIR ELEVATORS	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	\$ 49,440
WLMENV	CEMS ANALYTICAL MAINTENANCE (Technical Support)	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	4,120	\$ 49,440
WLMENV	ENV GAS DETECTORS Monthly Maintenance	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	\$ 18,540
WLMENV	MONTHLY MAINTENANCE OF CEMS EQUIPMENT	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	2,060	\$ 24,720
WLMENV	Retiring Nuclear Sources													\$ 3,090
WLMENV	EMISSIONS CONTROLS- RATA TESTING					10,300								\$ 10,300
WLMENV	Impoundment Pond Rock Filters													\$
WLMENV	SO3 maintenance				3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	\$ 18,540
WLMENV	SO3 maintenance				3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	\$ 21,321
WLMERC	Calibration Mercury Monitors													\$
WLMERC	Parts/Consumables Merc. Monitors													\$
WLMFGD	ROUTINE MAINTENANCE (FGD)	9,167	9,167	8,137	9,167	9,167	8,137	9,167	5,459	8,137	9,167	9,167	8,137	\$ 102,176
WLMFGD	ROUTINE MAINTENANCE (FGD), OUTSIDE LBR	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	2,215	\$ 26,580
WLMFGD	Electric motor repair & replacement	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	1,597	\$ 19,158
WLMFGD	LIMESTONE SCALE CAL AND MAINT	464												\$ 1,854
WLMFGD	Maintenance on #1 MODULE	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	\$ 42,642
WLMFGD	Maintenance on #2 MODULE	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	\$ 42,642
WLMFGD	Maintenance on #3 MODULE	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	\$ 42,642
WLMFGD	Maintenance on #4 MODULE	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	3,554	\$ 42,642
WLMFGD	Slurry Recirc Motor PdM Program	906	906	906	906	906	906	906	906	906	906	906	906	\$ 10,877
WLMFGD	PM-Lubrication, general scrubber area, weekly frequency													\$

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WLMFGD	FGD Wiring Repairs			15,450			15,450			15,450			15,450	\$ 61,800
WLMFGD	SO3 System Mice													\$ -
WLMFGD	Structural Painting					21,857								\$ 21,857
WLMFGD	Structural Painting					20,765								\$ 20,765
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul									8,884				\$ 8,884
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul									30,467				\$ 30,467
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul								8,884					\$ 8,884
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul								30,467					\$ 30,467
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul										8,884			\$ 8,884
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul										30,467			\$ 30,467
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul											8,884		\$ 8,884
WLMFGD	PM-Slurry Recycle Pump, 4 yr scheduled Overhaul											30,467		\$ 30,467
WLMFGD	Slurry recycle pump belt replacements (4ea )								5,356					\$ 5,356
WLMFGD	PM-3 Year Scheduled Inspection, 303J Reclaim Wtr. Pmp										10,927			\$ 10,927
WLMFGD	PM-18 Month, Stack Roof Inspection													\$ -
WLMFGD	Replace #1 Ball Mill Liners (06&08)for End Liner Plates (07&09)													\$ -
WLMFGD	Replace #2 Ball Mill Liners (06&08)for End Liner Plates (07&09)													\$ -
WLMFGD	PM-2 Year Inspection, JCI Slurry Recirc Pump													\$ -
WLMFGD	Stack Band Replacement (15)				240,400									\$ 240,400
WLMFGD	Stack Band Replacement (15)				109,273									\$ 109,273
WLMFGD	Replace module inlet & outlet damper seal air blowers									7,107				\$ 7,107
WLMFGD	Replace module inlet & outlet damper seal air blowers (4ea)							10,300						\$ 10,300
WLMFGD	PM-Module agitator overhauls (4ea)		41,200											\$ 41,200
WLMFGD	Replace ME Wash Valves (4ea)			1,030			1,030			1,030			1,030	\$ 4,120
WLMFGD	Slurry Recirc Spray Nozzles & Hoses	1,648	1,648		1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	1,648	\$ 19,776
WLMFGDLS	ROUTINE MAINTENANCE (LIMESTONE PROCESSING)	3,090	3,090	3,090	3,090	3,090	2,472	3,090	3,090	3,090	3,090	3,090	3,090	\$ 36,462
WLMFGDLS	ELECTRIC MOTOR REPAIR & REPLACEMENT	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	2,122	\$ 25,462
WLMFGDLS	#1 Ball mill liner replacement				29,613									\$ 29,613
WLMFGDLS	#1 Ball mill liner replacement				56,650									\$ 56,650
WLMFGDLS	PM-18 Month Inspection, J1A1 Product Sump Pump													\$ -
WLMFGDLS	PM-101J Slurry Feed Pump, 2 year inspection													\$ -
WLMFGDLS	PM-18 Month Inspection, J12 Product Sump Pump													\$ -
WLMFGDLS	PM-6 Month Inspection, #2 Ball Mill										1,185		1,185	\$ 2,369
WLMFGDLS	PM-6 Month Inspection, #1 Ball Mill										1,185		1,185	\$ 2,369
WLMFGDLS	PM-12 Month Inspection, #1 Ball Mill C3 clones											1,030		\$ 1,030
WLMFGDLS	PM-2 Year Inspection, 101JA Slurry Feed Pump												1,030	\$ 1,030
WLMFGDLS	PM-12 Month Inspection, #2 Ball Mill Cyclones												1,030	\$ 1,030
WLMFGDLS	Limestone feeder repairs													\$ -
WLMFGDSCB	Tugboat Maintenance	550		805	550	805		550	805		550	805		\$ 5,420
WLMFGDSCB	PM-6 MONTH Lube Service, Tugboat	440					440						440	\$ 1,320
WLMFGDSCB	re-place lighting								8,000					\$ 8,000
WLMFGDSCB														\$ -
WLMFGDSCB						15,000								\$ 15,000
WLMFGDSCB	Barge Haul Accessories (Sheave, Clevis, Chain, Cable)		450		450		450		450		450		450	\$ 2,700
WLMFGDSCB	BARGE MAINTENANCE & CABLE REPLACEMENT	10,165		10,165		10,165		10,165		10,165		10,165		\$ 60,990
WLMFGDSCB	Barge Unloader Inspection by 2nd party								10,500					\$ 10,500
WLMFGDSCB	ROUTINE MAINTENANCE (BARGE UNLOADER SYSTEM)	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	9,270	\$ 111,240
WLMFGDSCB	REPLACE DUU BUCKET						79,568							\$ 79,568
WLMFGDSCB	PM Lubrication	1,000		1,000		1,000		1,000		1,000		1,000		\$ 6,000
WLMFPS	Fire Protection Panel Modules	515	515	515	515	515	515	515	515	515	515	515	515	\$ 6,180
WLMFPS	Fire Protection Panel Maintenance	515	515	515	515	515	515	515	515	515	515	515	515	\$ 6,180
WLMFPS	FIREWATER PIPE & SYSTEM MAINTENANCE	618	618	618	618	618	618	618	618	618	618	618	618	\$ 7,416
WLMFPS	PM-12 Month inspection, Diesel Fire Pump													\$ 618
WLMFPS	Piping Repairs			1,421			1,421			1,421				\$ 5,686
WLMFPS	Piping Repairs			1,648			1,648			1,648				\$ 6,592
WLMGEU	PM-6 Month Lube Service & Repairs Gas Welding Machines (1ea )	515			515			515					515	\$ 1,545
WLMGEU	Routine Repairs to Electric welding machines													\$ -
WLMGEU	PM-6 Month Lube Service & Repairs Portable Air Compressor (2ea )			309						309				\$ 618
WLMGEU	PM-Spider hoist , service and safety inspection		5,150											\$ 5,150
WLMHVC	MONTHLY SERVICE & HVAC FILTER CHANGEOUT FOR A/C UT	4,120	4,120	4,120	9,270	4,120	4,120	4,120	4,120	4,120	9,270	4,120	4,120	\$ 59,740
WMLLAB	Fuel Handling runoff mice/cleaning							80,000						\$ 80,000
WMLLAB	M.U. Clarifier			12,000										\$ 12,000
WMLLAB	M.U. Clarifier			10,000										\$ 10,000
WMLLAB	Sand Filters							9,000						\$ 9,000
WMLLAB	Sand Filters							9,000						\$ 9,000
WMLLAB	Filtered Water Tanks					1,640								\$ 1,640
WMLLAB	Carbon Filters													\$ -

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WMLLAB	Carbon Filters													\$ 16,500
WMLLAB	Demineralizer		16,500											\$ 16,500
WMLLAB	Demineralizer		13,500											\$ 13,500
WMLLAB	Condensate Storage Tanks					1,640								\$ 1,640
WMLLAB	Neutralization Pits													\$ -
WMLLAB	Condensate Polishers													\$ -
WMLLAB	Condensate Polishers													\$ -
WMLLAB	Potable R.O					3,000								\$ 3,000
WMLLAB	Potable R.O					8,750								\$ 8,750
WMLLAB	Potable Clarifier													\$ -
WMLLAB	Sewage Treatment System			2,200			2,500							\$ 4,700
WMLLAB	Chlorine System													\$ 2,500
WMLLAB	Industrial Cleaning					2,500			3,500					\$ 6,000
WMLLAB	Acid Tanks													\$ -
WMLLAB	WW Clarifier						23,000							\$ 23,000
WMLLAB	WW Clarifier						10,000							\$ 10,000
WMLMEX	637 Cat Maintenance	950	950	950	950	950	950	950	950	950	950	950	950	\$ 11,400
WLMEMX	PM-2000 HOUR SERVICE FOR 637 Cat										1,600			\$ 1,600
WLMEMX	PM-1000 HOUR SERVICE FOR 637 Cat										880			\$ 880
WLMEMX	PM-400 HOUR SERVICE FOR 637 Cat										660			\$ 660
WLMEMX	PM-200 HOUR SERVICE FOR 637 Cat	660												\$ 660
WLMEMX	Fuel injectors both engines									9,000				\$ 9,000
WLMEMX	280 Michigan Maintenance	950	950	950	950	950	950	950	950	950	950	950	950	\$ 11,400
WLMEMX	PM-1000 HOUR SERVICE FOR 280										800			\$ 800
WLMEMX	PM-400 HOUR SERVICE FOR 280										800			\$ 800
WLMEMX	PM-200 HOUR SERVICE FOR 280	800									800			\$ 1,600
WLMEMX	Steering and Hydraulics				15,000									\$ 15,000
WLMEMX	Euclid Water Truck Maintenance	650	650	650	650	650	650	650	650	650	650	650	650	\$ 7,800
WLMEMX	PM-2000 HOUR SERVICE													\$ 500
WLMEMX	PM-1000 HOUR SERVICE					220				220				\$ 440
WLMEMX	PM-400 HOUR SERVICE		250			250			250		250		250	\$ 1,500
WLMEMX	PM-200 HOUR SERVICE	250	250	250	250	250	250	250	250	250	250	250	250	\$ 3,000
WLMEMX	Re-cond Hydraulics							8,000						\$ 8,000
WLMEMX	ROUTINE MAINTENANCE	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	\$ 144,000
WLMEMX	PM-6 Month Lube Service, JD 770A Grader	270			535						535			\$ 1,610
WLMEMX	Hydraulic cylinders							12,000						\$ 12,000
WLMEMX	Forklift	535						535						\$ 1,070
WLMEMX	Broderson	160		160		160		160		700		160	160	\$ 1,660
WLMEMX	JD Backhoe	160		160		160		160		160		160		\$ 960
WLMEMX	JD Tractor		110		110		110				110			\$ 440
WLMEMX	JD Tractor-recondition						5,000							\$ 5,000
WLMEMX	Dump Truck								16,500					\$ 16,500
WLMEMX	PM-Finestman excavator, 250 hr. service list	160			550			22,220		3,750		550		\$ 27,230
WLMEMX	Routine Maint.			160						160				\$ 1,650
WLMEMX	Truck w/ welder	160				160								\$ 800
WLMEMX	Replace / Rebuild Crane on Service Truck							22,220						\$ 22,220
WLMEMX	Part time support for scales	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	\$ 18,000
WLMEMX	Road Office	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	\$ 18,000
WLMEMX	Liquid heat for conveyors									20,000				\$ 20,000
WLMEMX	Fed X Coal Receipts to L'ville	500	500	500	500	500	500	500	500	500	500	500	500	\$ 6,000
WLMEMX	Re-coat Service Bldg roof							20,000						\$ 20,000
WLMEMX	Operator Training							6,000						\$ 6,000
WLMEMXNFC	Routine Maintenance Heavy Equipment	618	618	618	618	618	618	618	618	618	618	618	618	\$ 7,416
WLMEMXNFC	PM-6 Month Lube Service, Forklifts (4ea)		618				618							\$ 1,854
WLMEMXNFC	PM-6 Month Lube Service, Bobcat (2ea)				309						309			\$ 618
WLMEMXNFC	PM-6 Month Lube Service, Broderson	309					309							\$ 618
WLMEMXNFC	PM-6 Month Lube Service, Terex Crane	309					309							\$ 618
WLMEMXNFC	PM-6 Month Lube Service, JLG Lifts (2ea)	618					618							\$ 1,236
WLMOHIC	PM- Annual Crane Inspections & Repairs			25,750			25,750			25,750			25,750	\$ 103,000
WLMOTOR	Motor Rewinds													\$ -
WLMOTOR	Motor lubrication													\$ -
WLMOTOR	Motor lubrication													\$ -
WLMOTOR	Motor filter maintenance													\$ -
WLMOTOR	Vibration analysis													\$ -
WLMOTOR	Electric motor repair & replacement - CIRC WATER SYS													\$ -
WLMOTOR	Electric motor repair & replacement - FGD													\$ -
WLMOTOR	Unassigned													\$ -

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WLMOTOR	ELECTRIC MOTOR REPAIR & REPLACEMENT-FGDLSP													\$
WLMOTOR	ELECTRIC MOTOR REPAIR & REPLACEMENT-Solid Waste													\$
WLMFAS	Routine maintenance	41	1,545	1,545	41	1,545	1,545	41	1,545	1,545	41	1,545	1,545	\$ 12,525
WLMFAS	#1 SERVICE AIR COMPRESSOR OVERHAUL (MARCH)													\$
WLMFAS	#2 Centac Tune Up													\$
WLMFAS	PM-12 Month Inspection, #1 Centac Air Compressor													\$
WLMFAS	PM-12 Month Inspection, #2 Centac Air Compressor													\$
WLMFAS	PM-12 Month Desiccant Change, CA-Q-1 Inst. Air Dryer													\$
WLMFAS	*Air Care* Preventative Maintenance	1,504			1,504			1,504			1,504			\$ 6,015
WLMFAS	PM-12 Month Inspection, #1 Centac Air Compressor									1,030				\$ 1,030
WLMFAS	PM-12 Month Desiccant Change, CA-Q-4 Inst. Air Dryer.												2,060	\$ 2,060
WLMFAS	PM-12 Month Desiccant Change, CA-Q-1 Inst. Air Dryer												2,060	\$ 2,060
WLMFCM	Vibration monitoring equipment	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	7,210	3,090	\$ 41,200
WLMFCM	Plant Communication (Gal Trounc) Repairs (O/S)				12,731			12,731					12,731	\$ 50,923
WLMFCM	Plant Communication (Gal Trounc) Repairs (Math)				8,487			8,487					8,487	\$ 33,949
WLMFCM	PLANT CONTROL SYSTEM MTCE													\$
WLMPCSHH	BLDG. & GROUNDS: WINTERIZATION (including heat trace)					5,150	5,150	5,150	8,487	15,914	15,914			\$ 55,764
WLMPLS	Plant Lighting System		20,600			20,600				20,600		20,600		\$ 82,400
WLMFST	ROUTINE MAINTENANCE (INCLUDING PAINT)	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	3,090	\$ 37,080
WLMFST	#2 Conveyor Cover (Paint)				3,606									\$ 3,606
WLMFST	#2 Conveyor Cover (Paint)				2,404									\$ 2,404
WLMFST	#4 Conveyor Covers (Paint)				3,606									\$ 3,606
WLMFST	#4 Conveyor Covers (Paint)				2,404									\$ 2,404
WLMFST	5A & 5B Conveyor Cover Replacement					11,539								\$ 11,539
WLMFST	5A & 5B Conveyor Cover Replacement					17,309								\$ 17,309
WLMFST	DOOR REPLACEMENTS								5,150	5,150	5,150			\$ 15,450
WLMFWS	ROUTINE MAINTENANCE (POTABLE WATER SYSTEM)	824	824	824	824	824	618	824	824	824	824	824	618	\$ 9,476
WLMFWS	POTABLE WTR PSI AND TEMP TRANSMITTERS (Monthly Maint	309	309	309	309	309	309	309	309	309	309	309	309	\$ 3,708
WLMFWS	Potable water pump repairs (2ea)							1,030						\$ 1,030
WLMFWS	County Water Study	70,000												\$ 70,000
WLMFWS	Repair floor ramps (2ea)						3,090							\$ 3,090
WLMFWS	PM-Lubrication, potable water building, 6-month frequency						206						206	\$ 412
WLMRID	Nuclear Recording & Indicating devices (disposal & repair)						5,000							\$ 5,000
WLMRID	Wipe Tests													\$
WLMRID	Nuclear Personnel Dosimetry	2,000												\$ 2,000
WLMRID	Nuclear Recording & Indicating devices (scaffolding)					6,000						6,000		\$ 12,000
WLMRID	Retiring Nuclear Sources											9,000		\$ 9,000
WLMRID	Recording & Indicating devices													\$
WLMSCR	Ammonia & Nox Analyzer Monthly Maintenance	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	\$ 12,875
WLMSCR	SCR Tuning					10,300								\$ 10,300
WLMSCR	SCR Alnce	5,923	11,845	11,845	11,845	1,185	1,185	1,185	1,185	1,185	11,845			\$ 59,225
WLMSCR	BREC Share 20%													\$
WLMISGU	ROUTINE SOOTBLOWER MAINTENANCE	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	\$ 74,160
WLMISGU	ROUTINE MAINTENANCE (BOILER)	6,710	6,710	6,710	6,710	6,710	5,165	6,710	6,710	6,710	6,710	6,710	6,710	\$ 78,980
WLMISGU	ROUTINE MAINTENANCE (BOILER), OUTSIDE LBR	4,264	4,264	4,264	4,264	4,264	4,264	4,264	4,264	4,264	4,264	4,264	4,264	\$ 51,170
WLMISGU	ROUTINE SOOTBLOWER MAINTENANCE I/E	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	\$ 12,360
WLMISGU	Motor Rewinds, Repair and Replacement			11,670				11,670			11,670			\$ 46,680
WLMISGU	Motor lubrication	2,266	2,266	2,266	2,266	2,266	2,266	2,266	2,266	2,266	2,266	2,266	2,266	\$ 27,192
WLMISGU	Motor lubrication	258	258	592	258	258	592	258	258	592	258	258	592	\$ 4,429
WLMISGU	Motor filter maintenance					876								\$ 1,751
WLMISGU	Vibration analysis	4,738	4,738	4,738	4,738	4,738	4,738	4,738	4,738	4,738	4,738	4,738	4,738	\$ 56,856
WLMISGU	BURNER MAINTENANCE	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	6,180	\$ 74,160
WLMISGU	PM-LUBRICATION, GENERAL BOILER BUILDING	1,751	1,751	1,751	1,751	1,751	1,751	1,751	1,751	1,751	1,751	1,751	1,751	\$ 21,012
WLMISGU	Sootblower Lance replacements	10,300		10,300			10,300	10,300		10,300		10,300		\$ 61,800
WLMISGU	Superheat Tube Leak Repair											76,993		\$ 76,993
WLMISGU	Drum Gauge Glass repairs							1,545						\$ 1,545
WLMISGU	Boiler Tuning							15,965						\$ 15,965
WLMISGU	PM-Oil samples, 4-week frequency, Wilson Station	77	77	77	77	77	77	77	77	77	77	77	77	\$ 927
WLMISGU	PM-Scanner filter changeout						3,090							\$ 3,090
WLMISGUFDE	Repair Damper REXA Drives	2,459	2,459	2,459	2,459	2,459	2,459	2,459	2,459	2,459	2,459	2,459	2,459	\$ 29,503
WLMISGUFDE	Mill Bearing Failure										95,613			\$ 95,613
WLMISGUFDE	Mill Bearing Failure										95,613			\$ 95,613
WLMISGUFPE	ROUTINE MAINTENANCE (MILLS & FEEDERS)	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,009	2,009	\$ 24,102
WLMISGUFPE	Coal Feeder Maintenance	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	\$ 15,450
WLMISGUFPE	Replace Defective Pulverizer Instrumentation	515	515	515	515	515	515	515	515	515	515	515	515	\$ 6,180
WLMISGUFPE	Mill Bearing Failure											90,125		\$ 90,125
WLMISGUFPE	Mill Bearing Failure											103,644		\$ 103,644

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Number	Description	JAN-11	FEB-11	MAR-11	APR-11	MAY-11	JUN-11	JUL-11	AUG-11	SEP-11	OCT-11	NOV-11	DEC-11	TOTAL
WLMISGUPPC	Fuel Fineness Testing		10,300	10,300					10,300					\$ 20,600
WLMISGUPPE	PM-Pulverizer 3000 hr Inspections (5ea.)			9,476						10,700				\$ 18,952
WLMISGUPPE	PM-Pulverizer 3000 hr Inspections (5ea.)			515										\$ 1,030
WLMISGUPPE	PM-Coal Feeder 3000 hr Inspections (5ea.)			1,185						1,185				\$ 2,369
WLMISGUPPE	PM-Coal Feeder 3000 hr Inspections (5ea.)			1,545					1,545					\$ 4,635
WLMISGUPPE	Replace Pulverizer Raw Coal Pipes ( 3ea.)			1,421					1,421					\$ 4,264
WLMISGUPPE	Replace Pulverizer Raw Coal Pipes ( 2ea.)			1,421					5,150					\$ 5,150
WLMISGUPPE	Replace Coal Feeder Trans. Chute (1ea.)								1,421					\$ 1,421
WLMISGUPPE	Replace Coal Feeder Trans. Chute (1ea.)				824					824				\$ 1,648
WLMISGUPPE	Coal Feeder Belt replacements (2ea.)			6,180			6,180			6,180			6,180	\$ 24,720
WLMISGUPPE	Pyritic Gate Replacements			6,180										\$ 104,387
WLMISGUPPE	#1 Pulverizer Overhaul	104,387												\$ 172,513
WLMISGUPPE	#1 Pulverizer Overhaul	172,513												\$ 104,387
WLMISGUPPE	#2 Pulverizer Overhaul			104,387										\$ 172,513
WLMISGUPPE	#2 Pulverizer Overhaul			172,513										\$ 104,387
WLMISGUPPE	#5 Pulverizer Overhaul											104,387		\$ 172,513
WLMISGUPPE	#5 Pulverizer Overhaul											172,513		\$ 172,513
WLMISGUPPC	EMISSION CONTROLS PRECIPITATORS	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMISGUPPC	Rapport Maintenance			2,652						2,652				\$ 10,609
WLMISGUPPC	Rapport Maintenance			10,609						10,609				\$ 42,436
WLMISGUPPC	Rapport Maintenance			10,609						10,609				\$ 44,496
WLMISWD	ROUTINE MAINTENANCE (SOLID WASTE)	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	3,708	\$ 44,496
WLMISWD	ELECTRIC MOTOR REPAIR & REPLACEMENT	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	1,061	\$ 12,731
WLMISWD	SCALE CALIBRATION AND REPAIR	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	1,339	\$ 16,068
WLMISWD	#1 Thickener Inspection & repair													\$ 10,000
WLMISWD	#1 Thickener Inspection & repair													\$ 10,000
WLMISWD	#2 Thickener Inspection & repair													\$ 10,000
WLMISWD	#2 Thickener Inspection & repair													\$ 10,000
WLMISWD	FILTER DRUM RECTLOTH	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	\$ 28,428
WLMISWD	PM-Lubrication, General Solid Waste Area	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	\$ 18,540
WLMISWD	Uni-Wash dust collector drag chain				4,120				4,120					\$ 12,360
WLMISWD	Mixer Overhaul													\$
WLMISWD	PM-CO-137 Conveyor, replace v-belt and insp sheaves													\$
WLMISWD	PM-CO-135 Conveyor, change v-belts and insp sheaves													\$
WLMISWD	PM-6 Month Inspection, 141A Flyash Screw Conveyor						515							\$ 1,030
WLMISWD	PM-6 Month Inspection, 141A Flyash Screw Conveyor						515							\$ 1,030
WLMISWD	PM-3 Year Inspection, 141A Flyash Conveyor									1,030				\$ 1,030
WLMISWD	PM-2 Year Inspection, 142A Flyash Conveyor											1,030		\$ 1,030
WLMISWD	PM-6 Month Inspection, 142A Flyash Screw Conveyor					515								\$ 1,030
WLMISWD	PM-6 Month Inspection, 142B Flyash Screw Conveyor													\$ 1,030
WLMISWD	PM-6 Month Inspection CO-143A Screw Conveyor	1,030							1,030					\$ 2,060
WLMISWD	PM-6 Month Inspection CO-143B Flyash Conveyor	1,030							1,030					\$ 2,060
WLMISWD	PM-6 Month Inspection, 144A Flyash Conveyor		515							515				\$ 1,030
WLMISWD	PM-6 Month Inspection, 144B Flyash Conveyor		515							515				\$ 1,030
WLMISWD	PM-6 Month Inspection, 144C Flyash Conveyor		515							515				\$ 1,030
WLMISWD	PM-6 Month Inspection, 145A Flyash Screw Conveyor		515									515		\$ 1,030
WLMISWD	PM-6 Month Inspection, 145B Flyash Screw Conveyor		515									515		\$ 1,030
WLMISWD	PM-6 Month Inspection, 145C Flyash Screw Conveyor		515									515		\$ 1,030
WLMISWD	PM- Conveyor, replace v-belts and insp sheaves & drives on east conveyors							5,974						\$ 5,974
WLMISWD	Replace conveyor belt pulleys (5ea.)											2,500		\$ 2,500
WLMISWD	PM-Recondition VP-121 Vacuum Pump Motor											2,500		\$ 2,500
WLMISWD	PM-Recondition VP-126 Vacuum Pump Motor							4,120						\$ 4,120
WLMISWD	PM- Annual inspection, Vacuum Pump replace v-belts & inspect sheaves (4ea.)							618						\$ 1,236
WLMISWD	PM- Annual inspection, Filtrate Return Pump replace v-belts & inspect sheaves (4ea.)													\$ 1,236
WLMISWD	PM- Annual inspection, 171 A&B 172 A&B Pump replace v-belts & insp	3,090												\$ 3,090
WLMISWD	PM-Annual inspection replace v-belts & inspect sheaves mixer gear reducers (2ea.)			3,090						3,090				\$ 3,090
WLMISWD	PM-Annual inspection mixer											5,464		\$ 5,464
WLMISWD	Filtrate Pump P121											5,464		\$ 5,464
WLMISWD	Filtrate Pump P122											5,464		\$ 5,464
WLMISWD	Filtrate Pump P123											5,464		\$ 5,464
WLMISWD	Filtrate Pump P124											5,464		\$ 5,464
WLMISWD	PM- Overhaul Surge Tank gear reducer P-111A		15,450											\$ 15,450
WLMISWD	PM- Overhaul Surge Tank gear reducer P-111A		15,450											\$ 15,450
WLMISWD	PM-3 Year Inspection, P112C Filter Feed Pump									3,183				\$ 3,183
WLMISWD	PM-3 Year Inspection, P111B Filter Feed Pump													\$ 3,183
WLMISWD	PM- Annual inspection replace v-belts & inspect sheaves Silo Flyash Bl	2,060												\$ 2,060
WLMISWD	PM- Annual inspection flyash rotary feeders (4ea.)											1,030		\$ 1,030
WLMISWD	Overhaul area Sumps (2ea.)							3,090						\$ 3,090

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WLAISWD	A Thickner rake drive replace belts									515				515
WLAISWD	B Thickner rake drive replace belts													515
WLAISWD	Thickner underflow pump inspection (2ea)										2,060			2,060
WLAISWD	Replace Defective Filter Drum Transmitters and Switches (5)	2,575			2,575			2,575				2,575		10,308
WLAITGN	ROUTINE MAINTENANCE (TURBINE)	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	3,605	43,260
WLAITGN	Turbine Supervisor Instruments Monthly Maintenance	824	824	824	824	824	824	824	824	824	824	824	824	9,888
WLAITGN	Turbine Control Valve Monthly Maintenance	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	1,288	15,450
WLAITGN	Berna Monitor	25,750												25,750
WLAITGN	PM-Lubrication, general turbine building	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	1,030	12,360
WLAITGN	Turbine Air Leakage Test	4,120						4,120						8,240
WLAITGN	Turbine Vibration Monitoring			6,438				6,438		6,438				25,750
WLAITGN	PM-12 Month L.O.-C-1 Lube Oil Cooler Cleaning													
WLAITGN	PM-12 Month L.O.-C-2 Lube Oil Cooler Cleaning													
WLAITGN	PM-Hydrogen Dryer, change desiccant in dryer.													
WLAITGN	PM-12 Month Insp, clean and insp flame arrestors, lube oil				309									309
WLAITGN	PM-12 Month Turbine Lube Oil Cooler Cleaning (2ea.)				309					309				618
WLAITGN	Turbine area Sump Pump repairs (4EA.)						5,150							5,150
WLAITGN	PM-Hydrogen Dryer, change desiccant in dryer.							412						412
WLAITGN	PM-6 Month EH Filter Change			1,751						1,751				3,502
WLAITR	ROUTINE TOOL REPAIR MECHANICAL	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	18,540
WLAITR	ROUTINE TOOL REPAIR I/E	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	1,591	19,096
WLAIVEH	Routine Maintenance (Vehicles)	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	1,545	18,540
WLAIVEH	PM-Quarterly Service all vehicles	4,172						4,172						12,515
WLAIWWS	ROUTINE MAINTENANCE (WATER TREATMENT)	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	1,236	14,832
WLAIWWS	Repairs Sewage Lift Stations (I&E)	412	412	412	412	412	412	412	412	412	412	412	412	4,944
WLAIWWS	Neutralization Pit pump repairs (3ea)												1,545	1,545
WLAIWWS	Neutralization Pit sump pump repairs (2ea)			1,545										1,545
WLAIWWS	Repairs to waste water pond pumps (2ea.)										6,180			6,180
WLAIWWS	REFURB SOLID WASTE SUMP LEVEL CONTROLS					6,000								6,000
WLAIWWS	Site Drainage Pump P-1											1,090		1,090
WLAIWWS	Site Drainage Pump P-2									1,090				1,090
WLAIWWS	Site Drainage Pump P-3										1,090			1,090
WLAIWWS	Waste Water Clarifier Annual Inspection													515
WLAIWWS	Repairs Sewage Lift Stations Mech				515				515					1,545
WLOADM	Janitorial Supplies	3,675	3,675	3,675	3,675	3,675	3,675	3,675	3,675	3,675	3,675	3,675	3,675	44,100
WLOADM	Trash Removal	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	1,778	21,336
WLOADM	Pest Control	420	420	420	420	420	420	420	420	420	420	420	420	5,040
WLOADM	Septic Tank Service	61	61	61	61	61	61	61	61	61	61	61	61	732
WLOADM	ABB Maintenance Contract	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	30,000
WLOADM	Neuco Maintenance Contract					20,000								20,000
WLOADM	DB Doc Software					1,800								1,800
WLOADM	Staik North America monitoring					1,600								1,600
WLOADM	ABB - remote diagnostic service	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	4,667	56,800
WLOADM	Inland Finance Co.	796	796	796	796	796	796	796	796	796	796	796	796	9,552
WLOADM	Floor Replacements	24,586												24,586
WLOADM	Other Labor (\$)	874	874	874	874	874	874	874	874	2,186	874	874	874	11,800
WLOADM	Office Supplies & Equip	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	2,274	27,288
WLOADM	Protective Clothing (\$)	95	95	95	2,557	95	95	95	95	95	95	95	95	3,602
WLOADM	Uniform Rental	3,225	3,225	3,225	3,225	3,225	3,225	3,225	3,225	3,225	3,225	3,225	3,225	38,700
WLOADM	Safety													
WLOADM	Safety Supplies (\$)	2,295	2,295	2,295	2,295	2,295	2,295	2,295	2,295	2,295	2,295	2,295	2,295	27,540
WLOADM	PM OTHER													
WLOADM	Bottled Water	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	32,784
WLOADM	Floor Replacements	24,586												24,586
WLOADM	Lease Rental - Office Equip													
WLOADM	Tri-State Mailing Systems	121	121	121	121	121	121	121	121	121	121	121	121	1,452
WLOADM	Xerox	205	205	205	205	205	205	205	205	205	205	205	205	2,460
WLOADM	FEES, PERMITS & LICENSES	424	424	424	424	424	424	424	424	424	424	424	424	5,088
WLOADM	FEES, PERMITS & LICENSES (\$)				2,186			874						3,060
WLOADM	EDUCATION TRAINING COURSE FEES	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	2,732	32,784
WLOADM	EDUCATION TRAINING COURSE FEES (\$)	546	765	546	546	546	546	546	546	546	546	546	546	6,771
WLOADM	MILEAGE REIMBURSEMENT	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	1,031	12,372
WLOADM	MILEAGE REIMBURSEMENT (\$)	109	109	109	328	109	109	109	109	109	109	109	109	1,527
WLOADM	TRAVEL	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	2,750	33,000
WLOADM	TRAVEL (\$)	546	546	546	546	1,093	546	546	546	546	546	546	546	7,099
WLOADM	MEALS ENTER PART DEDUCT	658	658	658	658	658	658	658	658	658	658	658	658	7,896
WLOADM	MEALS ENTER PART DEDUCT (\$)													

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WLOADM	MEALS FULLY DEDUCTIBLE	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	\$ 14,424
WLOADM	FREIGHT - (UPS, FED-EX)	465	465	465	465	465	465	465	465	465	465	465	465	\$ 5,580
WLOADM	MISC.													\$
WLOADM	MISC. (S)	765	765	765	765	765	765	765	765	765	765	765	765	\$ 9,180
WLOCIS	Fuels Analysis	10,000			10,000			10,000			10,000			\$ 40,000
WLOENV	On-Site Environmental Cleanup	500	500	500	500	500	500	500	500	500	500	500	500	\$ 6,000
WLOENV	Environmental Supplies	500			500			500			500			\$ 2,000
WLOENV	Off-Site Environmental Disposal	500	500	25,000	500	500	500	500	500	500	500	500	500	\$ 30,500
WLOENV	UST Cathodic Protection Inspection (lube oil tanks)													\$
WLOENV	UST liner Inspection (Lube Oil Tanks)													\$
WLOENV	Ammonia Tanks Internal Inspection													\$
WLOENV	Replacement of Safety Relief Valves on Ammonia Tanks													\$
WLOENV	Annual Inspection of Shelter In Place HVAC/Isolation devices				2,400									\$ 2,400
WLOFGD	Descale Mediacs							94,000						\$ 94,000
WLOFGD	mill balls/sorting	19,000		19,000		19,000	66,000	19,000		19,000		19,000		\$ 180,000
WLOLAB	BRE-11				11,300						11,300			\$ 22,600
WLOLAB	PL-3610 (For CSI Surge Tank treatment)		4,000			4,000			4,000			4,000		\$ 16,000
WLOLAB	PL-1625			10,700				10,700				10,700		\$ 32,100
WLOLAB	PDC9321		10,700											\$ 10,700
WLOLAB	Pacesetter Plus	170	170	170	170	170	170	170	170	170	170	170	170	\$ 2,040
WLOLAB	MD4100	1,175			1,175			1,175			1,175			\$ 4,709
WLOLAB	Clarification Services	15,750	15,750	15,750	15,750	9,450	9,450	9,450	9,450	9,450	9,450	15,750	15,750	\$ 151,200
WLOLAB	Sulfuric Acid	10,749	10,749	10,749	10,749	10,749	10,749	10,749	10,749	10,749	10,749	10,749	10,749	\$ 128,993
WLOLAB	Sodium Hydroxide 50% Rayon	11,025	11,025	11,025	11,025	11,025	11,025	11,025	11,025	11,025	11,025	11,025	11,025	\$ 132,300
WLOLAB	Sodium Hydroxide 50% or 20%						2,575							\$ 2,575
WLOLAB	Ferric Sulfate				6,200									\$ 6,200
WLOLAB	Chlorine Cylinders	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	1,650	\$ 19,800
WLOLAB	Ammonia	524	524	524	524	524	524	524	524	524	524	524	524	\$ 6,284
WLOLAB	Sodium Hypochlorite	410			410			410			410			\$ 1,640
WLOLAB	Bio-Bags		570				570							\$ 1,140
WLOLAB	Chlorine Tablets		260						260					\$ 520
WLOLAB	Lab Supplies	910	910	910	910	910	910	910	910	910	910	910	910	\$ 10,915
WLOLAB	Bromine	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	\$ 12,000
WLOLAB	Shock Cooling Tower	12,400					12,360							\$ 24,760
WLOLAB	Pond Chemical Treatments (AHW)										30,000			\$ 30,000
WLOLAB	Contract Lab Sampling for Lab/Portable Water System	2,000			1,000			1,000						\$ 5,000
WLOLAB	Tank Inspection-DBA, SBS, Sulfur, etc.		10,000											\$ 10,000
WLOMEX	Mobile Fuels Equipment Diesel Fuel Oil	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	\$ 360,000
WLOPWS	Portable Water System Filters & Membrane Cleaning	800	800	800	800	800	800	800	800	800	800	800	800	\$ 9,600
WLOSCR	SCR sampling									20,000				\$ 20,000
WLOSCR	SCR Testing									70,000				\$ 70,000
WLOSGU	On-line deslag	5,000	5,000	60,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	\$ 115,000
WLOSGU	SO1 Tank Rental	1,200	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	\$ 18,050
WLOSGU	airheater wash						15,000							\$ 15,000
WLOSGUPPE	Fuel Fineness						20,000							\$ 20,000
WLOTGN	Cond /cooler cleaning			35,000										\$ 35,000
WLOTGN	Cond air-in-leakage			15,000										\$ 15,000
WLOTGN	H2/CO2/EHC & L O filters	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	\$ 36,000
WLOTGN	Helium/Goodway Machine										4,000			\$ 4,000
WLTIGER	TIGER MAINTENANCE	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	\$ 33,600
WLTIGER	PM-2000 HOUR SERVICE FOR 690D Tiger	550									550			\$ 1,100
WLTIGER	PM-1000 HOUR SERVICE FOR 690D Tiger		550											\$ 550
WLTIGER	PM-400 HOUR SERVICE FOR 690D Tiger		220		220		220		220					\$ 1,100
WLTIGER	PM-200 HOUR SERVICE FOR 690D Tiger	550		550		550		550						\$ 3,300
WLTIGER	Engine, hydraulic and drive work										70,000			\$ 70,000
<b>TOTAL NON-LABOR O&amp;M PLAN FOR WILSON STATION</b>		<b>\$ 922,395</b>	<b>\$ 621,021</b>	<b>\$ 1,099,233</b>	<b>\$ 966,202</b>	<b>\$ 667,798</b>	<b>\$ 897,771</b>	<b>\$ 826,521</b>	<b>\$ 823,925</b>	<b>\$ 3,357,218</b>	<b>\$ 4,537,298</b>	<b>\$ 1,111,275</b>	<b>\$ 553,716</b>	<b>\$ 16,204,373</b>



## Big Rivers Electric Cooperative

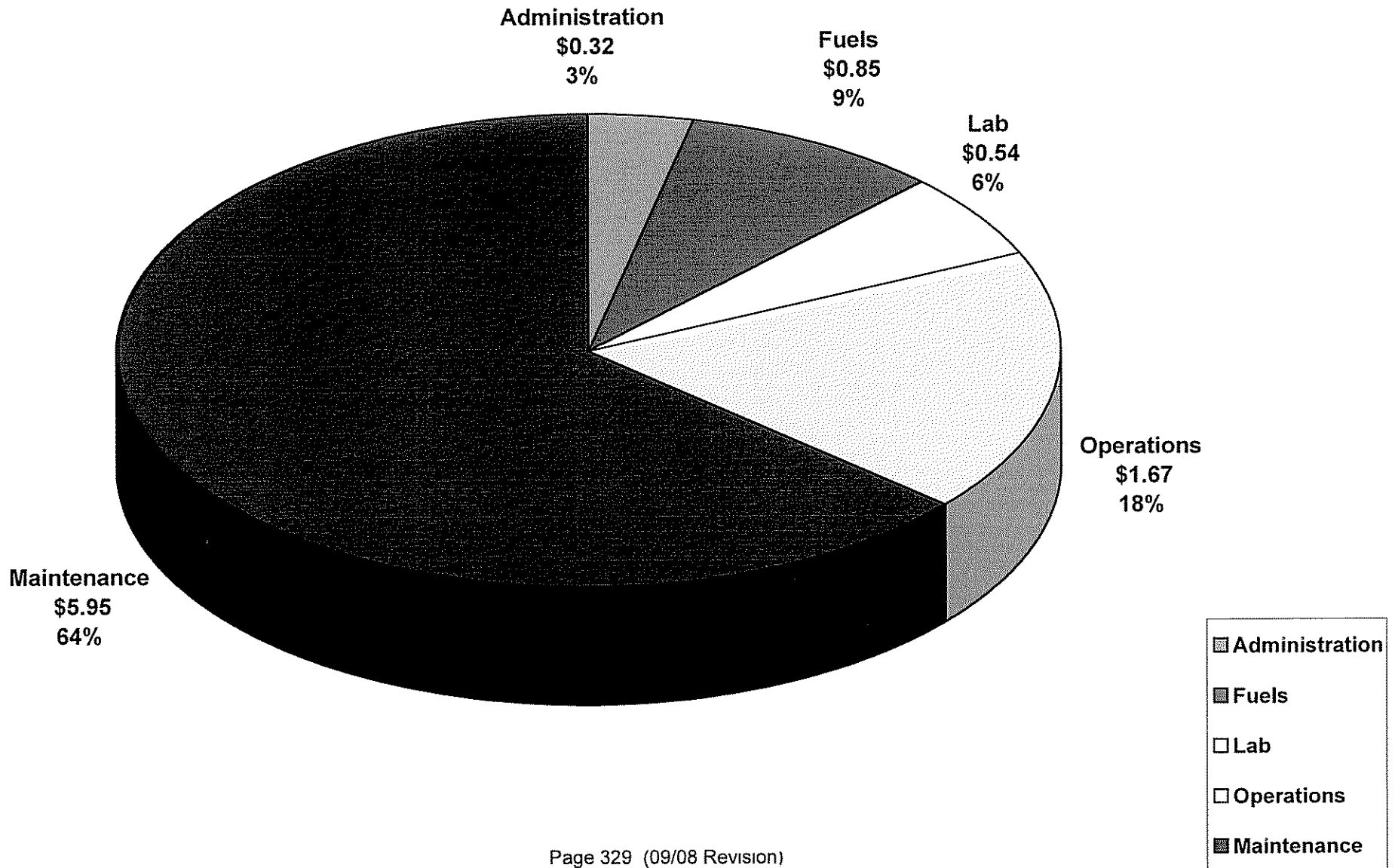
### Wilson Station Total O&M Summary

	2009	2010	2011
Administration	\$ 979,484	\$ 1,087,137	\$ 1,116,477
Fuels	2,558,934	\$ 2,761,633	2,780,191
Lab	1,638,013	\$ 1,575,433	1,577,210
Operations	\$ 5,052,767	\$ 5,268,103	\$ 5,348,385
Maintenance	17,952,573	\$ 10,048,518	15,711,287
<b>GN Station Total O&amp;M Non-Labor</b>	<b>\$ 28,181,771</b>	<b>\$ 20,740,824</b>	<b>\$ 26,533,550</b>
Generation @ Wilson	3,018,776	3,432,875	3,140,591
<b>Non-Labor \$/MWH</b>	<b>\$ 9.34</b>	<b>\$ 6.04</b>	<b>\$ 8.45</b>

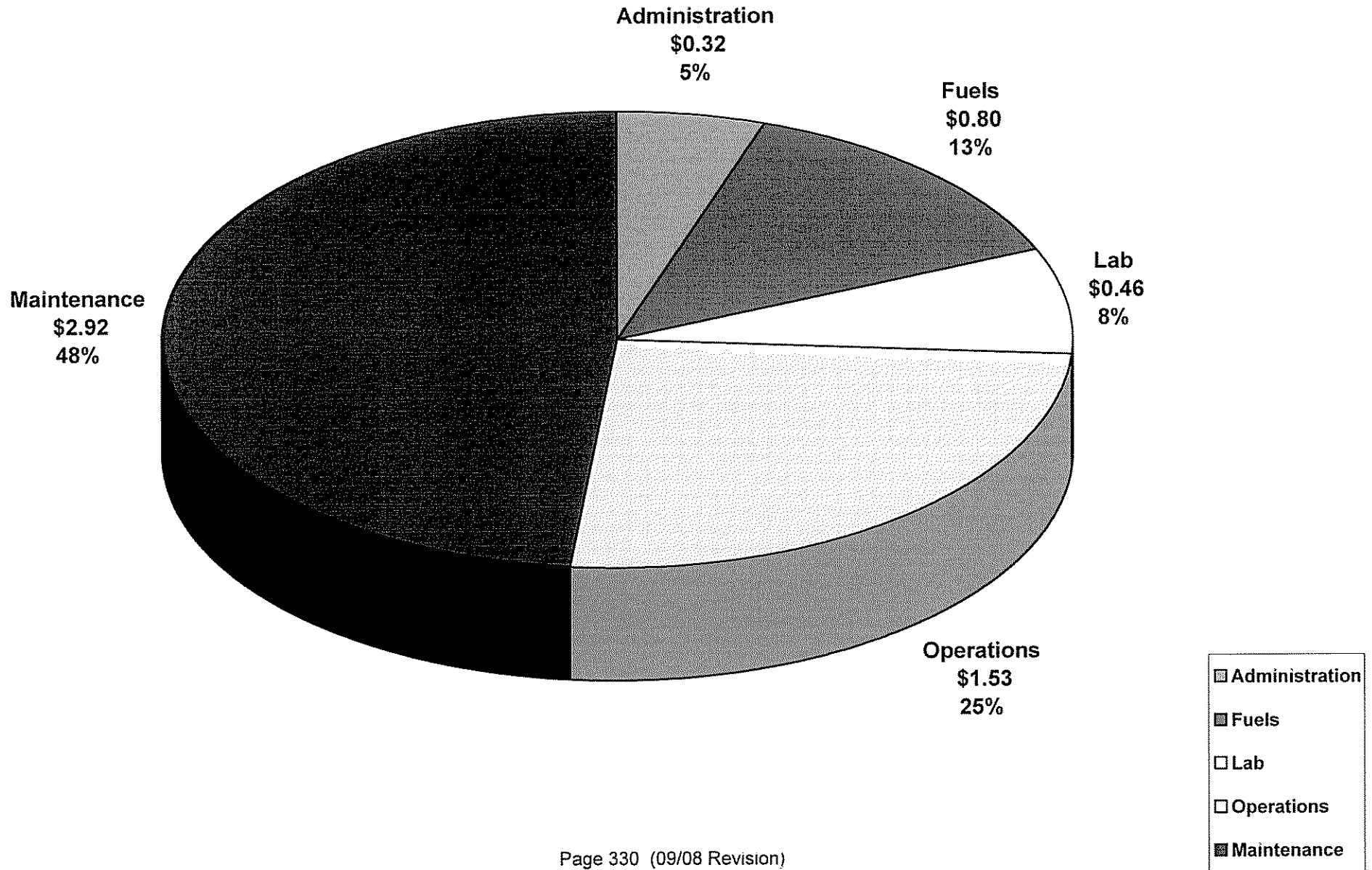
<i>\$/MWH</i>	2009	2009	2010
Administration	\$ 0.32	\$ 0.32	\$ 0.36
Fuels	\$ 0.85	\$ 0.80	\$ 0.89
Lab	\$ 0.54	\$ 0.46	\$ 0.50
Operations	\$ 1.67	\$ 1.53	\$ 1.70
Maintenance	\$ 5.95	\$ 2.93	\$ 5.00
	<b>\$ 9.34</b>	<b>\$ 6.04</b>	<b>\$ 8.45</b>

<i>Percent</i>	2009	2009	2010
Administration	3%	5%	4%
Fuels	9%	13%	10%
Lab	6%	8%	6%
Operations	18%	25%	20%
Maintenance	64%	48%	59%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

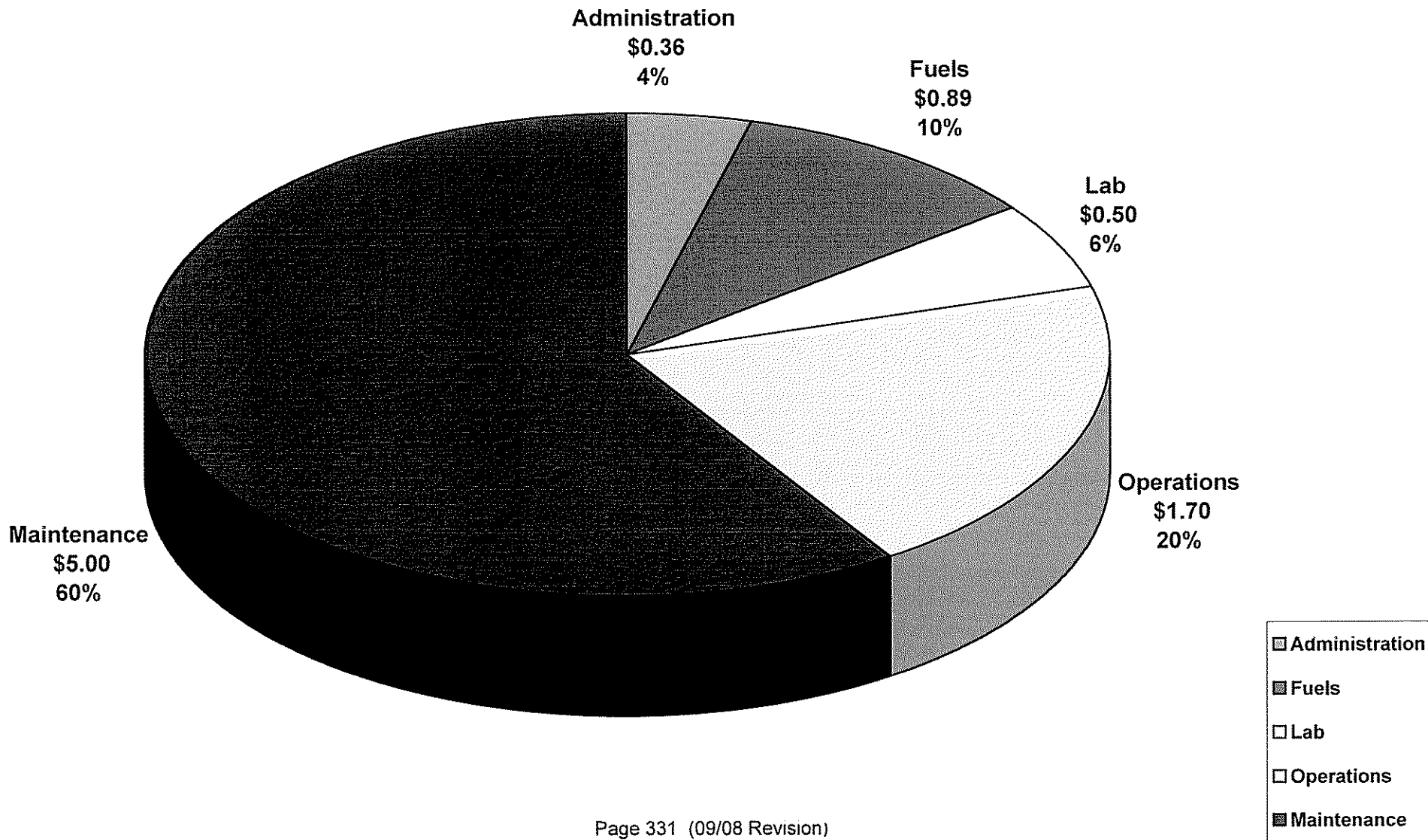
# 2009 WL Total O&M is \$9.34 / MWH



# 2010 WL Total O&M is \$6.04 / MWH



# 2011 WL Total O&M is \$8.45 / MWH



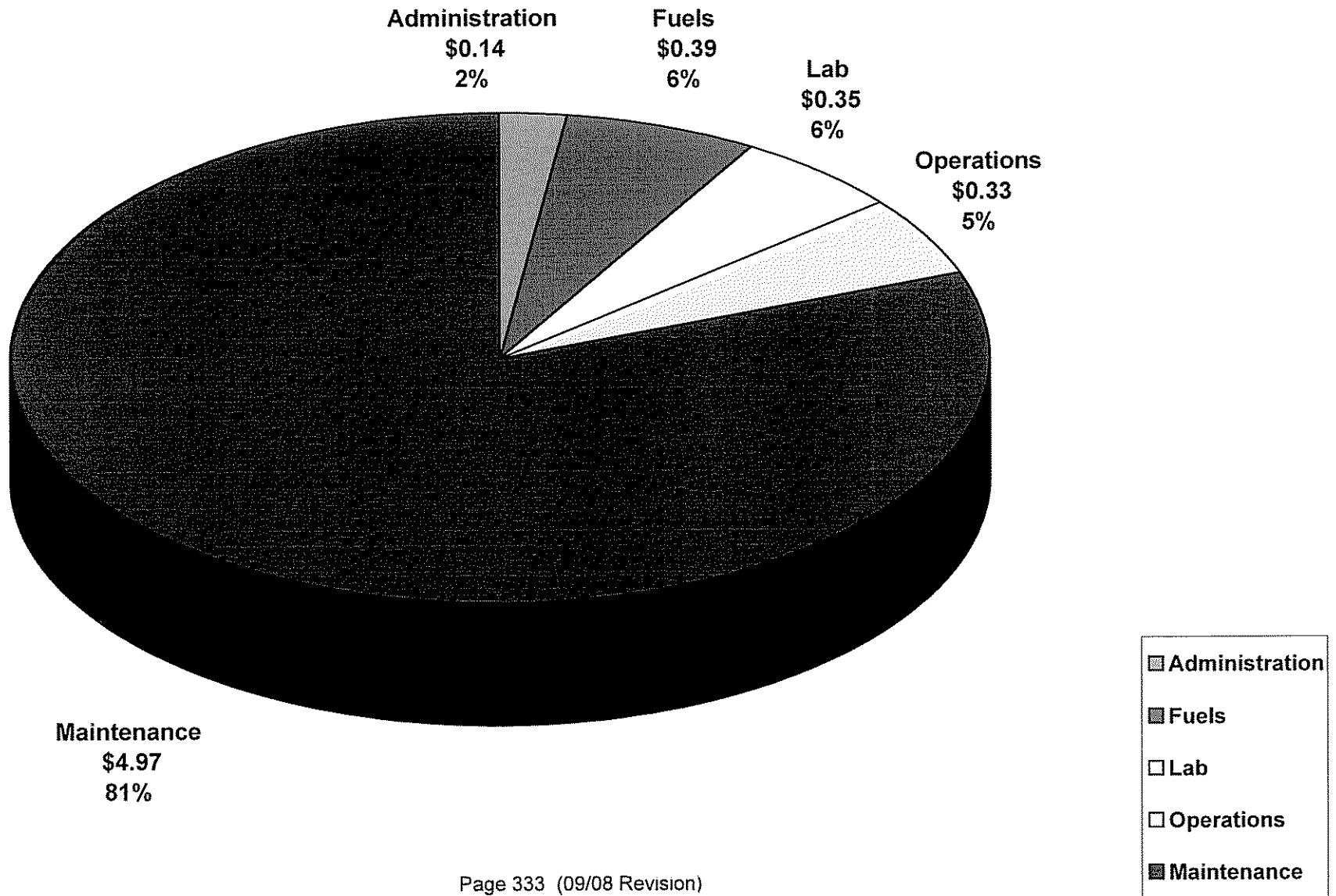
## Big Rivers Electric Cooperative Wilson Station Non-Labor Summary

	2009	2010	2011
Administration	\$ 420,772	\$ 511,663	\$ 523,739
Fuels	1,167,000	1,327,941	1,303,488
Lab	1,055,005	974,935	958,697
Operations	991,140	992,050	944,050
Maintenance	14,991,376	6,998,486	12,474,399
<b>GN Station Total O&amp;M Non-Labor</b>	<b>\$ 18,625,293</b>	<b>\$ 10,805,075</b>	<b>\$ 16,204,373</b>
Generation @ Wilson	3,018,776	3,432,875	3,140,591
<b>Non-Labor \$/MWH</b>	<b>\$ 6.17</b>	<b>\$ 3.15</b>	<b>\$ 5.16</b>

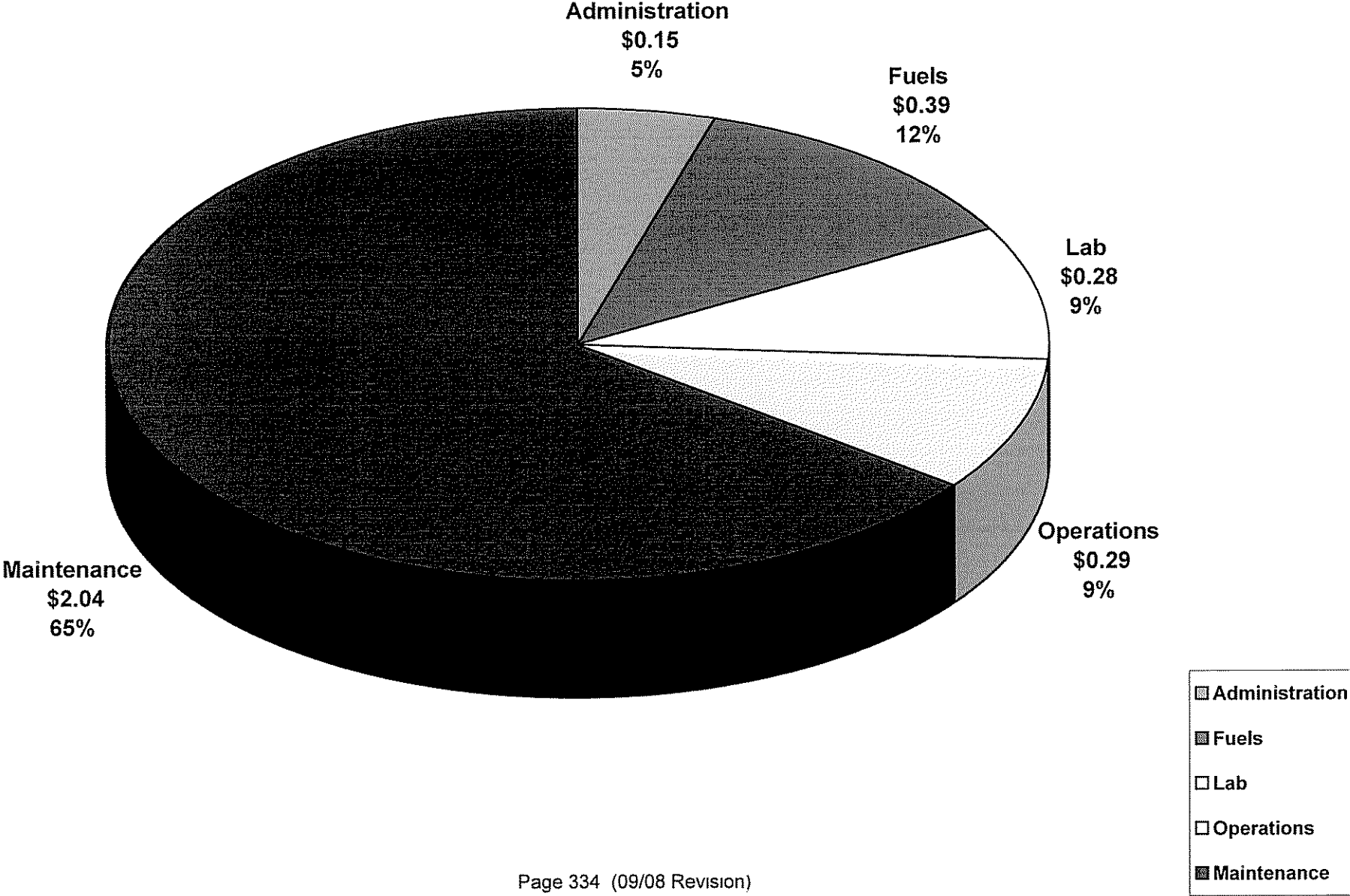
<i>\$/MWH</i>	2009	2010	2011
Administration	\$ 0.14	\$ 0.15	\$ 0.17
Fuels	\$ 0.39	\$ 0.39	\$ 0.42
Lab	\$ 0.35	\$ 0.28	\$ 0.31
Operations	\$ 0.33	\$ 0.29	\$ 0.30
Maintenance	\$ 4.97	\$ 2.04	\$ 3.97
	<b>\$ 6.17</b>	<b>\$ 3.15</b>	<b>\$ 5.16</b>

<i>Percent</i>	2009	2010	2011
Administration	2%	5%	3%
Fuels	6%	12%	8%
Lab	6%	9%	6%
Operations	5%	9%	6%
Maintenance	80%	65%	77%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

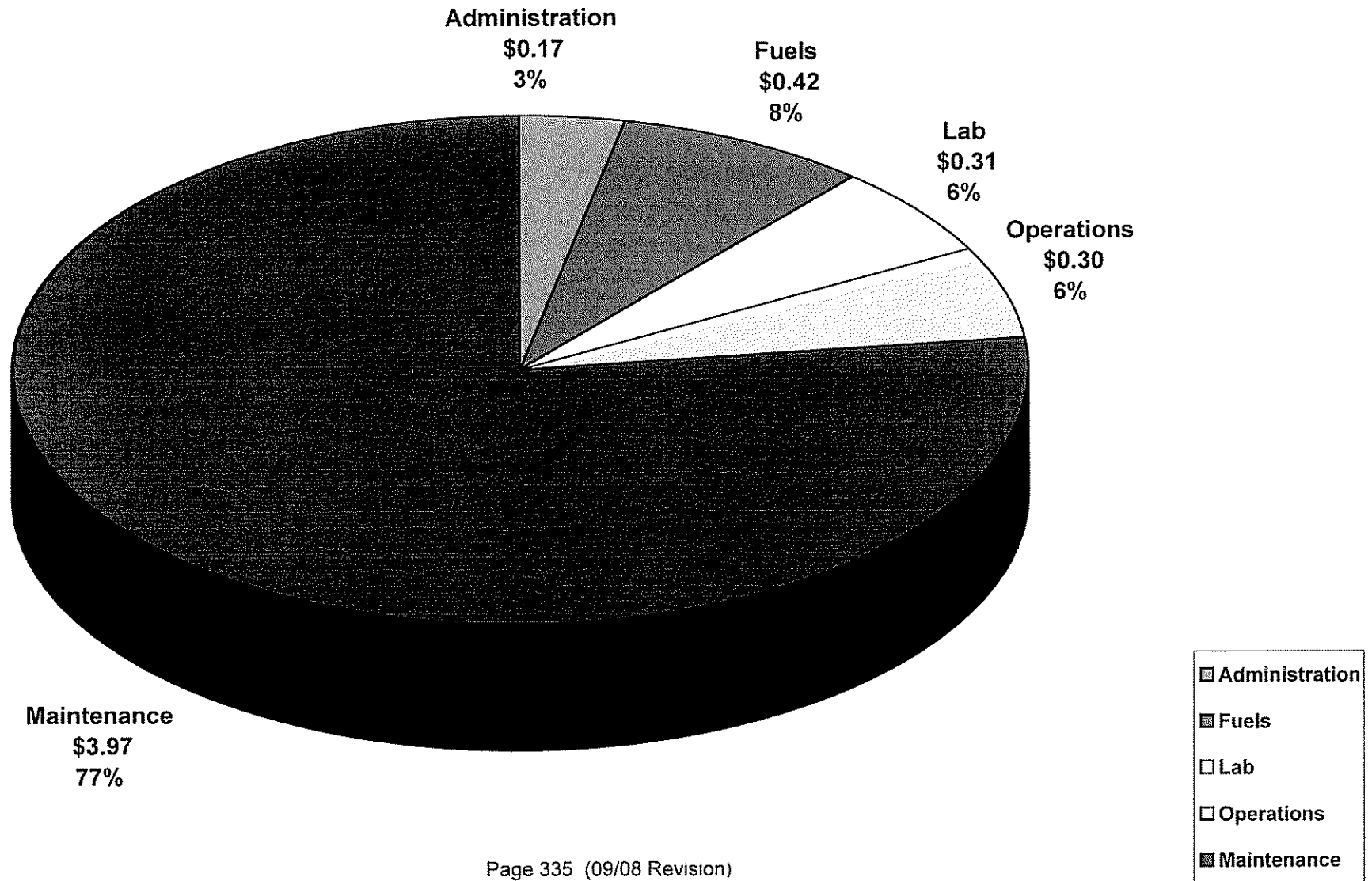
# 2009 WL Total O&M Non-Labor is \$6.17 / MWH



# 2010 WL Total O&M Non-Labor is \$3.15 / MWH



# 2011 WL Total O&M Non-Labor is \$5.16 / MWH





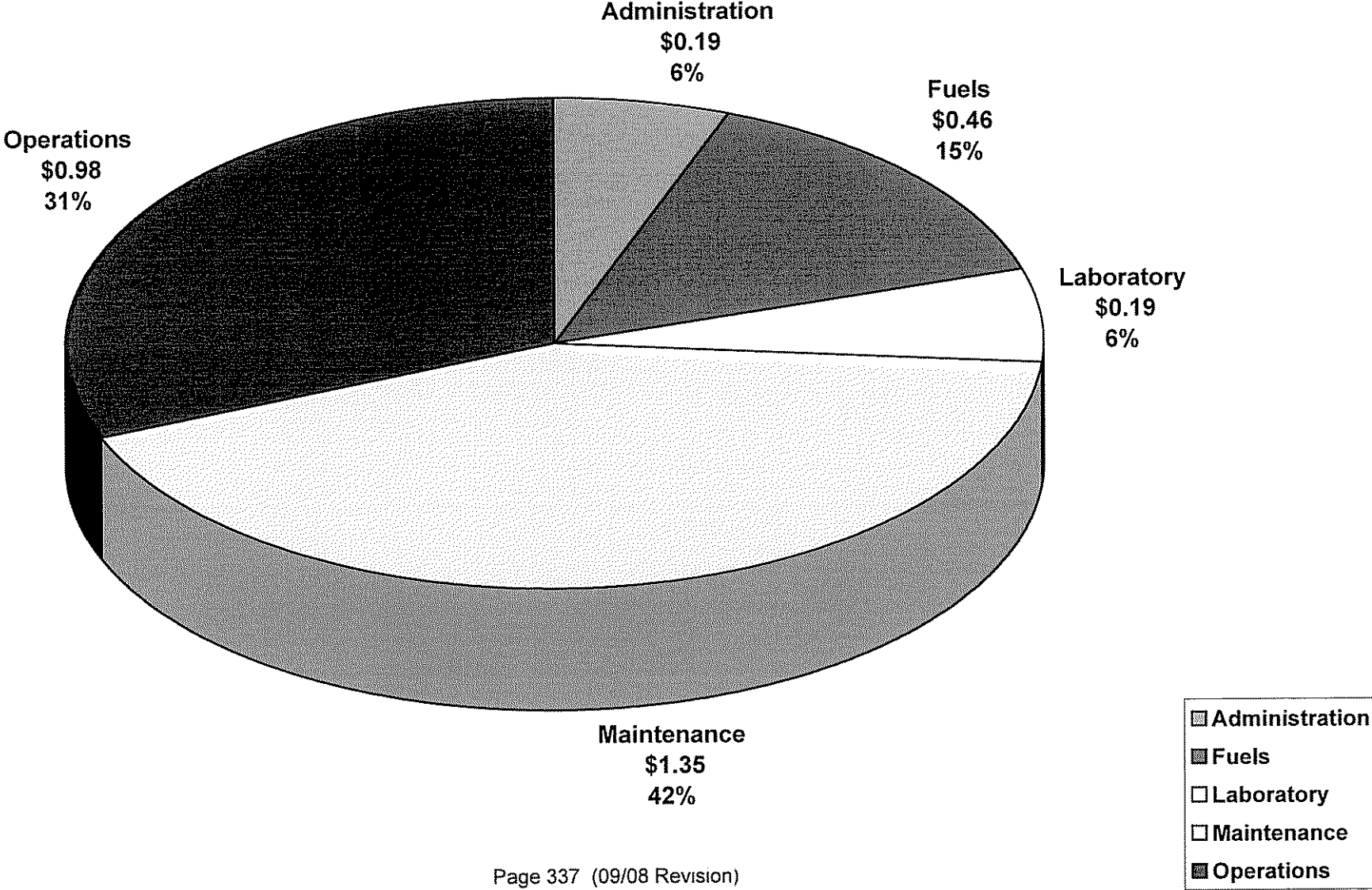
## Big Rivers Electric Cooperative Wilson Station Labor Summary

	2009	2010	2011
Administration	\$ 558,712	\$ 575,474	\$ 592,738
Fuels	1,391,934	1,433,692	1,476,703
Laboratory	583,008	600,498	618,513
Maintenance	4,061,627	4,276,053	4,404,335
Operations	2,961,197	3,050,032	3,236,888
<b>Net Labor and Labor Related Costs</b>	<b>\$ 9,556,478</b>	<b>\$ 9,935,750</b>	<b>\$ 10,329,177</b>
 Generation @ Wilson	 3,018,776	 3,432,875	 3,140,591
<b>Labor \$/MWH</b>	<b>\$ 3.17</b>	<b>\$ 2.89</b>	<b>\$ 3.29</b>

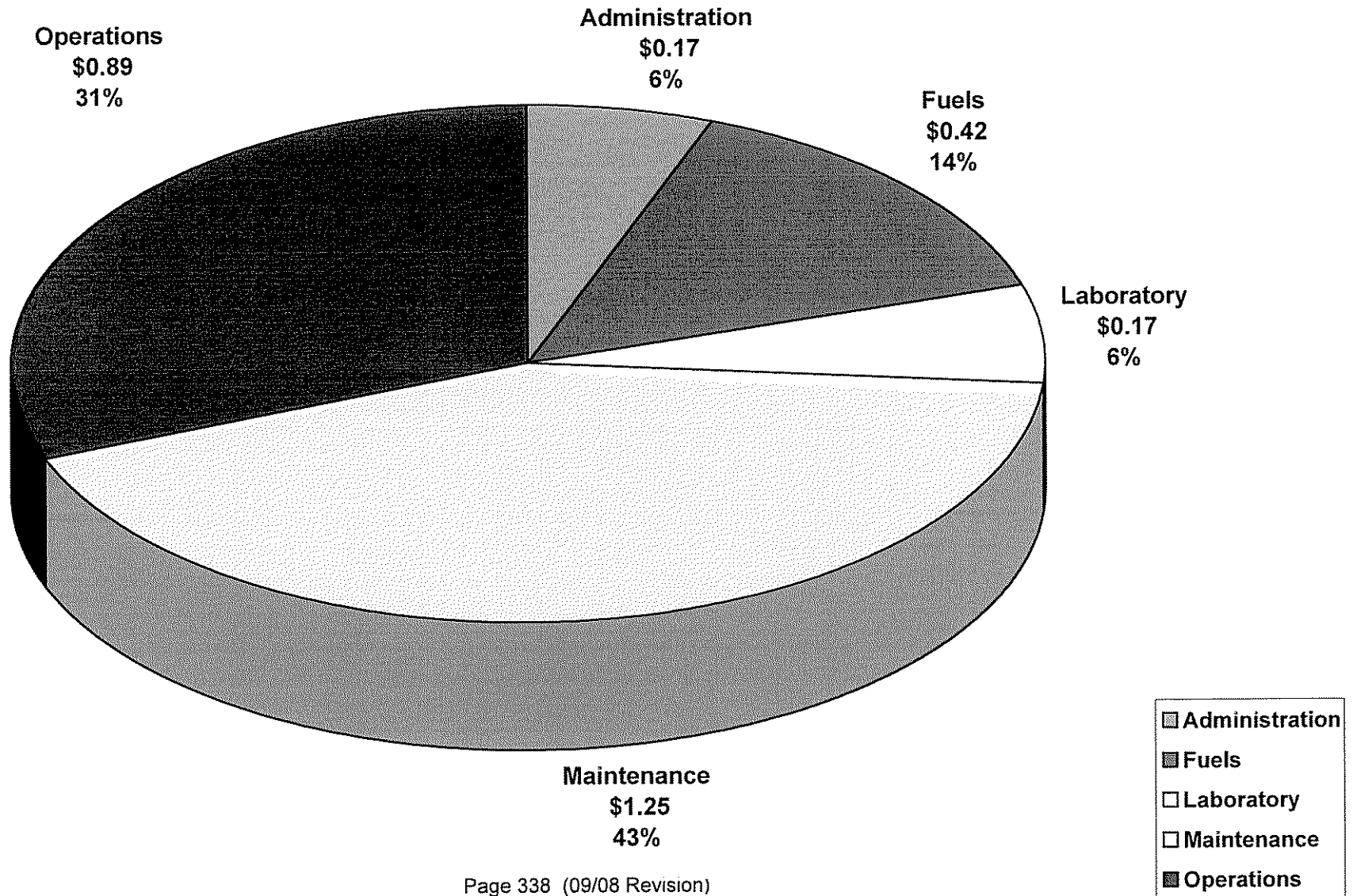
<i>\$/MWH</i>	2009	2010	2011
Administration	\$ 0.19	\$ 0.17	\$ 0.19
Fuels	\$ 0.46	\$ 0.42	\$ 0.47
Laboratory	\$ 0.19	\$ 0.17	\$ 0.20
Maintenance	\$ 1.35	\$ 1.25	\$ 1.40
Operations	\$ 0.98	\$ 0.89	\$ 1.03
	<b>\$ 3.17</b>	<b>\$ 2.89</b>	<b>\$ 3.29</b>

<i>Percent</i>	2009	2010	2011
Administration	6%	6%	6%
Fuels	15%	14%	14%
Laboratory	6%	6%	6%
Maintenance	43%	43%	43%
Operations	31%	31%	31%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

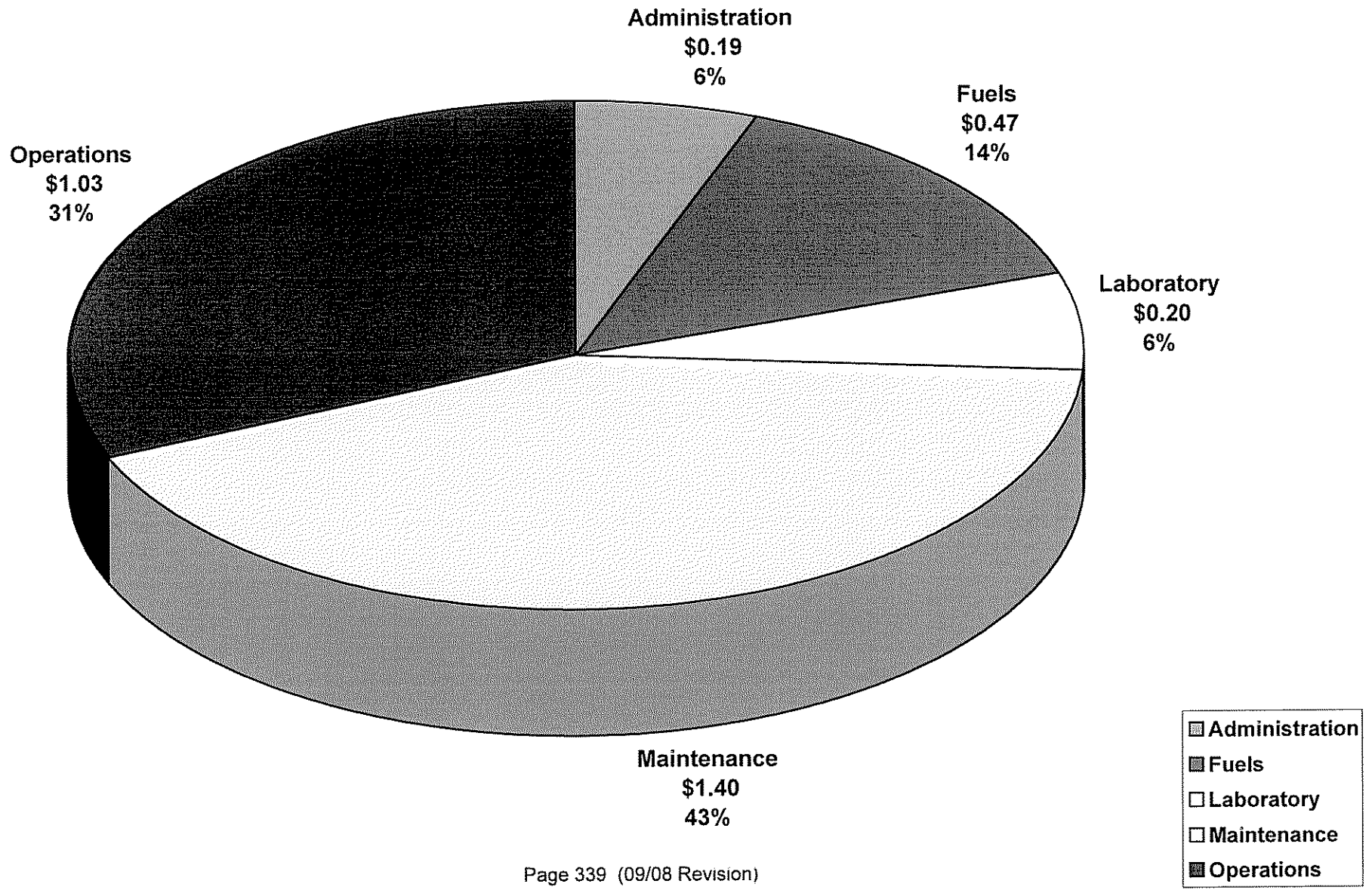
# 2009 Wilson Station Total O&M Labor is \$3.17 / MWH



# 2010 Wilson Station Total O&M Labor is \$2.89 / MWH



# 2011 Wilson Station Total O&M Labor is \$3.29 / MWH



**Big Rivers Electric Cooperative**  
**WL Outage vs. Non-Outage Comparison**

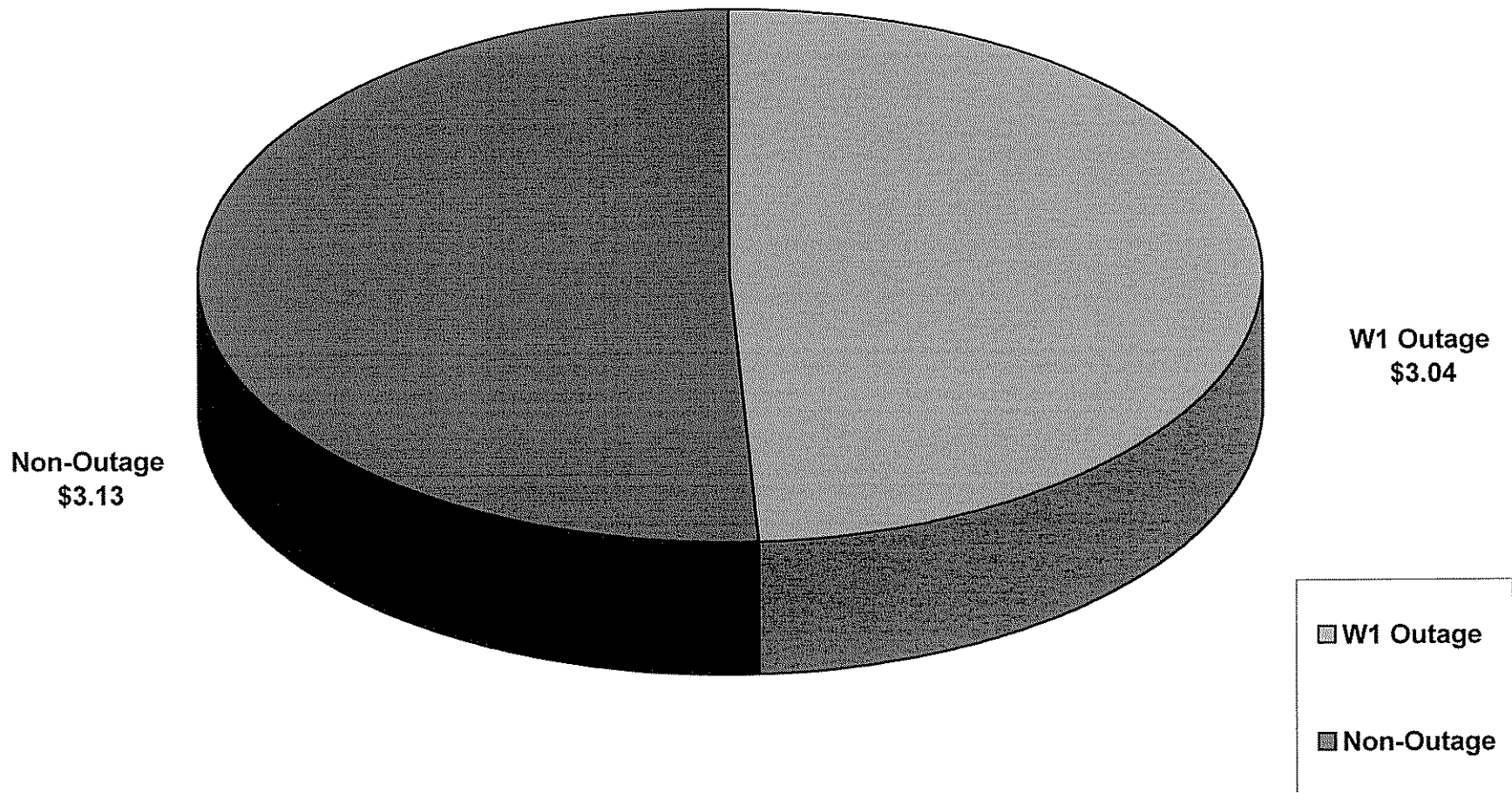
**Non-Labor**

	2009	2010	2011
W1 Outage	9,168,800	1,087,817	5,918,874
Non-Outage	9,456,493	9,717,258	10,285,499
<b>Outage/Non-Outage Costs</b>	<b>\$ 18,625,293</b>	<b>\$ 10,805,075</b>	<b>\$ 16,204,373</b>
Generation @ Wilson	3,018,776	3,432,875	3,140,591
<b>Outage/Non-Outage \$/MWH</b>	<b>\$ 6.17</b>	<b>\$ 3.15</b>	<b>\$ 5.16</b>

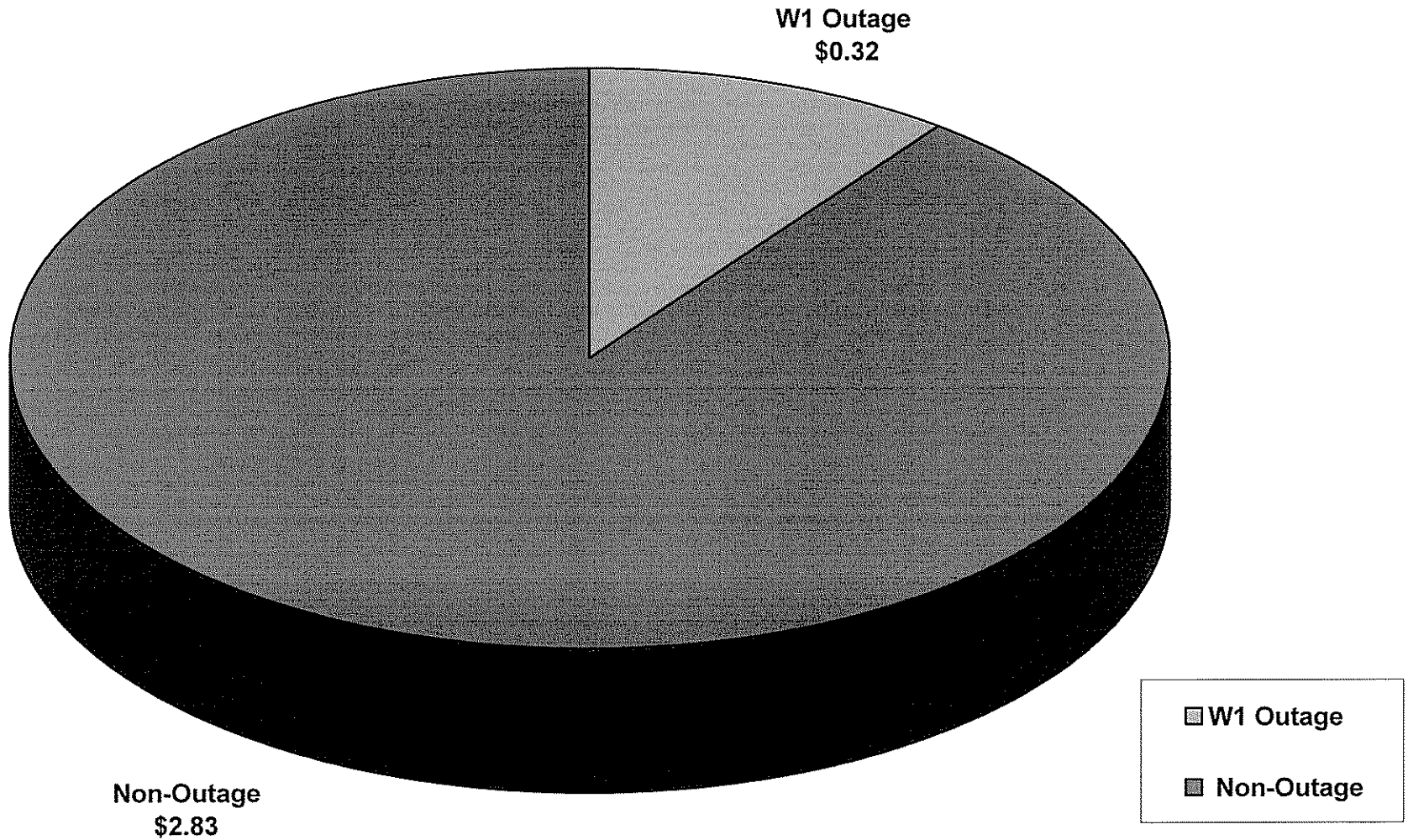
<i>\$/MWH</i>	2009	2010	2011
W1 Outage	\$ 3.04	\$ 0.32	\$ 1.88
Non-Outage	\$ 3.13	\$ 2.83	\$ 3.28
	<b>\$ 6.17</b>	<b>\$ 3.15</b>	<b>\$ 5.16</b>

<i>Percent</i>	2009	2010	2011
W1 Outage	49%	10%	37%
Non-Outage	51%	90%	63%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

# 2009 Wilson Outage vs. Non-Outage Comparison \$6.17/MWh

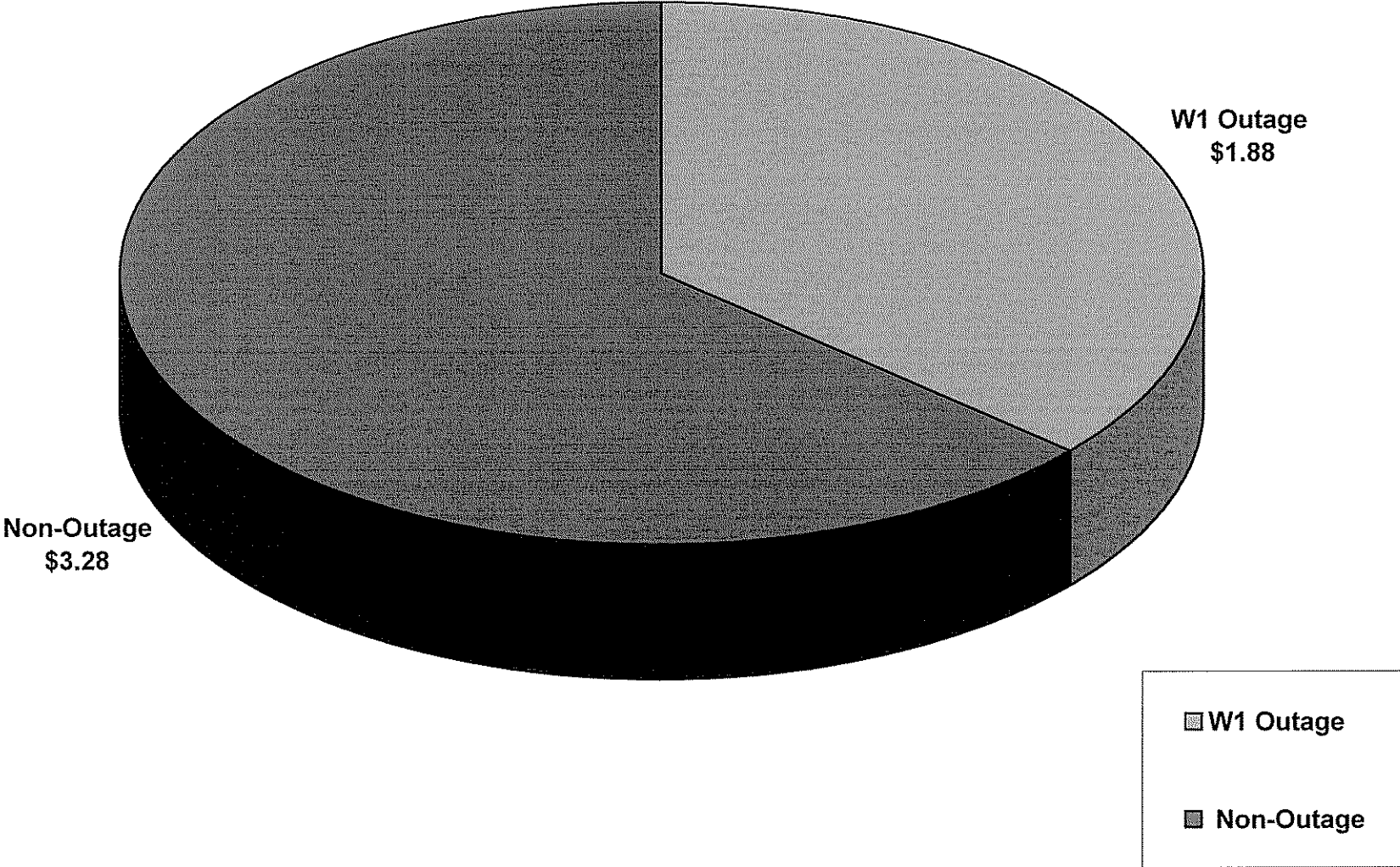


# 2010 Wilson Outage vs. Non-Outage Comparison \$3.15/MWh





# 2011 Wilson Outage vs. Non-Outage Comparison \$5.16/MWh





**Big Rivers Electric Cooperative**  
**Wilson Station Variable Costs Summary**

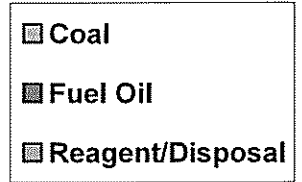
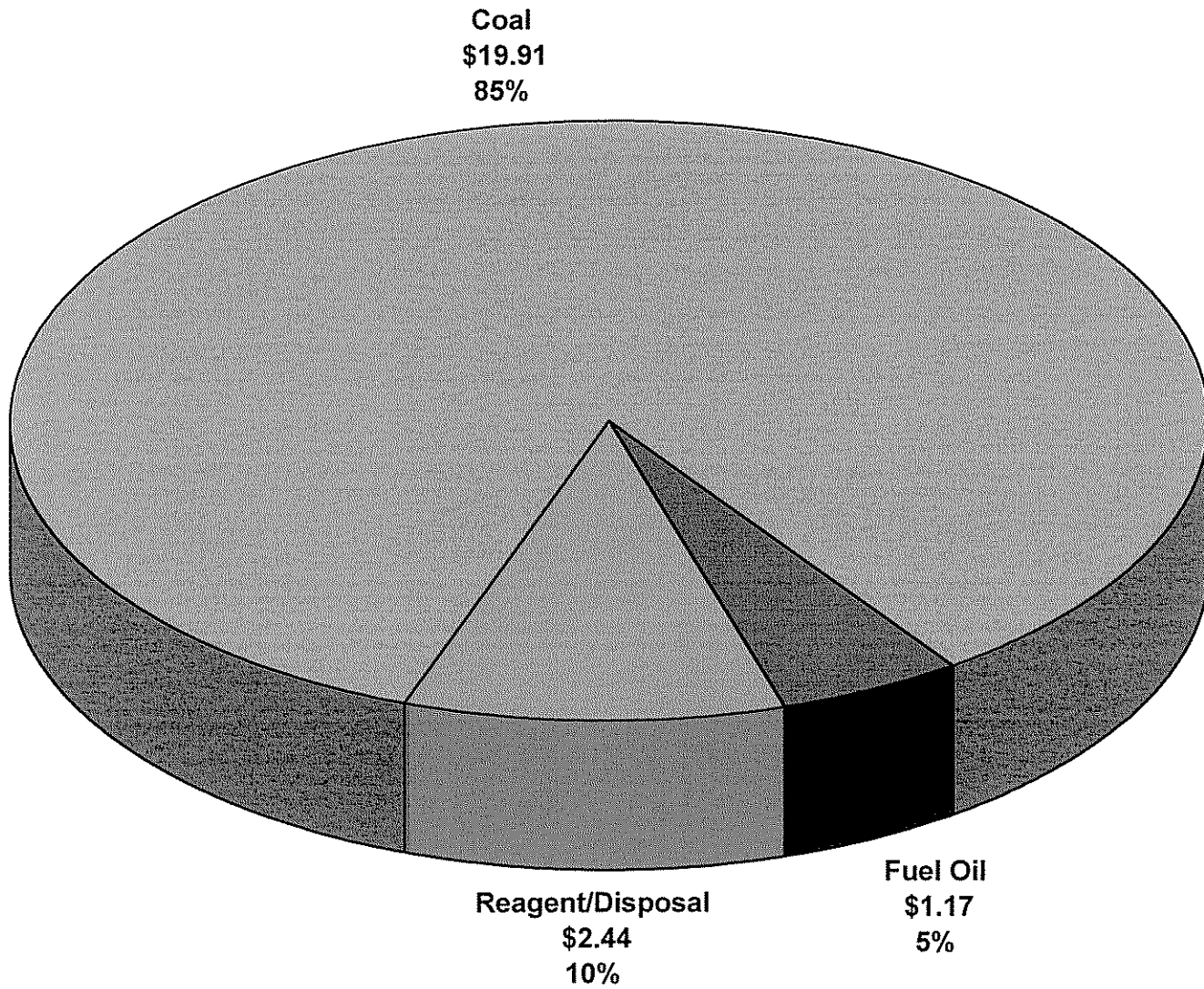
	2009	2010	2011
Coal (Fuel Cost)	60,096,560	65,622,441	62,199,036
Fuel Oil (Start Cost)	3,542,334	3,869,841	3,656,349
Reagent/Disposal (VOM)	7,351,855	8,453,928	10,677,996
<b>Total Variable Costs</b>	<b>\$ 70,990,749</b>	<b>\$ 77,946,210</b>	<b>\$ 76,533,381</b>

Generation @ Wilson	3,018,776	3,432,875	3,140,591
<b>Variable \$/MWH</b>	<b>\$ 23.52</b>	<b>\$ 22.71</b>	<b>\$ 24.36</b>

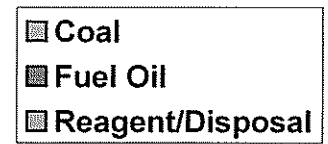
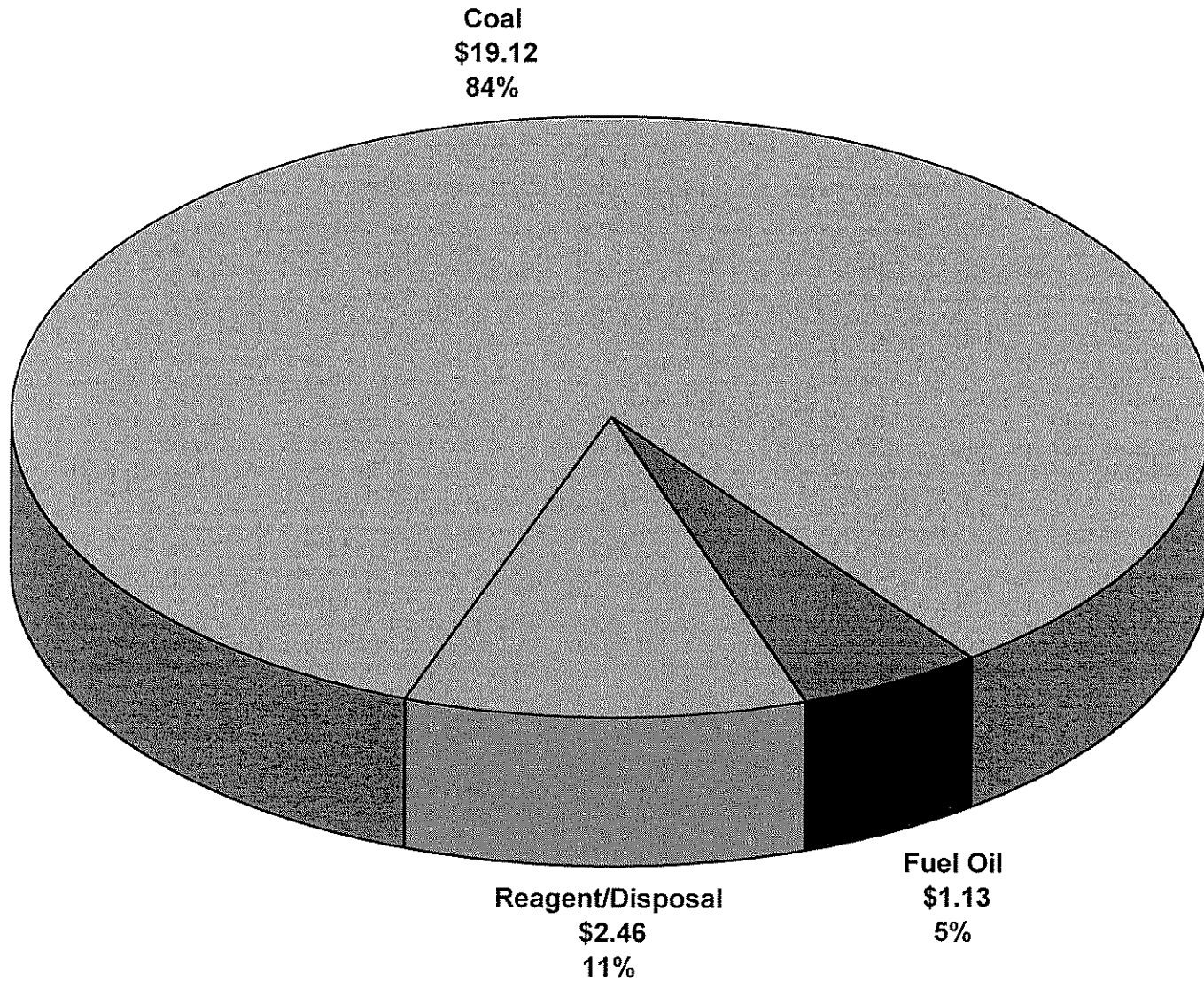
<i>\$/MWH</i>	2009	2010	2011
Coal	\$ 19.91	\$ 19.12	\$ 19.80
Fuel Oil	\$ 1.17	\$ 1.13	\$ 1.16
Reagent/Disposal	\$ 2.44	\$ 2.46	\$ 3.40
	<b>\$ 23.52</b>	<b>\$ 22.71</b>	<b>\$ 24.36</b>

<i>Percent</i>	2009	2010	2011
Coal	85%	84%	81%
Fuel Oil	5%	5%	5%
Reagent/Disposal	10%	11%	14%
	<b>100%</b>	<b>100%</b>	<b>100%</b>

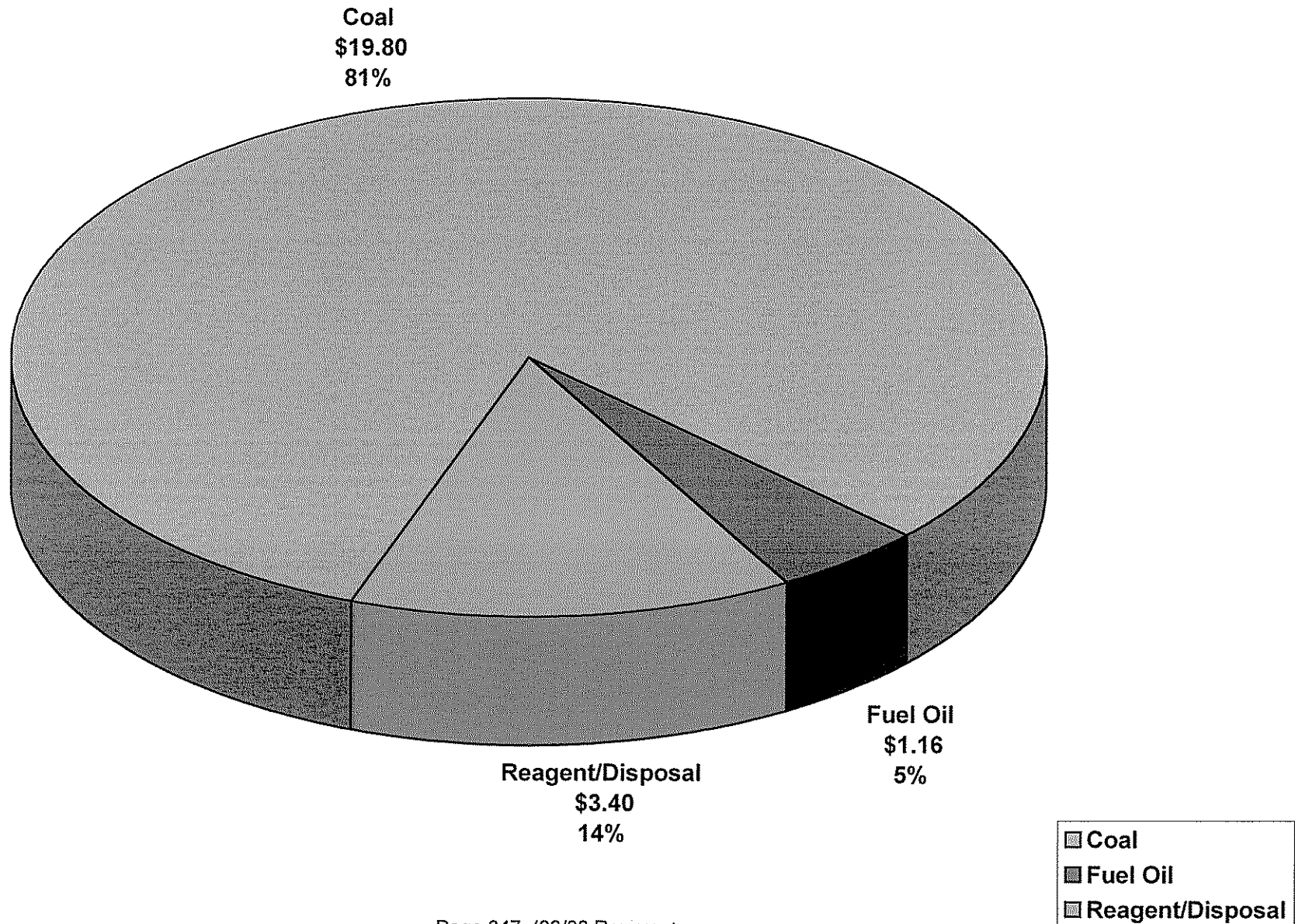
# WL 2009 Variable Cost is \$23.52/MWh



# WL 2010 Variable Cost is \$22.71/MWh



# WL 2011 Variable Cost is \$24.36/MWh



## Key Issues

Coleman Station has a total generating capacity of 485 MWG and 443 MWN. The station's net generation capacity was reduced 12 MW's by start-up of the FGD system.

Successful operation of the FGD is essential for Coleman to achieve cost, reliability, and availability objectives reflected in this plan.

Ash disposal remains a major issue; in continuing to meet requirements for the new KPDES permit due to the limited free space in current on site ash pond. The Station constructed a new \$3.5m Waste Water Treatment Facility (WWTF) completed in September 2008 on property approximately one mile from Coleman Station. The plan assumes disposing of >400,000 tons of ash and gypsum per year in the new WWTF located approximately 1 mile from the Station. Coleman ash and gypsum not marketed will be placed in this facility. Material hauling and handling for both ash and gypsum are budgeted in "cost of sales" instead of O&M.

Fuel quality and strategy presents a challenge for Coleman Station during this planning cycle. In order for the station to achieve full capacity, meet environmental requirements, and maintain availability, the minimum fuel quality must be met. The fuel strategy through 2005 has been to burn medium SO<sub>2</sub> approximately 3.5 lb/mmBtu fuel. With the FGD operation, beginning 2006 and continuing through 2011 the station will burn 100% coal averaging 4.5 to 5.5 lb/mmBtu SO<sub>2</sub>. The fuel plan assumes no negative impact to gypsum production.

Installation of the blending equipment has decreased fuel inventory space. A total maximum inventory of high sulfur and low sulfur compliance fuel is 130K tons or approximately 28 days, (120K tons of high sulfur fuel >5.2 lb/mmBtu and 10K tons of <5.2 lbs SO<sub>2</sub> compliance fuel).

Successful operation of the NO<sub>x</sub> emission reduction systems, without effecting unit capacity must be managed and is necessary to meet the BREC NO<sub>x</sub> plan. BREC NO<sub>x</sub> plan calls for Coleman Station to operate at ≤ 0.31 lb/mmBtu in 2009 during the OTAG season. BREC NO<sub>x</sub> plan identifies Coleman operating at ≤ 0.33 lb/mmBtu during the non-OTAG season.

Coleman Station has implemented a 3-year boiler outage cycle along with a 9-year Turbine / Generator inspection cycle. Additional maintenance initiatives have been identified allowing the station to control FOR within KPI targets. Extended outage cycles will not reduce the stations O&M cost, however; it should increase available generation, over the planning period.

Continued recommendations from the insurance carrier to improve fire protection systems, turbine water induction protection, etc are not included in the Station Plan. BREC Corporate will evaluate needs at all stations. The Business Plan does not have money allocated for this work.

Station painting and coatings of boiler and other areas need to be evaluated during this planning cycle. The Business Plan includes an evaluation but does not allocate funds for the painting etc.



