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OCT 09 2008 PUBLIC SERVICE COMMISSION

EXHIBIT 97

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UPDATED PRODUCTION COST MODEL

Changes made in this model run - Henwood Update

1 2 3 Updated non fuel VOM

Updated Outage Schedules Updated Start Charges

4.

	Tab Description
Tab	Description
Portfolio Report	Overall Summary of production, emissions, contract purchases/sales and market interaction
Production Report	Operational summary of generating resources
Fuel Report	Summary of fuel statistics by generating resource
Emissions Report	Summary of emissions statistics by generating resource
Outage Report	Summary of planned and forced outage statistics by generating resource
Resource Report-Ful	Unit specific operating details
Portfolio Data	Henwood Output - Sources and Uses
Resource Data	Henwood Output - Generating Unit Output Data
Prices	Henwood Output - Market Prices
EXPORTS	henwood Output - BREC Market Power Sales
IMPORTS	Henwood Output - BREC Market Power Purchases

Tab Color	Description	
	Output Reports for BREC	
	Intermediate Calcs	
	Raw Henwood Model Outputs	

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33 400, Price 5 700 6 500, 5 2,120 5 1,951, 5 1,900, 5 2,23 231 IdeX finission 1,027 1,322 1,322 1,342 1,342 1,342 1,342 1,342 1,342 1,342 1,342 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,343 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,136 1,137 1,136 1,136 1,137 1,100 1,167 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,107 1,100 1,100 1,100 1,100		Allowance \$ to City	·····		\$	311	\$	255	\$	449	5	462	\$ 409	\$	398
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18 14 162 11.67 </th <td>36</td> <td>NOx Allowances</td> <td></td> <td>11.398</td>	36	NOx Allowances													11.398
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1 Inderson Sales Image of Sales		Sherer Nevs			. 2.	(137.500)	÷.	(191,200)	. ₹.	(220,757)		(221.341)	\$ {220,131	13	(220,737)
55 Price per MWh \$ 25.02 s 32.06 s 33.31 s 34.75 s 52.99 s 25.7 56 Contract Revs \$ (15.24) s (20.277) s (21.053) s (23.31) s 34.75 s 23.951 s (15.24) s (20.277) s (21.31) s (23.351) s (23.		Henderson Sales			1		i							J	
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79			<u>I</u>						:		-				
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87 Uses 88 Native Load 3,591 3,674 3,760 3,852 3,6 89 Singler Load 7,297 7,297 7,317 7,297<		Total Sources				13,075		13,444		13,081	1	13,206	13,328		19,331
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94 Losses 102 103 104 109 110					d r	1.548	• •	1.633			1	1.360	1.409	i.	1.324
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	95	[Total Uses				13,075		13,444		13,081		13,206	13,328		13,331

	Α	ĸ	T_	L	м		N		0		Р	Q	Ř		S
	Resource Costs DBWilson	2015 5 78,463	\$	2016 83.637	2017 5 76,233	\$	2018 85,517	\$	2019 83,141	5	2020 88,447	2021 \$ 65,383	2022 \$ 91.564	<u> </u>	2023 87.896
	DDWIISON HMPL1	\$ 30,506	: ?	33,269	s 70,233 s 30,959	2.5	34.075	\$	31.024	5	32.466	\$ 34,043	\$ 36,382	ş ş	33,967
	HMPL2	\$ 33,679	5	32.689	\$ 34,963	\$	33,111	5	36,019	5	32.325	\$ 37.136	\$ 36,055	\$	37.834
	Coleman 1 Coleman 2	\$ 27.240 \$ 27.685	. <u>\$</u> . \$	27.276 24,614	\$ 24.236 \$ 20,353	5	28,062 28,791	5 5	28,609 27.175	5	27.398 29,595	\$ 29.026 \$ 29.872	\$ 29,451 \$ 28,790	\$ 5	28,333 30,564
	Coleman 3	\$ 26,053	្ល័	27.631	\$ 28,342	\$	27,248	\$	28,771	\$	29,337	\$ 26,304	\$ 30,261	ŝ	30,637
	Reid ST	\$ 1.576	5	2.790	\$ 3,024	5		5	3,056	\$	2.887	\$ 2.534	\$ 5,584	5	3,217
	Reid GT Green 1	\$ 902 \$ 53,220	5	967 49,180	\$ 1.154 \$ 54,490	5	1.127 51.826	5	951 56,468	s	952 54,429	\$ 1.020 \$ 58,127	\$ 1.053 \$ 51.740	\$ \$	1.085
11	Green 2	\$ 49,019	5	50,881	\$ 50,380	\$	51.726	\$	47.866	ş	55,435	\$ 53,846	\$ 56,922	5	55.603
12									• • • • • • • • • • • • •					• • •	
13 14	SEPA	\$ 7,948	5	7,944	\$ 7,971	\$	8,117	\$	8,321	s	8,293	5 8,373	\$ 8,395	s	6,574
15	Total Op Costs	\$ 336,292	\$	340,878	\$ 340,104	\$	349,599	\$	351,401		361,564	\$365,663	\$ 376,197	\$3	77,765
16	Emissions Costs							<u> </u>							
-	SO2 Price	\$294	1 - 1 - 1	\$288	\$265		\$247		\$195		\$144	\$122	\$106		\$98
	SO2(ktons) - emitted	20.83		21.282	19.910	1997 - 19 1997 - 19	21.199		20.456		21.001	20.612	21.263		20.716
20	SO2(ktons) - REQUIRED for compliance SO2 cost(\$000)	59.59 \$ 17.544		60.865 17.557	56.944 \$ 15,072	1.2	60.630 14,967		58.504 11.476	s	60.063 8,673	59.521 5 7.284			59.247 5.780
22	SO2 Lost(soud) SO2 Allowances	52.487	- ? -	52.487	52.487	3	52.487		52.487	3	52.487	52,487	5 0,427	•	52.487
	SO2 Allowance Credits	\$ (15,452		(15,140)			(12,957)		(10,296)		(7,579)			\$	(5,120)
	HMPL SO2(ktons) - emlited HMPL SO2(ktons) - REQUIRED for compliance	4.29		4.317 12.346	4.259		4.273		4.143		3.928 11.233	4.314	4.328		4.217
26	HMPL Allowances	11.69		11.694	11.694		11 694		11.694		11.694	11 694			11.694
	Excess HMPL Allowances Back to City (30% of net)						•	-			0.138				
28 29	Allowance \$ to City	3	5			ş	· · · · ·	ş		5	20	ət		5	•
30			••••••			• ••• •	· · · · ·	1	·· ·	-				-	
31	NDx Price NOx(ktons)	\$ 3,071 13.88		2,863 13.680	\$ 2,764 13.603	ş	2,665 13.714		2,564 13.515		2,574 13.854	\$ 2,578 13.746	\$ 2,581	\$	2,584 13.859
33	NOx Emissions Alloc to City (ktons)	0.30		0.301	0.301	 	0.301		0.301		0.301	0.301	0.301	i	0.301
34	Net NOx Emissions	13.57		13.378	13.303		13,413		13.214		13.553	13,445			13.558
	NOx cost(\$000) NOx Allowances	\$ 41,702 9.28		38,303 9.285	\$ 35,769 8.832		35,746 8.638		33,880 8.494		34,886 8,269	5 34,660 8.054		\$	35,034 7.76
37	NOx Allowances Alloc to City (ktons)	0.34		0.341	0.341		0.341		0.341		0.341	0.341	0.341		0.341
38	Net NOx Allowances	8.944	ding -	8.941	8.491		8.297		8 153		7.948	7.713	7.491		7.419
39 40	NOx Allowance Credits	s (27,468	, \$	(25,606)	\$ (23,4/0)	\$	(22.112)	5	(20,904)	5	(20,458)	⇒ (1 A' 884)	\$ (19,335)	¦.⊁	(19,172)
41	Net Emissions Costs	\$ 16,325	\$	15,113	\$ 14,478	\$	15,644	. \$	14,156	\$	15,542	\$ 15,637	\$ 16,039	\$	16,522
42															
	Market Purchases Purchased GWh	300	-	324	622	÷	400	÷	536	-	423	528	489		607
-45	Price per MWh	\$ 65.42	\$	66.75	\$ 64.85	\$	63.37	\$	67.39	\$	67.48	\$ 76.46	\$ 74.47	\$	76.94
46	Purchases - \$	\$ 19.657	5	21.624	\$ 40,334	ş	25.321	\$	36,120	5	28,562	\$ 40,377	\$ 36,405	<u>ج.</u>	46,703
	Smelter Sales		÷			1				+					
	Smelter GWh	(7,297)	(7,317)	(7,297)	1	(7,297)		(7,297)		(7,317)	(7,297)			(7,297)
	Price per MWh	\$ 30.25		33.00	\$ 33.00	s	33.00		33.00		33.00	\$ 36.50			36.50
51 52	Smelter Revs	\$ (220,737) <u>\$</u>	(241.403)	\$ (240,804)	>	(240,804)		(290,009)		(241.403)	5 (200,343)	\$ (200,343)	1.	(200,343)
	Henderson Sales		i			Ì		1	• • •				:		
	Henderson GWh - at Gen Bus	(668		(666)			(666)		(666)		(666)				(666)
	Price per MWh Contract Revs	5 26.70 5 (17.774		27.31 (18,180)	\$ 27.67 \$ (18,419)	5	28.11 (18,709)		28.93 (19,256)		29.48 (19.624)	\$ 29.49 \$ (19,629)			30.43 (20,257)
57	Payments to HMPL (@ \$2.50/HWh)	s 546		552	s 546	\$	546				552				546
58	Contract Sales					÷		<u>.</u>			<u> </u>	······	<u></u> ,		
	Contract Sales					÷				,					····.
61	Price per MWN	5 -	5	••••••	\$	\$	· · · · · · · · · · · · · · · · · · ·	\$	·····	\$	· · · · · · ·	\$.	5	\$	· · · · ·
<u>62</u> 63	Contract Revs	\$.	. <u>s</u>	· · · · · · · · · · · · · · · · · · ·	\$	\$	· · · · · · · · · · · · ·	\$	• • • • • •	5	· · · · · · · ·	\$	\$	5.	·
	Market Sales	·····	÷			<u>+</u>		1		1				<u>.</u>	
65	Market GWh	(1,294		(1,240)			(1,115)		(866)		(865)	(873)			(783)
	Price per MWh Market Revs	\$ 60.41 \$ (78,194		60.50 (75,027)			62.68		65.67 (56,881)		64.01		\$ 65.72 \$ (55,619)		66.47 (52.068)
68		\$ 110,19	1	(12(027)	- (or,330)		(10,142)		(20,001)	··	, 20,000) 	y (30,308,	, , , , , , , , , , , , , , , , , , , ,		(22.000)
69	and a second					i						1 22 3 3		i	1.62 2.55
	Total System Costs Native Load	\$ 56,115 4,032		43,496 4,122	\$ 71.844 4,217	5	61.456 4,308	5	85,281 4,404	\$	88,467 4,498	\$ 79,942 4,596	\$ 87.310 4,691	. . \$	102.867
	Native Load Cost per NWh	13 92		10 55	4,217 17.04	 1	14.27	 	19.36	1 	19.67	-4,396 17 39	18.61	4. 	21.49
73								1		1.2					
74	Gross System Costs Gross Source GWh	s 372,274 13,394		377.615 13,454	\$ 394.916 13,336	\$	390,565 13,497	\$	401.675	Ş	405.668 13,479	\$ 421.677 13,545	\$ 428,642 13,614	\$	440,990 13,646
76	Average System per MWh	27.79		28.067	29.613		28.938		30.103		30.095	31 132	31,486	1.1	32 317
77		L						÷							
78		·	4.						•		• •	-	·	1.	
80			Ξ.			1									
	Sources			17 07 7	12,446	4.	12.831		1204	1. 1	12,791	11.74	12.855		17 77.
	System Gen SEPA	12.820 261		12,863 267	12.446 268		12.831 265		12,541 266	; :	265	12.749 268	12.050	• • • •	12.771 268
84	Market Purchases	300	і ^с .	324	622	ł.	400	1.	536		423	528	489		607
85	Total Sources	13,394		13,454	13,336		13,497		13,344		13,479	13,545	13,614		13,646
86	Uses		÷					·		-		-			
88	Native Load	4.03		4,122	4,217		4.308		4,404		4,498	4,596	4.691		4.785
89	Emotor tood	7.293	÷	7 217	7.297		7 767		7.297		7.317	7.297	7.297	:	7.297
	Smelter Load Henderson Load	7.29		7.317	7.297	÷	7.297		7.297 660		7.317	660	660	÷	7.297
92	Sales Load	-	1	-	•	:	•							1.	•
	Mkt Sales	1.29		1.240	1.048		1.115	4	866		885	873	846		763
	Losses Total Uses	11,394		115 13,454	114 13,336		117 13,497		116 13,344		119 13,479	118 13,545	120	1	119 13,646
- 30	T. A. M. A. S. S. C. S. C. S.			70/434	0000				20,044	******	201913	20,043	10,014		10,040

			2008		2009		2010		2011		2012		2013		2014
D B Wilson 1	Max Capacity(MW)		420		417	1	417		417		417		417		417
	Min Capacity(MW)		200		325	NC	325		325		325		325		325
	Generation(GWh)				3,019		3,433		3,141	÷.,	3,317		3,161	di.	3,380
	Annual Cap. Fac		0.00%		82.64%		93.98%		85.97%	20	90.57%		86.54%		92.53%
	Fuel used(G8lu)				33.953	1	38,601		35,542	1	37,044		34.679		37,098
	Coal(Tons)			1	476,213	1,	678,323	1	545.319	. 1	,610,606	1	507,769	1	612,949
	Heat Rate		#DIV/01		11 247		11.245		11 317	5,5	11.166		10.970	44	10.975
	Fuel cost(\$000)		\$ -	\$	60,097	\$	65,622	\$	62.199	\$	90,758	\$	89.124	5	66,776
	Fuel Cost per MMBTu		#DIV/01	\$	1 770	\$	1.700	\$	1 750	\$	2.450	\$	2 570	\$	1.800
	VOM cost(\$000)		\$ -	\$	7.352	\$	8,454	\$	10,678	\$	11,264	\$	10,685	.\$.	11,729
	VOM per MWh		#DIV/01	\$	2.435	\$	2.463	\$	3.400	\$	3.395	\$	3 380	.5	3.470
	Num starts()				10	신한	11		11	1	10		9	33	10
	Start Fuel used(GBlu)				66		72		67	÷.	52		56		54
	Start cost(\$000)		\$ 100.4	\$	3,542	\$	3,870	\$	3,656	\$	2,857	\$	3,160	\$	3,062
		:									an a chi				
	Total Operating Cost (\$000)		\$ 1999 - 199	\$	70,991	\$	77,946	\$	76,533	\$	104,868	\$	102,969	5	81,567
	Op Cost per MWh		#DIV/01	\$	23.52	\$	22.71	\$	24.37	\$	31.62	\$	32.57	·\$	24.13
														1	
EnlityName			2008		2009		2010		2011		2012		2013		2014
HMPL 1	Max Capacity(MW)		153		153	111	152		152		152		152		152
	Min Capacity(MW)	1	110		140		140		140	20	140		140		140
	Generation(GWh)				1.128		1,217		1.055		1,194		1.154	33	1,215
	Annual Cap. Fac		0.00%		84 30%		91.25%		79.13%	2	89.34%		86.55%		91.15%
	Fuel used(GBtu)				12.204		13,167		11,417		12,928		12,491	22	13,156
	Coal(Tons)				530.591	j,	572,467		496,400	÷	562,095	÷	543.093	38	571,994
	Heat Rate		#DIV/01		10.822		10.823		10 821		10.823		10.824		10.826
	Fuel cost(\$000)	;	\$	\$	23,187	\$	33,180	\$	29,114	\$	34,260	\$	34,725	\$	23,549
	Fuel Cost per MMBTu		#DIV/0I	\$	1 900	\$	2.520	\$	2.550	\$	2.650	\$	2.780	\$	1.790
****	VOM cost(\$000)		\$	\$	3.412	5	3,977	\$	4,474	:\$	5,208	\$	5.170	\$	5,590
	VOM per MWh		#DIV/01	\$	3 026	\$	3.269	\$	4 240	\$	4,360	\$	4.480	\$	4.600
	Num starts()	1			16		15		15		14		14		15
	Start Fuel used(GBtu)				30		28		28		26		26		28
	Start cost(\$000)		\$	\$	1,599	\$	1,529	\$	1,525	5	1,435	\$	1,457	\$	1,617
		1	E A PERSONNAL PROPERTY OF												
	Total Operating Cost (\$000)		\$ -	\$	28,198	\$	38,687	\$	35,112	s	40,903	\$	41,352	5	30,756
	Op Cost per MWh		#DIV/01	\$	25.01	5	31.60	5	33.28	s	34.24	\$	35.83	5	25.31
		;		1											
		1		1				11.1						1	
EntityName	T	T	2008		2009	1	2010	1	2011		2012	1	2013	T T	2014
HMPL 2	Max Capacity(MW)	1	159	:	158		158		158		158		158		158
	Min Capacity(MW)	<pre>A to the to the total tot</pre>	110		140	14	140		140	Å.	140		140		140
							AAN 11 A								1,192
				:	1,271	16	1,184		1,252	-83	1,095	:	1.245	12	
	Generation(GWh)		0.00%	: 	1,271 91.80%		1,184 85.43%		1,252 90.32%		1,095 78.79%	: *.	1.245 89 87%		
	Generation(GWh) Annual Cap. Fac		0.00%					l				: :. : :			
· · · · · · · · · · · · · · · · · · ·	Generation(GWh)	· ·	0.00%		91.80%		85.43%		90.32%		78.79%	· · · · · ·	89.87%		85.28%
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu)	·	0.00% #DIV/01		91.80% 13.767		85.43% 12,827		90.32% 13,564		78.79% 11,868		89.87% 13.501		85.28% 12,809
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	· · · · · · · · · · · · · · · · · · ·	#DIV/01	\$	91.80% 13.767 598,547 10.835		85.43% 12,827 557,704 10.835	5	90 32% 13,554 589,741 10,837		78.79% 11,868 515,988 10.840	\$	89 87% 13,501 586,981 10,840		85.28% 12,809 556,934 10.838
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)		#DIV/01	\$	91.80% 13.767 598,547 10.835 26,157	\$\$	85.43% 12,827 557,704 10.835 32,325	\$	90 32% 13,554 589,741 10 837 34,588	\$ 5	78.79% 11,868 515,988 10.840 31,449	\$	89 87% 13.501 586,981 10.840 37,532	\$	85.28% 12,809 556,934 10.838 22,929
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	· · · · · · · · · · · · · · · · · · ·	#DIV/01 \$ #DIV/01	\$	91.80% 13.767 598,547 10.835	\$	85.43% 12,827 557,704 10.835	\$	90 32% 13,554 589,741 10,837		78.79% 11,868 515,988 10.840	\$ \$ \$	89 87% 13,501 586,981 10,840	\$ \$	85.28% 12,809 556,934 10.838
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000)	· · · · · · · · · · · · · · · · · · ·	#DIV/0 \$ #DIV/0 \$	\$ \$	91.80% 13.767 598,547 10.835 26,157 1 900		85.43% 12,827 557,704 10.835 32,325 2.520		90 32% 13,564 589,741 10 837 34,588 2 550	\$	78.79% 11,868 515,988 10.840 31,449 2.650	\$	89 87% 13.501 586,981 10.840 37,532 2.780	\$	85.28% 12,809 556,934 10.838 22,929 1.790
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM cost(\$000)		#DIV/01 \$ #DIV/01	\$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801	\$ \$	85,43% 12,827 557,704 10.835 32,325 2,520 3,952	\$ \$	90.32% 13,554 589,741 10.837 34,588 2.550 5,307	\$ \$	78.79% 11,868 515,988 10.840 31,449 2.650 4,774	\$	89 87% 13.501 586,961 10.640 37,532 2.760 5.580 4.480	* * * *	85.28% 12,809 556,934 10.838 22,929 1.790 5,437
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()		#DIV/0 \$ #DIV/0 \$	\$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17	\$ \$	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,399 19	\$ \$	90.32% 13.564 589.741 10.837 34.588 2.550 5.307 4.240 17	\$ \$	78.79% 11,868 515,988 10.840 31,449 2.650 4,774 4.360 23	\$	89 87% 13,501 586,961 10,640 37,532 2,780 5,580 4,480 17	* * * *	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM cost(\$000)		#DIV/0) \$ #DIV/01 \$ #DIV/0)	\$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35	\$ \$	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,399 19 37	\$ \$	90.32% 13.564 589.741 10.837 34.588 2.550 5.307 4.240 17 33	\$ \$	78.79% 11,868 515,988 10.840 31,449 2.650 4,774 4.360	\$	89 87% 13.501 586,961 10.640 37,532 2.760 5.580 4.480	* * * *	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num stants() Start Fuel used(GBtu)		#DIV/0 \$ #DIV/0 \$	\$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17	\$ \$ \$	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,399 19	\$ \$ \$	90.32% 13.564 589.741 10.837 34.588 2.550 5.307 4.240 17	\$ \$ \$	78.79% 11,868 515,988 10.840 31,449 2.650 4,774 4.360 23 44	\$ \$ \$	89 87% 13,501 586,961 10,640 37,532 2,780 5,580 4,480 17 34	* * * *	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)		#DIV/01 \$ #DIV/01 \$ #DIV/01	\$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35	\$ \$ \$ \$	85,43% 12,827 557,704 10.835 32,325 2.520 3,952 3.339 19 37 2,007	\$ \$ \$	90 32% 13,564 589,741 10 837 34,588 2 550 5,307 4 240 17 33 1,625	\$ \$ \$	78.79% 11,868 515,988 10.840 31,449 2.650 4,774 4.360 23 44	\$ \$ \$	89 87% 13.501 586,981 10.840 37,532 2.780 5.580 4.480 17 34 1.882	* * * *	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num stants() Start Fuel used(GBtu)		#DIV/0) \$ #DIV/01 \$ #DIV/0)	\$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35 1,859	\$ \$ \$	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,399 19 37	\$ \$ \$	90.32% 13.564 589.741 10.837 34.588 2.550 5.307 4.240 17 33	*** *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 2,427	\$ \$ \$	89 87% 13.501 586,981 10.840 37,532 2.780 5.580 4.480 17 34 1.882	****	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34 1,969
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)		#DIV/0} \$ #DIV/01 \$ #DIV/01 \$ \$	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35 1,859 31,817	*** * *	85.43% 12,827 557,704 10.835 32,325 2.520 3,952 3.339 19 37 2,007 38,284	\$ \$ \$ \$	90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 17 33 1,825 41,722	* * * *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 2,427 38,650	* * * *	89,87% 13,501 586,981 10,840 37,532 2,780 5,580 4,480 17 34 1,882 44,993	****	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 1,969
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)		#DIV/0} \$ #DIV/01 \$ #DIV/01 \$ \$	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35 1,859 31,817	*** * *	85.43% 12,827 557,704 10.835 32,325 2.520 3,952 3.339 19 37 2,007 38,284	\$ \$ \$ \$	90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 17 33 1,825 41,722	* * * *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 2,427 38,650	* * * *	89,87% 13,501 586,981 10,840 37,532 2,780 5,580 4,480 17 34 1,882 44,993	****	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 1,969
EnlityName	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)		#DIV/01 \$ #DIV/01 \$ \$ #DIV/01	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35 1,859 31.817 25.04	*** * *	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 36,284 32,34	\$ \$ \$ \$	90 32% 13,564 589,741 10,837 34,588 2 550 5,307 4 240 17 33 1,825 41,722 33,33	* * * *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 2,427 38,650 35,30	\$ \$ \$ \$	89 87% 13,501 586,981 10,840 37,532 2,780 5,580 4,480 17 34 1,882 44,993 36,13	***	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 1.969 30,334 25,67
EnutyName	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01	\$ \$ \$ \$ \$	91.80% 13.767 598.547 10.835 26,157 1 900 3.801 2 992 17 35 1,859 31,817 25.04 2009	*** * *	85,43% 12,827 557,704 10,835 2,520 3,952 3,955 3,952 3,955 3,952 3,955 3,952 3,955 3,952 3,955 3,952 3,955 3,952 3,955 3,952 3,955 3,952 3,955 3,952 3,9555 3,9555 3,9555 3,9555 3,9555 3,9555 3	\$ \$ \$ \$	90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 17 33 1,625 41,722 33,33 2011	* * * *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 233 44 4 2,427 38,650 35,30	\$ \$ \$ \$	89 87% 13,501 586,981 10,840 37,532 2,780 5,580 4,480 17 34 1,882 44,993 36,13 2013	***	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 1.969 30,334 25.67
EnutyName Coleman 1	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW)		#DIV/01 #DIV/01 #DIV/01 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ # # # # # # # # # # # # #	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35 1,859 31,817 25.04 2009 149	*** * *	85,43% 12,827 557,704 10,835 2,325 2,520 3,952 3,339 19 37 2,007 36,264 32,34 2010 149	\$ \$ \$ \$	90 32% 13 564 589,741 10 837 34 588 2 550 5.307 4 240 17 33 1,826 41,722 33.33 2011 149	* * * *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 2,427 38,650 35,30 2012 2012 149	\$ \$ \$ \$	89 87% 13.501 56.981 10.640 37,532 2.780 5.580 4.480 17 34 1.882 44,993 36.13 2013 149	***	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 1.969 30,334 25.67 2014
-	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost(\$000) Fuel cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW)		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35 1,859 31,817 25.04 2009 109 70	*** * *	85,43% 12,827 557,704 10,835 32,325 2,520 3,339 19 37 2,007 38,264 32,34 32,34 2010 149 70	\$ \$ \$ \$	90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 117 33 1,826 41,722 33,33 2011 149 70	* * * *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 2,427 38,650 35,30 2012 149 70	\$ \$ \$ \$	89 87% 13,501 586,981 10,840 37,532 2,780 5,580 4,480 17 34 1,882 44,993 36,13 2013 149 70	***	85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34 1.969 30,334 25.67 2014 149 70
-	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh)		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ 2006 150 70	\$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1.900 3.801 2.992 17 35 1.859 31,817 25.04 2009 149 70 0 0 0 1,198	*** * *	85,43% 12,827 557,704 10,835 32,325 2,520 3,952 3,359 3,952 3,339 19 37 2,007 38,284 32,34 2010 149 70 0	\$	90 32% 90 32% 589,741 10,837 34 588 2 550 5 307 4 240 17 33 1,826 41,722 33,33 20111 149 70 1,102	* * * *	78.79% 11,868 515,988 10,840 31,449 2.650 4,774 4,360 23 4,47 2,427 38,650 35,30 2012 149 70 1,202	\$ \$ \$ \$	89 87% 13.501 56.981 10.840 37,532 2.780 5.580 4.480 17 34 1.882 44.993 36.13 2013 149 70 0 1.207		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34 1.969 30,334 25.67 2014 2014 149 700 1,144
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW)		#DIV/01 #DIV/01 #DIV/01 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ # # # # # # # # # # # # #	\$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1 900 3.801 2 992 17 35 1.859 31,817 25.04 2009 149 70 2009 149 91.80%	*** * *	85,43% 12,827 557,704 10,835 32,325 2,520 3,339 19 37 2,007 38,284 32,34 2010 149 70 1,193 91,41%	\$	90 32% 13,564 589,741 18,837 34,588 2 550 5 307 4 240 17 33 1,626 41,722 33,33 2011 149 70 1,102 84,42% 84,42%	* * * *	78,79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 2,427 38,650 35,30 2012 149 70 1,202 9,183%	\$ \$ \$ \$	89 87% 13.501 566,981 10.840 37,532 2.780 5.580 4.480 17 34 1.882 44,993 36.13 2013 149 70 1.207 92 50%		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 1,969 30,334 25.67 2014 149 70 1,144 87.67%
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu)		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ 2006 150 70	\$ \$ \$ \$	91.80% 13.767 598,547 19.835 26,157 1900 3.801 2 992 17 35 1,859 31,817 25.04 2009 149 70 149 70 91.80% 91.80%	*** * *	85,43% 12,827 557,704 10,835 32,325 2,520 3,395 2,520 3,395 2,007 38,284 32,34 32,34 32,34 32,34 2010 149 70 1,193 91,41% 12,800	\$	90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 17 33 1,825 41,722 33,33 1,825 41,722 33,33 2011 149 70 1,102 84,42% 11,884	* * * *	78.79% 11,868 515,988 10,840 31,449 2.650 4.774 4.360 23 44 4 2.427 38,650 35.30 2012 149 70 1,202 91,83% 12,967	\$ \$ \$ \$	89 87% 13.501 586.961 10.640 37,532 2.780 5.580 4.480 17 34 1,882 44,993 36.13 149 70 1.207 92.50% 13,028		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34 1.969 30,334 25.67 2014 149 70 1,144 87.67% 12,348
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Puel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ \$ #DIV/01 22008 150 70 0.00%	\$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1900 3.801 2 992 17 35 1,859 31,817 25.04 2009 149 700 1,198 91.80% 12.653 559,821	*** * *	85,43% 12,827 557,704 10.835 32,325 2.520 3,355 2.520 3,395 2.520 3,395 2.520 3,395 2.520 3,395 2.520 3,325 3,205	\$	90 32% 90 32% 589,741 10 837 34,588 2 550 5 307 4 240 17 33 1,826 41,722 33,33 2011 149 70 1,102 84,42% 11,864 516,694	* * * *	78.79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 444 2,427 38,650 35,30 2012 149 70 1,202 91,83% 12,967 563,766	\$ \$ \$ \$	89 87% 13,501 586,981 10,840 37,532 2,780 4,480 1,882 44,993 36,13 44,993 36,13 149 700 1,207 92 50% 13,028 566,453		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 1.969 30,334 25.67 2014 2014 2014 2014 2014 2014 2014 2014
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate		#DIV/01 \$ #DIV/01 # DIV/01 # DIV/01 \$ #DIV/01 150 70 0.00% #DIV/01	\$ \$ \$ \$	91.80% 13.767 598,547 19.835 26,157 19.803 2,992 17 35 1,859 31,817 25.04 2009 149 700 1198 91.80% 12.853 558,821 10,727	\$ \$ \$ \$ \$	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 149 70 1,193 91,41% 12,800 556,517 10,728	\$	90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 17 33 1,626 41,722 33.33 2011 149 70 1,102 84,42% 11,684 516,694 10,884 516,694 10,884 516,695 10,884 516,975 10,884 516,975 10,975		78.79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 4 2,427 38,650 35,30 2012 149 70 1,202 91,83% 12,967 563,766	\$	89 87% 13,501 586,981 10,840 37,532 2,760 5,580 4,480 17 34 44,993 36,13 44,993 36,13 1,882 2013 1,49 70 1,207 92,50% 13,028 566,981 10,791 10,840 10,940 10,		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 4,600 17 34 4,969 30,334 25,67 2014 2014 2014 1,969 70 1,144 87,67% 12,348 536,879 10.791
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel (\$000)		#DIV/01 \$ #DIV/01 \$	\$ \$ \$ \$	91.80% 13.767 598,547 1908,547 1900 3.801 3.801 3.801 3.859 1,859 31.817 25.04 2009 149 70 149 70 149 91.80% 91.80% 91.80% 3558,821 10.727 30,847	* * * * * * *	85,43% 12,827 557,704 10,835 32,325 2,520 3,395 2,333 19 37 2,007 38,284 32,34 34,34 34,34 34,34 34,34 34,34 34,34 34,34 34,34 34,34 34,34 34,34 34,34 34,34 34,344 34,344,34	\$	90 32% 90 32% 589,741 10 837 34,588 2 550 5.307 4 240 17 33 3 1,825 41,722 33,33 1,825 41,722 31,124 1,025 41,722 31,124 1,025 1,0		78.79% 11,868 515,988 10,840 31,449 2.650 4,774 4,360 23 344 2,427 38,650 35.30 2012 149 70 1,202 91,83% 12,967 563,766 10,789 36,047	\$	89 87% 13.501 586.961 10.640 37,532 2.780 5.580 4.480 17 34 1.882 44,993 36.13 149 70 1.207 92 50% 13,028 566.453 10.791 37,913		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 17 34 4,600 17 34 4,600 17 34 4,600 17 34 25,67 50,334 25,67 70 1,149 70 1,144 87,67% 12,348 536,679 10,791 23,388
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Puel cost(\$000) Fuel Cost per MMBTU VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)		#DIV/01 \$ #DIV/01 \$ #DIV/01 2008 150 70 70 70 70 70 70 70 70 70 70 70 70 70	\$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1900 3.801 2.992 31,859 31,817 25.04 2009 149 700 1,198 91.80% 12.853 559,821 10.727 30,847 22,400	\$ \$ \$ \$ \$ \$ \$ \$	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 149 700 1,193 91,41% 12,800 556,517 10,728 31,744 2,460	\$ \$ \$	90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 4 240 1,1826 41,722 33,33 1,826 41,722 31,102 41,102	***	78.79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 2,650 35,30 35,30 2012 149 70 1,202 91,83% 12,967 563,766 10,789 36,047 2,780	\$ \$	89 87% 13,501 586,981 10,840 37,532 2,780 4,480 5,580 4,480 17 34 1,882 44,993 36,13 149 70 1,207 92 50% 13,028 566,453 10,791 37,913 2,910		85.28% 12,809 556,934 10,838 22,929 1.790 5,437 4,600 17 34 1.969 30,334 25.67 201- 149 700 1,144 87.67% 12,348 536,879 10.791 23,388 1.894
-	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000)		#DIV/01 \$ #DIV/01 # DIV/01 # DIV/01 \$ #DIV/01 \$ #DIV/01 \$ # DIV/01 \$	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1900 3.801 2 992 17 35 1.859 31,817 25.04 2009 149 70 149 71 80% 12.853 558,821 10.727 30,847 2.400	*** *** **	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 149 70 1,193 91,41% 256,517 10,728 31,744 2,460 1,432	\$ \$ \$ \$ \$ \$	90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 17 33 1,626 41,722 33.33 2011 149 70 1,102 84,42% 11,884 516,694 10,884 516,694 10,884 516,693 10,884 516,693 10,884 516,693 10,884 516,794 10,884 516,794 10,884 516,794 10,884 516,794 10,884 516,794 10,994 10,995 10,994 10,997 10	*** ***	78.79% 11,868 515,988 10.840 31,449 2.650 4,774 4.360 23 44 4 2.427 38,650 35.30 2012 149 70 1,202 91.83% 503,766 503,766 503,769 503,774 703 703 703 703 703 703 703 703 703 703	\$ \$ \$ \$	89 87% 13,501 586,981 10,840 37,532 2,760 5,580 4,480 1,882 44,993 36,13 149 70 1,207 92,50% 13,028 566,453 10,791 32,913 2,914 2,915 2		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 1.77 34 1.969 30,334 25.67 30,334 25.67 2014 1.969 70 1,144 87.67% 12,348 556,879 10.791 23,388 1.894 1,545
-	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh		#DIV/01 \$ #DIV/01 \$ #DIV/01 2008 150 70 70 70 70 70 70 70 70 70 70 70 70 70	\$ \$ \$ \$	91.80% 13.767 598,547 1908,557 1900 3.801 2 992 17 355 1.859 31.817 25.04 2009 149 70 1,198 91.80% 12.853 558,821 10.727 30,847 2.400 1.390 1.390	\$ \$ \$ \$ \$ \$ \$ \$	85,43% 12,827 557,704 10.835 32,325 2.520 3,952 3.339 19 37 2,007 36,284 32,34 2010 149 70 1,193 91,41% 12,800 556,517 10.728 31,744 2.480 1,432 12,200	\$ \$ \$ \$ \$ \$ \$	90 32% 90 32% 589,741 10 837 34,588 2 550 5 307 4 240 17 33 3 1,826 41,722 33,33 1,826 41,722 34,425 1,826	***	78.79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 44 4 2,427 38,650 35,30 2012 149 70 1,202 91,83% 12,967 563,766 10,789 36,047 2,780 1,538 1,280	\$ \$	89 87% 13.501 586.981 10.840 37.532 2.780 5.580 4.480 17 34 1.882 44.993 36.13 149 70 1.207 70 1.207 92.50% 13.028 566.453 10.791 32.910 1.591 1.320		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34 4.600 17 34 4.969 30,334 25.67 30,334 25.67 12,348 536,679 10.791 23,388 1.694 1.694 1.545 1.350
-	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts()		#DIV/01 \$ #DIV/01 # DIV/01 # DIV/01 \$ #DIV/01 \$ #DIV/01 \$ # DIV/01 \$	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1.900 3.801 2.992 3.7 35 1.859 31.817 25.04 2009 1.49 700 1.498 91.80% 1.2853 558,821 10.727 30.847 2.400 1.390 1.390 1.390 1.27	*** *** **	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 1,193 91,41% 12,800 556,517 10,728 31,744 2,480 1,432 1,200 1,432 1,432 1,432	\$ \$ \$ \$ \$ \$ \$	90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5 307 4 240 1,826 41,722 33,33 1,826 41,722 34,722 34,722 34,722 34,722 34,722 34,722 34,722 34,722 34,722 36,742 51,102 54,429 1,102 55,00 1,377 1,250 1,377 1,377 1,450	*** ***	78.79% 11,868 515,988 10,840 31,449 2,650 23 4,774 4,360 23 2012 38,650 35,30 2012 149 70 1,202 91,83% 12,967 563,766 10,789 36,047 2,780 1,538 1,280 1,538	\$ \$ \$ \$	89 87% 13,501 586,981 10,840 37,532 2,780 4,480 5,580 4,480 17 34 1,882 44,993 36,13 44,993 36,13 10 70 1207 92 50% 13,028 566,453 10,791 37,913 2,910 1,594 1		85.28% 12,809 556,934 10,838 22,929 1.790 5,437 4,600 17 34 1.969 30,334 25.67 2014 149 700 1,144 87.67% 12,348 536,879 10,791 23,388 1.894 1,545 1.350 155
-	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start Sout (\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Max Capacity(MW) Max Capacity(MW) Min		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$	\$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 19.003 2.992 17 35 1.859 31,817 25.04 2009 149 70 31,817 25.04 2009 149 70 31,817 25.04 2009 149 70 30,817 25.04 10 2009 149 71 80% 12.853 558,821 10.727 30,847 2.400 1.390 1.160 1.390 1.160 2.568,847 2.400 1.390 1.160 2.568,847 2.400 1.390 1.167 2.568,847 2.400 1.390 1.167 2.568,847 2.569,847 2.569,847 2.569,847 2.569,847 2.569,147 2.569,147 2.569,147 2.568,147 2.568,147 2.568,147 2.568,147 2.568,147 2.568,147 2.568,147 2.568,147 2.569,147 2.569,147,147,147,147,147,147,147,147,147,147	***	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 149 70 1,193 91,41% 12,800 556,517 10,728 31,744 2,460 1,432 1,200 1,742 2,460 1,432 1,200	***	90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5 307 4 240 17 33 1,626 41,722 33.33 2011 149 2011 149 2011 149 10,884 10,885 10,887 10,884 10,884 10,884 10,785 30,304 2,550 10,777 1,250 10,777 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,277 1,250 10,677 1,250 10,277 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 1,250 10,677 10,777 1,250 10,677 10,777 1,250 10,677 10,777 10,570 10,777 10,570 10,777 10,570 10,777 10,570 10,777 10,570 10,777 10,570 10,777 10,570 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10,770 10,777 10		78.79% 11,868 515,988 10.840 31,449 2.650 4,774 4.360 23 444 2.427 38,650 35.30 2012 149 70 1,202 91.83% 12,967 553,766 10.789 36,047 2.780 1,538 1.280 1,538	***	89 87% 13,501 586,981 10,840 37,532 2,780 4,480 5,580 4,480 1,882 44,993 36,13 149 70 1,207 92,50% 13,028 556,453 10,791 37,913 2,910 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,207 1		85.28% 12,809 556,934 10,838 22,929 1.790 5,437 4.600 5,437 4.600 5,437 4.600 5,437 4.607 34 1.969 30,334 25.67 70 1,144 87.67% 12,348 536,879 10,791 23,388 1.894 1,545 1.350 51,545 2,44
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts()		#DIV/01 \$ #DIV/01 # DIV/01 # DIV/01 \$ #DIV/01 \$ #DIV/01 \$ # DIV/01 \$	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 19.900 3.801 2.992 17 35 1.859 31,817 25.04 2009 149 70 2009 149 91.80% 12.853 558,821 10.727 30,847 2.400 1.390 1.160 1.390	*** *** **	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 1,193 91,41% 12,800 556,517 10,728 31,744 2,480 1,432 1,200 1,432 1,432 1,432	\$ \$ \$ \$ \$ \$ \$	90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5,307 4 240 1,826 41,722 33,33 1,826 41,722 34,722 34,722 34,722 34,722 35,33 1,826 41,722 35,33 1,826 41,722 36,429 1,102 84,429 1,108 45,1669 1,075 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,364 1,364 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,250 1,377 1,564 1,56 1,577 1	*** ***	78.79% 11,868 515,988 10,840 31,449 2,650 23 4,774 4,360 23 2012 38,650 35,30 2012 149 70 1,202 91,83% 12,967 563,766 10,789 36,047 2,780 1,538 1,280 1,538	\$ \$ \$ \$	89 87% 13,501 586,981 10,840 37,532 2,780 4,480 5,580 4,480 1,882 44,993 36,13 149 36,13 149 36,13 149 70 70 70 70 556,453 10,791 37,913 2,910 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,220 1,594 1,220 1,594 1,220 1,594 1,220 1,594 1,220 1,594 1,220 1,		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4.600 17 34 1.969 30,334 25.67 2014 149 70
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1.900 3.801 2.992 31,859 31,817 25.04 2009 1.495 700 1.495 91.80% 1.2853 558,821 10.727 30,847 12.853 558,821 10.727 30,847 1.2850 1.390 1.390 1.390 1.390 1.390 1.390 1.390 1.390 1.390 1.390 1.390 1.285 558,821 1.285 558,821 1.285 558,821 1.285 558,821 1.285 558,821 1.285 1.2	***	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 1,193 91,41% 12,800 556,517 10,728 31,744 2,460 1,432 1,200 17 26,583	****	90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 1.02 84,42% 10,785 30,304 11,884 516,694 10,785 30,304 11,884 516,694 10,785 30,307 1,255 1,377 1,25		78.79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 233 44 2,427 38,650 35,30 2012 149 70 1,202 91,83% 12,967 563,766 10,789 36,047 2,780 1,538 1,280 1,538 1,538		89 87% 13,501 586,981 10,840 37,532 2,780 5,580 4,480 5,580 4,480 34 1,882 44,993 36,13 44,993 36,13 2013 36,13 2013 149 700 1,207 92 50% 13,028 566,453 10,791 37,913 2,910 1,594 1,592 2,4551 1,591 2,4551 1,591 2,4551 1,591 2,4551 1,591 2,4551 1,591 2,4551 1,591 2,4551 1,591 1,592 1,59		85.28% 12,809 556,934 10,838 22,929 1.790 5,437 4,600 17 34 1.969 30,334 25.67 30,334 25.67 30,334 25.67 70 1,144 87.67% 12,348 536,879 10,791 12,348 536,879 10,791 12,348 536,879 10,791 12,348 536,879 10,791 12,348 536,879 10,791 12,348 536,879 10,791 12,348 536,879 10,791 12,348 536,879 10,791 12,348 536,879 10,791 12,547 12,547 12,547 14,547 14,547 12,547 12,547 12,547 14,547 12,547 14,547 12,547 12,547 14,547 12,547 12,547 14,547 12,547 12,547 14,547 14,547 12,547 14,547 12,547 12,547 12,547 14,547 12,547 12,547 12,547 12,547 14,547 14,547 12,547 12,547 12,547 12,547 12,547 12,547 12,547 12,547 14,547 12,547 13,547 13,547 13,547 13,547 13,547 15,547 13,547 13,547 13,547 13,547 15,547 14,547 15,54
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start S() Start Fuel used(GBtu) Start sot(\$000) Total Operating Cost (\$000)		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 19.900 2.992 17 35 1.859 31,817 25.04 2009 149 70 2009 149 70 2009 149 70 2009 149 71 80% 12.853 558,821 10.727 30,847 2.400 1.390 1.160 1.390 1.160 3.847 2.400 1.390	*********	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 17 2,007 38,284 32,34 2010 149 70 0,1193 91,41% 12,800 556,517 10,728 31,744 2,460 1,432 12,800 14,432 12,800 556,517 10,728 31,744 2,460 1,432 12,800 556,517 10,728 31,744 2,460 1,432 12,800 14,432 14,533 14,432 14,544 14,545 14,545 14,545 14,545 14,545 14,5555 14,5555 14,5555 14,5555 14,5555 14,5555 14,55555 14,5555555555		90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5 307 4 240 1,826 41,722 33,33 2011 149 2011 149 2011 149 1,625 30,304 2 550 1,255 32,253		78.79% 11,868 515,988 10.840 31,449 2.650 4,774 4.360 23 38,650 35.30 2012 149 70 1,202 91.83% 12,967 563,766 10.789 36,047 2.780 1,538 1.280 1,538 1.280 1,538 3,244 555	***	89 87% 13,501 586,981 10,840 37,532 2,780 4,480 5,580 4,480 1,882 44,993 36,13 149 36,13 149 36,13 149 36,13 149 36,13 149 1,207 92,50% 13,028 556,453 10,791 37,913 2,910 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,207		85.28% 12,809 556,934 10,838 22,929 1.790 5,437 4,600 5,437 4,600 34 1.969 30,334 25,67 2014 1.969 2014 1.969 2014 1.969 2014 1.969 1.744 87,67% 12,348 35,6,879 10,791 23,388 1.894 1,545 1.850 1.55 24 572 25,504
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)		#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$	\$ \$ \$ \$ \$	91.80% 13.767 598,547 10.835 26,157 1900 3.801 2.992 31.859 31.817 25.04 2009 149 70 1,198 91.80% 12.853 558,821 10.727 30,847 10.727 30,847 12.853 558,821 10.727 30,847 12.853 558,821 10.727 30,847 12.853 558,821 10.727 30,847 12.855 558,821 10.727 30,847 12.855 558,821 10.855 558,854 10.855 10	***	85,43% 12,827 557,704 10.835 32,325 2,520 3,952 3,339 19 37 2,007 38,284 32,34 2010 1,193 91,41% 12,800 556,517 10,728 31,744 2,460 1,432 1,200 17 26,583		90 32% 90 32% 13,564 589,741 10 837 34,588 2 550 5.307 4 240 1.02 84,42% 10,785 30,304 11,884 516,694 10,785 30,304 11,884 516,694 10,785 30,307 1,255 1,377 1,25		78.79% 11,868 515,988 10,840 31,449 2,650 4,774 4,360 23 444 2,427 38,650 35,30 2012 149 700 1,202 91,83% 12,967 563,766 10,789 36,047 2,780 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,280 1,538 1,588 1,280 1,588 1,588 1,588 1,588 1,598 1,5		89 87% 13,501 586,981 10,840 37,532 2,780 4,480 5,580 4,480 1,882 44,993 36,13 149 36,13 149 36,13 149 1207 92 50% 13,028 556,453 10,791 37,913 2,910 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,320 1,594 1,5		85.28% 12,809 556,934 10.838 22,929 1.790 5,437 4,600 5,437 4,600 34 1.969 30,334 25,67 2014 149 2014 149 2014 149 2014 149 2014 149 23,687 10.791 23,388 1.894 1,545 1.350 15 24 572 25,504

EntityName		2008		2009		2010		2011		2012		2013		2014
Coleman 2	Max Capacity(MW)	139		138		138		138		138		138		138
	Min Capacity(MW)	70		70		70		70	1	70		70	1	70
	Generation(GWh)			111		,040		1.101		1,090		1,038	1	1,093
	Annual Cap. Fac	0.00%		91%		99%		91.04%	÷	89.94%	·	85.89%	d.	90.39%
	Fuel used(GBtu)			369	12,	506		13,237		13,115		12,493	4.5	13,144
	Coal(Tons)		581.	246	543	816	\$	575,501		570,236		543,177	10	571,487
	Heat Rate	#DIV/01	12 -	033	12	032		12.02B		12.030		12.032		12.029
	Fuel cost(\$000)	\$ -	\$ 32.	085	\$.: 31,	019	\$	33.753	\$	36,461	\$	36,355	\$	24,895
	Fuel Cost per MMBTu	#DIV/01	\$ 2	400 \$	\$ 2	480	\$	2 550	\$	2.780	\$	2 910	\$	1.894
	VOM cost(\$000)	\$ -	\$ 1.	289		247	\$	1.376	\$	1,428	\$	1,402	\$	1,508
	VOM per MWh	#DIV/01	\$ 1	160	\$ 1	200	\$	1.250	\$	1.310	5	1 350	5	1.3BD
	Num starts()			16		15		15		15		15		15
	Start Fuel used(GBtu)			25		22		24		25		24		25
	Start cost(\$000)	s 2002 (3)	\$		\$	501	5	548	\$	561	ŝ	567	\$	582
	· · · · · · · · · · · · · · · · · · ·	111111111111111111111111111111111111111												
	Total Operating Cost (\$000)	\$	\$ 33,	919	\$ 32	768	\$	35,677	\$	38,450	\$	38,323	\$	26,985
*	Op Cost per MWh	#DIV/01				1.52	\$	32.42	ŝ	35.27	\$	36.91	ŝ	24.70
											7		<u> </u>	
**********													÷	• • • • • • • • • • • • •
EntityName	i i	2008		2009	1.0.23	2010		2011		2012	İ	2013	<u> </u>	2014
Coleman 3	Max Capacity(MW)	155		154				154		154	<u> </u>		.	
coleman 3						154						154		154
	Min Capacity(MW)	110		110		110		110		110	i	110		110
	Generation(GWh)	0.000		126		225		1.225		1,050	:	1.237	3Q	1,229
	Annual Cap. Fac.	0.00%		1496		79%		90.80%	48	77.65%	ŧ.,	91 70%		91.12%
	Fuel used(GBtu)			176		249		13,258		11,371	÷	13,398	427	13,308
	Coal(Tons)		529.		576		5	576,428		494,391		582.521	NS:	578,596
	Heat Rate	#DIV/01		817	10	817 :		10.823		10.826	1.	10 830		10.825
	Fuel cost(\$000)	\$			\$ 32	858	\$	33,808	\$	31,611	\$	38,988	\$	25,205
	Fuel Cost per MMBTu	#DIV/01				480	\$	2 55D	\$	2.780	5	2 910	\$	1.894
	VOM cost(\$000)	\$ -				470	\$	1.531	\$	1.376	\$	1,670	\$	1,696
* * • • • • • • • • • • • • •	VOM per MWh	#DIV/01				200	\$	1 250	\$	1.310	\$	1 350	5	1.3BD
	Num starts()			18	·	18	. 1	19		24	1.5	14	1	15
	Start Fuel used(GBtu)		•	25	N. S.	25		27	10	32	5	20		22
	Start cost(\$000)		\$		\$	568	\$	619	\$	732	5	467	s	524
	51212 (051(1900)		. ,	332 .		300		013		136	-	107		344
	Total Operating Cost (\$000)	\$	\$ 31.	079		895		35,958	÷.	הזד דכ	<u>.</u>	41 100		77 476
	Op Cost per MWh	7 #DIV/01				,895 8.49	\$ \$	29.35	\$	33,719	\$	41,125	ş	27,426
	Job cosc per carm	HDIV/OI		.01	2	0.43	<u> </u>	29.33	~	32.10	• >	33.24	<u> </u>	22,31
•••••					••••••				• • • •		1	•••••••		
EntityName	F	2008		2009		2010		2011		2012	_	3013		2014
	Itter Canadia (1811)	50			_						.	2013		
Reid ST	Max Capacity(MW)	: 박동 소송 2003		50	3 C - 1	50		50	10 A.	50		50	- 190 -	50
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• • • • • • • • • • • • • • • • • • • •	Min Capacity(MW)	40		40		40		40	ê	40		40		N. 5 5 5 LLL.
• • • • • • • • • • • • • • • • • • • •	Generation(GWh)		······	7		12		32		29		40 13		29
• • • • • • • • • • • • • • • • • • • •	Generation(GWh) Annual Cap. Fac	40 - 0.00%	1,		2	12 77%	••••	32 7 36%		29 6.51%	, ,	40		29 5.67%
• • • • • • • • • • • • • • • • • • • •	Generation(GWh) Annual Cap. Fac Fuel used(GBtu)		1,	7	2	12	••••	32		29		40 13		
•••••••••••••••••••••••••••••••••••••••	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)	- 0.00% -		7 52% 90 75	2	12 77%	••••	32 7 36%		29 6.51%		40 13 3 00% 178		δ.67%
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· · · · · · · · · · · · · · · · · · ·	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	- 0.00% - #DIV/0!	13 \$	7 52% 90 75 564 792	13 \$ 1	12 77% 165 .571 .551	\$	32 7 36% 437 13 545 3,776	\$ \$	29 6.51% 387 13.556	\$	40 13 3 00% 178 13 572 1.683	\$	5.67% 396 13.547 3,300
· · · · · · · · · · · · · · · · · · ·	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost per MMBTu	0.00% #DIV/8i \$ #DIV/0i	13 \$ \$ 8	7 52% 90 75 564 792 285	13 \$ 1 \$ 9	12 .77% 165 .571	. \$	32 7 36% 437 13 545	\$	29 6.51% 387 13.556 3,518	\$	40 13 3 00% 178 13 572	**	5.67% 396 13.547
· · · · · · · · · · · · · · · · · · ·	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000)	0.00% #DIV/0i \$	13 \$	7 52% 90 75 564 792 785	13 \$ 1 \$ 9 \$	12 77% 165 .571 .551	\$ \$	32 7 36% 437 13 545 3.776 8.646	\$ \$	29 6.51% 387 13.556 3,518	\$ \$ \$	40 13 3 00% 178 13 572 1.683	***	5.67% 396 13.547 3,300
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· · · · · · · · · · · · · · · · · · ·	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost(\$000) VoM cost(\$000) VOM per MWh Num stars()	0.00% #DIV/0 \$ #DIV/0 \$	13 \$ \$ 8, \$	7 52% 90 75 564 792 785 785	13 \$ 1 \$ 9 \$	12 77% 165 .571 .551 .420 	\$ \$	32 7 36% 437 13 545 3.776 8.646	\$ \$	29 6.51% 367 13.556 3,518 9.081	\$ \$ \$	40 13 3 00% 178 13 572 1.683	***	5.67% 396 13.547 3,300 8.344 <i>3</i>
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EnulyName Reid GT	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW)	0.00% #DIV/01 #DIV/01 \$ #DIV/01 \$ \$ #DIV/01	13 \$ 8, \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	7 52% 90 75 564 792 785 785 785 785 785 785 785 785 785 785	13 \$ 9 \$ \$ \$ 1 \$ 3 \$ 25	12 77% 165 .571 .551 .420 .31 29 .548 .099 5.47	\$ \$ \$ \$	32 7 36% 437 13 545 3.776 8.646 - 39 36 1.887 5.663 175.64	\$ \$ \$ \$ \$	29 6.51% 387 13.556 3,518 9.081 - - - 5 5 188 3,706 129.66 2012 65	\$ \$ \$ \$	40 13 3 00% 178 13 572 1.683 9.451 - - - - 1.683 128.27	**** * **	6.67% 396 13.547 3,300 8.344 3 2 101 3,401 116.48 2014 65
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	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	0.00% #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01 2000B 65 #DIV/01	13 \$ 8, \$ 1, \$ 2, \$ 36 0 0 12 \$	7 52% 90 75 564 792 : 333 30 602 : 394 : 3062 : 394 : 300 : 470% 48 - 70% 48 - 046 418 : 733 :	13 \$ 1 \$ 9 \$ \$ \$ 25 0 0 11 \$ 8 8	12 77% 165 571 551 420 - 31 29 548 099 5.47 2010 65 - 4 75% 51 - 931 448 814	***	32 7 36% 437 13 545 3.776 8.646 1.887 39 36 1.887 5.663 175.64 2011 65 7 1.19% 80 11 905	******	29 6.51% 387 13.556 3.518 9.081 - - 5 5 188 3,706 129.66 129.66 2012 65 - 11 1.97% 133 11.785	\$\$ \$ \$	40 13 3 00% 178 13 572 1.683 9.451 - - - - - 1,683 128.27 - - - - - - - - - - - - - - - - - - -	***	6.67% 396
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num stars() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000)	0.00% #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	13 \$ 8, \$ 1, \$ 2, \$ 36 0 0 12 \$	7 52% 90 75 554 722 73 30 602 33 30 602 33 30 602 33 30 602 33 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 80 602 80 80 80 80 80 80 80 80 80 80	13 \$ 1 \$ 9 \$ \$ \$ \$ \$ 25 0 0 11 \$ \$ 8 \$ 8 \$	12 77% 165 - 571 551 420 - 31 29 548 099 5.47 2010 65 - 4 75% 51 - - 931 448	***	32 7 36% 437 		29 6.51% 387 	\$ \$ \$ \$ \$ \$ \$ \$	40 13 3 00% 178 13 572 1.683 9.451 - - - - - - - - - - - - - - - - - - -		6.67% 396
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh	0.00% #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01 2000B 65 #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01 #DIV/01	13 \$ 8, \$ 8, \$ 1, \$ 2, \$ 36(0, 12 \$ 8, \$ 9, \$ 36(12 \$ 1, 12 \$ 1, 12 \$ 5, 5 8, 5 8, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	7 522% 90 75 564 792 785 7 33 30 662 5 30 662 5 30 662 5 4 70% 418 70% 418 733 5	13 \$ 1 \$ 9 \$ \$ \$ 25 0 0 11 \$ 8 8	12 77% 165 571 551 420 - 33 29 548 099 547 2010 65 547 2010 65 51 - 931 448 814 -	***	32 7 36% 437 13 545 3.776 8.646 8.646 39 36 1.887 5.663 175.64 2011 65 5 7 7 1.19% 80 1 905 698 8.675 7	******	29 6.51% 387 3,518 9,081 - 5 5 8 8 3,706 129.66 2012 65 65 - 11 1.97% 133 1.785 1,132 8,522 -	\$\$ \$ \$	40 40 13 30% 178 13572 1683 9.451 - - - - - - - - - - - - -	****	6.67% 396 13.547 3,300 8.344 3 2 101 3,401 116.48 2014 65 9 1.63% 111 11.947 931 8.412
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	0.00% #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	13 \$ 8, \$ 8, \$ 1, \$ 2, \$ 36(0, 12 \$ 8, \$ 9, \$ 36(12 \$ 1, 12 \$ 1, 12 \$ 5, 5 8, 5 8, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	7 52% 90 75 554 722 73 30 602 33 30 602 33 30 602 33 30 602 33 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 30 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 602 80 80 602 80 80 80 80 80 80 80 80 80 80	13 \$ 1 \$ 9 \$ \$ \$ \$ \$ 25 0 0 11 \$ \$ 8 \$ 8 \$	12 77% 165 571 551 420 - 31 29 548 099 5.47 2010 65 - 4 75% 51 - 931 448 814	***	32 7 36% 437 		29 6.51% 387 	\$ \$ \$ \$ \$ \$ \$ \$	40 13 3 00% 178 13 572 1.683 9.451 - - - - - - - - - - - - - - - - - - -		6.67% 396 396 396 396 396 3,300 8,340 101 3,401 116.48 2014 65 - 9 1.63% 111 11.947 931
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Cost per MMh Min Capacity(MW) Start Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	0.00% #DIV/01 #DIV/01 #DIV/01 * - * -	13 5 5 5 5 5 5 5 5 5 5 5 5 5	7 52% 90 75 554 792 765 - 33 30 602 394 - 30 602 80 605 605 605 605 605 605 605 60	13 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12 77% 165 571 551 420 - 33 29 548 099 547 2010 65 547 2010 65 51 - 931 448 814 -	* * * * * * * * * *	32 7 36% 437 13 545 3.776 8.646 8.646 39 36 1.887 5.663 175.64 2011 65 5 7 7 1.19% 80 1 905 698 8.675 7		29 6.51% 387 3,518 9,081 - 5 5 8 8 3,706 129.66 2012 65 65 - 11 1.97% 133 1.785 1,132 8,522 -		40 40 13 30% 178 13572 1683 9.451 - - - - - - - - - - - - -	****	6.67% 396 13.547 3,300 8,344 - - - - - - - - - - - - - - - - - -
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	0.00% #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	13 \$ 8, \$ 8, \$ 1, \$ 2, \$ 36(0, 12 \$ 8, \$ 9, \$ 36(12 \$ 1, 12 \$ 1, 12 \$ 5, 5 8, 5 8, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1	7 52% 90 75 554 792 765 - 33 30 602 394 - 30 602 80 605 605 605 605 605 605 605 60	13 \$ 1 \$ 9 \$ \$ \$ \$ \$ 25 0 0 11 \$ \$ 8 \$ 8 \$	12 77% 165 571 551 420 - 33 29 548 099 547 2010 65 547 2010 65 51 - 931 448 814 -	***	32 7 36% 437 13 545 3.776 8.646 8.646 39 36 1.887 5.663 175.64 2011 65 5 7 7 1.19% 80 1 905 698 8.675 7		29 6.51% 387 3,518 9,081 - 5 5 8 8 3,706 129.66 2012 65 65 - 11 1.97% 133 1.785 1,132 8,522 -	\$ \$ \$ \$ \$ \$ \$ \$	40 13 3 00% 178 13 572 1.683 9.451 - - - - - - - - - - - - - - - - - - -		6.67% 396 - 13.547 3,300 8,344 - 3 2 101 3,401 116,48 - - - - - - - - - - - - - - - - - - -
	Generation(GWh) Annual Cap. Fac Fiel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$006) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(NW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM per MWh Num starts() Start S() Start S() Sta	0.00% #DIV/01 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$	13 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	7 5235 90 75 5541 782 785 782 333 30 602 3934 3094 30 20092 65 4 70% 4 116 7733 1154 1154 1154	13 \$ 1 \$ 9 \$ \$ \$ \$ 25 0 0 11 \$ 8 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	12 77% 165 .571 .551 .548 .548 .548 .548 .548 .548 .548 .548	***	32 7 36% 437 13 545 3.776 8.646 8.646 1.887 5.663 175.64 2011 2011 65 65 7 1.19% 65 698 8.675 - 11.905 698 8.675 - 154 -		29 6.51% 387 3,516 3,518 9,081 - 5 5 8 9,081 - 1 2012 65 - 11 1.97% 133 - 1.785 1,132 8.522 - 174 - 174 -		40 13 3 00% 178 13 572 1,683 9,451 - - - - 1,683 128,27 2013 55 - - 1,683 128,27 2013 55 - - - 1,683 128,27 - - - - - - - - - - - - - - - - - - -		6.67% 396 13.547 3,300 8.344 3 2 101 116.48 2014 65 9 1.63% 111 11.947 931 8.412
	Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start fuel used(GBtu)	0.00% #DIV/01 #DIV/01 #DIV/01 #DIV/01 * - * -	13 5 5 5 5 5 5 5 5 5 5 5 5 5	7 5235 90 75 554 7792 7792 7785 7792 7785 7792 7792 7792 7792 7792 7792 7792 779	13 \$ 1 \$ 2 \$ 3 \$ 25 0 11 \$ 8 \$ \$ \$ \$	12 77% 165 571 551 29 548 099 548 099 547 2010 65 - - - 931 448 814 - - 148 - - - - - - - - - - - - - - - - - - -	****	32 7 36% 437 13 545 3.776 8.646 1.887 5.663 175.64 2011 65 7 1.19% 60 0 0 11 905 698 8 675		29 6.51% 387 3.556 3.518 9.081 		40 13 3 00% 178 13 572 1.683 9.451 - - - - - - - - - - - - - - - - - - -		6.67% 396
	Generation(GWh) Annual Cap. Fac Fiel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$006) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(NW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM per MWh Num starts() Start S() Start S() Sta	0.00% #DIV/01 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$	13 5 5 5 5 5 5 5 5 5 5 5 5 5	7 5235 90 75 554 782 782 782 782 782 782 782 782	13 \$ 1 \$ 2 \$ 3 \$ 25 0 11 \$ 8 \$ \$ \$ \$	12 77% 165 .571 .551 .548 .548 .548 .548 .548 .548 .548 .548	***	32 7 36% 437 13 545 3.776 8.646 8.646 1.887 5.663 175.64 2011 2011 65 65 7 1.19% 65 698 8.675 - 11.905 698 8.675 - 154 -		29 6.51% 387 3,516 3,518 9,081 - 5 5 8 9,081 - 1 2012 65 - 11 1.97% 133 - 1.785 1,132 8.522 - 174 - 174 -		40 13 3 00% 178 13 572 1,683 9,451 - - - - 1,683 128,27 2013 55 - - 1,683 128,27 2013 55 - - - 1,683 128,27 - - - - - - - - - - - - - - - - - - -		6.67% 396 13.547 3,300 8,344 3 2 101 116.48 2014 65 9 1.63% 111 8,412

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EntityName	T T	2008	2009	2010	2011	2012	2013	2014
Green 1	Max Capacity(MW)	231	231	231	231	231	231	231
	Min Capacity(MW)	180	180	180	180	160	180	180
	Generation(GWh)		1.956	1,600	1,950	1,640	1.927	1,652
	Annual Cap. Fac.	0.00%	96.66%	88,97%	96.36%	90.69%	95 23%	81.64%
	Fuel used(GBtu)	0.0070	21,874	19,784	21.425	20,229	21.186	18,159
			1.093.713	989,179	1.071.290	1,011,426	1.059.279	907,961
	Coal(Tons)							
	Heat Rate	#DIV/01	11 183	10.988	10.988	10.992	10.994	10.992
	Fuel cost(\$000)	\$ -	\$ 36,749	\$ 40,358	\$ 46,922	\$ 43,491	\$ 52,964	\$ 32,632
	Fuel Cost per MMBTu	#DIV/01	\$ 1.680	\$ 2.040	\$ 2 190	\$ 2.150	\$ 2 500	5 1.797
	VOM cost(\$000)	\$ -	\$ 7.559	\$ 7,490	\$ 8,872	\$ 8,594	\$ 9.250	\$ 8,144
	VOM per MWh	#DIV/01	\$ 3.865	\$ 4.160	\$ 4 550	\$ 4.670	\$ 4.800	\$ 4,930
	Num starts()		7	8	7	14	13	18
	Start Fuel used(GBtu)		17	20	18	31	23	43
	Start cost(\$000)		\$ 919	\$ 1.104	\$ 979	\$ 1,719	\$ 1,316	\$ 2,465
	Same Losi(Volo)	17. Nationalista		Jana Serena	<u> </u>			
	Total Operating Cost (\$000)	\$ -	\$ 45,227	\$ 48,952	\$ 56,774	\$ 53,805	\$ 63,530	\$ 43,242
	Op Cost per MWh	#DIV/01	5 23.12	\$ 27.19	\$ 29.12	\$ 29.24	\$ 32.97	\$ 26.18
	op cost per tann		4					
• • • • • • • • • • • • • • • • • • • •					*** ********	•	• • • • • • • • • • • • •	
EnutyName		2008	2009	2010	2011	2012	2013	2014
Green 2	Max Capacity(MW)	223	223	223	223	223	223	223
	Min Capacity(MW)	180	180	150	180	160	180	160
	Generation(GWh)		1.713	1,672	1.604	1,650	1.763	1,865
	Annual Cap. Fac	0,00%	87 68%	95.85%	82 12%	94.42%	90 26%	95.49%
	Fuel used(GBtu)		19.358	20,600	17,820	20,557	19.594	20,731
	Coal(Tons)		967.890	1,040,003	891.016	1,027,850	979,697	1,036,537
	Heat Rate	#DIV/01	11 302	11.109	11 109	11.115	11 112	11.114
	Fuel cost(\$000)	\$ -	\$ 32.521	\$ 42,432	\$ 39,026	\$ 44,198	\$ 48,985	\$ 37,253
						\$ 2.150	\$ 2 500	\$ 1,797
	Fuel Cost per MMBTu	#DIV/01	\$ 1.680					
	VOM cost(\$000)	\$	\$ 6,609	\$ 7,789	\$ 7.299	\$ 8,637	\$ 8,464	
	VOM per MWh	#DIV/01		\$ 4.160	\$ 4 550	\$ 4.670	\$ 4.800	\$ 4.930
	Num starts()		8	7	6	13	14	11
	Start Fuel used(GBtu)		25	23	22	24	38	20
	Start cost(\$000)	i\$ Bapt(u bas	\$ 1,174	\$ 1,107	\$ 1,034	\$ 1,271	\$ 1,905	\$ 1,089
			* ** 704	\$ 51,328	\$ 47,359	\$ 54,107	\$ 59,354	\$ 47,538
	Total Operating Cost (\$000)	\$ - #DIV/0!	\$ 40,304 \$ 23,53	\$ 51,328 \$ 27,41	\$ 17,359 \$ 29.52	\$ 54,107 \$ 29.25	\$ 59,354 \$ 33.66	\$ 47,538
	Op Cost per MWh	<i>₩</i> D1V/U	\$ 23.53	\$ 27.41	\$ 29.52	- 3 - 29,20	2 22.00	ə 23.43
							•••••	
		2008	2009	2010	2011	2012	2013	201
Total	Max Capacity(MW)	1,743	1.738	1,737	1,737	1,737	1.737	1,737
	Min Capacity(MW)	1,070	1,255	1,255	1.255	1,255	1.255	1,255
	Generation(GWh)		12.531	12,980	12.468	12,679	12.762	12,799
	Annual Cap. Fac.	0.00%	82 32%	85.28%	81.92%	83.08%	63.85%	84.10%
	Fuel used(GBtu)		139,691	143,951	138,665	140,599	140,722	141,260
	Coal(Tons)	이 이 옷은 말을 알았다.	6,336,497	6,514,057	6,262,389	6,356,369	6,368,971	6,373,339
*****	Heat Rate	#DIV/01	11 147	11.090	11.122	11.089	11.027	11.037
	Fuel cost(\$000)	\$.	\$ 272,074	\$ 311,537	\$ 314,188	\$ 352,926	\$ 379.743	\$ 260,856
	Fuel Cost per MMBTu	#DIV/0	\$ 1.948	\$ 2.164	\$ 2,266	\$ 2.510	\$ 2,699	\$ 1.847
			\$ 32.718	\$ 35,812	\$ 40,914	\$ 42,820	\$ 43.814	\$ 44,845
	VOM cost(\$000)	\$ +bruioi			\$ 3 282	\$ 3,377	\$ 3,433	\$ 3,504
	VOM per MWh	#DIV/01	\$ 2 611	\$ 2.759				
	Num starts()		295	289	299	305	363	315
	Start Fuel used(GBtu)		279	283	281	262	246	253
	Start cost(\$000)	5	\$ 12,359	\$ 12,815	\$ 12,646	\$ 11,754	\$ 11,304	\$ 11,982
	······································		1.1111111					
	Total Operating Cost (\$000)	\$ -	\$ 317,152	\$ 360,164	\$ 367,748	\$ 407,500	\$ 434,861	\$ 317,686
	Op Cost per MWh	#DIV/01	\$ 25.31	\$ 27.75	\$ 29.50	\$ 32.14	\$ 34.08	\$ 21.8

EntityName			2015		2016		2017		2018		2019		2020		2021		2022		2023
D B Wilson 1	Max Capacity(MW)		417		417		417	1.10	417		417		417		417	1.1	417		417
	Min Capacity(MW)		325	-14	325		325	군	325		325	÷.,	325		325	4.3	325		325
	Generation(GWh)		3.218		3,390		2,965	은	3,384		3.216		3,385		3.223	11	3,409		3,211
	Annual Cap. Fac		88 09%		92.54%		81 17%	11	92.63%		88.04%	44	92.41%		88.24%	÷.	93.32%		87.89%
	Fuel used(GBtu)		35.301		37,206		32,550	순	37,130		35,285	20	37,151		35,366	2	37,415		35,220
	Coal(Tons)	1,	534,805	. <u>1</u> ,	617,640	1	415,201	1	514,347	1.	534.116	1,	615,270	1.	537.664	1,	626,778	1.	\$31.301
· ····	Heat Rate		10.970		10.975		10.977		10.973		10.972		10.975		10 972	дđ	10.976		10.970
	Fuel cost(\$000)	\$	64.070	\$	68,198	\$	60,314	\$	69,545	\$	66,794	\$	71,070	\$	68,469	\$	73,260	\$	69,771
	Fuel Cost per MMBTu	\$	1.815	\$	1.633	ŝ	1.853	\$	1.873	\$	1 893	\$	1.913	\$	1.936	\$	1.958	\$	1 981
***************	VOM cost(\$000)	\$	11,488	\$	12,441	\$	11.179	\$	13,095	\$	12.800	\$	13,845	\$	13.538	\$	14,693	5	14.223
	VOM per MWh	ŝ	3.570	5	3.670	\$	3 770	ŝ	3.870	\$	3.980	\$	4.090	\$	4 200	5	4.310	5	4.430
		. t.	9	÷.	10		14	1	8	1	10	1	10	. 7 .	9		10		9
	Num starts()	••••	50		50		77	λ÷	45		55	Ś.	53		50	122	52		55
	Start Fuel used(GBtu)	Ś		\$		ŝ	4,740	\$	2,877	\$	3,547	\$	3,532	\$	3,375	\$	3,610	4	3,903
	Start cost(\$000)	<u> </u>	2,905	<u> </u>	2,999		4,/40	<u>~</u>	2,0//	2	2,277		3,332	2	2,373				5,505
	T 1-1 0		78,453				76,233	11. *	85,517	\$	83,141	\$	88,447	\$	85,383	\$	91,554	\$	87,896
•••••	Total Operating Cost (\$000)	\$		\$	83,637 24.67	\$	25.71	\$	25.27	э 5	25.85	3 5	26.13	3	26.49	\$	26.85		27.38
	Op Cost per MWh	\$	24.38	\$	41.07		25.71	2	23.27	- 7	C0.C2	-	40.84		20.75		20.00	<u> </u>	
					·····.														
EntityName		_	2015		2016		2017		2018	_	2019		2020		2021	N 15	2022	<u> </u>	2023
	Man Compatibulit	ŀ		.					152		152		152		152		152	<u></u>	152
HMPL 1	Max Capacity(MW)		152		152		152	11	152		152		152		152		152		140
	Min Capacity(MW)		140		140	•••••	140	20				3.53			1.158		1,227		1,122
	Generation(GWh)		1.136		1,226		1,124		1,224		1.061		1,127						
	Annual Cap. Fac		85.22%		91.72%		84.28%		91.60%		79 59%		84.29%		86.87%		92.05%		84.17%
	Fuel used(GBtu)	į.,	12,298		13,274		12.164		13,247		11.488	\sim	12,194		12.537	91	13,289	· · · · · ·	12.148
	Coal(Tons)		534.695	상품	577,143		528,875	67	575,974		499,477		530,194		545,066	QÅ	577,791		528,166
	Heat Rate		10.824	19	10.826		10.825		10.824		10.826	20	10.822		10.824		10.828	- 5	10 B25
	Fuel cost(\$000)	\$	22,185	\$	24,186	\$	22.405	\$	24,653	\$	21.620	\$	23,182	.\$	24,120	\$	25,861	5	23.919
	Fuel Cost per MMBTu	\$	1.804	\$	1.822	\$	1 642	\$	1.861	\$	1.882	\$	1.901	\$	1 924	\$	1.945	\$	1.969
	VOM cost(\$000)	\$	6,669	\$	7,394	\$	6,967	\$	7,796	\$	6,940	\$	7,572	\$	8,003	\$	8,714	\$	8,181
	VOM per MWh	\$	5 870	5	6,030	\$	6.200	\$	6.370	\$	6.540	\$	6.720	\$	6.910	\$.	7.100	\$	7 290
	Num starts()	1	15		15		14		14		21		14		15	22	14	-	14
* * * * * * * * * * * *	Start Fuel used(GBtu)	1	28	34	28		26		26		38		26		28	20.	26		26
••••••	Start cost(\$000)	\$	1,651	\$	1,689	\$	1,585	\$	1,625	\$	2,463	\$	1.712	\$	1,920	\$	1,807	\$	1,867
				144	-0.40-6433			- 11	the state			d:							
	Total Operating Cost (\$000)	\$	30,505	\$	33,269	\$	30,959	5	34,075	\$	31,024	\$	32,466	\$	34,043	\$	36,382	\$	33,967
	Op Cost per MWh	: \$	26.85	5	27.13	s	27.55	\$	27.84	\$	29.24	\$	28.81	\$	29.39	\$	29.64	\$	30.27
						1													
••••••		1 1		1		i a t								ĉ.		1		1	
EntityName			2015	Γ	2016	Г	2017		2018		2019		2020	Ľ.	2021		2022		202
HMPL Z	Max Capacity(MW)		158	<u>ೆ</u>	158	-	158	10	158		158		158		158		158		158
	Min Capacity(MW)	1	140		140		140	23	140		140		140		140	20	140		140
* • *= • • • • • • • • • •	Generation(GWh)	1	1.268	19	1,189		1.259		1,167		1.255	관	1,071		1,255		1,194	i.	1.237
	Annual Cap. Fac		91.46%		85.55%		90.82%	12	84.18%		90.66%	1	77.06%		90.60%	1.1	85.14%		89 27%
	Fuel used(G8tu)		13,741		12,885	11	13,645	18	12,645		13,619		11,606	1	13.609		12,940		13,409
	Coal(Tons)	1111	597.448		560,235	5 2	593,241		549,785		592.109		504,590		591,708		552,596	: '	582.997
	Heat Rate		10.841		10.B38		10.840		10.B4D		10.839	20	10.837		10.840	201	10.839		10 839
			24,789		23,477	\$	25.133	\$	23,532	\$	25,630	\$	22,062	5	26,184	\$	25,181	: \$	26,402
••••••	Fuel cost(\$000)		1.804	\$	1.822	\$	1.842	\$	1.861	\$	1.882	ŝ	1.901	\$	1 924	\$	1.946	\$	1 969
	Fuel Cost per MMBTu	5	1.004	\$						3 5	1.001					- -			9,019
		4 5	7 110								0 317								2,012
	VOM cost(\$000)	\$	7,440	1	7,169	1	7.804	\$	7,431		8.217	1	7,195	<u></u> ,	8,675	\$	B,476	\$	- 7 500
	VOM per MWh	4 5	5.870	\$	7,169 6.030	\$	6.200	\$	6,370	\$	6.540	\$	6.720	\$	6.910	\$ \$	7.100		
	VOM per MWh Num starts()	\$	5.870 13		7,169 6.030 17		6.200 17		6.370 17		6.540 17		6.720 24	3 5	6.910 17		7.100 17	\$	17
·····	VOM per MWh Num starts() Start Fuel used(GBtu)	\$	5.870 13 25	\$	7,169 6.030 17 34	\$	6.200 17 33	\$	6.370 17 34	\$	6.540 17 34	\$	6.720 24 46	\$	6 910 17 34	\$	7.100 17 34	\$	17 34
	VOM per MWh Num starts()	\$	5.870 13		7,169 6.030 17		6.200 17		6.370 17		6.540 17		6.720 24	3 5 5	6.910 17		7.100 17	\$	7.290 17 34 2,413
· · · · · · · · · · · · · · · · · · ·	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$	5.870 13 25 1,449	\$	7,169 6.030 17 34 2,043	\$	6.200 17 33 2,026	\$	6.370 17 34 2,147	\$ \$	6.540 17 34 2,172	\$	6.720 24 46 3,066	\$	6 910 17 34 2,276	\$	7,100 17 34 2,398	\$	17 34 2,413
	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	\$ \$ \$	5.870 13 25 1,449 33,679	\$ \$	7,169 6.030 17 34 2,043 32,689	\$	6.200 17 33 2,026 34,963	\$ \$ \$	6.370 17 34 2,147 33,111	\$ \$ \$	6.540 17 34 2,172 36,019	5 5 5 5	6.720 24 46 3,066 32,325	\$ \$ \$	6 910 17 34 2,276 37,136	\$ \$ \$	7,100 17 34 2,398 36,055	\$ \$ \$	17 34 2,413 37,834
	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$	5.870 13 25 1,449	\$	7,169 6.030 17 34 2,043	\$	6.200 17 33 2,026	\$	6.370 17 34 2,147	\$ \$	6.540 17 34 2,172	\$	6.720 24 46 3,066	\$	6 910 17 34 2,276	\$	7,100 17 34 2,398	\$	17 34 2,413
	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	\$ \$ \$	5.870 13 25 1,449 33,679	\$ \$	7,169 6.030 17 34 2,043 32,689	\$	6.200 17 33 2,026 34,963	\$ \$ \$	6.370 17 34 2,147 33,111	\$ \$ \$	6.540 17 34 2,172 36,019	5 5 5 5	6.720 24 46 3,066 32,325	\$ \$ \$	6 910 17 34 2,276 37,136	\$ \$ \$	7,100 17 34 2,398 36,055	\$ \$ \$	17 34 2,413 37,834
	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	\$ \$ \$	5 870 13 25 1,449 33,679 26.57	\$	7,169 6.030 17 34 2,043 32,689 27.50	\$ \$ \$	6.200 17 33 2,026 34,963 27.78	\$ \$ \$	6.370 17 34 2,147 33,111 28.38	\$ \$ \$	6.540 17 34 2,172 36,019 28.67	5 5 5 5	6.720 24 46 3,066 32,325 30.19	\$ \$ \$	6 910 17 34 2,276 37,136 29.58	\$ \$	7,100 17 34 2,398 36,055 30,20	**	17 34 2,413 37,834 30.58
EntityName	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015	\$	7,169 6.030 17 34 2,043 32,689 27.50 2016	\$ \$ \$	6.200 17 33 2,026 34,963 27.78 2017	\$ \$ \$	6.370 17 34 2,147 33,111 28.38 2018	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019	5 5 5 5	6.720 24 46 3,066 32,325 30.19 2020	\$ \$ \$	6 910 17 34 2,276 37,136 29,58 2021	\$ \$	7,100 17 34 2,398 36,055 30.20 2022	**	17 34 2,413 37,834 30.58 202
EntityName Coleman 1	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW)	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149	\$ \$ \$ 1	7,169 6.030 17 34 2,043 32,689 27.50 2016 149	\$ \$ \$	6.200 17 33 2,026 34,963 27.78 2017 149	\$ \$ \$	6.370 17 34 2,147 33,111 28.38 2018 149	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019 149	5 5 5 5	6.720 24 46 3,066 32,325 30.19 2020 149	\$ \$ \$	6 910 17 34 2,276 37,136 29.58 2021 149	\$ \$ \$	7,100 17 34 2,398 36,055 30.20 2022 149	**	17 34 2,413 37,834 30.58 202 149
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW)	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 26.57 2015 149 70	\$ \$ \$	7,169 6.030 17 34 2,043 32,689 27.50 2016 149 70	\$ \$ \$	6.200 17 33 2,026 34,963 27.78 2017 149 70	\$ \$ \$	6.370 17 34 2,147 33,111 28.38 2018 149 70	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 28.67 2019 149 70	5 <u>5</u> 5	6.720 24 46 3,066 32,325 30.19 2020 149 70	\$ \$ \$	6 910 17 34 2,276 37,136 29.58 2021 149 70	\$ \$ \$	7,100 17 34 2,398 36,055 30.20 2022 149 70	**	17 34 2,413 37,834 30.58 202 149 70
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh)	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213	\$ \$ \$ \$	7,169 6.030 17 34 2,043 32,689 27.50 2016 149 70 1,200	\$	6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042	\$ 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212	* * * * *	6.720 24 46 3,066 32,325 30.19 2020 149 70 1,144	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.198	\$	7.100 17 34 2,398 36,055 30.20 2022 149 70 1,199	\$	17 34 2,413 37,834 30.58 202 145 70 1.136
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92%	\$ \$ \$	7,169 6.030 17 34 2,043 32,689 27.50 2016 149 70 1,200 91.68%	\$	6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042 79.79%	\$ 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92,21%	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92,84%	* * * * *	6.720 24 46 3,066 32,325 30.19 2020 149 70 1,144 87.43%	\$	6 910 17 34 2,276 37,136 29.58 2021 149 70 1.198 91 81%	\$	7,100 17 34 2,398 36,055 30,20 2022 149 70 1,199 91,89%	\$	17 34 2,413 37,634 30.58 202 145 70 1.136 87.029
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh)	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13,090	\$ \$ \$	7,169 6.030 17 34 2,043 32,689 27.50 2016 149 700 1,200 91.68% 12,950	\$	6.200 17 33 2,026 34,963 27.78 2017 149 7.02 79.79% 11.238	\$ 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 12,989	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13,078	* * * * *	6.720 24 46 3,066 32,325 30.19 2020 149 70 1,144 87.43% 12,348	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.198 91 81% 12,932	\$	7,100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91,89% 12,943	\$	17 34 2,413 37,834 30.58 202 149 70 1.136 87 029 12,253
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92%	\$ \$ \$	7,169 6.030 17 34 2,043 32,689 27.50 2016 149 70 1,200 91.68% 12,950 563,044	\$	6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042 79,79% 11.238 488,625	\$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 12,989 564,718	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13,078 568,613	* * * * *	6.720 24 46 3,066 32,325 30.19 2020 149 70 1,144 87.43% 12,348 536,879	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.98 91 81% 12,932 562,255	\$	7,100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91,89% 12,943 562,727	\$	17 34 2,413 37,834 30.58 202 149 70 1.136 87 029 12,253 532,750
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu)	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13,090	\$	7,169 6.030 17 34 2,043 32,689 27.50 2016 149 700 1,200 91.68% 12,950	\$	6.200 17 33 2,026 34,963 27.78 2017 149 7.02 79.79% 11.238	\$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 12,989	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13,078	* * * * *	6.720 24 46 3,066 32,325 30.19 2020 149 70 1,144 87.43% 12,348	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.198 91 81% 12,932	\$	7,100 17 34 2,398 36,055 30.20 2022 149 70 91,89% 12,943		17 34 2,413 37,834 30,58 202 145 70 1,136 87,029 12,255 532,750 10,786
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13,090 569,113	\$	7,169 6.030 117 34 2,043 32,689 27.50 2016 149 70 1,200 91.68% 12,950 553,044 10.792	\$	6.200 17 33 2,026 34,963 27.78 2017 1.49 70 1.042 79.79% 11.238 488,625 10.790	\$ 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 12,989 564,718	\$ \$ \$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13,078 568,613	* * * * *	6.720 24 46 3,066 32,325 30.19 2020 149 70 1,144 87.43% 12,348 536,879	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.98 91 81% 12,932 562,255	\$	7,100 17 34 2,398 36,055 30,20 2022 149 70 1,199 91,69% 12,943 562,727 10,791	\$	17 34 2,413 37,834 30.58 202 145 70 1.136 87 029 12,255 532,756 10,786 25,634
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Seneration(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	\$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13,090 569,113 10,792 25,001	\$	7,169 6.030 17 34 2,043 32,689 27.50 2016 149 700 1,200 91.68% 12,950 563,044 10,792 24,994	\$	6.200 17 33 2,026 34,963 27.78 2017 149 79.79% 10.42 79.79% 11.238 488,625 10.790 21,937		6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 12,989 554,718 10.791	\$	6.540 17 34 2,172 36,019 28,67 2019 149 70 1.212 92,84% 13,078 568,613 568,613 10,792 26,117		6.720 24 46 3,066 32,325 30.19 70 1,144 87.43% 12,348 536,879 10.791	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.198 91 81% 12 932 562,255 10 791	\$	7,100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91.89% 12,943 562,727 10.791 26,753	\$ \$ \$	17 34 2,413 37,834 30.58 202 145 70 1.136 87 029 12,255 532,756 10,786 25,634
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fvel used(GBtu) Coat(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	\$ \$ \$	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13.090 559,113 10,792 25,001 1,910	\$	7,169 6.030 117 34 2,043 32,689 27.50 2016 149 70 1,200 91.68% 12,950 563,044 10.792 24,994 1,930	\$	6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042 79,79% 11,238 488,625 10,790 21,937 1,952		6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92,21% 12,989 554,718 10,791 25,639 1,974	\$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13,078 568,613 10,792 26,117 1,997		6.720 24 46 3.066 32,325 30.19 2020 149 70 1,144 87.43% 12,348 536,879 10.791 24,919 2.018	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.98 91 81% 12,932 562,255 10 791 26,420 2,043		7,100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91,69% 12,943 562,727 10,791 26,753 2,067		17 34 2,413 37,834 30.58 202 149 70 1.136 87 029 12,253 532,256 10,266 25,63- 2,092
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Seneration(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000)	***	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13.090 559,113 10.792 25,001 1,910 1,586	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	7,169 6.030 177 34 2,043 32,689 27.50 2016 149 70 91.68% 12,950 91.68% 12,950 553,044 10,792 24,934 1,716	\$	6.200 17 33 2,026 34,963 27.78 2017 109 70 1.042 79.79% 1.238 488,625 10.790 21,937 1.953		6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92,21% 12,989 564,718 10,791 25,639 1,974 1,817	\$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13.078 568,613 10.792 26,117 1.977 1.878		6.720 24 3.066 32,325 30.19 2020 149 70 1,144 87.43% 12,348 536,879 10.791 24,919 2.018 1,819	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.198 91 81% 12,932 562,255 10,791 26,420 2,043 1,953		7.100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91,89% 12,943 562,727 10.791 26,753 2,067 2,015		17 34 2,413 37,834 30.58 202 145 70 11,136 87,029 12,255 532,756 10,786 25,633 2,099 1,965
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VCM cost(\$000)	\$ \$ \$	5.870 13 25 1,449 26.57 2015 2015 2015 149 70 1,213 92,92% 13.090 559,113 10.792 25,001 1.910 1.686 1.390	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	7,169 6.030 177 34 2,043 32,689 27.50 2016 149 70 1,200 91.68% 12,950 563,044 10.792 24,994 1,930 1,716 1,430	\$	6.200 17 33 2,026 34,963 27,78 2017 149 70 1.042 79,79% 11.238 488,625 10.790 21,937 1.952 1.931 1.470		6.370 17 34 2.147 33,111 28.38 2018 149 70 1,204 92.21% 564,718 564,718 10.791 25,639 1.974 1,817 1.510	\$	6.540 17 34 2.172 36,019 28.67 2019 140 70 1.212 92.84% 13,078 568,613 10,792 26,117 1.977 1.878 1.550		6.720 24 46 3.065 32,325 30.19 70 1,144 87.43% 70 1,144 87.43% 12,348 536,879 10.791 24,919 2.018 1,619 1.590	\$	6 910 17 34 2,276 37,136 29,58 2021 1499 70 1.198 91 81% 12.932 562,255 10 791 26,420 2,043 1,953 1,630		7.100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91.69% 12,943 562,727 10.791 26,753 2,067 2,015 1,680	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	17 34 2,413 37,634 30.55 202 145 70 1.133 87 02° 12,255 532,756 10,766 25,63- 2 092 1.965 1,736
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost (\$000) Fuel Cost (\$000) VCM per MWh Num starts()	***	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13.090 569,113 10.792 25,001 1 910 1,686 1 990 15	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	7,169 6.030 177 34 2,043 32,689 27.50 2016 149 70 1,200 91.68% 12,950 563,044 10,792 24,994 1,930 1,716 1,430 1,716	\$	6.200 17 33 2,026 34,963 27.78 70 1,042 79.79% 11,238 488,625 10.790 21,937 1.952 1.531 1.470 20		6.370 17 34 2,147 33,111 28.38 149 70 1,204 92.21% 12,989 564,718 10.791 25,639 1.974 1,817 1,817 1,510	\$	6.540 17 34 2,172 36,019 28.67 70 1.212 92.84% 13,078 568,613 10,792 26,117 1,997 1.878 1,570 1.578		6.720 24 46 3,056 32,325 30.19 70 1,149 70 1,144 87,43% 12,348 536,879 10.791 24,919 2,018 1,619 1,590 1,590	\$	6 910 17 34 2,276 29,58 29,58 2021 149 70 1.198 91 81% 12,932 562,255 10 791 26,420 2,043 1,953 1 630 15		7.100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91.89% 12,943 562,727 10.791 26,753 2.067 2,015 1.680 15	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	13 3 37,83- 30,51 37,83- 30,51 202 141 711 1,136 67,024 12,255 532,756 10,768 25,633 2,099 1,961 1,961 1,136
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VCM cost (\$000) VCM cost (\$000) VCM cost (\$000) VCM per MWh Num starts() Start Fuel used(GBtu)		5.870 13 25 1,449 26.57 2015 149 70 1,213 92,92% 13.090 569.113 10.792 25,001 1.910 1.686 1.390 1.586 1.390		7,169 6.030 177 34 2,043 32,689 27.50 2016 149 70 1,200 91.68% 12,950 553,044 10.792 24,994 1,930 1,716 1,430 1,716 1,430	\$	6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042 79,79% 11,238 488,625 10,790 21,937 1,937 1,937 1,953 1,470 2,030 0,200 2,026 1,496 1,049		6.370 17 34 2,147 33,111 28.38 149 70 1,204 92.21% 12,989 564,718 10.791 25,639 1.974 1,817 1,510 1.510 23	\$	6.540 17 34 2,172 26.67 2019 28.67 2019 149 70 1.212 92.84% 13.078 568,613 10.792 26.117 1.977 1.878 1.550 1.550 2.3		6.720 24 46 3,066 32,325 30.19 70 1,144 87.43% 12,348 536,879 10.791 24,919 2.018 1,819 1.590 15 2,44	\$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.198 91 81% 12.932 562 255 10 791 26,403 1.953 1 630 153 263		7.100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91.89% 12,943 562,727 10.791 26,753 2,067 2,015 1.680 15 2,44	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	13 37,83- 30,84 30,84 202 202 144 144 144 144 144 143 12,25 532,755 10,78 25,63 2,09 1,96 1,73 1,22 2,09 1,96 1,73 1,22 2,41 1,13 1,13 1,13 1,13 1,13 1,13 1,13 1
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost (\$000) Fuel Cost (\$000) VCM per MWh Num starts()	***	5.870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13.090 569,113 10.792 25,001 1 910 1,686 1 990 15		7,169 6,030 177 34 2,043 32,689 27.50 2016 149 70 0 1,200 91,68% 12,950 553,044 10,792 24,994 1,930 1,716 1,430 1,716 1,430	\$	6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042 79,79% 11,238 488,625 10,790 21,937 1,952 1,531 1,470 20 20 20 20 20 20 20 20 20 20 20 20 20		6.370 17 34 2,147 33,111 28.38 149 70 1,204 92.21% 12,989 564,718 10.791 25,639 1.974 1,817 1,817 1,510	\$	6.540 17 34 2,172 36,019 28.67 70 1.212 92.84% 13,078 568,613 10,792 26,117 1,997 1.878 1,570 1.578		6.720 24 46 3,056 32,325 30.19 70 1,149 70 1,144 87,43% 12,348 536,879 10.791 24,919 2.018 1,619 1,590 1,590	\$	6 910 17 34 2,276 29,58 29,58 2021 149 70 1.198 91 81% 12,932 562,255 10 791 26,420 2,043 1,953 1 630 15		7.100 17 34 2,398 36,055 30,20 2022 149 70 1,199 91,89% 12,943 556,727 10,791 26,753 2,067 2,015 1,680 15 2,44	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	13 34 2,413 37,63- 30.58 202 144 14 77 1.136 67.024 12,255 532.755 10.766 25.63 2.099 1.966 1.730 1.730 2.563 2.099 1.966 1.731 2.2555 2.255 2.255 2.255 2.2555 2.2555 2.2555 2.2555 2.2555 2.2555 2.2
	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$\$\$ \$ \$ \$ \$ \$ \$ \$ \$	5 870 13 25 1,449 33,679 26.57 2015 149 70 1,213 92,92% 13,090 569,113 10,792 25,001 1,910 1,686 1,390 15 23 553	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	7,169 6.030 177 34 2,043 32,689 27.50 2016 149 70 1,200 91.68% 12,950 563,044 10,792 24,994 1,930 1,716 1,430 1,716 1,430 1,5 23 567		6.200 17 33 2,026 34,963 27,78 2017 149 70 1.042 79,79% 11.238 488,625 10.790 21,937 1.952 1.531 1.470 20 30 767		6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 12,989 564,718 10.791 1510 155 23 605	\$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13,078 568,613 10,792 26,117 1.977 1.878 1.570 23,414		6.720 24 46 3,066 22,325 30.19 70 1,144 87.43% 12,348 536,879 10.791 24,919 2.018 1,819 1.590 15 24 659	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6 910 17 34 2,276 37,136 29,58 2021 149 70 1.198 91 81% 12,932 562,255 10 791 26,420 2,043 1,953 1,630 15 23 653		7,100 17 34 2,398 36,055 30,20 2022 149 70 1,199 91,89% 12,943 552,727 10.791 26,753 2,067 2,015 1,680 15 24 683		17 34 2,413 37,834 30,58 202 145 70 1.135 87 029 12,255 532,755 2092 1.966 25,633 2092 1.966 1.730 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.93555 1.9355 1.9355 1.93555 1.9355
	VCM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5 870 13 25 1,449 33,679 26.57 2015 149 2015 149 70 1,213 92,92% 559,113 10,792 25,001 1,910 1,686 1,390 1,686 1,390 1,686 1,390 2,553 2,553		7,169 6.030 117 34 2,043 32,689 27.50 2016 149 70 12,950 563,044 10.792 24,994 1,916 1,430 1,716 1,430 1,716 2,23 567 27,276		6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042 79,79% 11,238 488,625 10,790 21,937 1,952 1,531 1,470 20,00 20,00 21,937 1,952 2,531 1,470 20,00 21,937 2,531 1,470 20,00 2,026 2,026 1,953 1,955 1,957 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,937 1,955 1,957 1,9		6.370 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 92.21% 564,718 10.791 25,639 1.974 1,817 1,510 523 605 28,062	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.540 17 34 2,172 36,019 28,67 2019 149 1,212 92,84% 568,613 10,792 26,117 1,977 1,878 1,550 1,5		6.720 24 46 3,066 32,325 30.19 2020 149 70 1,144 87,43% 12,348 536,879 10.791 24,919 2,018 1,819 1,590 15 2,24 659	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6 910 17 34 2,276 29,58 2021 149 70 1.198 91 81% 12 932 562,255 10 791 26,420 2,043 1,953 1 630 1 55 23 653		7.100 17 34 2,398 36,055 30,20 2022 149 70 1,199 91.89% 70 1,199 91.89% 70 2,075 2,015 1,680 1,680 1,680 2,44 683 2,9,451		17 34 2,413 37,834 30,58 202 145 77 12,255 532,755 10,762 2092 1,255 532,755 10,766 2,099 1,733 1,965 1,733 1,735
	VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$\$\$ \$ \$ \$ \$ \$ \$ \$ \$	5 870 13 25 1,449 33,679 26.57 2015 149 2015 149 70 1,213 92,92% 13,090 569,113 10,792 25,001 1,910 1,686 1,390 1,686 1,390 2,533 553		7,169 6.030 117 34 2,043 32,689 27.50 2016 149 700 1,200 91.68% 12,950 563,044 10,792 24,994 1,930 1,716 1,430 1,716 2,33 567 27,276		6.200 17 33 2,026 34,963 27.78 2017 149 70 1.042 79,79% 488,625 10,790 21,937 1,952 1,531 1,470 20,00 20,00 21,937 1,952 1,531 1,470 20,00 20,00 21,937 1,952 1,531 1,470 20,00 21,937 2,531 1,531 2,5312 2,531 2,531 2,531 2,531 2,531 2,531 2,531 2,531 2,531 2,		6.370 17 34 2,147 33,111 28.38 2018 149 70 1,204 92.21% 12,989 564,718 10.791 1510 155 23 605	\$	6.540 17 34 2,172 36,019 28.67 2019 149 70 1.212 92.84% 13,078 568,613 10,792 26,117 1.977 1.878 1.570 23,414		6.720 24 46 3,066 22,325 30.19 70 1,144 87.43% 12,348 536,879 10.791 24,919 2.018 1,819 1.590 15 24 659	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6 910 17 34 2,276 29,58 2021 149 70 1.198 91 81% 12 932 562,255 10 791 26,420 2,043 1,953 1 630 1 55 23 653		7.100 17 34 2,398 36,055 30.20 2022 149 70 1,199 91.69% 12,943 562,727 10.791 26,753 2,067 2,015 1.680 1.680 1.524 683		17 34 2,413 37,834 30,58 202 145 70 1.135 87 029 12,255 532,755 2092 1.966 25,633 2092 1.966 1.730 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.9355 1.93555 1.9355 1.9355 1.93555 1.9355

EntityName			2015	1.2	2016		2017		2018		2019	11	2020		2021		2022		2023
Coleman 2	Max Capacity(MW)		138	12	138		138		138		138	12	138		138	÷.	138		138
	Min Capacity(MW)		70	0	70		70		70		70	10	70		70		70		70
	Generation(GWh)		1.111	ð,	966		1.115		113		1.036	197	1,117		1.112	영화	1,056		1.115
	Annual Cap. Fac		91.88%	2	79.69%		92 22%	92,	10%		85.66%	ĺΑ.	92.18%		91.99%	хÌ.	87.39%		92.23%
	Fuel used(GBtu)		13.363		11,622		13,414	13,	398		12.460	10.	13,445		13.378	순	12,710		13,416
	Coal(Tons)		581.001	20	505,289		583.233	582,	528	5	541.749	2	584,586		581.663	20	552,592		583,315
*	Heat Rate		12 031	11	12.031		12 033	12.	034		12 033		12.033		12.030	38	12.031		12.033
	Fuel cost(\$000)	\$	25,523	\$	22,430	\$	26,185	\$ 26,	448	\$	24.883	\$.	27,133	\$	27.332	\$	26,271	\$	28,067
	Fuel Cost per MMBTu	\$	1 910	\$	1.930	\$	1 952	\$ 1.	974	\$	1 997	\$	2.018	\$	2 043	\$	2.067	\$	2 092
	VOM cost(\$000)	\$	1.577	\$	1,410	\$	1.672		715	5	1.636	\$	1.821	\$	1.857	\$	1.817	\$	1,973
,	VOM per MWh	\$	1.420	5	1.450	\$	1 500			\$	1 580	\$	1.630	\$	1 670	\$	1.720	\$	1 770
	Num starts()		15		21	. 7 .	13		15		15	1	15		15		15		11
	Start Fuel used(GBtu)		24		31		20		24		25	11	24		24		25		18
	Start cost(\$000)		586	\$	774	ŝ	496	\$		5	655	5	641	ŝ	683	\$	702	5	524
	56512 1051(40007						120					Ť.						<u> </u>	
	Total Operating Cost (\$000)	\$	27,686	\$	24,614	\$	28,353	\$ 28,	791	\$	27,175	\$	29,595	\$	29,872	\$	26,790	\$	30,564
	Op Cost per MWh	5	24.93	5	25.48	\$	25.43			\$	26.24	ŝ	26.49	\$	26.86	\$	27.25	\$	27.41
	Top case per ritin	_	27.23		* * 370	_		-		4	10.1.1		L.V. 12	-	20100	<u> </u>	21123	-	
								• • • • • • • •		• • • •		• •	-						
		_	3010		2016		20121		10101		2010		20201		2021	,	2022	<u> </u>	2023
EntityName		L	2015		2016	L	2017		2018		2019		2020		2021	Ļ	2022	I	
Coleman 3	Max Capacity(MW)		154	39 A	154		154		154		154	12.	154		154		154	:	154
	Min Capacity(MW)		110		110		110		110		110		110		110		110		110
	Generation(GWh)	ł	1.155	83	1,211		1.227		,162		1.212		1,222		1,068	8	1,229	÷	1.233
	Annual Cap. Fac		85 59%	3Å	89.55%		90 98%		.13%		89.87%		90.30%		79.16%		91.10%		91.43%
	Fuel used(GBtu)		12.501	8	13,115		13,288		,579		13.126	신문	13,225		11.565	48	13.309	L.,	13.356
	Coal(Tons)		543,527		570,214		577.757		905		570,700		574,991		502.839		578,646		580,686
	Heat Rate	1	10.827		10.826		10.827	10	826		10.827		10.825		10 829		10.829		10.829
	Fuel cost(\$000)	\$	23,877	\$	25,312	\$	25,939			\$	26.213	\$	26,688	\$	23,628	\$	27,509	\$	27,940
	Fuel Cost per MMBTu	\$	1 910	5	1.930	\$	1.952		974	\$	1 997	\$	2.018	\$	2.043	\$	2.067	\$	2.092
	VOM cost(\$000)	\$	1.640	s	1,769	\$	1,841		,789	\$	1.916	\$	1,991	\$	1.783	5	2,114	\$	2.183
***********	VOM per MWh	\$	1.420	\$	1.460	\$	1.500		.540	5	1 580	\$	1.630	\$	1.670	\$	1.720	\$	1 770
	Num starts()		16	<u></u>	16		1.500		17		17	1	17	7	24	10	16		17
	Start Fuel used(GBIU)		22	÷	22		22		24		24		24		32		22		24
		1.2	536		551		562		1		643	\$	659	\$	892	\$	638	5	714
	Start cost(\$000)	\$	530	: \$	221	\$	302	\$	020	\$	043	3	033		092		030		1 1-1
		1.2	10.002	1												- 12	~~ ~~ •	÷.,	20.022
	Total Operating Cost (\$000)	\$	26,053	\$	27,631	\$	28,342		,248	唐.	28,771	\$	29,337	. \$	26,304	\$		\$	30,837
	Op Cost per MWh	\$	22.56	\$	22.B1	: \$	23.09	\$ 2	3,45	\$	23,73	\$	24.02	\$	24.63	\$	24.62	: \$	25.00
		\$		\$	22.B1	\$	23.09	\$ 2	3,45	5	23.73	\$ 	24.02	<u>}</u>	24.63	5	24.62	\$	25.00
		\$	22.56		•••••••••••••					\$		\$							
EntityName	Op Cost per MWh	\$	22.56 2015		2016		2017		2018	\$ 	2019	\$	2020	<u>}</u>	2021		2022		2023
EntityName Reld 57	Op Cost per MWh Max Capacity(MW)	\$	22.56 2015 50		2016 50		2017 50		2018 50		2019 50	•	2020 50	> 	2021 50		2022		202 50
	Op Cost per MWh	\$	22.56 2015 50 40		2016 50 40		2017 50 40		2018	•	2019 50 40	•	2020 50 40	<u>}</u>	2021 50 40		2022 50 40		202 50 40
	Op Cost per MWh Max Capacity(MW)	\$	22.56 2015 50 40 13		2016 50 40 23		2017 50 40 22		2018 50 40	•	2019 50 40 24		2020 50 40 22		2021 50 40 19		2022 50 40 37	L	202 50 40 22
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW)	\$	22.56 2015 50 40		2016 50 40		2017 50 40		2018 50	•	2019 50 40	•	2020 50 40	> 	2021 50 40		2022 50 40	L	202 50 40 22
	Op Cost per MWh Max Capacily(MW) Min Capacily(MW) Generation(GWh) Annual Cap. Fac	\$	22.56 2015 50 40 13		2016 50 40 23		2017 50 40 22		2018 50 40	•	2019 50 40 24		2020 50 40 22	>	2021 50 40 19		2022 50 40 37	L	202 50 40 22 5 00%
	Op Cost per MWh Max Capacily(MW) Min Capacily(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu)	\$	22.56 2015 50 40 13 2.90%		2016 50 40 23 5.12%		2017 50 40 22 5.09%		2018 50 40	•	2019 50 40 24 5.37%		2020 50 40 22 5.02%	•	2021 50 40 19 4 25%		2022 50 40 37 8.55%	L	202 50 40 22 5 00%
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)	\$	22.56 2015 50 40 13 2.90% 172		2016 50 40 23 5.12% 305		2017 50 40 22 5.09% 302	0	2018 50 40	•	2019 50 40 24 5.37% 318		2020 50 40 22 5.02% 298	• •	2021 50 40 19 4 25%		2022 50 40 37 8.55%	L	202 50 40 22 5 00% 297
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	\$	22.56 2015 50 40 13 2.90% 172 		2016 50 40 23 5.12% 305 		2017 50 40 22 5.09% 302 - 13 537	0 #DI\	2018 50 40	\$ 	2019 50 40 24 5.37% 318 		2020 50 40 22 5.02% 298 -		2021 50 40 19 4 25% 252 13 566		2022 50 40 37 8.55% 507 13.552		202 50 40 22 5 00% 297 13 555
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	\$	22.56 2015 50 40 13 2.90% 172 13.510 1.473		2016 50 40 23 5.12% 305 13.560 2,689	I	2017 50 40 22 5.09% 302 13 537 2.808	0 #DI\ \$	2018 50 40 .00%		2019 50 40 24 5.37% 318 		2020 50 40 22 5.02% 298 13.548 2,774		2021 50 40 19 4 25% 252 13 566 2.418		2022 50 40 37 8.55% 507 13.552 5,009	I	202 50 40 22 5 00% 297 13 555 3,095
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	\$	22.56 2015 50 40 13 2.90% 172 		2016 50 40 23 5.12% 305 13.560 2,689 8.811	\$	2017 50 40 22 5.09% 302 - 13 537	0 #DI\ \$ #DI\	2018 50 40 .00%	\$	2019 50 40 24 5.37% 318 	\$ \$	2020 50 40 22 5.02% 298 -		2021 50 40 19 4 25% 252 13 566		2022 50 40 37 8.55% 507 13.552		202 50 40 22 5 00% 297 13 555 3,095
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM cost(\$000)	\$	22.56 2015 50 40 13 2.90% 172 13.510 1.473		2016 50 40 23 5.12% 305 13.560 2,689 8.811	5 \$ \$	2017 50 40 22 5.09% 302 13 537 2.808	0 #DI\ \$ #DI\ \$	2018 50 40 .00% //01 //01		2019 50 40 24 5.37% 318 	* * *	2020 50 40 22 5.02% 298 13.548 2,774		2021 50 40 19 4 25% 252 13 566 2.418	\$	2022 50 40 37 8.55% 507 13.552 5,009	I	202 50 40 22 5 00% 297 13 555 3,095
	Op Cost per MWh Max Capacily(MW) Min Capacily(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh	\$	22.56 2015 50 40 13 2.90% 172 13.510 1.473 8.576		2016 50 40 23 5.12% 305 13.560 2,689 8.811	\$	2017 50 40 22 5.09% 302 13 537 2.808 9 311	0 #DI\ \$ #DI\	2018 50 40 .00% //01 //01		2019 50 40 24 5.37% 318 13.531 2.943 9.251	\$ \$	2020 50 40 22 5.02% 298 13.548 2,774 9.296		2021 50 40 19 4 25% 252 13 566 2.418 9 579		2022 50 40 37 8.55% 507 13.552 5,009 9.875	I	202 50 40 22 500% 297 13555 3,095 10,434
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	\$	22.56 2015 50 13 2.90% 172 - 13.510 1.473 8.576 - - 3		2016 50 40 23 5.12% 305 13.560 2,689 8.811	1 \$ \$	2017 50 40 22 5.09% 302 	0 #DI\ \$ #DI\ \$	2018 50 40 .00% //01 //01		2019 50 40 24 5.37% 318 	* * *	2020 50 40 22 5.02% 298 13.548 2,774 9.296 - - 2		2021 50 40 19 4 25% 252 13 566 2.418 9 579 2 579		2022 50 40 37 8.55% 507 - 13.552 5.009 9.875 - 12	I	202 50 40 22 5009 297 13555 3,095 10,434
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost(\$000) VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	\$	22.56 2015 50 40 13 2.90% 172 - 13.510 1.473 8.576 - - 3 2		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - 2 2 2	\$	2017 50 40 22 5.09% 302 13 537 2.808 9 311 5 5 5	0 #DI\ \$ #DI\ \$ #DI\	2018 50 40 .00% //01 //01	\$	2019 50 40 24 5.37% 318 13.531 2.943 9.251 - - - 3 2 2	***	2020 50 40 22 5.02% 298 - 13.548 2,774 9.295 - - 2 2 2	\$ \$ \$	2021 50 40 19 4 25% 252 - - - - - - - - - - - - - - - - - -	***	2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 12 12	1	202 50 40 22 5009 297 13 555 3,095 10,434 10,434
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	\$	22.56 2015 50 13 2.90% 172 - 13.510 1.473 8.576 - - 3		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - - 2 2 2 2	1 \$ \$	2017 50 40 22 5.09% 302 	0 #DI\ \$ #DI\ \$	2018 50 40 .00% //01 //01		2019 50 40 24 5.37% 318 13.531 2.943 9.251	* * *	2020 50 40 22 5.02% 298 13.548 2,774 9.296 - - 2		2021 50 40 19 4 25% 252 13 566 2.418 9 579 2 579	***	2022 50 40 37 8.55% 507 - 13.552 5,009 9.875 - - 12 11	I	202 50 40 22 5009 297 13 555 3,095 10,434 10,434
	Op Cost per MWh Max Capacily(MW) Min Capacily(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$	22.56 2015 50 40 13 2.90% 13.510 1.473 8.570 - - 3 2 103		2016 50 40 23 5.12% 3D5 2,689 8.811 - - 2 2 2 102	\$	2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 215	0 #DI\ \$ #DI\ \$ #DI\ \$	2018 50 40 .00% //01 //01	\$ \$ \$ \$ \$	2019 50 24 5.37% 318 13.531 2.943 9.251 3 2 113	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2020 50 40 22 5.02% 298 - 13.548 2,774 9.296 - - 2 2 2 113	\$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2.418 9 579 2 2 2 115		2022 50 40 37 8.55% 507 13.55 5,009 9.875 - 12 11 575	\$	202. 50 40 22 5009 297 13 555 3.095 10.434 - 2 2 2 121
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	*	22.56 2015 50 40 13 2.90% 13 510 1.473 8.576 - 3 2 103 1,576		2016 50 40 23 5.12% 305 2,689 8.811 - - 2 2 2 102 2,790	\$\$	2017 50 40 22 5.09% 302 - - 13 537 2.608 9 311 - - - - - - - - - - - - - - - - - -	0 #DI\ \$ #DI\ \$ \$	2018 50 40 .00% 	\$ \$ \$ \$ \$	2019 50 40 24 5.37% 318 13.531 2.943 9.251 3 2 113 3,056		2020 50 40 22 5,02% 298 - 13,548 2,774 9,296 - 2 2 2 113 2,887	\$ \$ \$ \$ \$	2021 500 40 19 4 25% 252 - 13 566 2.418 9 579 - - - - - - - - - - - - - - - - - - -	****	2022 50 40 37 8.55% 507 - 13.552 5,009 9.875 - 12 11 575 5,584	\$	202 50 40 22 5 00% 297 13 555 3.095 10,434 1. 2 2 2 121 3,217
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	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	*	22.56 2015 50 40 13 2.90% 13 510 1.473 8.576 - 3 2 103 1,576		2016 50 40 23 5.12% 305 2,689 8.811 - - 2 2 2 102 2,790	\$\$	2017 50 40 22 5.09% 302 - - 13 537 2.608 9 311 - - - - - - - - - - - - - - - - - -	0 #DI\ \$ #DI\ \$ \$	2018 50 40 .00% 	\$ \$ \$ \$ \$	2019 50 40 24 5.37% 318 13.531 2.943 9.251 3 2 113 3,056		2020 50 40 22 5,02% 298 - 13,548 2,774 9,296 - 2 2 2 113 2,887	\$ \$ \$ \$ \$	2021 500 40 19 4 25% 252 - 13 566 2.418 9 579 - - - - - - - - - - - - - - - - - - -	****	2022 50 40 37 8.55% 507 - 13.552 5,009 9.875 - 12 11 575 5,584	\$	202 50 40 22 5 00% 297 13 555 3.095 10,434 1. 2 2 2 121 3,217
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	*	22.56 2015 50 40 13 2.90% 172 - 13.510 1.473 8.576 - 3 2 103 1.576 123.95		2016 50 40 23 5.12% 305 2,689 8.811 2 2 102 2,790 123.99	\$	2017 50 40 22 5.09% 302 13537 2.608 9.311 5 5 215 3,024 135.70	0 #DI\ \$ #DI\ \$ \$	2018 50 40 .00% 	\$ \$ \$ \$ \$	2019 50 40 24 5.3756 3.18 13.531 2.943 9.251 3 2 113 3.056 129.98		2020) 50 40 22 5.02% 298 13.548 2,774 9.296 - - 2 2 2 113 2,887 131.06	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2.418 9 579 2 2 115 2,534 136.15		2022 50 40 37 8.55% 507 13.552 5.009 9.875 - 12 11 575 5,584 149.19		202: 50 40 22 5009 13555 3.095 10.434 2 2 2 1211 3,217 146.95
	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	*	22.56 2015 50 40 13 2.90% 13 510 1.473 8.576 - 3 2 103 1,576		2016 50 40 23 5.12% 305 2,689 8.811 - - 2 2 2 102 2,790	\$	2017 50 40 22 5.09% 302 - - 13 537 2.608 9 311 - - - - - - - - - - - - - - - - - -	0 #DI\ \$ #DI\ \$ \$	2018 50 40 .00% 	\$ \$ \$ \$ \$	2019 50 40 24 5.37% 318 13.531 2.943 9.251 3 2 113 3,056		2020 50 40 22 5,02% 298 - 13,548 2,774 9,296 - 2 2 2 113 2,887	\$ \$ \$ \$ \$	2021 500 40 19 4 25% 252 - 13 566 2.418 9 579 - - - - - - - - - - - - - - - - - - -		2022 50 40 37 8.55% 507 - 13.552 5,009 9.875 - 12 11 575 5,584		202: 50 40 22 5009 13 555 3.095 10 434 2 2 2 121 3,217 146.98
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000)	*	22.56 2015 50 40 13 2.90% 13 2.90% 13 576 - - - - - - - - - - - - -		2016 50 40 23 5.12% 305 2,689 8.811 2 2 102 2,790 123.99	\$	2017 50 40 22 5.09% 302 	0 #DI\ \$ #DI\ \$ \$	2018 50 40 .00% 	\$ \$ \$ \$ \$	2019 50 40 24 5.3796 3.18 13.531 2.943 9.251 3 2 113 3.056 129.98 2019		2020) 50 40 22 5.02% 298 13.548 2,774 9.296 - - 2 2 2 113 2,887 131.06	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2.418 9 579 2 2 115 2,534 136.15	\$ \$ \$ \$ \$ \$ \$	2022 50 40 37 8.55% 507 13.552 5.009 9.875 - 12 11 575 5,584 149.19		202: 50 40 22 500 297 13 555 3.095 10.434 2 2 2 2 121 3,217 146.98
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	*	22.56 2015 50 40 13 2.90% 172 - 13.510 1.473 8.576 - 3 2 103 1.576 123.95		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - 2 2 102 2,790 123.99 2016	\$	2017 50 40 22 5.09% 302 13537 2.608 9.311 5 5 215 3,024 135.70	0 #DI\ \$ #DI\ \$ \$	2018 50 40 .00% 	\$ \$ \$ \$ \$	2019 50 40 24 5.3756 3.18 13.531 2.943 9.251 3 2 113 3.056 129.98		2020) 50 40 22 5.02% 298 13.548 2,774 9.296 - 2 2 2 113 2,887 131.06	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2,418 9 579 2 2 115 2,534 136,15 2,025 2,025	****	2022 50 40 37 8.55% 507 13.552 5.009 9.875 - 12 11 575 5,584 149.19 2022		202: 50 40 22 500 297 13 555 3.095 10.434 2 2 2 2 121 3,217 146.98
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Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start ruel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac	*	22.56 2015 50 13 2.90% 13 2.90% 13 13 576 2.90% 13 1.473 8.576 2.90% 1.473 8.576 123.95 2015 65 - - 9 1.55%		2016 50 40 23 5.12% 305 2,689 8.811 - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	I S S S S S S S S S S	2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 2.15 3,024 135.70 2017 65 - 11 1 93%	0 #DI\ \$ #DI\ \$ \$ #DI\	2018 50 40 .00% 	\$ \$ \$ \$ \$	2019 50 40 24 5.37% 318 13.531 2.943 9.251 3 2 113 3.056 129.98 2019 65 - - 9 1.54%		2020) 50 40 22 5.02% 298 	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2 418 9 579 2 2 2 115 2,534 136.15 202 65 9 1 58%		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 12 11 11 1575 5,564 149.19 2022 65 - 9 1.57%	\$ \$ \$ \$	2022 500 297 3555 3.095 3.005
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu)	*	22.56 2015 50 40 13 2.90% 13 2.90% 13 3.510 1.473 8.576 - - - - - - - - - - - - -		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - 2 2 102 2,790 123.99 2016 65 - - 9	I S S S S S S S S S S	2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 5 5 215 3,024 135.70 2017 65 	0 #DI\ \$ #DI\ \$ \$ #DI\	2018 50 40 	\$ \$ \$ \$ \$	2019 50 40 24 318 13.531 2.943 9.251 3 2 113 3,056 129.98 2019 65 		2020) 50 40 22 5,02% 298 - - 2 2 2 113 4,887 131.06 - - 2 2 2 113 31.06 - - - - 2 2 2 113 - - - 2 5,887 131.06 - - - - - - - - - - - - - - - - - - -	\$ \$ \$ \$ \$	2021 50 40 9 4 25% 252 2.418 9 579 2 2 115 2,534 136.15 2022 65 9 9		2022 50 40 37 8.55% 5,009 9.875 - - 12 11 575 5,564 149.19 2022 65 - 9	\$ \$ \$ \$	2023 50 40 22 50 50 29 7 3 555 5 3.095 10.434 2 2 2 2 2 2 121 3.217 146.99 2022 655 5 5
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost (\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)	*	22.56 2015 50 40 13 2.90% 13 2.90% 13 510 1.473 8.576 123.95 2015 65 - 9 1.55% 104		2016 50 40 23 5.12% 305 2,689 8,811 - - 2 2 2 102 2,790 123.99 2016 65 - - 9 1,64% 110 -	I S S S S S S S S S S	2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 5 5 5 215 3.024 135.70 2017 65 - - 11 1 93% 130	0 #DI\ \$ #DI\ \$ \$ #DI\ 1	2018 50 40 00% //01 //01 	\$ \$ \$ \$ \$	2019 50 40 24 5.37% 318 7.943 9.251 3 2 113 3,056 129.98 2019 65 5 9 1.54% 103		2020) 50 40 22 5.02% 298 3.13.548 2,774 9.296 - 2 2 2 2 2 113 2,887 131.06 2020 65 - 9 1.49% 101 -	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 2.418 9 579 2 2 115 2,534 136.15 202 65 		2022 50 40 37 8.55% 5,009 9.875 - - 12 11 575 5,564 149.19 2022 65 - 9 1.57% 106	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2022 50 40 222 23 3.095 3.095 297 13.555 3.095 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start ruel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Min Capacity(MW) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	*	22.56 2015 50 13 2.90% 172 13.510 1.473 8.576 2.90% 1.473 8.576 1.473 8.576 1.473 9.576 123.95 2015 65 - 9 1.55% 1.04 1.55% 1.04 1.55% 1.04 1.55% 1.04 1.55% 1.04 1.55% 1.04 1.55% 1.04 1.55% 1.04 1.55% 1.05% 1		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 2.15 3,024 135.70 2017 65 - - 11 1 93% 130 11 819	0 #DI\ \$ #DI\ \$ \$ #DI\ \$ 1 1	2018 50 40 - - - //01 - - - - - - - - - - - - - - - - - - -	\$	2019 50 40 24 5.37% 5.37% 5.37% 7.9 2943 9.251 - - - - - - - - - - - - - - - - - - -		2020) 50 40 22 5.02% 298 1.3.548 2,774 9.296 - 2 2 2 113 2,887 131.06 2020 65 - 9 1.49% 101 - 1.916	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2 418 9 579 2 2 2 115 2,534 136.15 202 65 9 1 58% 106 11 764		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 13.552 5,504 149.19 2022 65 - - 9 1.57% 100 - - 9		2022 500 297 - - 2 2 3.095 3.095 3.095 3.095 2.2 2 2 2 2 121 3.217 3.217 3.217 3.217 3.217 3.216.96 61 - - - - - - - - - - - - - - - - - -
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	\$ \$ \$ \$	22.56 2015 50 50 13 2.90% 13 2.90% 13 576 123.95 2015 65 - - - - - - - - - - - - -		2016 50 40 23 5.12% 305 13.560 2,689 8.811		2017 50 40 22 5.09% 302 13 537 2.808 9 311 5 5 5 5 5 3.024 135.70 2017 65 -11 1 93% 130 11 819 1.154	0 #DI\ \$ #DI\ \$ #DI\ \$ #DI\ 1 1 \$ 1	2018 50 40 	\$ \$ \$ \$ \$	2019 50 40 24 5.37% 318 7.3531 2.943 9.251 3 2.113 3,056 129.98 2019 65 5 9 5,154% 103 11.825 951		2020) 50 40 22 5,02% 298 - - 2 2 2 113 2,887 131.06 - - - 2 2 2 113 3 1.49% 65 - 9 1.49% 101 - - 11.916 952	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2.418 9 579 2 2 2 115 2,534 136.15 2,534 136.15 202 65 65 9 9 1 58% 106 11 764 1.020		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - 13.575 5,564 149.19 2022 65 5 5,564 149.19 9 1.57% 106 - 1.57% 106 1.053	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2022 50 40 222 297 3,095 3,095 3,095 3,095 3,095 10,434 - - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	\$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 40 13 2.90% 13,510 1.473 8.576 123.95 2015 65 - - - - - - - - - - - - -		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2017 50 40 22 5.09% 302 13 537 2,808 9 311 5 5 5 5 5 5 3,024 135.70 2017 65 -11 1 93% 130 11 819 1.154	0 #DI\ \$ #DI\ \$ #DI\ \$ 11 \$ 1 \$ 1 \$ 5	2018 50 40 - - - //01 - - - - - - - - - - - - - - - - - - -	\$	2019 50 40 24 5.37% 5.37% 5.37% 7.9 2943 9.251 - - - - - - - - - - - - - - - - - - -		2020) 50 40 22 5.02% 298 1.3.548 2,774 9.296 - 2 2 2 2 113 2,887 131.06 5 - 9 1.49% 101 - 11.916	\$ \$ \$ \$ \$	2021 50 40 199 4 259 252 13 566 2.418 9 579 2 2 2 115 2,534 136.15 202 65 65 65 106 11 764 1.020 9 646		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 13.552 5,504 149.19 2022 65 - - 9 1.57% 100 - - 9	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	202 50 40 22 25 500 297 3 555 3.095 10.43 4 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM Cost(\$000) Fuel Cost (\$000) Fuel Cost (\$000)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 50 13 2.90% 13 2.90% 13 576 123.95 2015 65 - - - - - - - - - - - - -		2016 50 40 23 5.12% 305 13.560 2,689 8.811		2017 50 40 22 5.09% 302 13 537 2.808 9 311 5 5 5 5 5 3.024 135.70 2017 65 -11 1 93% 130 11 819 1.154	0 #DI\ \$ #DI\ \$ \$ #DI\ \$ 1 1 \$ 1 \$ \$	2018 50 40 	\$	2019 50 40 24 5.37% 318 7.3531 2.943 9.251 3 2.113 3,056 129.98 2019 65 5 9 5,154% 103 11.825 951		2020) 50 40 22 5,02% 298 - - 2 2 2 113 2,887 131.06 - - - 2 2 2 113 3 1.49% 65 - 9 1.49% 101 - - 11.916 952	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2.418 9 579 2 2 2 115 2,534 136.15 2,534 136.15 202 65 65 9 9 1 58% 106 11 764 1.020		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 12 11 11 575 5,564 149.19 2022 65 - 9 1.57% 106 - - 1.935 1,053 9,886	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	202 50 40 222 297 13 555 3 095 10.43 - - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MMBTu VOM cost(\$000) VOM per MMBTu VOM cost(\$000) VOM per MMBTu VOM cost(\$000) VOM per MWh Num starts()	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 40 13 2.90% 13,510 1.473 8.576 123.95 2015 65 - - - - - - - - - - - - -		2016 50 40 23 5.12% 305 13.560 2,689 8.811 2 2 2,790 123.99 2016 65 9 1.64% 110 1.772 967		2017 50 40 22 5.09% 302 13 537 2.808 9 311 5 5 5 5 5 3.024 135.70 2017 65 -11 1 93% 130 11 819 1.154	0 #DI\ \$ #DI\ \$ \$ #DI\ \$ 1 1 \$ 1 \$ \$	2018 50 40 	\$	2019 50 40 24 5.37% 318 7.3531 2.943 9.251 3 2.113 3,056 129.98 2019 65 5 9 5,154% 103 11.825 951		2020) 50 40 22 5,02% 298 - - 2 2 2 113 2,887 131.06 - - - 2 2 2 113 3 1.49% 65 - 9 1.49% 101 - - 11.916 952	\$ \$ \$ \$ \$	2021 50 40 199 4 259 252 13 566 2.418 9 579 2 2 2 115 2,534 136.15 202 65 65 65 106 11 764 1.020 9 646		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 12 11 11 575 5,564 149.19 2022 65 - 9 1.57% 106 - - 1.935 1,053 9,886		202 50 40 222 297 3,555 3,095 10,434 - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) VOM cost(\$000) VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	\$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 50 13 2.90% 13 2.90% 13 576 13.510 1.473 8.576 103 1.576 123.95 2015 65 - - 9 1.55% 104 1.67 1.67 2.015 		2016 50 40 23 5.12% 305 - - 2 2 2 102 2,790 123.99 2,790 123.99 2,790 123.99 1.64% 110 - - - - - - - - - - - - - - - - - -		2017 50 40 22 5.09% 302 13 537 2.608 9 311	0 #DI\ \$ #DI\ \$ \$ #DI\ \$ 1 1 \$ 1 \$ \$	2018 50 40 	\$	2019 50 40 24 5.37% 318 7.31 2.943 9.251 3 2 113 3,056 129.98 2019 65 65 103 11.825 9.204 103 - - - - - - - - - - - - - - - - - - -		2020) 50 40 22 5.02% 298 - - 2 2 133 2,887 131.06 2020 65 - 9 9 1.49% 101 - - 11.916 9,390 - -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2 418 9 579 2 2 2 115 2 2,534 136.15 202 65 2 9 1 58% 106 11 764 1.020 9 646		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 12 11 575 5,584 149.19 2022 65 - 9 9.1.57% 106 1.935 1,053 9.896 -		202 50 40 222 297 3,555 3,095 10,434 - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MMBTu VOM cost(\$000) VOM per MMBTu VOM cost(\$000) VOM per MMBTu VOM cost(\$000) VOM per MWh Num starts()	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 50 13 2.90% 13 2.90% 13 576 13.510 1.473 8.576 103 1.576 123.95 2015 65 - - 9 1.55% 104 1.67 1.67 2.015 		2016 50 40 23 5.12% 305 - - 2 2 2 102 2,790 123.99 2,790 123.99 2,790 123.99 1.64% 110 - - - - - - - - - - - - - - - - - -		2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 5 5 215 3.024 135.70 2017 65 - - 11 1 93% 130 11 819 1.154 8 899 1.154	0 #DI\ \$ #DI\ \$ \$ #DI\ \$ 1 1 \$ 1 \$ \$	2018 50 40 	\$	2019 50 40 24 5.37% 318 7.31 2.943 9.251 3 2 113 3,056 129.98 2019 65 65 103 11.825 9.204 103 - - - - - - - - - - - - - - - - - - -		2020) 50 40 22 5.02% 298 - - 2 2 133 2,887 131.06 2020 65 - 9 9 1.49% 101 - - 11.916 9,390 - -	\$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2 418 9 579 2 2 2 115 2 2,534 136.15 202 65 2 9 1 58% 106 11 764 1.020 9 646		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 12 11 575 5,584 149.19 2022 65 - 9 9.1.57% 106 1.935 1,053 9.896 -		202 50 40 225 500 297 - 13555 3095 10.434 - - 2 2 2 2 2 121 121 121 121 121 121 1
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) VOM cost(\$000) VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	\$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 50 13 2.90% 13 2.90% 13 576 13.510 1.473 8.576 103 1.576 123.95 2015 65 - - 9 1.55% 104 1.67 1.67 2.015 		2016 50 40 23 5.12% 305 - - 2 2 2 102 2,790 123.99 2,790 123.99 2,790 123.99 1.64% 110 - - - - - - - - - - - - - - - - - -		2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 5 5 215 3.024 135.70 2017 65 - - 11 1 93% 130 11 819 1.154 8 899 1.154	0 #DI\ \$ #DI\ \$ \$ #DI\ \$ 1 1 \$ 1 \$ \$	2018 50 40 	\$	2019 50 40 24 5.37% 318 7.37% 9 251 3 2 13 3,056 129.98 2019 65 5 9 1.54% 103 11.825 9204 - 11.825 9204		2020) 50 40 22 5,02% 298 3,3548 2,774 9,296 - - 2 2 2 113 3,887 131.06 - - - 2 2 2 113 3,887 131.06 - - - - - - - 2 2 9,149% 5,02% - - - - - - - - - - - - - - - - - - -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2 418 9 579 2 2 115 2,534 136.15 2,534 136.15 202 65 6 9 1 58% 106 11 764 1.020 9 646 - - 229		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - - 12 11.575 5,584 149.19 2022 65 5 5 5 5 5 5 5 5 5 4 149.19 9 1.57% 106 - - - 1.53 9 8966 - - - 1.1053 9.856 - - - - - - - - - - - - - - - - - - -		202 50 40 222 297 13 555 3 0.95 10.43 - - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) VOM cost(\$000) VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) Fuel Cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	\$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 50 13 2.90% 13 2.90% 13 576 13.510 1.473 8.576 103 1.576 123.95 2015 65 - - 9 1.55% 104 1.67 1.67 2.015 		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - 2 2 2,790 123.99 2016 65 5 - 9 1.64% 110 11.772 967 8.749 - - 173		2017 50 40 22 5.09% 302 13 537 2.808 9 311 5 5 215 215 3.024 135.70 2017 65 -11 1 93% 130 11 819 1.154 8.890 - 162 -	0 #DI\ \$ #DI\ \$ \$ #DI\ 1 \$ \$ \$ \$ \$ \$ \$ \$	2018 50 40 	\$	2019 50 40 24 5.37% 318 7.31 2.943 9.251 3 2 113 3,056 129,98 2019 65 65 103 154% 103 11825 9.204		2020) 50 40 22 5.02% 298 - - 2 2 133 2,887 131.06 2020 65 - 9 9 1.49% 101 - - 11.916 9,390 - -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2021 50 40 19 4 25% 252 13 566 2 418 9 579 2 2 15 2 2 15 2 2 3 15 2 2 2 15 2 2 2 15 2 2 15 2 2 2 15 2 2 2 15 2 2 2 2		2022 50 40 37 8.55% 507 13.552 5,009 9.875 - 12 11 11 575 5,564 149.19 2022 65 - 9 1.57% 106 - 1.935 1,053 9.866 - - - - - - - - - - - - - - - - - -		2022 50 40 222 297 3,095 3,095 3,095 3,095 3,095 3,095 3,095 2,2 2,2 2,2 1,21 1,46,91 1,46,91 1,46,91 1,46,91 1,168,91 1,088 10,168 1,088 1,098 1,098 1,099 1,099 1,099 1,097 1,099 1,097 1,099 1,097 1,099 1,097 1,007 1,097 1,097 1,097 1,007
Reld ST	Op Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) Start Fuel used(GBtu)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	22.56 2015 50 40 13 2.90% 13 2.90% 13 50 13 2.90% 13 50 13 2.90% 13 50 14 72 13.510 1.473 8.576 123.95 2015 65 - - - - - - - - - - - - -		2016 50 40 23 5.12% 305 13.560 2,689 8.811 - - 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2017 50 40 22 5.09% 302 13 537 2.608 9 311 5 5 5 5 215 3.024 135.70 2017 65 - - 11 1 93% 130 11 819 1.154 8.890 - - 182 - - -	0 #DIV \$ #DIV \$ #DIV \$ \$ \$ 11 \$ 1 \$ \$ \$ \$ \$	2018 50 40 	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2019 50 40 24 5.37% 318 7.37% 9 251 3 2 13 3,056 129.98 2019 65 5 9 1.54% 103 11.825 9204 - 11.825 9204		2020) 50 40 22 5,02% 298 3,3548 2,774 9,296 - - 2 2 2 113 3,887 131.06 - - - 2 2 2 113 3,887 131.06 - - - - - - - 2 2 9,149% 5,02% - - - - - - - - - - - - - - - - - - -	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2021 50 40 9 9 252 13 566 2,418 9 579 2 2 2 115 2,534 136,15 202 65 202 65 158% 106 11764 1.020 9 646 1.020 9 020 1.020		2022 50 40 37 8.55% 5,009 9.875 - - 13.552 5,009 9.875 - - 12 11 11 575 5,564 149.19 2022 65 9 9 1.57% 106 - - 1.935 1,053		202 50 40 297 3,099 10,43 123 3,211 146,91 146,91 146,91 146,91 146,91 146,91 10,16 1,08 1,08

EntityName		2015	2016	2017	2018	2019	2020	2021	2022	2023
Green 1	Max Capacity(MW)	231	231	231	231	231	231	231	231	231
	Min Capacity(MW)	180	160	180	180	180	180	180	180	180
	Generation(GWh)	1.957	1,782	1,940	1,797	1.955	1,822	1,947	1,635	1.938
	Annual Cap. Fac	96,70%	87.82%	95.85%	88.61%	96.61%	89.78%	96.21%	80.78%	95.76%
	Fuel used(GBtu)	21,520	19,586	21,325	19,754	21.497	20,022	21.406	17,969	21.301
	Coal(Tons)	1,075,977	979,276	1.066.246	987,704	1.074.845	1,001,121	1.070.298	898,461	1.065,074
	Heat Rate	10.997	10.991	10 994	10.992	10.996	10.991	10 995	10.993	10.993
	Fuel cost(\$000)	\$ 38.993	\$ 34,921	\$ 39,451	\$ 36,940	\$ 40,629	\$ 38,243	\$ 41.356	\$ 35,130	42.134
	Fuel Cost per MMBTu	\$ 1.812	\$ 1.783		\$ 1.870	\$ 1.890	\$ 1.910	\$ 1932	\$ 1.955	1.978
• • • • • • • • • • • • • • • • • • • •	VOM cost(\$000)	\$ 13,071	\$ 12,224	5 13 675	\$ 13,029	\$ 14 564	\$ 13,936	\$ 15,303	\$ 13,207 9	16.083
	VOM per MWh	\$ 6,680	\$ 6,860		\$ 7.250	\$ 7.450	\$ 7,650	\$ 7 860	5 8.080	8 300
	Num starts()	13	15	13	13	13	15	13 -	21	13
	Start Fuel used(GBtu)	20	34	22	30	20	34	22	49	23
	Start cost(\$000)	\$ 1,155	\$ 2,034	77 3	\$ 1,857	\$ 1,274	\$ 2,251	\$ 1,468	\$ 3,403	1,636
	Start LOSI(\$000)	\$ 1,100	a zjuan	4 100		<u> </u>	2 L/L/2 L	<u> </u>		-,
	Total Operating Cost (\$000)	\$ 53,220	\$ 49,180	\$ 54,490	\$ 51,826	\$ 56,468	\$ 54,429	\$ 58,127	\$ 51,740	\$ 59,854
	Op Cost per MWh	\$ 27.20	\$ 27.60		\$ 28.84	\$ 28.88	\$ 29.88		\$ 31.65	\$ 30.89
	op cost per rain	4 27.20		4 .						
		2015	2016	2017	2018	2019	2020	2021	2022	202
EntityName Green 2	Max Capacity(MW)	2015 223	2016	223	2010	2015	2020	223	223	223
Green z				180	180	180	180	180	160	180
	Min Capacity(MW)	160	180	1.742	1.770	1.561	1.873	1.759	1,860	1,748
	Generation(GWh)	1.748	1,867		90.63%		95.59%	90.02%	95.22%	69.48%
	Annual Cap. Fac	89 50%	95,30%	89 16%		79.89%	A.S			19.424
	Fuel used(GBtu)	19.425	20,750	19.355	19,675	17.344	20,815	19,543	20,674	
	Coal(Tons)	971.248	1,037,522	967.733	983,764	867.178	1,040,808	977.149	1,033,688	971.204
	Heat Rate	11 110	11,115	11 112	11.114	11.113	11.117	11 113	11.115	11 112
	Fuel cost(\$000)	\$ 35,198	\$ 36,998		\$ 35,793	\$ 32.779	\$ 39,759	\$ 37,757		\$ 38,421
	Fuel Cost per MMBTu	\$ 1.812	\$ 1.783	\$ 1.850	\$ 1.870	\$ 1.890	\$ 1.910	\$ 1 932		\$ 1.978
	VOM cost(\$000)	\$ 11.679	\$ 12,807	\$ 12,279	\$ 12,835	\$ 11.627	\$ 14,325	\$ 13.823		\$ 14.508
	VOM per MWh	\$ 6.680	\$ 6,860	\$ 7.050	\$ 7.250	\$ 7.450	\$ 7.650	\$ 7 660		\$ 8.300
	Num starts()	15	11	15	13	21	12	14	12	15
	Start Fuel used(GBtu)	41	19	42	38	61	21	37	22	42
	Start cost(\$000)	\$ 2,142	\$ 1,076	\$ 2,294	\$ 2,098	\$ 3,460	\$ 1,351	\$ 2,266	\$ 1,476	\$ 2,674
	T		-	A ED 200	\$ 51,726	5 47,866	\$ 55,435	\$ 53,846	\$ 56,922	\$ 55,603
	Total Operating Cost (\$000)	\$ 49,019	\$ 50,881	\$ 50,380	\$ 51,726 \$ 29.22	\$ 47,866		\$ 30.52		\$ 31.81
	Op Cost per MWh	\$ 28.04	\$ 27.25	\$ 28.92	\$ 29.22	10.02	\$ 29.60	\$ 30.02	3 30.00	2 J1'01
		1								
		2015		2017	2018			2021	2022	202
Total	Max Capacity(MW)	1.737	1,737	1.737	1,737	1,737	1,737		1,757	1,255
	Min Capacity(MW)	1,255	1,255	1.255	1,255	1.255	1,255	1.255		
	Generation(GWh)	12.826	12,863	12,446	12,831	12.541	12,791	12,749	12,856	12.771
	Annual Cap. Fac	84 28%		81 78%	84.31%		1111111111111	83.76%	84.47%	83.91%
	Fuel used(GBtu)	141,514	141,804	137.410	141,542	138,318	141,208	140,695	141,863	140,931
	Coal(Tons)	6,407.813	6,410,364	6,220.910	6,405,725	6,248,787	6,388,439	6,368,643	6,393,278	6,375,494
	Heat Rate	11 033	11.024	11 041	11.031	11 029	11.040	11.036	11.035	11.035
	Fuel cost(\$000)	\$ 262.013	\$ 264,171	\$ 261.135	\$ 269,508	\$ 268,560	\$ 276,781	\$ 278,705		\$ 286,469
	Fuel Cost per MMBTu	\$ 1.652	\$ 1.863	\$ 1.900	\$ 1.904	\$ 1.942	\$ 1.960	\$ 1981	\$ 2.019	\$ 2.033
	VOM cost(\$000)	\$ 55,250	\$ 56,929	\$ 56,948	\$ 59,508	\$ 59,578	\$ 62,506	\$ 64.936	\$ 66,065	\$ 68,135
	VOM per MWh	\$ 4.308	\$ 4.426	\$ 4.576	\$ 4.638	\$ 4751	\$ 4.687	\$ 5.094	\$ 5,139	\$ 5,335
	Num starts()	287	295	309	233	330	310	354	304	269
	Start Fuel used(GBtu)	236	244	278	245	283	255	253	265	249
• • • • • • • • • • • • •	Start cost(\$000)	\$ 11,080	\$ 11,834	\$ 14,050	\$ 12,467	\$ 14,942	\$ 13,983	\$ 13,649	\$ 15,293	\$ 14,58
					# 343 4P2	·	* 252 234	4 367 100	¢ 267 007	e 760 10
	Total Operating Cost (\$000) Op Cost per MWh	\$ 328,344 \$ 25.60	\$ 332,934 \$ 25.88	\$ 332,133 \$ 26.69	\$ 341,483 \$ 26.61	\$ 343,080 \$ 27.36	\$ 353,271 \$ 27.62	\$ 357,290 \$ 28.03	\$ 367,803 \$ 28.61	\$ 369,19 \$ 28.9
	EIDLAST OPCIMUD									

	T	2008	2009	2010	2011	2012	2013	2014
EntityName D B Wilson 1	Generation(GWh)		3,019	3,433	3,141	3,317	3,161	3,380
	Fuel used(GBtu)		33,953	38,601	35 542	37,044	34,679	37,098
	Coal(Tons)		1,476,213	1,678,323	1,545,319	1,610,606		1,612,949
	Heat Rate	#DIV/01	11 247	11.245	11 317	11.166	10 970	10.975
• • • • • • • • • • • • • • •	Fuel cost(\$000)		\$ 60,097	\$ 65,622	\$ 62,199	\$ 90,758		\$ 66,776
	Fuel Cost per MMBTu		\$ 1.770	\$ 1.700	\$ 1.750	\$ 2.450	and the December 1	\$ 1.800
	ruci cost per ranord	#DI170.	÷	4 11100				- 21000
•••••		· · · · · · · · · · · · · · · · · · ·						
EntityName	Í.	200B	2009	2010	2011	2012	2013	2014
HMPL 1	Generation(GWh)	terester and the second s	1,128	1,217	1,055	1,194	1,154	1,215
	Fuel used(GBtu)		12,204	13,167	11,417	12,928	12,491	13,156
	Coal(Tons)		530,591	572,467	496,400	562,095	543,093	571,994
	Heat Rate	#DIV/01	10 822	10.823	10 821	10.823	10.824	10.826
	Fuel cost(\$000)	\$ 200 - 200	\$ 23,187	\$ 33,180	\$ 29,114	\$ 34,260	e an a sector to the sector to a sector of the sector of t	\$ 23,549
	Fuel Cost per MMBTu	an an an an ann an State an a' an an an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna an Anna a	\$ 1.900	\$ 2.520	\$ 2.550	\$ 2.650		\$ 1.790
EntityName		2006	2009	2010	2011	2012	2013	2014
HMPL 2	Generation(GWh)		1,271	1,184	1,252	1,095	1,245	1,182
	Fuel used(GBtu)		13,767	12,827	13,564	11,868	13,501	12,809
	Coal(Tons)		598,547	557,704	589,741	515,988	586,981	556,934
	Heat Rate	#DIV/01	10 835	10.835	10 837	10.840	10 840	10,838
	Fuel cost(\$000)	tist_53(5, \$)	\$ 26,157	\$ 32,325	\$ 34,588	\$ 31,449		\$ 22,929
	Fuel Cost per MMBTu	#DIV/01	\$ 1.900	\$ 2.520	\$ 2.550	\$ 2.650	\$ 2.780	\$ 1.790
P			2000	3010	2011	2012	7017	2014
EntityName	Conception (Cliffs)	2008	2009	2010	2011	2012	2013	201*
Coleman 1	Generation(GWh)		1,196	1,193	1,102	1,202		
	Fuel used(GBtu)		12,853	12,800	11,884 516,694	12,967	13,028 566,453	12,348 536,879
	Coal(Tons)	Hoput	558,821	556,517	and the first second second second second second	563,766		
	Heat Rate	#DIV/01	10 727	10.728	10 785	10.789	10 791	10.791
	Fuel cost(\$000)	\$ #DIV/01	\$ 30,847	\$ 31,744	\$ 30,304	\$ 36,047 \$ 2.780		\$ 23,388 \$ 1.894
	Fuel Cost per MMBTu		\$ 2.400	\$ 2.480	\$ 2.550	\$ 2,780	\$ 2.910	\$ 1.094
•••••••								
EntityName		2008	2009	2010	2011	2012	2013	2014
Coleman 2	Generation(GWh)	2000	1,111	1,040	1,101	1,090	1,038	1,093
Coleman Z	Fuel used(GBtu)		13,369	12,50B	13,237	13,115	12,493	13,144
	Coal(Tons)	:::::::::::::::::::::::::::::::::::::	581,246	543,816	575,501	570,236	543,177	571,487
	Heat Rate	#DIV/01	12 033	12.032	12.028	12.030	12 032	12.029
	Fuel cost(\$000)	\$ -	\$ 32,085	\$ 31,019	\$ 33,753	\$ 36,461	\$ 36,355	\$ 24,895
	Fuel Cost per MMBTu	7 #DIV/0!	\$ 2.400	\$ 2.480	\$ 2.550	\$ 2.780	\$ 2.910	\$ 1.894
			4	4	_1			
EntityName	<u> </u>	2008	2009	2010	2011	2012	2013	2014
Coleman 3	Generation(GWh)		1,126	1,225	1,225	1,050	1,237	1,229
	Fuel used(GBtu)		12,176	13,249	13,258	11,371	13,398	13,308
* *****************	Coal(Tons)		529,400	576,047	576,428	494,391	582,521	578,596
**********	Heat Rate	#DIV/0!	10 817	10.817	10 823	10.826	10.830	10.826
*****	Fuel cost(\$000)	\$ 38.5 S	\$ 29,223	\$ 32,858	\$ 33,808	\$ 31,611	\$ 38,988	\$ 25,205
	Fuel Cost per MMBTu	#DIV/0!	\$ 2.400	\$ 2.480	\$ 2.550	\$ 2.780	\$ 2.910	\$ 1.894
							-,	
EntityName		2008	2009	2010		2012	2013	201
EntityName Reid ST	Generation(GWh)	2008	7	12	32	29	13	29
	Fuel used(GBtu)	2008	7 90					201 29 396
	Fuel used(GB1u) Coal(Tons)		7 90 75	12 165	32 437 -	29 387 -	13 178	29 396
	Fuel used(GBtu) Coal(Tons) Heat Rate	#DIV/01	7 90 75 13 564	12 165 13.571	32 437 - 13 545	29 387 13.556	13 178 13 572	29 396 13.547
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	#DIV/01 \$	7 90 75 13 564 \$ 792	12 165 13.571 \$ 1,551	32 437 - 13 545 \$ 3,776	29 387 13.556 \$ 3,518	13 178 13 572 \$ 1,683	29 396 13.547 \$ 3,300
	Fuel used(GBtu) Coal(Tons) Heat Rate	#DIV/01	7 90 75 13 564	12 165 13.571	32 437 - 13 545	29 387 13.556	13 178 13 572	29 396 13.547
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	#DIV/01 \$	7 90 75 13 564 \$ 792	12 165 13.571 \$ 1,551	32 437 - 13 545 \$ 3,776	29 387 13.556 \$ 3,518	13 178 13 572 \$ 1,683	29 396 13.547 \$ 3,300
Reid ST	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	#DIV/0 \$ #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785	12 165 13.571 \$ 1,551 \$ 9.420	32 437 - 13 545 \$ 3,776 \$ 8.646	29 387 13.556 \$ 3,518 \$ 9.081	13 178 13 572 \$ 1,683 \$ 9,451	29 396 13.547 \$ 3,300 \$ 8.344
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	#DIV/01 \$	7 90 75 13 564 \$ 792 \$ 8.785	12 165 13.571 \$ 1,551 \$ 9.420 2010	32 437 - 13 545 \$ 3,776 \$ 8.646	29 387 13.556 \$ 3,518 \$ 9.081 2012	13 178 13 572 \$ 1,683 \$ 9,451 2013	29 396 13.547 \$ 3,300 \$ 8.344 201
Reid ST	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh)	#DIV/0 \$ #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785 2009 4	12 165 13.571 \$ 1,551 \$ 9.420 2010 4	32 437 13 545 \$ 3,776 \$ 8,646 2011 7	29 387 13.556 \$ 3,518 \$ 9,081 2012 11	13 178 13 572 \$ 1,683 \$ 9,451 2013 15	29 396 13.547 \$ 3,300 \$ 8.344 201 \$
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu)	#DIV/0 \$ #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785	12 165 13.571 \$ 1,551 \$ 9.420 2010	32 437 13 545 \$ 3,776 \$ 8,646 2011 7	29 387 13.556 \$ 3,518 \$ 9.081 2012	13 178 13 572 \$ 1,683 \$ 9,451 2013	29 396 13.547 \$ 3,300 \$ 8.344 201 \$
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons)	#DIV/0 \$ - #DIV/0 2008	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4	12 165 13.571 \$ 1,551 \$ 9.420 2010 4 51	32 437 545 \$ 3,776 \$ 8,646 2011 7 80	29 387 13.556 \$ 3.518 \$ 9.081 2012 11 133	13 178 13 572 \$ 1,663 \$ 9.451 2013 15 175	29 396 13.547 \$ 3,300 \$ 8.344 201 5 111
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate	#DIV/0 #DIV/0 2008 #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 48 12 046	12 165 13.571 \$ 1,551 \$ 9.420 2010 4 51 11.931	32 437 	29 387 - 3,556 \$ 3,518 \$ 9,081 - 2012 11 133 - 11.785	13 178 13 572 \$ 1,683 \$ 9,451 2013 15 175 	29 396 13.547 \$ 3,300 \$ 8.344 201 \$ 111 11.947
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	#DIV/01 \$ #DIV/01 2008 #DIV/01 \$	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4	12 165 13.571 \$ 1,551 \$ 9.420 2010 4 51	32 437 545 \$ 3,776 \$ 8,646 2011 7 80	29 387 13.556 \$ 3.518 \$ 9.081 2012 11 133	13 178 13 572 \$ 1,683 \$ 9,451 2013 15 175 	29 396 13.547 \$ 3,300 \$ 8.344 201 5 111 11.947 \$ 931
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate	#DIV/0 #DIV/0 2008 #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 	12 165 13.571 \$ 1,551 \$ 9.420 2010 4 51 \$ 11.931 \$ 448	32 437 13545 \$ 3,776 \$ 8,646 2011 7 80 11905 \$ 698	29 387 13.556 \$ 3,518 \$ 9,081 2012 11 133 11.785 \$ 1,132	13 178 13572 \$ 1,683 \$ 9,451 2013 15 175 16 11,899 \$ 1,475	29 396 13.547 \$ 3,300 \$ 8.344 201 \$ 111 11.947 \$ 931
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	#DIV/01 \$ #DIV/01 2008 #DIV/01 \$	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 	12 165 13.571 \$ 1,551 \$ 9.420 2010 4 51 \$ 11.931 \$ 448	32 437 13545 \$ 3,776 \$ 8,646 2011 7 80 11905 \$ 698	29 387 13.556 \$ 3,518 \$ 9,081 2012 11 133 11.785 \$ 1,132	13 178 13572 \$ 1,683 \$ 9,451 2013 15 175 16 11,899 \$ 1,475	29 396 13.547 \$ 3,300 \$ 8.344 201 111 11.947 \$ 931 \$ 8.412
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	#DIV/01 \$ #DIV/01 2008 #DIV/01 \$	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 48 12 046 \$ 418 \$ 8.733	12 165 13.571 \$ 1.551 \$ 9.420 2010 2010 4 51 11.931 \$ 448 \$ 8.814 2010	32 437 545 \$ 3,776 \$ 8.646 2011 7 80 	29 387 - 13,556 \$ 3,518 \$ 9,081 2012 11 133 - 11,785 \$ 1,132 \$ 8,522 2012	13 178 13 572 \$ 1,663 \$ 9.451 2013 15 175 11 899 \$ 1,475 \$ 8.432 2013	29 396 3,547 \$,3,300 \$,8,344 201 11,947 \$,931 \$,8,412 201
Reid ST EntityName Reid GT	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	#DIV/0 \$ #DIV/0 2008 #DIV/0 \$ #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 48 12 046 \$ 418 \$ 8.733 2009 1,956	12 165 13.571 \$ 9.420 2010 4 51 11.931 \$ 448 \$ 8.814 2010 1,800	32 437 13545 \$ 3,776 \$ 8,646 2011 7 80 	29 387 13.556 \$ 3,518 \$ 9,081 2012 11 133 - 11.785 \$ 1,132 \$ 8.522 2012 1,840	13 178 13572 \$ 1,683 \$ 9.451 2013 15 175 11899 \$ 1,475 \$ 8.432 2013 1,927	29 396 13.547 \$ 3,300 \$ 8.344 201 11.947 \$ 931 \$ 8.412 201 1,652
Reid ST EntityName Reid GT EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	#DIV/0 \$ #DIV/0 2008 #DIV/0 \$ #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 48 12 046 \$ 418 \$ 8.733	12 165 13.571 \$ 1.551 \$ 9.420 2010 2010 4 51 11.931 \$ 448 \$ 8.814 2010	32 437 545 \$ 3,776 \$ 8.646 2011 7 80 	29 387 - 13,556 \$ 3,518 \$ 9,081 2012 11 133 - 11,785 \$ 1,132 \$ 8,522 2012	13 178 13 572 \$ 1,663 \$ 9.451 2013 15 175 11 899 \$ 1,475 \$ 8.432 2013	29 396 13.547 \$ 3,300 \$ 8.344 201 11.947 \$ 931 \$ 8.412 201 1,652
Reid ST EntityName Reid GT EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh)	#DIV/0 \$ #DIV/0 2008 #DIV/0 \$ #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 48 12 046 \$ 418 \$ 8.733 2009 1,956	12 165 13.571 \$ 9.420 2010 4 51 11.931 \$ 448 \$ 8.814 2010 1,800	32 437 13545 \$ 3,776 \$ 8,646 2011 7 80 	29 387 13.556 \$ 3,518 \$ 9,081 2012 11 133 - 11.785 \$ 1,132 \$ 8.522 2012 1,840	13 178 13572 \$ 1,683 \$ 9.451 2013 15 175 11899 \$ 1,475 \$ 8.432 2013 1,927	29 396 13.547 \$ 3,300 \$ 8.344 201 5 11.947 \$ 931 \$ 8.412 201 1,655 18,155
Reid ST EntityName Reid GT EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu)	#DIV/0 \$ #DIV/0 2008 #DIV/0 \$ #DIV/0	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 48 8 2009 4 4 8 8.733 2009 1,956 21,874	12 165 13.571 \$ 9.420 2010 4 51 11.931 \$ 448 \$ 8.814 2010 1,800 19,784	32 437 13 545 \$ 3,776 \$ 8,646 2011 7 80 - - 11 905 \$ 698 \$ 8,675 2011 1,950 21,426	29 387 13,556 \$ 3,518 \$ 9,081 11 133 - 11,785 \$ 1,132 \$ 8,522 2012 1,840 20,229	13 178 13572 \$ 1,683 \$ 9.451 2013 15 175 175 11 899 \$ 1,475 \$ 8.432 2013 1,927 21,186	29 396 13.547 \$ 3,300 \$ 8.344 201 9 111 11.947 \$ 931
Reid ST EntityName Reid GT EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons)	#DIV/01 \$	7 90 75 13 564 \$ 792 \$ 8.785 2009 4 4 48 12 046 \$ 418 \$ 8.733 2009 1,956 21,874 1,093,713	12 165 13.571 \$ 1,551 \$ 9.420 2010 4 51 11.931 \$ 448 \$ 8.814 2010 1,800 19,784 989,179	32 437 13 545 \$ 3,776 \$ 8,646 2011 7 80 - 11 905 \$ 698 \$ 8,675 2011 1,950 21,426 1,071,290	29 387 13,556 \$ 3,518 \$ 9,081 2012 11 133 - 11.785 \$ 1,132 \$ 8.522	13 178 13572 \$ 1,663 \$ 9.451 2013 15 175 175 \$ 1,475 \$ 8.432 2013 1,927 21,166 1,059,279	29 396 13.547 \$ 3,300 \$ 8.344 201 5 111.947 \$ 931 \$ 8.412 201 1.655 18,155 907,961

EntityName		2008	2009	2010	2011	2012	2013	2014
Green 2	Generation(GWh)		1,713	1,872	1,604	1,850	1,763	1,865
	Fuel used(GBtu)		19,358	20,800	17,820	20,557	19,594	20,731
	Coal(Tons)		967,890	1,040,003	891,016	1,027,860	979,697	1,036,537
	Heat Rate	#DIV/0!	11 302	11.109	11.109	11.115	11 112	11.114
	Fuel cost(\$000)	\$ 4.000 * 200	\$ 32,521	\$ 42,432	\$ 39,026	\$ 44,198	\$ 48,985	\$ 37,253
	Fuel Cost per MMBTu	#DIV/0!	\$ 1,680	\$ 2.040	\$ 2.190	\$ 2.150	\$ 2.500	\$ 1.797
		2008	2009	2010	2011	2012	2013	2014
Total	Generation(GWh)	2008	12,531	12,980	12,468	12,679	12,762	12,799
Total	Generation(GWh) Fuel used(GBtu)	2008			· · · · · · · · · · · · · · · · · · ·			
Total	· · · · · · · · · · · · · · · · · · ·	2008	12,531 139,691	12,980	12,468 138,665	12,679	12,762	12,799
Total	Fuel used(GBtu)	2008	12,531 139,691	12,980 143,951	12,468 138,665 6,262,389	12,679 140,599	12,762 140,722	12,799 141,260
Total	Fuel used(GBtu) Coal(Tons)		12,531 139,691 6,336,497	12,980 143,951 6,514,057	12,468 138,665 6,262,389 11 122	12,679 140,599 6,356,369	12,762 140,722 6,368,971 11 027	12,799 141,260 6,373,339

EntityName	Γ	2015	2016	2017	2018	2019	2020	2021	2022	2023
D B Wilson 1	Generation(GWh)	3,218	3,390	2,965	3,384	3,216	3.385	3,223	3,409	3,211
	Fuel used(GBtu)	35,301	37,206	32,550	37,130	35,285	37,151	35,366	37,416	35,220
	Coai(Tons)	1,534,805	1,617,640	1,415,201	1,614,347	1,534,116	1,615,270	1,537,664	1,626,778	1,531,301
	Heat Rate	10 970	10.976	10 977	10.973	10 972	10.975	10.972	10.976	10 970
	Fuei cost(\$000)	\$ 64,070	\$ 68,198	\$ 60,314	\$ 69,545	\$ 66,794	\$ 71,070	\$ 68,469	\$ 73,260	\$ 69,771
	Fuel Cost per MMBTu	\$ 1.B15	\$ 1.833	\$ 1.853	\$ 1.873	\$ 1.893	\$ 1.913	\$ 1.936	\$ 1.958	\$ 1.981
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EntityName		2015	2016	2017	2018	2019	2020	2021	2022	202
HMPL 1	Generation(GWh)	1,136	1,226	1,124	1,224	1,061	1,127	1,158	1,227	1,122
	Fuel used(GBtu)	12,298	13,274	12,164	13,247	11,488	12,194	12,537	13,289	12,148
	Coal(Tons)	534,695	577,143	528,875	575,974	499,477	530,194	545,066	577,791	528,166
	Heat Rate	10 824	10.826	10 825	10.824	10 826	10.822	10.824	10.828	10 825
	Fuel cost(\$000) Fuel Cost per MMBTu	\$ 22,186 \$ 1.804	\$ 24,186 \$ 1.822	\$ 22,406	\$ 24,653 \$ 1.851	\$ 21,620	\$ 23,182 \$ 1.901	\$ 24,120	\$ 25,861	
	t dei cost per ministu	\$ 1.004	- γ - 1.022	\$ 1.842	\$ 1.851	\$ 1.882	\$ 1.901	\$ 1.924	\$ 1.946	\$ 1.969
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EntityName		2015		2017	2018		2020	2021	2022	202
HMPL 2	Generation(GWh)	1,268	1,189	1,259	1,167	1,256	1,071	1,255	1,194	1,237
	Fuel used(GBtu)	13,741	12,885	13,645	12,645	13,619	11,606	13,609	12,940	13,409
• • • • • • • • • • • • • • • • • • • •	Coal(Tons) Heat Rate	597,448 10 841	560,235 10.83B	593,241 10 840	549,785 10.840	592,109 10 839	504,590 10.837	591,708 10 840	562,596	582,997
	Fuel cost(\$000)	\$ 24,789	\$ 23,477	\$ 25,133	\$ 23,532	\$ 25,630	\$ 22,062	\$ 26,184	10.839 \$ 25,181	10 839 \$ 26,402
	Fuel Cost per MMBTu	\$ 1.804	\$ 1.822	\$ 1.842	\$ 1.861	\$ 1.882	\$ 1,901	\$ 1.924	\$ 1.946	\$ 1.969
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EntityName		2015		2017		1	2020			
Coleman 1	Generation(GWh)	1,213	2016	1,042	2018 1,204	2019	2020 1,144	2021 1,198	2022	2023 1,136
	Fuel used(GBtu)	13,090	12,950	11,238	1,204	1,212	1,144	12,932	12,943	12,253
	Coai(Tons)	569,113	563,044	488,625	564,718	568,613	536,879	562,255	562,727	532,750
	Heat Rate	10 792	10.792	10 790	10.791	10 792	10.791	10 791	10.791	10 788
	Fuel cost(\$000)	\$ 25,001	\$ 24,994	\$ 21,937	\$ 25,639	\$ 26,117	\$ 24,919	\$ 26,420	\$ 26,753	\$ 25,634
	Fuel Cost per MM8Tu	\$ 1.910	\$ 1.930	\$ 1.952	\$ 1.974	\$ 1.997	\$ 2.018	\$ 2.043	\$ 2.067	\$ 2.092
					1	·	1			
EntityName	i T	2015	2016	2017	2018	2019	2020	2021	2022	2023
Coleman 2	Generation(GWh)	1,111	966	1,115	1,113	1,036	1,117	1,112	1,056	1,115
	Fuel used(GBtu)	13,363	11,622	13,414	13,398	12,460	13,445	13,378	12,710	13,416
	Coal(Tons)	581,001	505,289	583,233	582,528	541,749	584,586	581,663	552,592	583,315
	Heat Rate	12 031	12.031	12 033	12.034	12 033	12.033	12 030	12.031	12 033
	Fuel cost(\$000)	\$ 25,523	\$ 22,430	\$ 26,185	\$ 26,448	\$ 24,883	\$ 27,133	\$ 27,332	\$ 26,271	\$ 28,067
	Fuel Cost per MMBTu	\$ 1.910	\$ 1.930	\$ 1.952	\$ 1.974	\$ 1.997	\$ 2.018	\$ 2.043	\$ 2.067	\$ 2.092
			i			inerne en el	· · · · · · · · · · · · · · · · · · ·			
EntityName		2015	8	2017	2018	1	2020	2021	2022	2023
Coleman 3	Generation(GWh)	1,155	1,211	1,227	1,162	1,212	1,222	1,068	1,229	1,233
	Fuel used(GBtu)	12,501	13,115	13,288	12,579	13,126	13,225	11,565	13,309	13,356
	Fuel used(GBtu) Coal(Tons)	543,527	13,115 570,214	577,757	12,579 546,905	570,700	574,991	11,565 502,839	13,309 578,646	13,356 580,686
· · · · · · · · · · · · · · · · · · ·	Fuel used(GBtu) Coal(Tons) Heat Rate	543,527 10.827	13,115 570,214 10.826	577,757 10 827	12,579 546,905 10.826	570,700 10 827	574,991 10.826	11,565 502,839 10 829	13,309 578,646 10.829	13,356 580,686 10 829
	Fuel used(GBtu) Coal(Tons)	543,527	13,115 570,214	577,757	12,579 546,905	570,700	574,991	11,565 502,839 10 829 \$ 23,628	13,309 578,646 10.829 \$ 27,509	13,356 580,686 10 829 \$ 27,940
· · · · · · · · ·	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	543,527 10.827 \$ 23,877	13,115 570,214 10.826 \$ 25,312	577,757 10 827 \$ 25,939	12,579 546,905 10.826 \$ 24,831	570,700 10 827 \$ 26,213	574,991 10.826 \$ 26,688	11,565 502,839 10 829 \$ 23,628	13,309 578,646 10.829 \$ 27,509	13,356 580,686 10 829 \$ 27,940
Entitudizare	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	543,527 10.827 \$ 23,877 \$ 1.910	13,115 570,214 10.826 \$ 25,312 \$ 1.930	577,757 10.827 \$ 25,939 \$ 1.952	12,579 546,905 10,826 \$ 24,831 \$ 1.974	570,700 10 827 \$ 26,213 \$ 1.997	574,991 10.826 \$ 26,688 \$ 2.018	11,565 502,839 10 829 \$ 23,628 \$ 2.043	13,309 578,646 10.829 \$ 27,509 \$ 2.067	13,356 580,686 10 829 \$ 27,940 \$ 2.092
EntityName Reid ST	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	543,527 10.827 \$ 23,877 \$ 1.910 2015	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016	577,757 10.827 \$ 25,939 \$ 1.952 2017	12,579 546,905 10.826 \$ 24,831	570,700 10 827 \$ 26,213 \$ 1.997 2019	574,991 10.826 \$ 26,688 \$ 2.018	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021	13,309 578,646 10.829 \$ 27,509 \$ 2.067	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023
EntityName Reid ST	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh)	543,527 10.827 \$ 23,877 \$ 1.910 2015 13	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23	577,757 10.827 \$ 25,939 \$ 1.952 2017 22	12,579 546,905 10,826 \$ 24,831 \$ 1.974	570,700 10 827 \$ 26,213 \$ 1.997 2019 24	574,991 10.826 \$ 26,688 \$ 2.018 2020 22	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021 19	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 2023
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	543,527 10.827 \$ 23,877 \$ 1.910 2015	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016	577,757 10.827 \$ 25,939 \$ 1.952 2017	12,579 546,905 10,826 \$ 24,831 \$ 1.974	570,700 10 827 \$ 26,213 \$ 1.997 2019	574,991 10.826 \$ 26,688 \$ 2.018	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021	13,309 578,646 10.829 \$ 27,509 \$ 2.067	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate	543,527 10.827 \$ 23,877 \$ 1.910 2015 13	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23	577,757 10.827 \$ 25,939 \$ 1.952 2017 22	12,579 546,905 10,826 \$ 24,831 \$ 1.974	570,700 10 827 \$ 26,213 \$ 1.997 2019 24	574,991 10.826 \$ 26,688 \$ 2.018 2020 22	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021 19	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 2023
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13,510 \$ 1,473	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 13,560 \$ 2,689	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$	570,700 10 827 \$ 26,213 \$ 1,997 2019 24 318 13 531 \$ 2,943	574,991 10.826 \$ 26,688 \$ 2.018 2020 222 298 13.548 \$ 2,774	11,565 502,839 10,829 \$ 23,628 \$ 2,043 2021 19 252 13,566 \$ 2,418	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 13.552 \$ 5,009	13,356 580,686 10 829 \$ 2,940 \$ 2,092 2022 2027 22 297 - 13 555 \$ 3,095
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate	543,527 10 827 \$ 23,877 \$ 1.910 2015 13 172 - 13 510	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13,560	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 	570,700 10 827 \$ 26,213 \$ 1,997 2019 24 318 13 531	574,991 10.826 \$ 26,688 \$ 2.018 2020 22 298 - 13.548	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021 2021 19 252 13 566	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 - 13.552	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 22 297 - 13 555
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13,510 \$ 1,473	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 13,560 \$ 2,689	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$	570,700 10 827 \$ 26,213 \$ 1,997 2019 24 318 13 531 \$ 2,943	574,991 10.826 \$ 26,688 \$ 2.018 2020 222 298 13.548 \$ 2,774	11,565 502,839 10,829 \$ 23,628 \$ 2,043 2021 19 252 13,566 \$ 2,418	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 13.552 \$ 5,009	13,356 580,686 10 829 \$ 2,940 \$ 2,092 2022 2027 22 297 - 13 555 \$ 3,095
	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13,510 \$ 1,473	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13.560 \$ 2,689 \$ 8.811	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251	574,991 10.826 \$ 26,688 \$ 2.018 2020 222 298 13.548 \$ 2,774	11,565 502,839 10,829 \$ 23,628 \$ 2,043 2021 19 252 13,566 \$ 2,418	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 13.552 \$ 5,009	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 22 297 - 13 555 \$ 3,095 \$ 10,434
Reid ST	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost (\$000) Fuel Cost per MMBTu Generation(GWh)	543,527 10 827 \$ 23,877 \$ 1.910 2015 13 172 - 13 510 \$ 1,473 \$ 8.576 2015 9	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13.560 \$ 2,689 \$ 8.811	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808 \$ 9.311 2017 11	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 - 13.548 \$ 2,774 \$ 9.296	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 13 566 \$ 2,418 \$ 9,579	13,309 578,646 10.829 \$ 27,509 \$ 2.067 \$ 2022 37 507 13.552 \$ 5,009 \$ 9.875	13,356 580,686 10 829 \$ 2,940 \$ 2,092 2022 2027 22 297 - 13 555 \$ 3,095
Reid ST EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu)	543,527 10 827 \$ 23,877 \$ 1.910 2015 13 172 	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13,560 \$ 2,689 \$ 8,811 2016	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 13 537 \$ 2,808 \$ 9.311 2017	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ - #DIV/01 \$ - 2018	570,700 10 827 \$ 26,213 \$ 1,997 2019 24 318 13 531 \$ 2,943 \$ 9,251 2019	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 - 13.548 \$ 2,774 \$ 9.296	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 - 13 566 \$ 2,418 \$ 9,579 2021	13,309 578,646 10.829 \$ 27,509 \$ 2.067 \$ 2.067 507 - - 13.552 \$ 5,009 \$ 9.875	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 202 297 - 13 555 \$ 3,095 \$ 10.434 2023
Reid ST EnuityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons)	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13,510 \$ 1,473 \$ 8,576 2015 9 104 - -	13,115 570,214 10.826 \$ 25,312 \$ 1.930 23 305 13,560 \$ 2,689 \$ 8.811 2016 9 110	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808 \$ 9.311 2017 11 130 -	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ 10 125	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 103	574,991 10.825 \$ 26,688 \$ 2.018 2020 228 298 298 54 298 298 299 13.548 \$ 2,774 \$ 9.296 2020 9 1001	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021 19 252 13 566 \$ 2,418 \$ 9,579 2021 2021 9 106	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9 9 106	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 22 297 - 13 555 \$ 3,095 \$ 10.434 2022 9 107 -
Reid ST EnuityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13 510 \$ 1,473 \$ 8.576 2015 9 104 - 11 831	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13,560 \$ 2,689 \$ 8.811 2016 9 110 - 11.772	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 302 302 302 302 302 302	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ 2018 10 125 11.901	570,700 10 827 \$ 26,213 \$ 1,997 24 318 - 13 531 \$ 2,943 \$ 9,251 - 2019 9 103 - 11 825	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 298 3.548 \$ 2,774 \$ 9.296 2020 9 101 - 11.916	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 5 13 566 \$ 2,418 \$ 9,579 2021 9 2021 9 10 6 11 764	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 222 297 - 13 555 \$ 3,095 \$ 10,434 2022 9 10,734 - 11 789
Reid ST EnütyName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu)	543,527 10 827 \$ 23,877 \$ 1.910 2015 13 172 13 510 \$ 1,473 \$ 8.576 2015 9 104 	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13.560 \$ 2,689 \$ 8.811 2016 9 1.050 9 1.072 9 1.072 \$ 967	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 13 537 \$ 2,808 \$ 9.311 2017 11 130 - 11 819 \$ 1,154	12,579 546,905 10.826 \$ 24,831 5 1.974 2018 #DIV/01 \$	570,700 10 827 \$ 26,213 \$ 1,997 2019 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 103 11 825 \$ 951	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 - 13.548 \$ 2,774 \$ 9.296 2020 9 101 - 11.916 \$ 952	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 - 13 566 \$ 2,418 \$ 9,579 2021 - 13 566 \$ 2,418 \$ 9,579 - 2021 - 1 764 \$ 1,020	13,309 578,646 10.829 \$ 27,509 \$ 2,067 2022 37 507 13.552 \$ 5,009 \$ 9.875 2022 9 .875 2022 9 .875 1.1,552 1.1,552 \$ 1,053	13,356 580,686 10,829 \$ 27,940 \$ 2,092 2023 202 297 - 13,555 \$ 3,095 \$ 10,434 2023 9 107 - 1789 \$ 1,085
Reid ST EnütyName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13 510 \$ 1,473 \$ 8.576 2015 9 104 - 11 831	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13,560 \$ 2,689 \$ 8.811 2016 9 110 - 11.772	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 302 302 302 302 302 302	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ 2018 10 125 11.901 \$ 1,127 \$ 9.044	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 10 3 11 825 \$ 951 \$ 9,204	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 298 3.548 \$ 2,774 \$ 9.296 2020 9 101 - 11.916	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 5 13 566 \$ 2,418 \$ 9,579 2021 9 2021 9 10 6 11 764	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 222 297 - 13 555 \$ 3,095 \$ 10,434 2022 9 10,734 - 11 789
Reid ST EnUtyName Reid GT	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu)	543,527 10 827 \$ 23,877 \$ 1.910 2015 13 172 	13,115 570,214 10.826 \$ 25,312 \$ 1.930 2016 23 305 - 13.560 \$ 2,689 \$ 8.811 2016 9 1.050 9 1.072 9 1.072 \$ 967	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 13 537 \$ 2,808 \$ 9.311 2017 11 130 - 11 819 \$ 1,154	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ 2018 10 125 11.901 \$ 1,127 \$ 9.044	570,700 10 827 \$ 26,213 \$ 1,997 2019 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 103 11 825 \$ 951	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 - 13.548 \$ 2,774 \$ 9.296 2020 9 101 - 11.916 \$ 952	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 - 13 566 \$ 2,418 \$ 9,579 2021 - 13 566 \$ 2,418 \$ 9,579 - 2021 - 1 764 \$ 1,020	13,309 578,646 10.829 \$ 27,509 \$ 2,067 2022 37 507 13.552 \$ 5,009 \$ 9.875 2022 9 .875 2022 9 .875 1.1,552 1.1,552 \$ 1,053	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2022 297 - 13 555 \$ 3,095 \$ 10.434 2022 9 10.7 1789 \$ 1,085
Reid ST EntityName Reid GT EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost(\$000) Fuel cost(S000) Heat Rate Fuel cost(\$000) Fuel cost(\$000) Fuel Cost per MMBTu	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13.510 \$ 1,473 \$ 8.576 2015 9 104 - 11.831 \$ 902 \$ 8.650 2015	13,115 570,214 10.826 \$ 25,312 \$ 25,312 23 305 13,560 \$ 2,689 \$ 8.811 2016 9 110 2016 9 110 2016 9 11.772 \$ 967 \$ 8,749	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808 \$ 9,311 2017 11 819 \$ 1,154 \$ 8,890 2017	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ 10 125 11.901 \$ 1,127 \$ 9.044	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 103 11 825 \$ 951 \$ 9,204 2019	574,991 10.825 \$ 26,688 \$ 2.018 28 298 298 298 298 298 298 298 298 299 13.548 \$ 2,774 \$ 9.296 2020 9 101 11.916 \$ 952 \$ 9.390	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 5 2021 13 566 \$ 2,418 \$ 9,579 2021 9 106 5 2021 9 106 5 2021 9 106 5 2021 2021 2021	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9 106 - 11.935 \$ 1,053 \$ 9.896 2022	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 22 297 - 13 555 \$ 3,095 \$ 10,434 2022 9 10,73 - 11 789 \$ 1,085 \$ 10,168 2023
Reid ST EnUtyName Reid GT	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost per MMBTu Generation(GWh)	543,527 10 827 \$ 23,877 \$ 1.910 2015 13 172 - 13 510 \$ 1,473 \$ 8.576 2015 9 104 - 11 831 \$ 902 \$ 8.650 2015 1,957	13,115 570,214 10.826 \$ 25,312 \$ 25,312 2016 23 3005 - 13.560 \$ 2,689 \$ 8.811 2016 9 110 - 11.772 \$ 967 \$ 8.749 2016 1,782	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 13 537 \$ 2,808 \$ 9.311 2017 11 130 - 11 819 \$ 1,154 \$ 8.890 2017 1,940	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/0! \$ #DIV/0! \$ 2018 10 125 11.901 \$ 1,127 \$ 9.044 2018 1,797	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 10 3 11 825 \$ 951 \$ 9,204 2019 1,955	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 13.548 \$ 2,774 \$ 9.296 2020 9 101 11.916 \$ 952 \$ 9.390 2020 1,822	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9 875 2022 9 875 - 11.935 \$ 1,053 \$ 9.896 2022 1,635	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2022 297 - 13 555 \$ 3,095 \$ 10.434 2022 9 107 - 11 789 \$ 10.85 \$ 10.168 2022 1,938
Reid ST EnUtyName Reid GT EnUtyName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost (\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost (\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost (\$000) Fuel Cost per MMBTu Generation(GWh) Fuel Cost per MMBTu	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 13 172 - 13 5 1,473 \$ 8.576 2015 9 104 - 11 831 \$ 902 \$ 8.650 2015 1,957 21,520	13,115 570,214 10,826 25,312 \$ 25,312 \$ 1,930 2016 23 305 - 13,560 \$ 2,689 \$ 2,689 \$ 2,689 \$ 2,689 \$ 2,689 \$ 2,689 \$ 2,689 \$ 2,016 9 110 - 11,772 \$ 967 \$ 8,749 2016 1,782 19,586	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808 \$ 9,311 2017 11 130 - 11 819 \$ 1,154 \$ 8,890 2017 1,940 21,325	12,579 546,905 10,826 \$ 24,831 \$ 1.974 2016 #DIV/0I \$ #DIV/0I \$ #DIV/0I \$ #DIV/0I \$ 11.901 125 	570,700 10 827 \$ 26,213 \$ 1,997 2019 24 318 - 13 531 \$ 2,943 \$ 9,251 2019 9 103 - 11 825 \$ 951 \$ 9,204 2019 1,955 21,497	574,991 10.825 \$ 26,688 \$ 2.018 2020 222 298 13.548 \$ 2,774 \$ 9.296 2020 9 101 5 9.296 101 \$ 9.296 9 101 1.916 \$ 9.390 2020 1,822 20,022	11,565 502,839 10 829 23,628 \$ 2,043 2021 19 252 - 13 566 \$ 2,418 \$ 9,579 2021 9 106 - 11 764 \$ 1,020 \$ 9,646 2021 1,947 21,406	13,309 578,646 10.829 \$ 27,509 \$ 2.067 \$ 2.067 \$ 2.067 \$ 2.067 \$ 2.022 37 507 - - 13.552 \$ 5,009 \$ 9.875 \$ 9.875 \$ 2022 9 106 - - - 11.935 \$ 1,053 \$ 9.896 \$ 2,053 \$ 17,969	13,356 580,686 10 829 \$ 27,940 \$ 2.092 202: 222 297 - 13 555 \$ 3,095 \$ 10.434 202: 9 107 - 11 789 \$ 1,085 \$ 10.168 202: 1,938 21,301
Reid ST EnUtyName Reid GT EnUtyName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13.510 \$ 1,473 \$ 8.576 2015 9 9 104 - 11.831 \$ 902 \$ 8.650 2015 1,957 21,520 1,075,977	13,115 570,214 10,826 \$ 25,312 \$ 25,312 23 305 - 13,560 \$ 2,689 \$ 8,811 2016 9 110 - 11,772 \$ 967 \$ 8,749 2016 1,782 19,586 979,276	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808 \$ 9.311 2017 11 130 - 11 819 \$ 1,154 \$ 8.890 2017 1,940 2017 1,940 - 1,940 - - - - - - - - - - - - -	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ 11.901 \$ 1,127 \$ 9.044 2018 1,797 19,754 987,704	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 9 103 11 825 \$ 951 \$ 9,204 2019 1,955 \$ 2,1,497 1,074,845	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 298 298 298 298 298 298 299 13.548 \$ 2,774 \$ 9.296 2020 9 101 11.916 \$ 9.52 \$ 9.390 2020 1,822 20,022 1,001,121	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021 2021 19 252 - 13 566 \$ 2,418 \$ 9,579 2021 2021 9 106 \$ 9,646 2021 1,947 21,406 1,070,298	13,309 578,646 10.829 \$ 27,509 \$ 2,067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9 1065 \$ 1,053 \$ 9.896 2022 1,635 17,969 898,461	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 222 297 - 13 555 \$ 3,095 \$ 10.434 2027 9 107 - 11 789 \$ 1,085 \$ 10.168 2022 1,938 21,301 1,065,074
Reid ST EntityName Reid GT EntityName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost per MMBTu	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13.510 \$ 1,473 \$ 8.576 2015 9 104 - 11.831 \$ 902 \$ 8.650 2015 1,957 21,520 1,075,977 10.997	13,115 570,214 10.826 \$ 25,312 \$ 25,312 23 305 13,560 \$ 2,689 \$ 8.811 2016 9 110 2016 9 110 11,772 \$ 967 \$ 8,749 2016 1,782 19,586 979,276 10,991	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 - 13 537 \$ 2,808 \$ 9.311 2017 11 819 \$ 1,154 \$ 8.890 2017 11 819 \$ 1,154 \$ 8.890 2017 1,940 21,325 1.056,246 10.994	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ 2018 10 125 1.904 125 1.904 2018 10,904 2018 10,905 1	570,700 10 827 \$ 26,213 \$ 1,997 24 318 - 13 531 \$ 2,943 \$ 9,251 2019 9 103 - 11 825 \$ 951 \$ 9,204 - 11 825 \$ 951 \$ 9,204 - 1,955 21,497 1,074,845 10 996	574,991 10.825 \$ 26,688 \$ 2.018 222 298 - 13.548 \$ 2,774 \$ 9.296 2020 9 10.1 11.916 \$ 952 \$ 9.390 2020 1,822 20,022 1,001,121 10.991	11,565 502,839 10 829 \$ 23,628 \$ 2,043 2021 19 252 13 566 \$ 2,418 \$ 9,579 2021 9 106 11 764 \$ 1,020 \$ 9,646 2021 1,947 21,406 1,070,298 10 995	13,309 578,646 10.829 \$ 27,509 \$ 2.067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9 9 106 - 11.935 \$ 1,053 \$ 9.896 2022 1,635 17,969 9898,461 10.993	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 22 297 - 13 555 \$ 3,095 \$ 10.434 2022 9 107 - 11 789 \$ 1,085 \$ 10.168 2022 1,938 2,1,301 1,065,074 10 993
Reid ST EnUtyName Reid GT EnUtyName	Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu Generation(GWh) Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	543,527 10.827 \$ 23,877 \$ 1.910 2015 13 172 - 13.510 \$ 1,473 \$ 8.576 2015 9 9 104 - 11.831 \$ 902 \$ 8.650 2015 1,957 21,520 1,075,977	13,115 570,214 10,826 \$ 25,312 \$ 25,312 23 305 - 13,560 \$ 2,689 \$ 8,811 2016 9 110 - 11,772 \$ 967 \$ 8,749 2016 1,782 19,586 979,276	577,757 10 827 \$ 25,939 \$ 1.952 2017 22 302 	12,579 546,905 10.826 \$ 24,831 \$ 1.974 2018 #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ 11.901 \$ 1,127 \$ 9.044 2018 1,797 19,754 987,704	570,700 10 827 \$ 26,213 \$ 1,997 24 318 13 531 \$ 2,943 \$ 9,251 2019 9 9 103 11 825 \$ 951 \$ 9,204 2019 1,955 \$ 2,1,497 1,074,845	574,991 10.825 \$ 26,688 \$ 2.018 2020 22 298 298 298 298 298 298 298 299 13.548 \$ 2,774 \$ 9.296 2020 9 101 11.916 \$ 9.52 \$ 9.390 2020 1,822 20,022 1,001,121	11,565 502,839 10 829 \$ 23,628 \$ 2.043 2021 2021 19 252 - 13 566 \$ 2,418 \$ 9,579 2021 2021 9 106 \$ 9,646 2021 1,947 21,406 1,070,298	13,309 578,646 10.829 \$ 27,509 \$ 2,067 2022 37 507 - 13.552 \$ 5,009 \$ 9.875 2022 9 1065 \$ 1,053 \$ 9.896 2022 1,635 17,969 898,461	13,356 580,686 10 829 \$ 27,940 \$ 2.092 2023 222 297 - 13 555 \$ 3,095 \$ 10.434 2027 9 107 - 11 789 \$ 1,085 \$ 10.168 2022 1,938 21,301 1,065,074

EntityName		2015	2016	2017	2018	2019	2020	2021	2022	2023
Green 2	Generation(GWh)	1,748	1,867	1,742	1,770	1,561	1,873	1,759	1,860	1,748
	Fuel used(GBtu)	19,425	20,750	19,355	19,675	17,344	20,816	19,543	20,674	19,424
	Coal(Tons)	971,248	1,037,522	967,733	983,764	867,178	1,040,808	977,149	1,033,688	971,204
	Heat Rate	11.110	11.115	11 112	11.114	11 113	11.117	11-113	11.115	11 112
	Fuel cost(\$000)	\$ 35,198	\$ 36,998	\$ 35,806	\$ 36,793	\$ 32,779	\$ 39,759	\$ 37,757	\$ 40,417	\$ 38,421
	Fuel Cost per MMBTu	\$ 1.812	\$ 1.783	\$ 1.850	\$ 1.870	\$ 1.890	\$ 1.910	\$ 1.932	\$ 1.955	\$ 1.978
		2015	2016	2017	2018	2019	2020	2021	2022	202
		2015	2016	2017	2018	2019	2020	2021	2022	202
Total	Generation(GWh)	12,826	12,863	12,445	12,831	12,541	12,791		12,856	12,771
	Fuel used(GBtu)	141,514	141,804	137,410	141,542	138,318	141,208	140,695	141,863	140,931
	Coal(Tons)	6,407,813	6,410,364	6,220,910	6,405,725	6,248,787	6,368,439	6,368,643	6,393,278	6,375,494
	Heat Rate	11.033	11.024	11.041	11.031	11 029	11.040	11 036	11.035	11 035
	Fuel cost(\$000)	\$ 262,013	\$ 264,171	\$ 261,135	\$ 269,508	\$ 268,560	\$ 276,781	\$ 278,705	\$ 286,444	\$ 286,469

EntityName		2008		2009		2010		2011		2012		2013		2014
D B Wilson 1	SO2(ktons)			9 932		11.292		10 397		10.836		10 144		10.852
	SO2 Emit Rate	#DIV/0!		0.585		0.585		0 585	j.	0.585		0 585		0.585
	SO2 cost(\$000)	\$	\$	1,390	\$	1,299	\$	9,025	\$		\$	8,876	\$	9,224
	NOx(ktons)		7.	0 384	ੁੱ	0.406	. T	1.092	1	1.070	Ŧ	0 998	्यः	1.072
	NOX Emit Rate		÷	0 023		0.021		0.061		0.058		0 05B		0.058
					1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999 - 1999	978	*		\$					
	NOx cost(\$000)	\$	\$	1,093	\$	978	\$	2,352	-	2,123	<u> </u>	1,897	\$	2,047
									÷.				194	
	Total Emissions Cost (\$000)	\$ -	\$	2,483	\$	2,277	\$	11,376	\$	11,637	\$	10,773	\$	11,271
	Emit Cost per MWh	#DIV/01	\$	0.62	\$	0.65	\$	3.62	\$	3,51	\$	3.41	\$	3.33
EntityName	I	2008		2009	1.4.4	2010		2011	1.1	2012		2013		201
HMPL 1	502(ktons)	112-122-12-12		2.014		2.173	-	1 884		2.133		2.061		2.171
	SO2 Emit Rate	#DIV/01		0 330		0.330		0 330		0.330	÷.	0 330		0.330
	SO2 cost(\$000)				\$	250	\$	1,635	\$	1,873		1,804	\$	1,849
	and the second second second second second second second second second second second second second second second	\$ -	\$		₹	0.201	. ?	0.488	1	0.542			7	0.557
	NOx(ktons)			0.198		1.14						0 521		
	NOx Emit Rate			0.032		0.031		0 086		0.084		0 083		0.08
	NOx cost(\$000)	r \$ 18484⊈9619	\$	580	\$	484	\$	1,052	\$	1,075	\$	990	\$	1,053
									344				110	산감기
	Total Emissions Cost (\$000)	\$ -	\$	862	\$	734	\$	2,688	\$.	2,948	\$	2,794	\$	2,898
	Emit Cost per MWh	#DIV/0!	\$	0.76	\$	0.60	\$	2.55	\$	2.47	s	2.42	\$	2.39
											:		1	
•••••				19 (19 (19 (19 (19 (19 (19 (19 (19 (19 (•			-			• • • • •		1	
EntityName	<u>i</u> i i i	2008		2009	123	2010	r	2011		2012		2013	İ.	201
	E()2(ktops)			2 272		2.117	<u> </u>	2 238	سسبا	1.959		2 228		2.114
HMPL 2	502(ktons)													
	SO2 Emit Rate	#DIV/0!		0 330		0.330		0.330	्रि	0.330	<u>.</u>	0 330		0.33(
	SO2 cost(\$000)	\$ -	\$	318	\$	243	\$	1,943	\$	1,720	Ş	1,949	\$	1,792
	NOx(ktons)	는 한 국가 한 것 같다. 한 한 것 같은 것 같은 것 ~~~~~~~~~~~~~~~~~~~~~~~~~~~		0 207		0.206		0 568		0.494		0 563		0.53
	NOx Emit Rate			0.030		0.032	ł.,	0 084	28	0.083		0.083		0.08
	NOx cost(\$000)	ं इ २२ सम्बद्ध संस्	\$	591	\$	496	5	1,224	\$	980	5	1,069	\$	1,01
		1201212				194469	2						100	1990
••••••	Total Emissions Cost (\$000)	\$ •	\$	909	\$	739	\$	3,167	\$	2,700	\$	3,018	\$	2,81
	Emit Cost per MWh	#DIV/0!	\$	0.72	\$	0.62	\$	2.53	\$	2.47	\$	2,42	\$	2.3
			-		-									
	dan dan dan dan dan dan dan dan dan dan	· · · · · · · · · · · · · · · · · · ·							1					
P-tib-lines		2008		2009		2010		2011		2012	<u> </u>	2013	÷	201
EntityName	L	2008					I				.		.	
Coleman 1	502(ktons)			0 733		0.730		0.677	-18	0.739	Ì	0 743		0.704
	SO2 Emit Rate	#DIV/0!		0 114		0.114		0 114	48,	0.114	(D 114		0.114
	502 cost(\$000)	\$ •	\$	103	5	84	\$	588	\$	649	\$	650	5	591
	NOx(ktons)			0 846		0.858		1 913	10	2,082		2.087		1.97
	NOx Emit Rate		• •	0 132		0.134	11	0 322		0.321		0 320		0.320
	NOx cost(\$000)	\$	\$	2,408	\$	2,067	\$	4,122	\$	4,134	\$	3,965	\$	3,77
		en andre andre a							1				1.1	
	Total Emissions Cost (\$000)	\$ -	\$	2,510	\$	2,151	\$	4,710	\$	4,783	\$	4,615	\$	4,37
	Emit Cost per MWh	#DIV/0!	7 \$	2,310	\$	1.80	ŝ	4.27	\$	3.98	5	3.82	\$	3.8
		<i>****</i>		2.30	, 1	1.00	÷	1.2.1	-			J.UL		3.0.
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					_		i.		-					
EntityName		2008		2009	<u>.</u>	2010	I	2011	1.1	2012	L	2013		201
						0.713		0 755		0.748				0.74
Coleman 2	SO2(ktons)	200 - 840-938		0 762	199							0712	말감감	
Coleman 2	502(ktons) SO2 Emit Rate	#DIV/01		0 762		0.114	1	0 114	203	0.114	lini (0712		0.11
Coleman 2		200 - 840-938	\$	A 4 10 10 10 10 10	\$	4 4 5 4 C	\$		\$		\$		\$	
Coleman 2	SO2 Emit Rate SO2 cost(\$000)	#DIV/01	\$	0 114 107	\$	0.114 82	\$	0 114 655	\$	0.114 656	\$	0.114 623	\$	63
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	#DIV/01	\$	0 114 107 0 873	\$	0.114 82 0.883	\$	0 114 655 2 134	\$	0.114 656 2.110	\$	0.114 623 2.005	\$	63 2.11
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate	#DIV/01	\$	0 114 107 0 873 0 131	\$ 4	0.114 82 0.883 0.141	\$	0 114 655 2 134 0 322	4	0.114 656 2.110 0.322	\$	0.114 623 2.005 0.321	\$	63 2.11 0.32
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	#DIV/01	\$ \$	0 114 107 0 873	\$	0.114 82 0.883	\$	0 114 655 2 134	\$	0.114 656 2.110	\$	0.114 623 2.005	\$	63 2.11 0.32
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	#DIV/01 \$	\$	0 114 107 0 873 0 131 2,487	\$	0.114 82 0.883 0.141 2,126	\$	0 114 655 2 134 0 322 4,599	\$	0.114 656 2.110 0.322 4,189	\$	0.114 623 2.005 0.321 3,810	\$	63 2.11 0.32 4,04
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000)	#DIV/01 \$ \$ \$	\$ \$	0 114 107 0 873 0 131 2,487 2,593	\$ \$	0.114 82 0.883 0.141 2,126 2,208	\$	0 114 655 2 134 0 322 4,599 5,254	A. 0. 4.	0.114 656 2.110 0.322 4,189 4,845	\$	0.114 623 2.005 0.321 3,810 4,433	5 5	63 2.11 0.32 4,04 4,67
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	#DIV/01 \$	\$	0 114 107 0 873 0 131 2,487	\$	0.114 82 0.883 0.141 2,126	\$	0 114 655 2 134 0 322 4,599 5,254	\$	0.114 656 2.110 0.322 4,189	\$	0.114 623 2.005 0.321 3,810 4,433	\$	63 2.11 0.32 4,04 4,67
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000)	#DIV/01 \$ \$ \$	\$ \$	0 114 107 0 873 0 131 2,487 2,593	\$ \$	0.114 82 0.883 0.141 2,126 2,208	\$	0 114 655 2 134 0 322 4,599 5,254	\$	0.114 656 2.110 0.322 4,189 4,845	\$	0.114 623 2.005 0.321 3,810 4,433	5 5	63 2.11 0.32 4,04 4,67
	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000)	#DIV/01 \$ 	\$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33	\$ \$	0,114 82 0.883 0.141 2,126 2,208 2,12	\$ \$ \$	0 114 655 2 134 0 322 4,599 5,254 4.77	\$ \$ \$	0.114 656 2.110 0.322 4,189 4,845 4,845 4.44	\$	0.114 623 2.005 0.321 3,810 4,433 4.27	\$ \$	63 2.11 0.32 4,04 4,67 4.2
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000)	#DIV/01 \$ \$ \$	\$ \$	0 114 107 0 873 0 131 2,487 2,593	\$ \$	0.114 82 0.883 0.141 2,126 2,208	\$ \$ \$	0 114 655 2 134 0 322 4,599 5,254	\$ \$ \$	0.114 656 2.110 0.322 4,189 4,845	\$	0.114 623 2.005 0.321 3,810 4,433	\$ \$	0.114 633 2.113 0.323 4,049 4,677 4.23 203
	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000)	#DIV/01 \$ 	\$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33	\$ \$	0,114 82 0.883 0.141 2,126 2,208 2,12	\$ \$ \$	0 114 655 2 134 0 322 4,599 5,254 4.77	\$ \$ \$	0.114 656 2.110 0.322 4,189 4,845 4,845 4.44	\$	0.114 623 2.005 0.321 3,810 4,433 4.27	\$ \$	63 2.11 0.32 4,04 4,67 4.2
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SD2(ktons)	#DIV/01 \$ 	\$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694	\$ \$	0.114 82 0.883 0.141 2,126 2,208 2,12 2010 0.755	\$ \$ \$	0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755	\$ \$ \$	0.114 656 2.110 0.322 4,189 4,845 4,845 4,44 2012 0.648	\$	0.114 623 2.005 0.321 3,810 4,433 4.27 2013 0.764	\$ \$	63 2.11 0.32 4,04 4,67 4.2 20 0.75
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate	#DIV/01 \$ 	\$	0.114 107 0.873 0.131 2,487 2,593 2.33 2009 0.594 0.114	\$ \$ \$	0.114 82 0.883 0.141 2,126 2,208 2.12 2010 0.755 0.114	\$	0 114 655 2 134 0 322 4,599 5,254 4,77 2011 0 755 0 114	\$ \$ 1	0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114	\$	0.114 623 2.005 0.321 3,810 4,433 4.27 2013 0.764 0.114	\$	63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 (ktons) SO2 Emit Rate SO2 cost(\$000)	#DIV/01 \$ 	\$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97	\$ \$	0.114 82 0.883 0.141 2,126 2,208 2,12 2010 0.755 0.114 87	\$	0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656	\$ \$ 1	0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114 569	\$	0.114 623 2.005 0.321 3,810 4,433 4.27 2013 0.764 0.114 668	\$	63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	#DIV/01 \$ 	\$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97 0 726	\$ \$ \$	0.114 82 0.863 0.141 2,126 2,208 2.12 2010 0.755 0.114 87 0.866	\$	0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138	\$ \$ 1	0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114 569 1.749	\$	0.114 623 2.005 0.321 3,810 4,433 4.27 2013 0.764 0.114 668 2.040	\$	63 2,11 0,32 4,04 4,67 4,2 20 0,75 0,11 64 2,03
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate	#DIV/01 \$ - \$ - #DIV/01 2008 #DIV/01 \$ -	\$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2,33 2009 0 694 0 114 97 0 726 0 119	\$	0.114 82 0.883 0.141 2,126 2,208 2,12 2010 0.755 0.114 87 0.866 0.131	\$	0 114 655 2 134 0 322 4,599 5,254 4,77 2011 0 755 0 114 656 2 138 0 323	\$ \$ 1	0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308	\$	0 114 623 2 005 0 321 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	#DIV/01 \$ 	\$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97 0 726	\$ \$ \$	0.114 82 0.863 0.141 2,126 2,208 2.12 2010 0.755 0.114 87 0.866	\$	0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138	\$ \$ 1	0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114 569 1.749	\$	0.114 623 2.005 0.321 3,810 4,433 4.27 2013 0.764 0.114 668 2.040		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	#DIV/01 \$	\$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2,33 2009 0 594 0 114 97 0 726 0 119 1,996	\$ \$ \$ \$ \$ \$ \$ \$ \$	0,114 82 0.883 0.141 2,126 2,208 2,12 2,208 2,12 0.755 0,114 87 0.866 0,131 2,085	\$	0 114 655 2 134 0 322 4,599 5,254 4,77 2011 0 755 0 114 656 2 138 0 323 4,608		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3,472	\$ \$ \$	0 114 623 2 005 0 321 3,810 4,433 4.27 2013 0.764 0 114 668 2 040 0 305 3,876	\$ 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 3,88
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx Kitt Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOX Emit Rate NOX cost(\$000) Total Operating Cost (\$000)	#DIV/01 \$ 	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2,33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079	\$ \$	0,114 82 0.883 0.141 2,126 2,208 2,12 2,208 2,212 0,755 0,114 87 0.866 0,131 2,085 34,895	\$	0 114 655 2 134 0 322 4,599 5,254 4,77 2011 0 755 0 114 4 656 2 138 0 323 4,608 35,958		0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719	\$	0 114 623 0 050 0 321 3,810 4,433 4.27 2013 0.764 0 114 668 2 040 0 305 3,876 41,125		63 2,11 0,32 4,04 4,67 4,2 20 0,75 0,11 64 2,03 0,30 3,88 27,42
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	#DIV/01 \$ - \$ - #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2,33 2009 0 594 0 114 97 0 726 0 119 1,996		0.114 82 0.883 0.141 2,126 2,208 2.12 2010 0.755 0.114 87 0.866 0.131 2,085 34,895 28,49		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35		0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719 32,10		0 114 623 2 0051 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33.24		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 3,88 27,42 22.3
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx Kitt Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOX Emit Rate NOX cost(\$000) Total Operating Cost (\$000)	#DIV/01 \$	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2,33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079		0,114 82 0.883 0.141 2,126 2,208 2,12 2,208 2,212 0,755 0,114 87 0.866 0,131 2,085 34,895		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35		0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719		0 114 623 2 005 0 321 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33.24		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 3,88 27,42 22.3
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	#DIV/01 \$ - \$ - #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2.33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079 27.61		0.114 82 0.883 0.141 2,126 2,208 2.12 2010 0.755 0.114 87 0.866 0.131 2,085 34,895 28,49		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264		0.114 656 2.110 0.322 4,189 4,845 4,44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719 32,10		0 114 623 0 321 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33.24		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 3,88 27,42 22.3 4,52
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000)	#DIV/01 \$	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079 2,761 2,093		0,114 82 0.883 0.141 2,126 2,208 2,12 2010 0.755 0,114 87 0.866 0.131 2,085 34,895 28,49 2,172		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719 32,10 4,041		0 114 623 2 005 0 221 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,24 4,544		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 3,88 27,42 22.3 4,52
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOX Emit Rate NOX cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000)	#DIV/01 \$	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079 2,761 2,093		0,114 82 0.883 0.141 2,126 2,208 2,12 2010 0.755 0,114 87 0.866 0.131 2,085 34,895 28,49 2,172		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719 32,10 4,041		0 114 623 2 005 0 221 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,24 4,544		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 3,88 27,42 22.3 4,52
EntityName Coleman 3	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOX Emit Rate NOX cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000)	#DIV/01 \$ - \$ - \$ - #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079 27.61 2,093 1.86		0,114 82 0.883 0.141 2,126 2,208 2.12 2010 0.755 0.114 87 0.866 0.131 2,085 34,895 28,49 2,172 1.77		0 114 655 2 134 0 322 4,599 5,254 4,77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264 4,30		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719 32,10 4,041 3.85		0 114 623 2 0051 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,24 4,544 3,67		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.75 0.11 64 2.03 0.30 2.7,42 2.2.3 4,52 3.6
EntityName Coleman 3	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOX Emit Rate NOX cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh	#DIV/01 \$ 	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2,33 2,33 2,593 2,33 0 694 0 114 97 0 726 0 119 1,996 31,079 27.61 2,093 1.86		0.114 82 0.883 0.141 2,126 2,208 2.12 2010 0.755 0.114 87 0.866 0.131 2,085 34,895 28,49 2,172 1.77 2010		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264 4,30		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3.472 33,719 32.10 4.041 3.85 2012		0 114 623 2 005 0 321 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,24 4,544 3,67 2013		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 0.30 0.30 0.30 0.30 0.30 0.30
EntityName Coleman 3	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOX cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh	#DIV/01 \$ - #DIV/01 2008 #DIV/01 \$ - \$ - \$ - #DIV/01 \$ - \$ - \$ #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079 2,7.61 2,093 1.86 2009 0 004		0,114 82 0.883 0,141 2,126 2,208 2,12 2010 0.755 0,114 87 0.866 0,131 2,085 34,895 28,49 2,172 1.77 2,2010 0,004		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264 4,30 2011 0 005		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719 32.10 4,041 3.85 2012 0.001		0 114 623 2 0051 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,24 4,544 3,67 2013 0 000		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 2.03 0.30 3,88 27,42 22.3 4,52 3.6 22,32 20 0.00
EntityName Coleman 3	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2(ktons) SO2 Emit Rate	#DIV/01 \$	\$	0 114 107 0 873 0 131 2,487 2,593 2,33 2,33 2,593 2,33 0 694 0 114 97 0 726 0 119 1,996 31,079 27.61 2,093 1.86		0,114 82 0.883 0.141 2,126 2,208 2,12 2,208 2,12 0,755 0,114 87 0,866 0,131 2,085 34,895 28,49 2,172 1,77 2,2010 0,004 4,500		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264 4,30 2011 0 005 0 021		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3.472 33,719 32.10 4,041 3.85 2012 0.001 0.004		0 114 623 0 05 0 321 3,810 4,433 4,27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,824 41,125 33,24 4,544 3,67 2013 0 000		63 2.11 0.32 4,04 4,67 4.2 20 0.75 0.11 64 4.2 0.30 3,88 27,42 22.3 4,52 3.6 27,42 22.3 6 0.00 0.000 0.000
EntityName	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOX cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh	#DIV/01 \$ - #DIV/01 2008 #DIV/01 \$ - \$ - \$ - #DIV/01 \$ - \$ - \$ #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	\$ \$ \$ \$ \$	0 114 107 0 873 0 131 2,487 2,593 2.33 2009 0 694 0 114 97 0 726 0 119 1,996 31,079 2,7.61 2,093 1.86 2009 0 004		0,114 82 0.883 0,141 2,126 2,208 2,12 2010 0.755 0,114 87 0.866 0,131 2,085 34,895 28,49 2,172 1.77 2,2010 0,004		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264 4,30 2011 0 005 0 021		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3,472 33,719 32.10 4,041 3.85 2012 0.001		0 114 623 0 2015 0 321 3,810 4,433 4.27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,24 4,544 3,67 2013 0 000 0 0001		633 2.11 0.322 4,044 4,67 4.2 200 0.75 0.11 64 4.2 0.30 3,888 27,422 22.3 3,68 27,422 22.3 3,68 20 0.000 0.000
EntityName Coleman 3	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2(ktons) SO2 Emit Rate	#DIV/01 \$	\$	0 114 107 0 873 0 131 2,487 2,593 2,33 2,593 2,33 0 694 0 114 97 0 726 0 119 1,996 31,079 27,61 2,093 1.86 2009 0 004 4 500		0,114 82 0.883 0.141 2,126 2,208 2,12 2,208 2,12 0,755 0,114 87 0,866 0,131 2,085 34,895 28,49 2,172 1,77 2,2010 0,004 4,500		0 114 655 2 134 0 322 4,599 5,254 4.77 2011 0 755 0 114 656 2 138 0 323 4,608 35,958 29,35 5,264 4,30 2011 0 005 0 021		0.114 656 2.110 0.322 4.189 4,845 4.44 2012 0.648 0.114 569 1.749 0.308 3.472 33,719 32.10 4,041 3.85 2012 0.001 0.004		0 114 623 0 05 0 321 3,810 4,433 4,27 2013 0 764 0 114 668 2 040 0 305 3,876 41,125 33,824 41,125 33,24 4,544 3,67 2013 0 000		63 2.11 0.32 4,04 4,67 4.2 20

	NOx cost(\$000)	`\$ _55552 ⊥ 525	\$	20	\$		\$	71	\$	58	\$	25	\$	56
	Total Emissions Cost (\$000)	\$ 33.5	\$	20	\$	0	\$	75	\$	59	\$	25	\$	57
	Emit Cost per MWh	#DIV/0!	\$	3.01	\$	0.03	\$	2.33	\$	2.05	\$	1.90	\$	1.95
	···· ··· ··· ···											· · · · · · · ·		• • • • • • • • • • •
EntityName		2008		2009	1.111	2010		2011		2012		2013	100	2014
Reid GT	SO2(ktons)	0000000000		-				-	1455			0.000	1.00	-
	SO2 Emit Rate	#DIV/01										0 001		
	SO2 cost(\$000)	\$	\$	0	\$	0	\$	0	\$	0	\$	0	\$	0
	NOx(ktons)			0.004		0.004		0 006		0.009		0 011		0.007
	NOx Emit Rate		·			0.150 9		0.150		0.150		0 150 22		0.150 14
	NOx cost(\$000)	14 10 10 10 10 10 10 10 10 10 10 10 10 10	\$	10	\$	9	\$	13	\$	17	\$	22	\$	14
************	Total Emissions Cost (\$000)	\$	\$	10	\$	9	\$	13	\$	17	\$	22	\$	14
	Emit Cost per MWh	#DIV/0!	\$	2.57	5	2.09	\$	1.93	\$	1.54	\$	1.48	\$	1.49
EntityName	· · · · · · · · · · · · · · · · · · ·	2008		2009		2010		2011		2012	-	2013		2014
Green 1	502(ktons)		_	2 133	jin i	1.929		2.089		1.972		2.066		1.771
	SO2 Emit Rate	#DIV/0!		0 195		0.195		0.195		0.195		0 195		0,195
	SO2 cost(\$000)	\$	Ş	299	\$	222	\$	1,813	\$	1,732	\$	1,807	\$	1,505
	NOx(ktons)			1 013		0.815		2 979		2.775		2 919		2.482
	NOx Emit Rate			0.093		0.082		0 278		0.274		0 276		0.273
	NOx cost(\$000)	21 \$ 1888667 - (819	\$	2,885	\$	1,964	\$	6,419	\$	5,508	\$	5,546	\$	4,738
	T-1-1 E-1-1-1 (4000)			2 103		5 100		0 333		7 740		7,354		6 744
	Total Emissions Cost (\$000) Emit Cost per MWh	\$ - #DIV/0!	\$	3,183	\$	2,186 1.21	\$	8,232 4.22	\$ 5	7,240 3.93	\$ \$	3.82	\$	6,244 3.78
	chine cost pes rivin	#01470;	<u>م</u>	1.05	<u> </u>	1.41	-	1.22	4				1	0,70
			:	2000				2011		10		2012		
EntityName Green 2	SO2(ktons)	2008		2009 1 888		2010 2.028		2011 1 738		2012 2.004	l	2013 1 911	L	2014
Gieen z	SO2 Emit Rate	#DIV/01		0.195		0.195		0 195		0.195		0.195	10	0.195
** ** * **************	SO2 cost(\$000)	\$ -	\$	264	\$	233	\$	1,508	5	1,760	\$	1,672	\$	1,718
* * • • •	NOx(ktons)			0 990		0.975		2.428		2.812		2.674		2.838
	NOx Emit Rate			0 102		0.094		0.273		0.274		0 273		0.274
	NOx cost(\$000)	\$ 20042000	\$	2,818	\$	2,348	\$	5,233	\$	5,582	\$	5,081	\$	5,418
	Total Emissions Cost (\$000)		\$	3,082	\$	2,581	\$	6,741	\$	7,341	5	6,753	\$	7,136
	Emit Cost per MWh	#DIV/0!	5	1.80	5	1.38	5	4.20	ŝ	3.97		3.83	\$	3.83
			ľ											
		2008	—	2009		2010	-	2011	1	2012	T	2013	<u>.</u>	2014
Total	SO2(ktons)	1. 1993 - 199	.	20.430		21.740	-	20 538	100	21,040		20 628		21.140
· · · · · · · · · · · · · · · · · · ·	502 Emit Rate	#DIV/0!		0 293		0.302		0 296		0.299		0 293		0.299
	SO2 cost(\$000)	\$ -	\$	2,860	\$	2,500	5	17,827	\$	18,473	\$	18,049	\$	17,969
	NOx(ktons)			5.248		5.212		13 779	12	13.672		13.832		13.642
	NOx Emit Rate			0.075		0.072		0 199		0.194	à.,	0 197		0.193
	NOx cost(\$000)		\$	14,886	\$	12,557	\$	29,693	5	27,138	\$	26,281	\$	26,042
	Total Emissions Cost (\$000)	666666666 2015-100€	\$	17,746	\$	15,057	\$	47,520	\$	45,612	\$	44,330	\$	44,012
	Emit Cost per MWh	#DIV/0!	\$	1.42	\$	1.16	\$	3.81	\$	3.60		3.47	\$	3.44
			Ś., .			599 C					4			
	SO2 Allowances (00D Tons)	52.487		52 487		52.487		52.487		52.487	ł., -	52.487		52.487
	502 Allowance Price per Ton	\$ 454	\$	140	\$	115	\$	434	\$	439	\$	438	\$	425
	502 Allowance Value (\$000)	\$ (23,829)	\$	(7,348)	\$		\$	(22,779)	\$		\$	(22,963)	\$	
	NOx Allowances (000 Tons)	4.799		4 799		4.799		11.398	<u>_</u>	11.398	<u>.</u>	11 398		11.398
	NOx Allowance Price per Ton NOx Allowance Value (\$000)	\$ 837 #DIV/0!	\$	700 (3,256)	\$	650 (3,024)	: .\$ \$	2,120 (23,465)	\$	1,951 (21,572)		1,909 (21,108)	\$	2,570 (28,415
	now new concertaine (4000)	T 0 4 7 / VS		(0,00)		((La) (02)				,,_00/		
		en de la competencia de la competen Competencia de la competencia 1		-244		÷				3		100		

EntityName	1	Γ	2015		2016		2017		2018		2019		2020		2021		2022		2023
D B Wilson 1	SO2(ktons)		10 326		10.883		9 522		10.861		10 321		10.867		10 345		10.945		10-303
	SO2 Emit Rate		0.585	-11	0.585		0 585	101	0.585		0 585	MB	0.585		0 585		0.585		0 585
	SO2 cost(\$000)	\$	8,694	\$	8,979	\$	7,208	\$	7,668	Ş	5,790	\$	4,488	\$	3,621	\$	3,305	\$	2,874
	NOx(ktons)		1.015	R.	1.073		D 934		1.074		1 016		1.076		1.017		1.083		1 014
	NOx Emit Rate		0 058		0.058		0 057		0.058	-	0 058		0.058		0 057		0.058		0 058
	NOx cost(\$000)	\$	1,898	\$	1,876	\$	1,517	\$	1,685	\$	1,534	\$	1,636	\$	1,548	\$	1,651	\$	1,548
															5.55				
	Total Emissions Cost (\$000) Emit Cost per MWh	\$	10,592 3.29	\$ \$	10,855 3.20	\$ \$	8,725 2.94	\$ \$	9,353 2.76	\$ \$	7,324 2.28	\$	6,124 1.81	\$	5,169 1.60	\$	4,957 1.45	\$	4,422
			2.23		3.40	3	6.97	7	6.70	-7	2,20	7	1.01	<u></u>	1.00		1.75	3	1,50
			•			:							* *	• •					
EntityName		L	2015	14	2016	L	2017		2018	L	2019	100	2020		2021	24 A	2022		202
HMPL 1	SO2(ktons)	ì	2 029		2,190		2 007		2.186		1 896		2,012		2 069		2.193		2 005
	SO2 Emit Rate	Į.,	0 330		0.330		0 330		0.330		0 330		0.330		0 330	94	0.330		0 330
	SO2 cost(\$000)	\$	1,709	\$	1,807	\$	1,519	\$	1,543	.\$.	1,064	\$	831	.\$		\$	662	\$	559
	NOx(ktons)		0.514		0.556		0 507		0.555		0.479	문항	0.510		0 524		0.556		0.505
	NOx Emit Rate		0.084		0.084	÷	0 083		0.084		0 083		0.084		0 084		0.084		0.083
	NOx cost(\$000)	\$	960	\$	972	\$	823	\$	870	\$	724	\$	775	\$	798	\$	847	\$	772
	Total Emissions Cost (\$000)	\$	2,669	\$	2,779	\$	2,342	\$	2,413	\$	1,787	\$	1,606	\$	1,522	\$	1,509	\$	1,331
••••••	Emit Cost per MWh	\$	2.35	\$	2.27	\$	2,08	\$	1.97	\$	1.68	\$	1,000	\$	1.31	5	1.23	\$	1.19
						j													
-						<u>.</u>												-	
EntityName	502(ktons)	I	2015	L	2016 2.126	I	2017 2 252		2018 2,087	I	2019 2 247		2020 1.915	L	2021 2.246		2022 2.135		202
HMPL 2		ļ	**** * * * * * * * * * * * * * * * * *	63															
	SO2 Emit Rate		0 330		0.330		0 330		0.330		0 330		0.330		0 330		0.330		0 330
	SO2 cost(\$000)	Ş.	1,909	\$	1,754	\$	1,704	\$	1,473	\$	1,261	\$	791	\$	786	7	645	÷	617
•	NOx(ktons)		0.572		0.537		0 569		0.526		0 569		0.484		0 568		0.539		0.560
	NOx Emit Rate NOx cost(\$000)		0.083		0.083 938		0 083	\$	0.083	\$	0 083 858	्र •	0.083 736		0 083 865	\$	0.083 821	\$	0.084 855
		\$	1,009	\$	230	\$	925	\$	825		000	\$	130	\$	003	7	0/1	ş	000
•••••••••••••••••••••••••••••••••••••••	Total Emissions Cost (\$000)	\$	2,978	\$	2,693	\$	2,629	\$	2,299	\$	2,119	\$	1,527	\$	1,651	\$	1,466	\$	1,473
• • • • • • • • • • • • • • • • • • • •	Emit Cost per MWh	\$	2.35	\$	2.26	\$	2.09	\$	1.97	\$	1.69	\$	1.43	\$	1.31	\$	1.23	\$	1.19
	.																		
		-		<u> </u>															
EntityName	CO2((4+++-)	<u> </u>	2015		2016	<u> </u>	2017		2018	Ļ	2019		2020		2021		2022		202
Coleman 1	SO2(ktons)	ļ.,	0 746		0.738	{	0 641		0.740	• • • •	0 746		0.704		0 737		0.738		0.698
	SO2 Emit Rate		0 114		0.114		0 114		0.114		0 114		0.114		0 114		0,114		0.114
· · · · · · · · · · · · · · · · · · ·	SO2 cost(\$000)	÷.9.	628	\$	609	\$	485	\$	523	\$	418	\$	291	\$	258	\$	223	\$	195
	NOx(ktons)	4	2 094	66	2.072		1 808		2.079	Į	2 092		1.976		2 071	<u></u>	2.074		1 968
	NOx Emit Rate NOx cost(\$000)	\$	0 320 3,913	\$	0.320 3,622	\$	0 322 2,938	\$	0.320 3,263	\$	0 320 3,159	\$	0.320 3,005	\$	0 320 3,154	5	0.320 3,162	\$	0 321 3,005
	140X C031(\$0007	÷.	<u></u>		5,042	-		<u> </u>				- 4	3,003	4		:	JILUL	7	5,000
	Total Emissions Cost (\$000)	\$	4,541	\$	4,231	\$	3,423	\$	3,785	\$	3,577	\$	3,296	\$	3,412	\$	3,385	\$	3,201
	Emit Cost per MWh	\$	3.74	\$	3.53	\$	3.29	\$	3.14	\$	2.95	\$	2.88	\$	2.85	\$	2.82	\$	2.82
						-									÷ •				
		<u> </u>	2015	1.00	2016	-	2017		2018	1	2019	: \\	2020		2021		2022		202
EntityName	1								0.764		0 710	100					the of Sector		0.765
EntityName Coleman 2	SO2(ktops)	1		12.53		1		12.00				0 V V	: U./bb		0 763		0.724	i .	
EntityName Coleman 2	SO2(ktons) SO2 Emit Rate		0 762		0.662		0 765					1993	0.766		0 763		0.724		0 114
	SO2 Emit Rate	Ś	0 762 0 114	\$	0.662 0.114	\$	0 765 0 114	\$	0.114	\$	0 114	\$	0.114	\$	0 114	\$	0.114	ŝ	
	SO2 Emit Rate SO2 cost(\$000)	\$	0 762 0 114 641	\$	0.662 0.114 547	\$	0 765 0 114 579	\$	0.114 539	Ş	0 114 398	\$	0.114 317	\$	0 114 267	\$	0.114 219	\$	213
	SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$	0 762 0 114 641 2 147	\$	0.662 0.114 547 1.877	\$	0 765 0 114 579 2 148	\$	0.114 539 2.148	Ş	0 114 398 1 998	\$	0.114 317 2.156	\$	0 114 267 2 152	\$	0.114 219 2.041	\$	213 2 148
	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate	\$	0 762 0 114 641	\$	0.662 0.114 547 1.877 0.323	\$ \$	0 765 0 114 579 2 148 0 320	\$	0.114 539 2.148 0.321	\$	0 114 398 1 998 0 321	\$	0.114 317 2.156 0.321	\$ \$	0 114 267 2 152 0 322	\$	0.114 219 2.041 0.321	\$ \$	213 2 148 0 320
	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000)	\$	0 762 0 114 641 2 147 0 321 4,012	\$	0.662 0.114 547 1.877 0.323 3,280	\$	0 765 0 114 579 2 148 0 320 3,491	\$	0.114 539 2.148 0.321 3,370	\$	0 114 398 1 998 0 321 3,018	\$	0.114 317 2.156 0.321 3,280	\$	0 114 267 2 152 0 322 3,278	\$	0.114 219 2.041 0.321 3,113	\$	213 2 146 0 320 3,277
	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$00D)	\$	0 762 0 114 641 2 147 0 321 4,012 4,654	\$	0.662 0.114 547 1.877 0.323 3,280 3,827	\$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069	\$	0.114 539 2.148 0.321 3,370 3,909	\$	0 114 398 1 998 0 321 3,018 3,416	\$	0.114 317 2.156 0.321 3,280 3,596	\$ \$	0 114 267 2 152 0 322 3,278 3,545	\$	0.114 219 2.041 0.321 3,113 3,331	\$ \$	213 2 146 0 320 3,277 3,490
	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000)	\$	0 762 0 114 641 2 147 0 321 4,012	\$	0.662 0.114 547 1.877 0.323 3,280	\$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65	\$ \$ \$	0.114 539 2.148 0.321 3,370	\$	0 114 398 1 998 0 321 3,018	\$	0.114 317 2.156 0.321 3,280	\$	0 114 267 2 152 0 322 3,278 3,545 3,19	\$ \$ 5	0.114 219 2.041 0.321 3,113 3,331 3,331 3.15	\$	0 114 213 2 146 0 320 3,277 3,490 3,13
	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$00D)		0 762 0 114 641 2 147 0 321 4,012 4,654 4.19	\$ \$\$	0.662 0.114 547 1.877 0.323 3,280 3,827 3,96	\$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65	\$	0.114 539 2.148 0.321 3,370 3,909	\$	0 114 398 1 998 0 321 3,018 3,416 3,30	\$	0.114 317 2.156 0.321 3,280 3,596 3,22	\$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19	\$	0.114 219 2.041 0.321 3,113 3,331 3,15	\$ \$	213 2 146 0 320 3,277 3,490 3,13
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh		0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015	\$ \$\$	0.662 0.114 547 1.877 0.323 3,280 3,827 3,96 2016	\$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017	\$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018	\$	0 114 398 1 998 0 321 3,018 3,416 3.30 2019	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020	\$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19 2021	\$ \$ 5	0.114 219 2.041 0.321 3,113 3,331 3.15 2022	\$ \$	213 2 146 0 320 3,277 3,490 3.13 202
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$00D) Emit Cost per MWh SO2(ktons)		0 762 0 114 641 2 147 0 321 4,012 4,654 4.19 2015 0 713	\$ \$\$	0.662 0.114 547 1.877 0.323 3,280 3,827 3,96 2016 0.748	\$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757	\$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717	\$	0 114 398 1 998 0 321 3,018 3,416 3.30 2019 0,748	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754	\$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0 659	\$ \$ 5	0.114 219 2.041 0.321 3,113 3,331 3.15 2022 0.759	\$ \$	213 2 146 0 320 3,277 3,490 3,13 202 0.761
Coleman 2 EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate		0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114	\$ \$ \$	0.662 0.114 547 1.877 0.323 3,280 3,827 3.96 2016 0.748 0.114	\$ \$ [0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757 0 114	\$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114	\$ \$ 1	0 114 398 1 998 0 321 3,018 3,416 3.30 2019 0.748 0.114	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114	\$ \$ [0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0 659 0 114	\$	0.114 219 2.041 0.321 3,113 3,331 3.15 2022 0.759 0.114	\$ \$ [213 2 146 0 320 3,277 3,490 3,13 202 0.761 0 114
Coleman 2 EntityName	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000)		0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600	\$ \$ \$	0.662 0.114 547 0.323 3,280 3,827 3.96 2016 0.748 0.114 617	\$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757 0 114 573	\$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114 506	\$ \$ 1	0 114 398 1 998 0 321 3,018 3,416 3.30 2019 0.748 0 114 420	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311	\$ \$ [0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0,659 0 114 231	\$	0.114 219 2.041 0.321 3,113 3,331 3.15 2022 0.759 0.114 229	\$ \$ [213 2 146 0 320 3,277 3,490 3,13 202 0.76 0 114 212
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$ 	0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600 1 907	\$ \$ \$	0.662 0.114 547 1.877 0.323 3,280 3,827 3.96 2016 0.748 0.114 617 2.005	\$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757 0 114 4 573 2 030	\$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114 506 1.922	\$	0 114 398 1 998 0 321 3,018 3,416 3.30 2019 0 748 0 114 420 2.007	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023	\$ \$ [0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0,659 0 114 231 1 773	\$	0.114 219 2.041 0.321 3,133 3,331 3.15 2022 0.759 0.114 229 2.028	\$ \$ [21: 2 14(0 32(3,27) 3,49(3,1) 202 0.76 0 114 211 2 039
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate	\$ I \$	0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600 1 907 0 305	\$ \$	0.662 0.114 547 1.877 0.323 3,280 3,827 3.96 2016 0.748 0.114 617 2.005 0.306	\$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757 0 114 573 2 030 0 306	\$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 0.717 0.114 506 1.922 0.306	\$ \$	0 114 398 1 998 0 321 3,018 3,416 3,30 2019 0,748 0,114 420 2,007 0,306	\$ \$ \$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306	\$ \$ •	0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0 659 0 114 231 1 773 0 307		0.114 219 2.041 0.321 3,113 3,331 3.15 2022 0.759 0.114 229 2.028 0.305	\$	212 2 14(0 32(3,277 3,49(3,12 202 0 76 0 114 212 2 039 0 309
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$ 	0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600 1 907	\$ \$	0.662 0.114 547 1.877 0.323 3,280 3,827 3.96 2016 0.748 0.114 617 2.005	\$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757 0 114 4 573 2 030	\$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114 506 1.922	\$ \$	0 114 398 1 998 0 321 3,018 3,416 3.30 2019 0 748 0 114 420 2.007	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023	\$ \$ [0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0,659 0 114 231 1 773	\$	0.114 219 2.041 0.321 3,133 3,331 3.15 2022 0.759 0.114 229 2.028	\$	213 2 146 0 320 3,277 3,490 3,13 202 0.76
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx Ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$00D) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx Ktons) NOx Emit Rate NOx cost(\$000)	\$ 	0 762 0 114 641 2 147 0 321 4,654 4,19 2015 0 713 0 114 600 1 907 0 305 3,564	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.662 0.114 547 0.323 3,280 3,827 3.96 2016 0.748 0.114 617 2.005 0.306 3,504	\$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 114 573 2 030 0 306 3,299	\$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 0.717 0.114 506 1.922 0.306 3,016	\$	0 114 398 1 998 0 321 3,018 3,416 3,30 2019 0 748 0 114 420 2 007 0 306 3,031	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077	\$ \$ { \$	0 114 267 2 152 3,278 3,545 3,19 2021 0,659 0 114 231 1 773 0 307 2,700		0.114 219 2.041 0.321 3,113 3,331 3.15 2022 0.759 0.114 229 0.759 0.114 229 2.028 0.305 3.093	\$	213 2 146 0 320 3,277 3,490 3,13 202 0 76 0 114 212 2 035 0 309 3,113
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$ I \$	0 762 0 114 641 2 147 0 321 4,012 4,654 4.19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053		0.662 0.114 547 1.877 0.323 3,280 3,827 3,96 0.748 0.114 617 2.005 0.306 3,504 27,631	\$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 157 0 757 0 157 2 030 0 306 3,299 28,342	\$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3.370 3.909 3.51 0.717 0.114 506 1.922 0.306 3.016 27,248	\$	0 114 398 1 998 0 321 3,018 3,416 3,30 2019 0 748 0 114 420 2,007 0 306 3,031 28,771	\$ \$ \$	0.114 317 2.156 0.321 3.280 3.596 3.22 2020 0.754 0.114 311 2.023 0.306 3.077 29,337	\$ \$ \$	0 114 267 2 152 3,278 3,545 3,19 2021 0 659 0 114 231 1 773 0 307 2,700 26,304		0.114 219 2.041 3,113 3,331 3.15 2022 0.759 0.154 2.028 0.305 3,093 30,261	\$	212 2 146 0 320 3,277 3,490 3,12 202 0 761 0 114 212 2 033 0 300 3,112 30,83
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 (kitons) SO2 Emit Rate SO2 cost(\$000) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ \$ \$	0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053 22 56	\$ 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0.662 0.114 547 1.877 0.323 3,280 3,827 3.96 2016 0.748 0.114 617 2.005 0.306 3,504 27,631 22,81	\$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 23,09	\$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114 506 1.922 0.306 3,016 27,248 23,45	\$ \$ \$	0 114 398 0 321 3,018 3,416 3.30 2019 0.748 0.114 420 2.007 0.306 3,031 28,771 23,73	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077 29,337 24,02	\$ \$ \$ \$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0,659 0 114 231 1 773 0 307 2,700 26,304 24,63		0.114 219 2.041 0.321 3,113 3,331 3.15 2022 0.759 0.114 229 2.028 0.305 3,093 30,261 24.62	\$ \$ \$	211 2 146 0 322 3,277 3,490 3,11 202 0 76 0 114 212 2 035 0 301 3,11 30,833 25 00
Coleman 2 EntityName	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000)	\$	0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053 22,56 4,164		0.662 0.114 547 1.877 0.323 3,280 3,827 3.96 0.748 0.114 617 2.005 0.306 3,504 27,631 22,81 4,121	\$ \$ \$ \$ \$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 23,09 3,872		0.114 539 2.148 0.321 3,370 3,909 3.51 0.717 0.114 506 1.922 0.306 3,016 27,248 23,45 3,522	* * *	0 114 398 0 321 3,018 3,416 3.30 2019 0 748 0 114 420 2,007 0 306 3,031 28,771 23,73 3,450		0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077 29,337 24.02 3,388	\$ \$ \$ \$ \$ \$	0 114 267 2 152 3,278 3,545 3,19 2021 0,659 0 114 237 0 307 2,700 26,304 24,63 2,931		0.114 219 2.041 0.321 3.133 3.35 2022 0.759 0.114 229 2.028 0.305 3.093 30,261 24.62 3,322	s s s	211 2 144 0 322 3,27 3,49 3,1 202 0 76 0 114 211 2 033 0 301 3,11 30,83 25.0 3,32
Coleman 2	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2 Emit Rate SO2 (kitons) SO2 Emit Rate SO2 cost(\$000) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ \$ \$	0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053 22 56	\$ 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	0.662 0.114 547 1.877 0.323 3,280 3,827 3.96 2016 0.748 0.114 617 2.005 0.306 3,504 27,631 22,81	\$ \$ \$ \$ \$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 23,09	\$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114 506 1.922 0.306 3,016 27,248 23,45	\$ \$ \$	0 114 398 0 321 3,018 3,416 3.30 2019 0.748 0.114 420 2.007 0.306 3,031 28,771 23,73	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077 29,337 24,02	\$ \$ \$ \$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0,659 0 114 231 1 773 0 307 2,700 26,304 24,63		0.114 219 2.041 3,113 3,331 3.15 2022 0.759 0.114 229 2.028 0.305 3,093 30,261 24.62	\$ \$ \$	211 2 144 0 322 3,27 3,49 3,1 202 0 76 0 114 211 2 033 0 301 3,11 30,83 25.0 3,32
Coleman 2 EntityName Coleman 3	SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000)	\$	0 762 0 114 641 2 147 0 321 4,012 4,654 4.19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053 22 56 4,164 3.61		0.662 0.114 547 1.877 0.323 3,280 3,827 3,96 0.748 0.114 617 2.005 0.306 3,504 27,631 22,81 4,121 3.40	\$ \$ \$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3.65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 23,09 3,872 3,15	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 0.717 0.114 506 1.922 0.306 3,016 27,248 23.45 3,522 3.03	\$	0 114 398 0 321 3,018 3,416 3.30 2019 0,748 0,114 420 2,007 0,306 3,031 28,771 23,73 3,450 2,85	\$ \$ \$ \$ \$ \$ \$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077 29,337 24.02 3,388 2.77	\$ \$ \$ \$ \$ \$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0,659 0 114 231 1 773 0 307 2,700 26,304 24,63 2,931 2,74		0.114 219 2.041 3,113 3,331 3.15 2022 0.759 0.114 229 2.028 0.305 3,093 30,261 24.62 3,322 2.70	s s s s s s s s s s s s s s s s s s s	21: 2 144 0 32(3,277 3,490 3,11 202 0 766 0 114 21: 2 033 0 300 3,11 30,837 25,00 3,312 25,00 3,322 2,70
Coleman 2 EntityName Coleman 3 EntityName	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(kitons) SO2 Emit Rate SO2 cost(\$000) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh	\$	0 762 0 114 641 2 147 0 321 4,052 4,654 4,19 2015 0 713 0 305 3,564 26,053 22 56 4,164 3.61		0.662 0.114 547 1.877 0.323 3,280 3,827 3,96 0.748 0.114 617 2.005 0.306 3,504 27,631 22,81 4,121 3.40 2016	\$ \$ \$ \$ \$ \$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 23.09 3,872 3,15 2017	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 0.717 0.114 506 1.922 0.306 3,016 27,248 23,45 3,522	\$	0 114 398 0 321 3,018 3,416 3.30 2019 0.748 0.114 420 2.007 0.306 3,031 28,771 23.73 3,450 2.85	\$ \$ \$ \$ \$ \$ \$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077 29,337 24.02 3,388 2.77 2020	\$ \$ \$ \$ \$ \$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0,659 0 114 231 1 773 0 307 2,700 26,304 24,63 2,931 2,74 2021		0.114 219 2.041 0.321 3,113 3,331 3.15 2022 0.759 0.114 229 2.028 0.305 3,093 30,261 24.62 3,322 2.70 2022	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	211 2 14(0 32(3,27) 3,49(3,11) 2022 0.76(0 11(211) 2 033 0 309 3,111 30,83 25,00 3,32(2,7) 2022 2022
Coleman 2 EntityName Coleman 3	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh	\$	0 762 0 114 641 2 147 0 321 4,012 4,654 4,19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053 22,56 4,164 3,61 2015 0 000		0.662 0.114 547 0.323 3,280 3,827 3.96 0.748 0.114 617 2.005 0.306 3,504 27,631 22,631	\$ \$ \$ \$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 2 3,09 28,342 2 3,09 2,3,872 3,15 2017 0 001	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114 506 506 506 3,016 27,248 23,45 3,522 3.03 2016	\$	0 114 398 0 321 3,018 3,416 3.30 0 748 0 174 420 2,007 0 306 3,031 28,771 23,73 3,450 2,85 2019 0 0000	\$ \$ \$ \$ \$ \$ \$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077 29,337 24.02 3,388 2.77 2020 0.000	\$ \$ \$ \$ \$ \$ \$	0 114 267 2 152 0 322 3,278 3,545 3,19 2021 0 659 0 114 237 0 307 2,700 26,304 24,63 2,931 2,74 2021 0 000		0.114 219 2.041 0.321 3,133 3.35 2022 0.759 0.114 229 2.028 0.305 3.093 30,261 24.62 3,322 2.70 2022 0.002	\$ \$ \$ \$ \$ \$ \$ \$ \$	212 2 144 0 320 3,277 3,490 3,11 202 0 76 0 14 213 2 033 0 300 3,111 30,833 25,00 3,322 2,70 202 0 000
Coleman 2 EntityName Coleman 3 EntityName	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(kitons) SO2 Emit Rate SO2 cost(\$000) NOx(kitons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh SO2(kitons) SO2(kitons) SO2(kitons) SO2 Emit Rate	\$	0 762 0 114 641 2 147 0 321 4,654 4,19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053 22,56 4,164 3,61 2015 0,000 0 0003		0.662 0.114 547 0.323 3,280 3,827 3,96 0.748 0.114 617 2.005 0.306 3,504 27,631 2,6312 2,631 2,631 2,6	\$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 2 3,09 3,85 2030 0 3,65 2030 0 3,65 2037 0 114 573 2 030 0 306 3,299 28,342 2 3,05 2 3,15 2017 0 001 0 005	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 0.717 0.114 506 1.922 0.306 3,016 27,248 23.45 3,522 3.03	\$ \$ \$ \$ \$ \$	0 114 398 0 321 3,018 3,416 3,30 0 748 0 114 420 2,007 0 306 3,031 26,771 23,73 3,450 2,85 2019 0 0000	\$	0.114 317 2.156 0.321 3,280 3,596 3.22 0.754 0.114 311 2.023 0.306 3,077 29,337 24,02 3,388 2.77 2020 0.0000	\$ \$ \$ \$ \$ \$	0 114 267 2 152 3,278 3,545 3,19 2021 0,659 0 114 231 1 773 0 307 2,700 26,304 24,63 2,931 2,74 2021 0,000 0,003		0.114 219 2.041 0.321 3,113 3,331 3,15 2022 0.759 0.114 229 2.028 0.305 3.093 30,261 24.62 3.025 2.70 2022 0.002 0.006	\$ \$ \$	21: 2 14(0 32(3,27) 3,49(3,1) 2022 0 76(0 11(2033) 0 30(3,11) 30,033 25.0(3,32) 2.7(2.02) 0 30(0 30(0 30(3,11) 30,033 25.0(0 30(0))))))))))))))))))))))))))))))))))
Coleman 2 EntityName Coleman 3 EntityName	SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Emissions Cost (\$000) Emit Cost per MWh SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx Kitons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000) Emit Cost per MWh	\$	0 762 0 114 641 2 147 0 321 4,654 4,19 2015 0 713 0 114 600 1 907 0 305 3,564 26,053 22,56 4,164 3,61 2015 0,000 0 0003		0.662 0.114 547 0.323 3,280 3,827 3,96 0.748 0.114 617 2.005 0.306 3,504 27,631 2,6312 2,631 2,631 2,6	\$ \$ \$ \$ \$ \$	0 765 0 114 579 2 148 0 320 3,491 4,069 3,65 2017 0 757 0 114 573 2 030 0 306 3,299 28,342 2 3,09 28,342 2 3,09 2,3,872 3,15 2017 0 001	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	0.114 539 2.148 0.321 3,370 3,909 3.51 2018 0.717 0.114 506 506 506 3,016 27,248 23,45 3,522 3.03 2016	\$	0 114 398 0 321 3,018 3,416 3.30 0 748 0 174 420 2,007 0 306 3,031 28,771 23,73 3,450 2,85 2019 0 0000	\$ \$ \$ \$ \$ \$ \$	0.114 317 2.156 0.321 3,280 3,596 3.22 2020 0.754 0.114 311 2.023 0.306 3,077 29,337 24.02 3,388 2.77 2020 0.000	\$ \$ \$ \$ \$ \$	0 114 267 2 152 3,278 3,545 3,19 2021 0,659 0 114 231 1 773 0 307 2,700 26,304 24,63 2,931 2,74 2021 0,000 0,003		0.114 219 2.041 0.321 3,113 3,331 3,15 2022 0.759 0.114 229 2.028 0.305 3.093 30,261 24.62 3.025 2.70 2022 0.702 0.002	\$ \$ \$ \$ \$ \$ \$ \$ \$	212 2 144 0 320 3,277 3,490 3,11 202 0 76 0 14 213 2 033 0 300 3,111 30,833 25,00 3,322 2,70 202 0 000

	NOx cost(\$000)	\$	25	\$	40	\$	37	\$	15.15 - 163	\$	36	\$	34	\$	29	\$	60	\$	34
******	Total Emissions Cost (\$000)	\$	25	\$	40	\$	38	\$		\$	36	\$	34	\$	29	\$	6D	\$	34
	Emit Cost per MWh	\$	1.95	\$	1.79	\$	1.70		DIV/0!	\$	1.54	\$		\$	1.56	\$	1.60	\$	1.55
			••••••							•							-		
EntityName			2015	1.5	2016		2017		2018		2019	1.1.1	2020		2021		2022		2023
Reld GT	SO2(ktons)	ļ	.		88382							18	승규는 물건						
	SO2 Emit Rate		·			<u>.</u> .								5					, î î
	502 cost(\$000)	\$	0	\$	0	. \$.	0	\$	0	\$	0	÷	0	\$	0	\$	0	\$	
	NOx(ktons)		0 007		0.007		0 009		0.008		0 007		0.007		0 007		0.007		0.007
	NOx Emit Rate NOx cost(\$000)		0 150		0.150		0 150	\$	0.150		0.150	\$	0.150		0 150	\$	0.150 11	\$	0.150
	NOX COSI(\$000)	\$	13	\$	13	\$	14	3	13	\$	10	2	10	\$	11	?			11
	Total Emissions Cost (\$000)	\$	13	\$	13	\$	14	\$	13	\$	10	\$	10	\$	11	\$	11	¢	11
	Emit Cost per MWh	: ? : \$	1.45	ŝ	1.35	<u>े</u>	1.26	5	1.23	.₹ 5	1.17	3	1.18	₹ 5	1.18	7 5	1.19	\$	1.19
	cant cost per nivit		1.40	:	1.33	7	1.20		1,23	7	1.17	3	1,10	?	1.10	4	1.15	2	1.13
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EntityName			2015		2016		2017		2018		2019		2020		2021	100	2022		2023
Green 1	SO2(ktons)		2 098		1.910		2 079		1.926		2 096		1.952		2 087		1.752		2 077
·,.	SO2 Émit Rate		0 195		0.195		0 195	82	0.195		0 195		0.195		0 195		0.195		0 195
	SO2 cost(\$000)	\$	1,767	\$	1,576	\$	1,574	\$	1,360	\$	1,176	\$	806	\$		\$	17-1-1-1	\$	579
	NOx(ktons)	J	2 955		2.695		2 934		2.700		2 955		2.754		2.944		2.462		2 935
	NOx Emit Rate		0.275		0.275		0 275		0.273		0.275		0.275		0 275		0.274		0 276
	NOx cost(\$000)	\$	5,522	\$	4,711	\$	4,767	\$	4,236	\$	4,462	\$	4,189	\$	4,484	\$	3,755	\$	4,482
		İ							2838-84		· · · · · ·	20	물감구하려						
	Total Emissions Cost (\$000)	\$	7,289	\$	6,286	5	6,341	5	5,596	\$	5,637	\$	4,995	\$	5,215	\$	4,284	\$	5,061
	Emit Cost per MWh	\$	3.72	\$	3.53	\$	3.27	\$	3.11	\$	2.88	\$	2.74	\$.	2.68	\$	2.62	\$	2.61
EntityName		1	2015	1.11	2016		2017		2018		2019		2020		2021	- 1 -	2022		2023
Green 2	SO2(ktons)	1	1 894		2.023		1 887		1.919		1 691		2.030		1.906		2.016		1 894
	SO2 Emit Rate	1	0 195		0.195		0.195		0.195		0 195		0.195		0 195		0.195		0.195
	502 cost(\$000)	\$	1,595	\$	1,669	\$	1,429	\$	1,354	\$	949	\$	838	\$	667	\$	609	\$	528
	NOx(ktons)	Ì.,	2 657	10	2.835		2.643		2.702		2.36B		2.847		2.671		2.83B		2.662
	NOx Emit Rate		0 274		0.273		0.273		0.275		0 273	ŝŔ	0.274		0 273		0.275		0.274
	NOx cost(\$000)	\$	4,966	\$	4,955	\$	4,294	\$	4,239	\$	3,576	5	4,331	\$	4,068	\$	4,327	\$	4,065
	Total Emissions Cost (\$000)	\$	6,561	\$	6,625	\$	5,723	\$	5,594	\$	4,524	\$	5,169	5	4,735	\$	4,936	5	4,594
	Emit Cost per MWh	\$	3.75	ŝ	3.55	\$	3.29	\$	3.16	<u>†</u>	2,90	\$	2.76	\$	2.69	\$	2.65	\$	2.63
	····		······																
	1	<u> </u>	2015		2016	-	2017	i C	2018		2019	- 1 Y	2020		2021	121	2022	-	2023
Total	502(ktons)	1	20.836		21.282		19.910	1997 1997	21.199		20.456		21.001		20.812	100	21.263		20.716
	SO2 Emit Rate	ili i i i T	0 294	25	0.300	• • •	0.290		0.300		0.296		0.297		0.296		0,300		0 294
	SO2 cost(\$000)	\$	17,544	5		\$	15,072	5	14,967	\$	11,476	5	8,674	\$	7,284	5	6,421	\$	5,780
	NOx(ktons)	1	13 880		13.680	7.	13.603		13.714	.7	13 515		13.854	. 1 .	13 746		13.666		13 859
	NOx Emit Rate	1	0 196		0.193		0.198		0.194		0 195		0.196		0 195		0.193		0 197
	NOx cost(\$000)	\$	25,941	\$	N. C. C. C. C. C. C. C. C. C. C. C. C. C.	\$	22,105	\$	21,517	\$	20,407	\$	21,072	\$	20,935	\$	20,840	\$	21,162
	Total Emissions Cost (\$000)	\$	43,485	\$	41,469	\$	37,178	\$	36,484	\$	31,883	\$	29,745	\$	28,219	\$	27,262	\$	26,942
	Emit Cost per MWh	\$	3.39	\$	3.22	7 5	2.99	5	2.84		2.54	\$	2.33	\$	2.21	\$	2.12		20,512
	SO2 Allowances (000 Tons)		52.487		52.487		52.487		52.487		52.487		52.487		52.487	127	52.487		52,487
	SO2 Allowance Price per Ton	\$	294	\$	288	\$	265	\$	247	\$	195	\$	144	\$	122	\$	106	\$	98
	SO2 Allowance Value (\$000)	\$	(15,452)	\$	(15,140)		(13,893)	\$		\$	(10,296)	\$	(7,579)	\$	(6,423)	\$	(5,542)	\$	(5,120
	NOx Allowances (000 Tons)		9 285		9.285		8 832		8.638		8.494	je je se se se se se se se se se se se se se	8.289		8 054		7.832		7 760
	NOx Allowance Price per Ton		3,071	\$				\$	2,665	\$	2,564	\$	2,574		2,578	\$	2,581		2,584
	NOx Allowance Value (\$000)	\$	(27,468)					\$	(22,112)	\$	(20,904)	\$	(20,458)	\$	(19,884)	\$	(19,335)	\$	(19,172
		1		900				1.1				200				1.1			
	Net Emissions Costs	\$	16,325		15,113		14,478	\$	TE CAA	÷.,	14,156	\$	15,542	÷	15,637	\$	16,039	\$	16,522

EntityName		- Nupsoin Doors	2009	2010	2011	2012	2013	20
D B Wilson 1	Max Capacity(MW)		417	417	417	417	417	41
	Min Capacity(MW)		325	325	325	325	325	32
	Generation(GWh)		3,019	3,433	3,141	3,317	3,161	3,38
	Planned Outage Hours		1,248	168	672	168	672	16
	Forced Outage Hours		350	350	350	351	350	35
••••••	FOR - %		4.0%	4.0%	4 0%	4.0%	4.0%	4.0
	Num starts()		10	11	11	10	9	1
	Start Fuel used(GBtu)		66	72	67	52	56	ŝ
	Start cost(\$000)	전 이 가슴을 물었다.	\$ 3,542	\$ 3,870		\$ 2,867	a ser surresson i p	\$ 3,06
			101.08%	99 89%	97 33%	96 54%	97 97%	98 35
<u> </u>								
EntityName		A SAMPLES	2009	2010	2011	2012	2013	20
HMPL 1	Max Capacity(MW)		153	152	152	152	152	15
	Min Capacity(MW)		140	140	140	140	140	14
	Generation(GWh)		1,128	1,217	1,055	1,194	1,154	1,21
	Planned Outage Hours		744		1,176		504	-,
	Forced Outage Hours		613	613	613	615	613	61
	FOR - %		7.0%	7.0%	7 0%	7.0%	7.0%	7.0
	Num starts()		16	15	15	14	14	and the first second
	Start Fuel used(GBtu)		30	28	28			1
	Start cost(\$000)		1, 1			26	26	2
		2000 - 200	99 76%	\$ 1,529 98 12%				\$ 1,61
			55 / 070	70 1270	99.45%	96 35%	99 20%	98 01
IntityName	· · · · · · · · · · · · · · · · · · ·	Net and the second second second second second second second second second second second second second second s	2009	2010	2011	2012	2013	201
HMPL 2	Max Capacity(MW)		158	158	158	15B	158	15
	Min Capacity(MW)		140	130	138	150 140	158	
* *** ***********	Generation(GWh)		1,271	1,184	1,252		a to a contrata and a second sec	14
	Planned Outage Hours		41671	504	1,232	1,095	1,245	1,18
	Forced Outage Hours		701		-	1,176	-	50
	FOR - %			701	701	703	701	70
			B 0%	8.0%	8.0%	8.0%	8.0%	8.0
· · · · · · · · · · · · · · · · · · ·	Num starts()		17	19	17 🗄	23	17 🔅	1
· · · · · · · · · · · · · · · · · · ·	Start Fuel used(GBtu)		35	37	33	44	34	3
	Start cost(\$000)	9960003300048	\$ 1,859			\$ 2,427	\$ 1,882	1,96
			99 78%	99.05%	98 17%	100 57%	97 69%	98 889
EntityName		i Addetation acc	2009	2010	2011	2040	2042	
Coleman 1	Max Capacity(MW)		149		2011	2012	2013	201
	Min Capacity(MW)			149	149	149	149	149
	Generation(GWh)		70	70	70	70	70	70
			1,198	1,193	1,102	1,202	1,207	1,14
	Planned Outage Hours			88888 8 888.	600			504
· · · · · · · · · · · · · · · · · · ·	Forced Outage Hours		613	613	613	615	613	61.
	FOR - %		7 0%	7.0%	7.0%	7.0%	7.0%	7.0
	Num starts()		17	17	16	15	15	1
	Start Fuel used(GBtu)		26	26	25	24	24	2
	Start cost(\$000)						\$ 551 8	57
			98.71%	98-29%	97 99%	99 03%	99.46%	100 499
intityName								
oleman 2		49469566	2009	2010	2011	2012	2013	201
. oreman z	Max Capacity(MW)		138	138	138	138	138	138
	Min Capacity(MW)		70	70	70	70	70	7(
	Generation(GWh)		1,111	1,040	1,101	1,090	1,038	1,09
·······	Planned Outage Hours		(600	÷ à		600	
	Forced Outage Hours		613	613	613	615	613	613
	FOR - %		7 0%	7.0%	7.0%	7.0%	7.0%	7.0
	Num starts()		16	15	15	15	15	1
	Start Fuel used(GBtu)		25	22	24	25	24	2
	Start cost(\$000)	n n Byterreise		\$ 501			567	58
	Mark 1	1	98 82%	99 81%	97 89%	96 99%	99 70%	97 19
				··· ·····				
ntityName		10000000000000000000000000000000000000	2009	2010	2011	2012	2013	201
oleman 3	Max Capacity(MW)		154	154	154	154	154	154
	Min Capacity(MW)		110	110	110	110	110	110
	Generation(GWh)		1,126	1,225	1,225	1,050	1,237	1,229
	Planned Outage Hours		600			1,176		
	Forced Outage Hours		701	701	701	703	701	70
*****	FOR - %		80%	8.0%				
·····	Num starts()				8.0%	8.0%	8 0%	8.0
			18	18	19	24	14	10
• • • • • • • • • • • • • • • • • • • •					77	32	20	2
· ···· · · · · · · · · · ·	Start Fuel used(GBtu)		25	25	27			
	Start Fuel used(GBtu) Start cost(\$000)		25 \$ 551 97 99%	\$ 568 98.69%	\$ 619 5 98 70%	99 12%	467 \$ 99.68%	524 99 04

EntityName	T		2009	2010	2011	2012	2013	2014
Reid ST	Max Capacity(MW)	un sin substants	50	50	50	50	50	50
	Min Capacity(MW)		40	40	40	40	40	40
************	Generation(GWh)		7	12	32	29	13	29
• • • • • • • • • • • • • • • • • • • •	Planned Outage Hours			504		43		47
•••••••••	Forced Outage Hours	~~~~ 말을 물었을	876	876	876	878	876	876
	FOR - %							
			10 0%	10.0%	10 0%	10.0%	10 0%	10.0%
•••••	Num starts()		33	31	39	5	· · · · · · · · · · · · · · · · · · ·	3
	Start Fuel used(GBtu)		30	29	36	5	•	2
	Start cost(\$000)		\$ 1,602	\$ 1,548	\$ 1,887	\$ 188	\$ -	\$ 101
EntityName	1		2009	2010	2011	2012	2013	2014
Reid GT	Max Capacity(MW)	esta a factoria de la companya de la companya de la companya de la companya de la companya de la companya de la	65	65	65	65	65	2014
	Min Capacity(MW)			00		60	05	60
	Generation(GWh)				7		· · · · · · · · · · · · · · · · · · ·	
				4		11	15	9
	Planned Outage Hours							
••••	Forced Outage Hours		····· ······				· · · · · · · · · · · · · · · · · · ·	
	FOR - %				·····	모르는 눈 것	<u></u>	-
	Num starts()		154	148	154	174	251	196
	Start Fuel used(GBtu)		-			한 것을 받는 것을 못했다.		
	Start cost(\$000)		\$ -	\$	\$ -	:\$:::::::::::::::::::::::::::::::::::	\$~	\$ -
· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·							
EntityName	1	en nevez a se	2009	2010	2011	2012	2013	2014
Green 1	Max Capacity(MW)	*********	231	231	231	231	231	231
	Min Capacity(MW)		180	180	180	180	160	180
	Generation(GWh)		1,956	1,800	1,950	1,840	1,927	1,652
	Planned Outage Hours		1,550	672	1,530	1,640	1,927	1,032
	Forced Outage Hours		- 289	289	289	290	- 289	289
	FOR - %		3 3%	289 3.3%	3 3%			3.3%
	Num starts()			3.3% 8		3.3%	3.3%	
	Start Fuel used(GBtu)		7	8 20	7	14	13	18
					18	31	23	43
	Start cost(\$000)	baabaabaa	\$ 919	\$ 1,104	\$ 979	\$ 1,719		\$ 2,466
••••••			99 96%	99 94%	99 65%	100 01%	98.48%	98.68%
EnlityName			2009	2010	2011	2012	2013	2014
Green 2	Max Capacity(MW)	0000000000	223	223	223	223	223	223
	Min Capacity(MW)		180	180	180	180	180	180
	Generation(GWh)		1,713	1,872	1,604	1,850	1,763	1,865
	Planned Outage Hours		792		1,176		504	
**********	Forced Outage Hours		289	289	289	290	289	289
	FOR - %		3 3%	3.3%	3.3%	3.3%	3.3%	3.3%
	Num starts()		8	7	6	13	14	11
	Start Fuel used(GBtu)		25	23	22	24	3B	20
	Start cost(\$000)		\$ 1,174	\$ 1.107	\$ 1,034	\$ 1.271	\$ 1,905	\$ 1,089
			100 02%	99.12%	98 61%	97.92%	99.25%	98 74%
		a a a ga a ga a a a a a a a a a a a a a	2009	2010	2011	2012	2013	2014
Total	Max Capacity(MW)		1,738	1,737	1,737	1,737	1,737	1,737
	Min Capacity(MW)		1,255	1,255	1,255	1,255	1,255	1,255
	Generation(GWh)		12,531	12,980	12,468	12,679	12,762	12,799
	Planned Outage Hours		3,384	2,448	3,624	3,024	2,280	2,400
	Forced Outage Hours		5,046	5,046	5,046	5,060	5,046	5,046
				e 401	C 401		6.4%	6.4%
	FOR - %		5.4%	6.4%	6.4%	6.4%	0.478	0,470
	FOR - % Num starts()	2013년 2013년 2013년 1913년 2013년 1월 2		0.4% 289	299			
			5.4% 295 279			6.4% 306 262	363 246	315 253

EntityName	I	2015	2016	2017	2018	2019	2020	2021	2022	2023
D B Wilson 1	Max Capacity(MW)	417	417	417	417	417	417	417	417	417
	Min Capacity(MW)	325	325	325	325	325	325	325	325	325
	Generation(GWh)	3,218	3,390	2,965	3,384	3,216	3,385	3,223	3,409	3,211
• • • • • • • • • • • • • • • • • • • •	Planned Outage Hours	672	168	1,224	168	672	168	672	168	672
	Forced Outage Hours	350	351	350	350	350	351	350	350	350
	FOR - %	4 0%	4.0%	4 0%	4.0%	4.0%	4.0%	4 0%	4.0%	4 0%
	Num starts()	9	10	14	8	10	10	9	10	9
	Start Fuel used(GBtu)	50	50	77	46	55	53	50	52	55
	Start cost(\$000)	(b) A second of the second second of the second		\$ 4,740	1 (h)	and the second the get	\$ 3,532	3,375 \$	3,610 \$	3,903
	Jalin Cost(3000)	99 73%		98 95%	98 46%	99 67%	98 51%	99.90%	99 19%	99 50%
		997.3%	98.65%	90 90 %	98 40%	99 07 %	50-21-20	99.9076	33 1370	99 0070
EntityName	1	2015	2016	2017	2018	2019	2020	2021	2022	2023
HMPL 1	Max Capacity(MW)	152	152	152	152	152	152	152	152	152
IBHFL L	Min Capacity(MW)	132	140	152	131	140	140	140	140	140
** ***************	Generation(GWh)	1,136	1,226	1,124	1,224	1,051	1,127	1,158	1,227	1,122
····			1,260	672	1,667	1,001	672	504	*1641	672
.,	Planned Outage Hours	504			613		615		613	613
	Forced Outage Hours	613	615	613		613		613		
	FOR - %	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7.0%	7 0%
	Num starts()	15	15	14	14	21	14	15	14	14
	Start Fuel used(GBtu)	28	28	26	26	38	26	28	26	26
	Start cost(\$000)				\$ 1,625	\$ 2,463		\$ 1,920 \$	1,807 \$	1,867
		97.67%	98 91%	98 78%	98 70%	100.02%	99.07%	99 57%	98 98%	98 64%
							Acart			
EntityName	<u> </u>	2015	2016	2017	2018	2019	2020	2021	2022	2023
HMPL 2	Max Capacity(MW)	158	158	158	158	158	158	158	158	158
	Min Capacity(MW)	140	140	140	140	140	140	140	140	140
	Generation(GWh)	1,268	1,189	1,259	1,167	1,256	1,071	1,255	1,194	1,237
	Planned Outage Hours	•	504	- 8	672		1,176	- 63	504	•
	Forced Outage Hours	701	703	701	701	701	703	701	701	701
	FOR - %	8.0%	8.0%	8.0%	8.0%	8 0%	8.0%	8 0%	8.0%	8.0%
	Num starts()	13	17	17	17	17	24	17	17	17
	Start Fuel used(GBtu)	25	34	33	34	34	46	34	34	34
	Start cost(\$000)	\$ 1,449	\$ 2,043	errer i fiftiger gregning i fill			\$ 3,066	\$ 2,276 \$	2,398 \$	2,413
	1	99.42%	99 49%	98 72%	99 82%	98 54%	98 37%	98.47%	99 88%	97 03%
			·····				••••			
EntityName		2015	2016	2017	2018	2019	2020	2021	2022	2023
Coleman 1	Max Capacity(MW)	149	149	149	149	149	149	149	149	149
	Min Capacity(MW)	70	70	70	70	70	70	70	70	70
	Generation(GWh)	1,213	1,200	1,042	1,204	1,212	1,144	1,198	1,199	1,136
	Planned Outage Hours	•		1,176		- 1	504	- 333		504
	Forced Outage Hours	613	615	613	613	613	615	613	613	613
	FOR - %	7 0%	7.0%	7 0%	7.0%	7.0%	7.0%	7 0%	7.0%	7.0%
	Num starts()	15	15	20	15	15	15	15	15	15
• • • • • • • • • • • • • • • • • • • •	Start Fuel used(GBtu)	23	23	30	23	23	24	23	24	25
	Start cost(\$000)	\$ 553		and the second second second second second second second second second second second second second second second	\$ 605	a na na shika na na tarta a sa Si		\$ 653 \$	683 \$	734
	51271 COS((\$000)	99 92%	98.87%	100 28%	99 15%	99 B3%	100 51%	98.72%	98 81%	99.74%
** ** *** ***			50.07 /0							
EntityName	<u> </u>	2015	2016	2017	2018	2019	2020	2021	2022	2023
Coleman 2	Max Capacity(MW)	138	138	138	138	138	138	138	138	138
COLUMN &	Min Capacity(MW)	70	130 70	70	138 70	70	130 70	70	70	70
		e a cara de ser d'ar contra conserva e ser e ser e ser e se	966	1,115	1,113	1,036	1,117	1,112	1,056	1,115
	Generation(GWh)	1,111		1,115	1,113	1,036	م الم الم راد الم الم الم الم الم الم الم الم الم الم	4444	1,056	
	Planned Outage Hours	613	1,176	613	C+7		615	613		613
	Forced Outage Hours		615		613 7.0%	613			613	
	FOR - %	7.0%	7.0%	7.0%	7.0%	7 0%	7.0%	7 0%	7.0%	7 0%
	Num starts()	15	21	13	15	15	15	15	15	11
	Start Fuel used(G8tu)			20	24	25	24	24	25	16
· · · · · · · · · · · · ·		24	31							
	Start cost(\$000)	\$ 586	\$ 774	\$ 495	\$ 629		\$ 641	\$ 683 \$	702	
· · · · · ·					\$ 629 99 03%		\$ 641 99 41%	\$ 683 \$ 98 92%	100 16%	99 17%
		\$ 586 98 79%	\$ 774 100.44%	\$ 495 99 16%	99 03%	99 43%	99 41%	98 92%	100 16%	
EntityName	Start cost(\$000)	\$ 586 98 79% 2015	\$ 774 100.44% 2016	\$ 495 99 16% 2017	99 03% 2018	99 43% 2019	99 41% 2020	98 92% 2021	100 16%	202
EntityName Coleman 3	Start cost(\$000) Max Capacity(MW)	\$ 586 98 79% 2015 154	\$ 774 100.44% 2016 154	\$ 496 99 16% 2017 154	99 03% 2018 154	99 43% 2019 154	99 41% 2020 154	98 92% 2021 154	100 16% 2022 154	202 154
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW)	\$ 586 98 79% 2015 154 110	\$ 774 100.44% 2016 154 110	\$ 496 99 16% 2017 154 110	99 03% 2018 154 110	99.43% 2019 154 110	99 41% 2020] 154 110	98 92% 2021 154 110	100 16% 2022 154 110	202 154 110
	Start cost(\$000) Max Capacity(MW)	\$ 586 98 79% 2015 154	\$ 774 100.44% 2016 154	\$ 496 99 16% 2017 154	99 03% 2018 154	99 43% 2019 154	99 41% 2020 154	98 92% 2021 154	100 16% 2022 154	202 154 110
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW)	\$ 586 98 79% 2015 154 110	\$ 774 100.44% 2016 154 110	\$ 495 99 16% 2017 154 110 1,227	99 03% 2018 154 110	99.43% 2019 154 110	99 41% 2020] 154 110	98 92% 2021 154 110	100 16% 2022 154 110	202 154 11(1,233
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW) Generation(GWh)	\$ 586 98 79% 2015 154 110 1,155	\$ 774 100.44% 2016 154 110	\$ 496 99 16% 2017 154 110	99 03% 2018 154 110 1,162	99.43% 2019 154 110	99 41% 2020 154 110 1,222	98 92% 2021 154 110 1,068	100 16% 2022 154 110	202 154 110 1,233
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW) Generation(GWh) Planned Outage Hours Forced Outage Hours	\$ 586 98 79% 2015 154 110 1,155 600 701	\$ 774 100.44% 2016 154 110 1,211 703	\$ 495 99 16% 2017 154 110 1,227 - 701	99 03% 2018 154 110 1,162 504 701	99.43% 2019 154 110 1,212	99 41% 2020 154 110 1,222 - 703	98 92% 2021 154 110 1,068 1,176	100 16% 2022 154 110 1,229	202 154 110 1,233 - 70)
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW) Generation(GWh) Planned Outage Hours Forced Outage Hours FOR - %	\$ 586 98 79% 2015 154 110 1,155 600 701 8.0%	\$ 774 100.44% 2016 154 110 1,211 - 703 8.0%	\$ 496 99.16% 2017 154 110 1,227 - 701 8.0%	99 03% 2018 154 110 1,162 504 701 8,0%	99.43% 2019 154 110 1,212 701 8.0%	99.41% 2020 154 110 1,222 703 8.0%	98 92% 2021 154 110 1,068 1,176 701 8 0%	100 16% 2022 154 110 1,229 701 8.0%	202 154 110 1,233 - 70) 8 0°
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW) Generation(GWh) Planned Outage Hours Forced Outage Hours Forced Outage Hours FOR - % Num starts()	\$ 586 98 79% 2015 154 110 1,155 600 701 8.0% 16	\$ 774 100.44% 2016 154 110 1,211 - 703 8,0% 16	\$ 496 99 16% 2017 154 110 1,227 701 8.0% 16	99 03% 2018 154 110 1,162 504 701 8,0% 17	99.43% 2019 154 110 1,212 701 8.0% 17	99 41% 2020 154 110 1,222 703 8.0% 17	98 92% 2021 154 110 1,068 1,176 701 8.0% 24	2022 154 110 1,229 701 8.0% 16	202 154 110 1,233 - 701 8 09 17
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW) Generation(GWh) Planned Outage Hours Forced Outage Hours FOR - % Num starts() Start Fuel used(GBtu)	\$ 586 98 79% 2015 154 110 1,155 600 701 8.0% 16 22	\$ 774 100.44% 2016 154 110 1,211 - 703 8,0% 16 22	\$ 496 99 16% 2017 154 110 1,227 - 701 8 0% 16 22	99 03% 2018 154 110 1,162 504 701 8.0% 17 24	99.43% 2019 154 110 1,212 - 701 8.0% 17 24	99 41% 2020] 154 110 1,222 703 8.0% 17 24	98 92% 2021 154 110 1,068 1,176 701 8.0% 24 32	2022 154 110 1,229 701 8.0% 16 22	202 154 110 1,233 - 701 8 09 17 24
	Start cost(\$000) Max Capacity(MW) Min Capacity(MW) Generation(GWh) Planned Outage Hours Forced Outage Hours Forced Outage Hours FOR - % Num starts()	\$ 586 98 79% 2015 154 110 1,155 600 701 8.0% 16	\$ 774 100.44% 2016 154 110 1,211 - 703 8,0% 16	\$ 496 99 16% 2017 154 110 1,227 - 701 8 0% 16 22	99 03% 2018 154 110 1,162 504 701 8,0% 17	99.43% 2019 154 110 1,212 701 8.0% 17	99 41% 2020 154 110 1,222 703 8.0% 17	98 92% 2021 154 110 1,068 1,176 701 8.0% 24	2022 154 110 1,229 701 8.0% 16	202 154 110 1,233 - 701 8 09 17 24

EntityName	[2015	2016	2017	2018	2019	2020	2021	2022	2023
Reld ST	Max Capacity(MW)	50	50	50	50	50	50	50	50	50
	Min Capacity(MW)	40	40	40	40	40	40	40	40	40
	Generation(GWh)	13	23	22		24	22	19	37	22
	Planned Outage Hours			· · · · · · · · · · · ·						-
	Forced Outage Hours	876	878	876	876	876	878	876	876	876
	FOR - %	10.0%	10.0%	10 0%	10.0%	10 0%		10 0%	10.0%	10 0%
	Num starts()	10.0%		and the second	10.078		マキャッション とうちょう たいとう		10.0%	
•••••••		2	2	5		3	2	: <u>2</u>		
	Start Fuel used(GBtu)		2				2	2 -	11	2
	Start cost(\$000)	\$ 103	\$ 102	\$ 215	\$	\$ 113	\$ 113	\$ 115	\$ 575	\$ 121
** * * * * * *						· · · ·				
EntityName		2015	2016	2017	2018	2019	2020	2021	2022	2023
Reid GT	Max Capacity(MW)	65	65	65	65	65	65	65	65	65
Neia Gi	Min Capacity(MW)	05	03		•••					
			- 9		- 10	- 9	9		9	
	Generation(GWh)	9	7	11	10	9	9	9		
	Planned Outage Hours									
	Forced Outage Hours									
	FOR - %	•••••								
	Num starts()	173	173	182	121	199	186	229	173	155
	Start Fuel used(GBtu)	•		-		-		-		-
	Start cost(\$000)	\$-	i \$ }}}	\$ -	\$	\$ -	\$	\$ -	\$ 10002000	\$-
]			
								-		
EntityName		2015	2016	2017	2018	2019		2021	2022	2023
Green 1	Max Capacity(MW)	231	231	231	231	231	231	231	231	231
	Min Capacity(MW)	180	180	180	180	180	180	180	180	180
	Generation(GWh)	1,957	1,782	1,940	1,797	1,955	1,822	1,947	1,635	1,938
	Planned Outage Hours	•	504	•	504	-	504	•	1,176	•
	Forced Outage Hours	289	290	289	289	289	290	289	289	289
	FOR - %	3 3%	3.3%	3 3%	3.3%		3.3%	3 3%	3.3%	3 3%
********	Num starts()	13	15	13	13	13		13	21	13
•••••••••	Start Fuel used(GBtu)	20	34	22	30	20		22	49	23
•••••	Start cost(\$000)	\$ 1,155	\$ 2,034	\$ 1,364	\$ 1.857			\$ 1,468		\$ 1,636
·	51011 (051(3000)	100.00%	96 84%	99 12%	97.65%	. ,		99.50%	97.00%	99 03%
		100.0070								
EntityName		2015	2016	2017	2018	2019	2020	2021	2022	202
Green 2	Max Capacity(MW)	223	223	223	223	223	223	223	223	223
	Min Capacity(MW)	180	180	180	180	180	180	180	180	180
	Generation(GWh)	1,748	1,867	1,742	1,770	1,561	1,873	1,759	1,860	1,748
	Planned Outage Hours	504		504	336	1,176		504		504
	Forced Outage Hours	289	290	289	289	289	290	289	289	289
	FOR - %	3 3%	3.3%	3 3%	3.3%		3.3%	3.3%	3.3%	3 3%
	Num starts()	15	11	15	13	21		14	12	15
	Start Fuel used(GBtu)	41	19	42	38	61	그 말에 가서 그 지지 않는 것 같아요.	37	22	42
	Start cost(\$000)	\$ 2,142	\$ 1,076	\$ 2,294	\$ 2,098	\$ 3,460		\$ 2,266	\$ 1,476	\$ 2,674
	58011 COS(30007	98.41%	98 84%	98.04%	97 59%			98 99%	98.47%	98 39%
			55 0175		29 L 20				20117 70	
		2015	2016	2017	2018	2019	2020	2021	2022	202
Total	Max Capacity(MW)	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737	1,737
	Min Capacity(MW)	1,255	1,255	1,255	1,255	1,255	1,255	1,255	1,255	1,255
	Generation(GWh)	12,826	12,863	12,446	12,831	12,541	12,791	12,749	12,856	12,771
	Planned Outage Hours	2,280	2,352	3,576	2,184	3,624	3,024	2,856	2,352	2,352
	Forced Outage Hours	5,046	5,060	5,046	5,046	5,046		5,046	5,046	5,046
	FOR - %	6.4%	5,000	5.4%				6.4%	6.4%	5,040
	Num starts()		0.4% 296	0.4% 309		330			0.4% 304	
		287			233			354		269
	Start Fuel used(GBtu) Start cost(\$000)	236	244	278	245	283	255	253	265	249
		\$ 11,080	\$ 11,834	\$ 14,050	\$ 12,467	\$ 14,942	\$ 13,983	\$ 13,649	\$ 15,293	\$ 14,587

M G G FL C C C C C H FL FL FL FL S S S S S S S S S S S S S S	ax Capacity(HW) in Capacity(HW) eneration(GWh) nnual Cap. Fac uel used(GBtu) cal(Tons) eat Rate uel cost(\$000) uel Cost per MMBTu OM cost(\$000) OM per MWh um starts() tart Fuel used(GBtu) tart cost(\$000) O2(ktons) O2 Emit Rate O2 cost(\$000) Ox(ktons) Ox Emit Rate Ox cost(\$000) Ox(ktons) Ox Emit Rate Ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000) mit Cost per MWh	419 200 0.00% #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ - \$ -	1, \$ \$ \$ \$ \$ \$	417 325 3,019 82 64% 33,953 476,213 11 247 60,097 1 770 7,352 2,435 10.17 66 3,542 9,932 0,59 1,390	1 \$ \$ \$ \$ \$	417 325 3,433 93.98% 38,601 678,323 11.245 65,622 1.700 8,454 2.463 11.00 72 3,870	1, \$ \$ \$ \$	417 325 3,141 85 97% 35,542 545,319 11 317 62,199 1 750 10,678 3,400 10,83	1, \$\$\$\$	417 325 3,317 90,57% 37,044 610,606 11,166 90,758 2,450 11,264 3,395	1, \$ \$ \$	417 325 3,161 86 54% 34,679 507,769 10 970 89,124 2 570 10,685	1, \$ \$ \$	417 325 3,380 92.53% 37,098 ,612,949 10.975 66,776 1.800 11,729	1.5 \$ \$	417 325 3,218 88 09% 35,301 34,805 10 970 64,070 1 815
G Ar FL C C C C C C C C C V V V V V V V V V V	eneration(GWh) nnual Cap. Fac uel used(GBtu) eat(Tons) eat Rate uel cost(\$000) Uel Cost per MIMBTu OM cost(\$000) OM per NWh um starts() tart fuel used(GBtu) tart cost(\$000) O2(ktons) O2 Emit Rate O2 cost(\$000) Ox(ktons) Ox Emit Rate Ox cost(\$000) cotal Operating Cost (\$000) pi Cost per MWh otal Emissions Cost (\$000)	0.00% #DIV/01 \$	\$ \$ \$ \$	3,019 82 64% 33,953 476,213 11 247 60,097 1 770 7,352 2.435 10.17 66 3,542 9,932 0.59 1,390	\$ \$ \$ \$ \$	3,433 93.98% 38,601 678,323 11.245 65,622 1.700 8,454 2.463 11.00 72	\$ \$ \$	3,141 85 97% 35,542 545,319 11 317 62,199 1 750 10,678 3,400	\$\$\$	3,317 90,57% 37,044 610,606 11.166 90,758 2,450 11,264 3,395	\$ \$ \$	3,161 86 54% 34,679 ,507,769 10 970 89,124 2 570	\$ \$	3,380 92.53% 37,098 ,612,949 10.975 66,776 1.800	1.5 \$ \$	3,218 88.09% 35,301 34,805 10.970 64,070 1.815
Ar FL CC HI FL FL VV VV VV NI SS SS SS SS SS SS SS SS SS S	nnual Cap. Fac uel used(GBlu) oal(Tons) eat Rate uel cost(\$000) uel Cost per MMBTu OM cost(\$000) OM per NWh um starts() tart Fuel used(GBtu) tart cost(\$000) O2 (ktons) O2 Emit Rate O2 cost(\$000) Ox(ktons) Ox Emit Rate Ox cost(\$000) ox Emit Rate Ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ * #DIV/01 \$ - \$	\$ \$ \$ \$	82 64% 33,953 476,213 11 247 60,097 1 770 7,352 2,435 10.17 66 3,542 9,932 0,59 1,390	\$ \$ \$ \$ \$	93.98% 38,601 678,323 11.245 65,622 1.700 8,454 2.463 11.00 72	\$ \$ \$	85 97% 35,542 545,319 11 317 62,199 1 750 10,678 3,400	\$\$\$	90.57% 37,044 610,606 11.166 90,758 2.450 11,264 3.395	\$ \$ \$	86 54% 34,679 ,507,769 10 970 89,124 2 570	\$ \$	92.53% 37,098 612,949 10.975 66,776 1.800	1.5 \$ \$	88.09% 35,301 34,805 10.970 64,070 1.815
Fi CC H H FL VV V V V V V V V V V V V V V V V V V	vel used(GBtu) cal(Tons) eat Rate uel cost(\$000) uel cost(\$000) OM per MWh um starts() tart fuel used(GBtu) tart fuel used(GBtu) C2(ktons) O2 Emit Rate O2 cost(\$000) Ox (ktons) Ox Emit Rate Ox cost(\$000) Ox Emit Rate Ox cost(\$000) ox for tart cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	#DIV/01 \$ #DIV/01 \$ #DIV/01 \$ * #DIV/01 \$ - \$	\$ \$ \$ \$	33,953 476,213 11 247 60,097 1 770 7,352 2.435 10.17 66 3,542 9.932 0.59 1,390	\$ \$ \$ \$ \$	38,601 678,323 11.245 65,622 1.700 8,454 2.463 11.00 72	\$ \$ \$	35,542 545,319 11 317 62,199 1,750 10,678 3,400	\$\$\$	37,044 610,606 11.166 90,758 2.450 11,264 3.395	\$ \$ \$	34,679 ,507,769 10 970 89,124 2 570	\$ \$	37,098 ,612,949 10.975 66,776 1.800	1.5 \$ \$	35,301 34,805 10 970 64,070 1 815
C HH	bai(Tons) eat Rate uel cost(\$000) uel Cost per MMBTu OM cost(\$000) OM per MWh um starts() tant Fuel used(GBtu) tart Fuel used(GBtu) tart cost(\$000) O2(ktons) O2 Emit Rate O2 cost(\$000) Ox tsmit Rate Ox cost(\$000) ox cost(\$000) ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	\$ #DIV/01 \$ #DIV/01 	\$ \$ \$ \$	476,213 11 247 60,097 1 770 7,352 2.435 10.17 66 3,542 9.932 0.59 1,390	\$ \$ \$ \$ \$	678,323 11.245 65,622 1.700 8,454 2.463 11.00 72	\$ \$ \$	545,319 11 317 62,199 1 750 10,678 3 400	\$\$\$	610,606 11.166 90,758 2.450 11,264 3.395	\$ \$ \$,507,769 10 970 89,124 2 570	\$ \$,612,949 10,975 66,776 1.800	1.5 \$ \$	34,805 10 970 64,070 1 815
HI FL FL VV VV VV VV VV VV VV VV VV VV VV VV VV	eat Rate uel cost(\$000) uel Cost per MMBTu OM cost(\$000) OM per MWh um starts() tart Euel used(GBtu) tart cost(\$000) O2(ktons) O2 Emit Rate O2 cost(\$000) Ox(ktons) Ox Emit Rate Ox cost(\$000) cotal Operating Cost (\$000) pi Cost per MWh otal Emissions Cost (\$000)	\$ #DIV/01 \$ #DIV/01 	\$ \$ \$ \$	11 247 60,097 1 770 7,352 2.435 10.17 66 3,542 9,932 0,59 1,390	\$ \$ \$ \$ \$	11.245 65,622 1.700 8,454 2.463 11.00 72	\$ \$ \$	11 317 62.199 1 750 10,678 3 400	\$\$\$	11.166 90,758 2.450 11,264 3.395	\$ \$ \$	10 970 89,124 2 570	\$ \$	10.975 66,776 1.800	\$ \$	10 970 64,070 1 815
FL FL VV VV SS SS SS SS SS SS SS SS SS SS SS	uel cost(\$000) uel Cost per MMBTu OM cost(\$000) OM per NWh um starts() tart Evel used(GBtu) tart cost(\$000) O2 Emit Rate O2 cost(\$000) Ox(ktons) Ox Emit Rate Ox cost(\$000) ox Cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	\$ #DIV/01 \$ #DIV/01 	\$ \$ \$	60,097 1 770 7,352 2.435 10.17 66 3,542 9,932 0,59 1,390	\$ \$ \$	65,622 1.700 8,454 2.463 11.00 72	\$ \$	62.199 1.750 10,678 3.400	\$ \$	90,758 2.450 11,264 3.395	\$	89,124 2 570	\$	66,776 1.800	\$ \$	64,070 1 B15
FL VV Ni St St St St St St St St St St St St St	uel Cost per MMBTu OM cost(\$000) OM per MWh um starts() tart ruel used(GBtu) tart cost(\$000) O2(ktons) O2 Emit Rate O2 cost(\$000) Ox (\$000) Ox Emit Rate Ox cost(\$000) ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	#DIV/01 \$	\$ \$ \$	1 770 7,352 2.435 10.17 66 3,542 9.932 0.59 1,390	\$ \$ \$	1.700 8,454 2.463 11.00 72	\$ \$	10,678 3.400	\$ \$	2.450 11,264 3.395	\$	2 570	\$	1.800	\$	1 815
V Ni St SS SS SS SS Ni Ni Ni Ni Ni Ni Ni SS SS SS SS SS SS SS SS SS SS SS SS SS	OM per MWh um starts() tart Euel used(GBtu) tart cost(\$000) O2(ktons) O2 Emit Rate O2 cost(\$000) Ox(ktons) Ox Emit Rate Ox Kinns Rate Ox cost(\$000) otal Operating Cost (\$000) otal Emissions Cost (\$000)	#DIV/01 \$ - #DIV/01 \$ - \$ - \$ -	\$ \$ \$	2.435 10.17 66 3,542 9.932 0.59 1,390	\$	2.463 11.00 72	\$	3.400		3.395		10.685	\$	11,770	\$	
N St St St St St St St St St St St St St	um starts() lant Fuel used(GBtu) lant cost(\$000) O2 (ktons) O2 Emit Rate O2 cost(\$000) Ox(ktons) Ox Emit Rate Ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	\$ - #DIV/0! \$ - \$ -	\$	10.17 66 3,542 9,932 0,59 1,390		11.00 72	\$		\$		Æ.			1 11/10		11,488
Si Si Si Si Si Si Si Si Si Si Si Si Si S	tart Fuel used(GBtu) tart cost(\$000) O2(ktons) O2 Emit Rate O2 cost(\$000) Ox (\$000) Ox Emit Rate Ox cost(\$000) Ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	#DIV/0! \$\$	\$	66 3,542 9,932 0,59 1,390	\$	72		10.83	22.5		1.		\$	3.470	\$	3 570
Si Si Si Si Si Si Si Si Si Si Si Si Si S	tart cost(\$000) 02(ktons) 02 Emit Rate 02 cost(\$000) 0x(ktons) 0x Emit Rate 0x cost(\$000) 0tal Operating Cost (\$000) 0tal Operating Cost (\$000) 0tal Emissions Cost (\$000)	#DIV/0! \$\$	\$	3,542 9,932 0,59 1,390	\$					10.03		9.18		10.03		9.20
50 50 0 N N N N N N N N N N N N N N N N N N	02(ktons) 02 Emit Rate 02 cost(\$000) 0x(ktons) 0x Emit Rate 0x cost(\$000) otal Operating Cost (\$000) ip Cost per MWh otal Emissions Cost (\$000)	#DIV/0! \$\$	\$	9,932 0,59 1,390	ş	3.870		67		52		56		54		50
SC SC NN N N N N N N N N T C T C C T C	02 Emit Rate 02 cost(\$000) 0x(ktons) 0x Emit Rate 0x cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	\$ - - \$ -		0.59 1,390	2004		\$	3,656	\$	2,867	\$	3,160	\$	3,062	\$	2,905
5. 0 Ni Ni Ni Ni Ni Ni Ni Ni Ni Ni Ni Ni Ni N	02 cost(\$000) 0x(ktons) 0x Emit Rate 0x cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	\$ - - \$ -		1,390	13.3	11.292		10.397		10,836		10.144		10.852		10.326
0 N N N T C O T T	Ox(ktons) Ox Emit Rate Ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)	\$ -			\$	0.59 1,299	\$	0.59 9,025	\$	0.59 9,514		0.59 8,875		0.59 9,224	\$	0.59 8,694
N N Tr O Tr	Ox Emit Rate Ox cost(\$000) otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)			0.384		0.406		1.092	1	1.070		0.998	;	1.072	.?	1.015
N Tc O Tc	Ox cost(\$000) otal Operating Cost (\$000) ip Cost per MWh otal Emissions Cost (\$000)		e.	0.02		0.02		0.05		0.06		0.05		0.06	1.11	0.06
Tr O Tr	otal Operating Cost (\$000) p Cost per MWh otal Emissions Cost (\$000)			1,093	\$	978	\$	2,352	\$	2,123	\$	1,897	\$	2,047	\$	1,898
O. Te	p Cost per MWh otal Emissions Cost (\$000)	\$	3.0		Ū.	na ang Pangang	<u> </u>	-,				-1001	<u>.</u>	Contra Contrato	· · · · · · · · · · · · · · · · · · ·	
O To	p Cost per MWh otal Emissions Cost (\$000)		\$	70,991	\$	77,946	\$	76,533	\$	104,688	\$	102,969	\$	81,567	\$	78,463
		#DIV/01	\$	23.52	\$	22.71	\$	24.37	\$	31.62	\$	32.57	\$	24.13	\$	24.38
E	mit Cost ner MWh	\$-	\$	2,483	\$	2,277	5	11,376	\$	11,637		10,773	\$	11,271	\$	10,592
		#DIV/0!	\$	0.82	\$	0.66	\$	3.62	\$	3.51	\$	3.41	\$	3,33	\$	3.29
		#DIV/0!		348.44		351.82		337.52		285.88		344.34		305.41	·	315.62
Patita					<u></u>				_		_					
EntityName		2008		2009		2010	<u>1 </u>	2011		2012	L	2013		2014	<u> </u>	201
	iax Capacity(MW)	153		153		152		152		152		152		152		152
and the terre and a track of the terre and the terre of terre of ter	lin Capacity(MW)	110		140		140 1,217		140 1,055		140 1,194		140	53	140		140
	eneration(GWh) nnual Cap. Fac.	0.00%										1,154		1,215		1,136
A. S. C. C. C. C. C. S. C. C. C. C. C. C. C. C. C. C. C. C. C.	nnual cap. rac. uel used(GBtu)	0.00%		84.30% 12,204		91.25% 13,167		79 13%	S.	89.34% 12,928		86.55% 12,491		91.15% 13,156		85 229
	oal(Tons)			530,591		572,467		496,400		562,095		543,093		571,994		534,695
	eat Rate	#DIV/01		10.822		10,823		10 821		10.823		10.824		10,826	*	10.824
	uel cost(\$000)	\$	5	23,187	\$	33,180	\$	29,114	\$	34,260	\$	34,725	\$	23,549	\$	22,186
	uel Cost per MMBTu	#DIV/0!	5	1.900	\$	2.520	\$	2 550	\$	2.650	\$	2 780	\$	1.790	5	1.604
	OM cost(\$000)	\$.	\$	3,412	\$	3,977	\$	4,474	\$	5,208	\$	5,170	\$	5,590	\$	6,669
	OM per MWh	#DIV/01	\$	3.026	\$	3.269	\$	4.240	\$	4.360	\$	4.480	\$	4.600	\$	5.870
	um starts()			16.13		15.38		15 13		13.80		13.80		15.04		15.04
5	tart Fuel used(GBtu)			30		28		28		26		26		28		28
S	tart cost(\$000)	\$ -	\$	1,599	\$	1,529	Ş	1,525	\$.	1,435	\$	1,457	\$	1,617	\$	1,651
	O2(ktons)		i	2.014		2.173	1	1,884		2.133		2.061		2.171		2.029
	O2 Emit Rate	#DIV/01		0.33		0.33		0.33		0.33		0.33		0.33		0.33
	O2 cost(\$000)	\$ 10 - 1	Ş	282	5	250	\$	1,635	\$	1,873	\$	1,804	\$	1,845	\$	1,709
	Ox(ktons)	한 소설 특별 가장 것을 줄 문서가 한 가장 것을 즐 것 같다.		0.198		0.201		0.488		0.542		0.521		0.552		0.514
	Ox Emit Rate			0.03		0.03	1	0.09	-	0.08		0.08		0.08	1.1	0.08
N	Ox cost(\$000)	1 😫 (1996) 📲 (1996)	\$	580	\$	484	\$	1,052	\$	1,075	\$	990	\$	1,053	\$	960
	otal Operating Cost (\$000)			28,198		20 607	-	26 117	5.05	40.002		41 257		30,756		20 505
	p Cost per MWh	\$ #DIV/0!	\$ \$	25.01	\$ \$	38,687 31.80	\$	35,112 33.28	\$ \$	40,903 34.24	\$ \$	41,352 35.83	\$ \$	25.31	\$ \$	30,506 26.85
	otal Emissions Cost (\$000)	\$	7	862	\$	734	\$	2,688	\$	2,948	\$	2,794	\$		\$	2,669
	mit Cost per MWh	#DIV/0!	\$	0.76	5	0.60	\$	2.55	s	2.47	\$	2.42	5	2.39	\$	2.35
_			1						1				!			
					1		1									• •
EntityName		2008		2009		2010		2011		2012		2013		2014		201
	lax Capacity(MW)	159		158		158	(158		158		158		15B		158
	lin Capacity(MW)	110		140		140	l	140		140		140		140	: V serv	140
	eneration(GWh)			1,271		1,184	Ś	1,252		1,095		1,245		1,182	÷	1,268
	nnual Cap. Fac	0.00%	. · · ·	91 80%		85.43%		90 32%		78,79%		89.87%		85,28%		91 469
	uel used(GBtu)	• 1		13,767		12,827		13,564		11,868		13,501	- 33	12,809	(13,741
	oal(Tons)	405005		598,547		557,704		589,741		515,988		586,981		556,934	şe e e	597,448
	eat Rate uel cost(\$000)	#DIV/0!		10 835		10.835		10.837		10.840		10.840		10.838	÷	10.841 24,789
	uel cost (\$000) uel Cost per MMBTu	\$ #DIV/0!	\$ \$	26,157 1 900	\$	32,325 2.520	\$ \$	34,588 2 550	\$	31,449 2.650	\$ \$	37,532 2 780	\$	22,929 1.790	\$ \$	1 804
	OM cost(\$000)	#Div/UI \$-	7 \$	3,801	\$ \$	3,952		5,307	\$	4,774	₽ \$	5,580	\$	5,437		7,440
	ON per NWh	#DIV/01	5	2.992	\$	3,339		4.240	\$	4.360		4.480	\$	4.600	÷ \$	5.870
	um starts()			17.29		18.58	1.₹.	16.58		22.74	. T.	17.05	1	17.05		12.75
	tart Fuel used(GBtu)		14 - 4 [35		37	į.	33		44		34		34	1	25
	tart cost(\$000)	\$ -	\$	1,859	\$	2,007		1,826	\$	2,427	\$	1,882	.\$	1,969	\$	1,449
0 SI	O2(ktons)		1	2.272		2.117	1. 1 1. 1	2 238		1.959	1	2 228		2.114	1111111111 {	2 268
	O2 Emit Rate	#DIV/0!		0.33		0.33		0.33		0.33		0.33		0.33	1	0.33
	O2 cost(\$000)	\$ -	\$	318	\$	243	\$	1,943	\$	1,720	\$	1,949	\$	1,797	\$	1,909
	Ox(ktons)			0.207		0.206		0 568	21	0.494		0 563	1	0.534	1	0 572
	Ox Emit Rate			0.03	4	0.03	·	0.08		0.08		0.08	1	0.08		0.08
N	Ox cost(\$000)	\$ ~	\$	591	\$	496	\$	1,224	\$	980	\$	1,069	\$	1,019	\$	1,069
	the Departure Cost (1000)		: 		1	an an f	: د			30	بر ۱			100 PC		
	otal Operating Cost (\$000)	\$	\$	31,817	Ş	38,284	.\$	41,722	:\$	38,650	. 5	44,993	.\$	30,334	<u></u> .	33,679
	p Cost per MWh	#DIV/01	\$	25.04	-\$	32.34		33.33	\$	35.30		36.13	. \$	25,67		26.57
	otal Emissions Cost (\$000)	\$	\$	909		739		3,167	-\$	2,700		3,018		2,816		2,978
E	mit Cost per MWh	#DIV/0!	\$	0.72	\$	0.62	\$	2.53	\$	2.47	\$	2.42	\$	2.38	\$	2.35

EntityName		2008		2009		2010		2011		2012		2013		2014		2015
Coleman 1	Max Capacity(MW)	150		149		149		149		149		149		149		149
	Min Capacity(MW)	70		70 1,198		70 1,193		70	j.	70 1,202		70 1,207		70 1,144		70 1,213
	Generation(GWh) Annual Cap. Fac	0.00%		91 B0%		91.41%		84.42%		91.83%		92 50%		87.67%	•••••	92 92%
	Fuel used(G8tu)	•		12,853		12,800		11,884		12,967		13,028		12,340		13,090
	Coal(Tons)			558,821		556,517		516,694	35	563,766		566,453		536,879		69,113
	Heat Rate	#D1V/0!		10 727		10.728		10 785	ļ.	10.789		10 791		10.791		10 792
	Fuel cost(\$000)	\$	\$	30,847	\$	31,744	\$	30,304	\$		\$	37,913	\$			25,001
	Fuel Cost per MMBTu	#DIV/01	\$	2 400	\$	2.480	. \$	2.550	\$	2.780	\$	2 910	\$	1.894	\$	1 910
	VOM cost(\$000)	(\$ 문화원원원)	\$	1,390	\$	1,432		1,377	ş	1,538	\$	1,594	\$	1,545	ş	1.686
	VOM per MWh	#DIV/01	\$	1 160 17	\$	1.200 17	. \$.,	1 250 16	\$	1.280 15	\$	1 320 15	\$	1.350 15	\$	1 390 15
	Num starts() Start Fuel used(GBtu)	~~~~ 운영 문문 문		26		26		25		13 24		24		24		23
	Start cost(\$000)	s	\$	567	\$	583	ŝ		\$	a di Sana Sana Sana Sana Sana Sana Sana San	\$	551	5	572	s	553
	SO2(ktons)			0.733		0,730	· *.	0.677	÷.	0.739		0.743		0.704		0.746
	SO2 Emit Rate	#DIV/01		0.11		0.11	• •	0.11		0.11		0.11		0,11		0.11
	SO2 cost(\$000)	\$	\$	103	\$	84	\$		\$	649	\$		\$		\$	628
	NOx(ktons)			0.846		0.858		1 913		2.082		2.087		1.976		2.094
	NOx Emit Rate			0.132		0.134		0 322		0.321		0.320		0.320		0 320
	NOx cost(\$000)		\$	2,408	\$	2,067	ş	4,122	\$	4,134	\$	3,965	\$	3,772	\$	3,913
	Total Operating Cost (\$000)	\$ -	\$	32,804	\$	33,758	Ş	32,253	\$	38,141	\$	40,058	\$	25,504	\$	27,240
	Op Cost per MWh	#DIV/01	\$	27.38	\$	28.29	\$	29.27	\$	31.73	\$	33.18	\$	22.29	\$	22.46
	Total Emissions Cost (\$000)	\$	\$	2,510	\$	2,151	\$	4,710	\$	4,783	\$	4,615	\$	4,370	\$	4,541
	Emit Cost per MWh	#DIV/0!	\$	2.10	\$	1,80	\$	4.27	\$	3.98	\$	3.82	\$	3.82	\$	3.74
••••••••											• •					•••••
EntityName	T I	2008		2009	-	2010		2011	1	2012		2013	10	2014		2015
Coleman 2	Max Capacity(MW)	139		138		138		138		138		138		138		138
	Min Capacity(MW)	70		70	99	70		70		70		70		70		70
	Generation(GWh)			1,111		1,040		1,101		1,090		1,038 85 89%		1,093		1,111
	Annual Cap. Fac	0.00%		91 91% 13,369		85.99% 12,508		91.04% 13,237		89.94% 13,115		12,493	20	90.39% 13,144		91 88% 13,363
	Fuel used(GBtu) Coal(Tons)			581,246		543,816		575,501		570,236		543,177		571,487	4	81,001
	Heat Rate	#DIV/0!		12 033	83	12.032		12 028	13	12.030		12 032		12.029		12 031
	Fuel cost(\$000)	\$	\$	32,085	\$	31,019	\$	33,753	\$	36,461	\$	36,355	\$	24,895	\$	25,523
	Fuel Cost per MMBTu	#DIV/0!	\$	2.400	\$	2.480	\$	2 550	\$	2.780	\$	2 910	\$	1.894	\$	1 910
	VOM cost(\$000)	\$	\$	1,289	\$	1,247	\$	1,375	\$	1,428	\$	1,402	\$	1,508	\$	1.577
	VOM per MWh	#DIV/0!	\$	1 160	\$	1.200	\$	1 250	\$	1.310	ş	1 350	\$	1.380	\$	1.420
	Num starts()			16		15		15		15		15		15	÷	15
	Start Fuel used(GBtu)			25		22		24		25 561		24 567	\$	25 582	4	24 586
	Start cost(\$000)	\$ 000	\$	545 0.762	\$	501 0.713	\$	548 0.755	\$	0.748	\$	0.712	7	0.749	₹.	0.762
	SO2(ktons) SO2 Emit Rate	#DIV/01		0.11		0.11		0.11		0.11		0.11		0.11		0.11
	SO2 cost(\$000)	\$ -	\$	107	\$	82	\$	655	\$	656	\$	623	\$	637	\$	641
	NOx(ktons)			0.873		0.883		2 134		2.110		2 005		2.117		2 147
	NOx Emit Rate			0 131		0.141	1	0.322		0.322		0.321	20	0.322		0.321
	NOx cost(\$000)	ji s teretario)	\$	2,487	\$	2,126	\$	4,599	\$	4,189	\$	3,810	\$	4,040	\$	4.012
	Total Operating Cost (\$000)	:::::::::::::::::::::::::::::::::::::	\$	33,919	\$	32,758	\$	35,677	\$	3B,450	\$	38,323	\$	26,985	\$	27.685
	Op Cost per MWh	#DIV/01	\$	30.53	\$	31.52	\$	32.42	\$	35.27	\$	36.91	\$	24.70	\$	24.93
	Total Emissions Cost (\$000)	\$	\$	2,593	\$	2,208	\$	5,254	\$	4,845	\$	4,433	\$	4,677	\$	4,654
	Emit Cost per MWh	#DIV/0!	\$	2.33	\$	2.12	\$	4.77	\$	4.44	\$	4.27	\$	4,28	\$	4.19
•••••••••••••••••••••••••••••••••••••••					\		•				• ••		••••••			
EntityName	<u> </u>	2008	r	2009	Ē	2010	İ.	2011	Г	2012	Г	2013	1	2014		2015
Coleman 3	Max Capacity(MW)	155		154	1.5	154	(154	ि	154	ł	154	19	154		154
	Min Capacity(MW)	110		110	문	110		110		110		110	-	110		110
	Generation(GWh)			1,126		1,225		1,225		1,050	÷.,	1,237		1,229		1,155
	Annual Cap. Fac.	0.00%		83 44%		90.79%		90 60%	승	77.65%		91 70%		91.12%		85 59%
	Fuel used(GBtu)			12,176		13,249		13,258 576,428		11,371 494,391		13,398 582,521		13,308 578,596		12,501 543,527
							é	10 823		10.826	·	10 830		10.826		10.827
	Coal(Tons) Heat Rate	#D1V/0		529,400 10 817		10.817									\$	23,877
	Heat Rate	#DIV/0!	5	10.817	\$	10.817 32.858	5		\$		\$	38.988	\$	25.205		
	Heat Rate Fuel cost(\$000)	\$ -	\$ 5	10.817 29,223	\$ \$	32,858		33.808	\$	31,511	\$ \$				\$	1 910
	Heat Rate		\$ \$ \$	10.817 29,223 2.400 1,306	\$	32,858 2,480 1,470	\$ \$	33.808 2 550 1,531		31,511 2.780 1,376	\$ \$ \$	2 910 1,670	\$	1.894 1,696	\$ \$	1,640
	Heat Rate Fuel cost(\$000) Fuel Cost per MNBTU VOM cost(\$000) VOM per MWh	\$ - #DIV/0!	5	10.817 29,223 2.400 1,306 1.160	\$	32,858 2.480 1,470 1.200	\$ \$	33.808 2 550 1,531 1 250	\$	31,611 2.780 1,376 1.310	\$	2 910 1,670 1 350	\$	1.894 1,696 1.380	\$ \$	1,640 1.420
	Heat Rate Fuel cost(\$000) Fuel Cost per MINBTu VOM cost(\$000) VOM per MWh Num starts()	\$ - #DIV/0! \$ -	\$ \$	10.817 29,223 2.400 1,306 1.160 18	\$	32,858 2,480 1,470 1,200 18	\$ \$ \$	33.808 2 550 1,531 1 250 19	\$ \$	31,511 2.780 1,376 1.310 24	\$ \$ \$	2 910 1,670 1 350 14	\$ \$ \$	1.894 1,696 1.380 16	\$ \$ \$	1,640 1.420 16
	Heat Rate Fuel cost(\$000) Fuel Cost per MINBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	\$ #DIV/0! \$ #DIV/0!	\$ \$ \$	10 817 29,223 2 400 1,306 1 160 18 25	\$ \$ \$	32,858 2,480 1,470 1,200 18 25	\$ \$ \$	33.808 2 550 1,531 1 250 19 27	\$ \$ \$	31,611 2.780 1,376 1.310 24 32	\$ \$ \$	2 910 1,670 1 350 14 20	\$ \$ \$	1.894 1,696 1.380 16 22	\$ \$ \$	1,640 1.420 16 22
	Heat Rate Fuel cost(\$000) Fuel Cost per MINBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$ - #DIV/0! \$ -	\$ \$	10 817 29,223 2.400 1,306 1 160 18 25 551	\$ \$ \$	32,858 2,480 1,470 1,200 18 25 568	\$ \$ \$	33.808 2 550 1,531 1 250 19 27 619	\$ \$ \$	31,611 2.780 1,376 1.310 24 32 732	\$ \$ \$	2 910 1,670 1 350 14 20 467	***	1.894 1,696 1.380 16 22 524	\$ \$ \$	1,640 1.420 16 22 536
	Heat Rate Fuel cost(\$000) Fuel Cost per MINBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons)	\$ #DIV/0! \$ #DIV/0! \$ -	\$ \$ \$	10.817 29,223 2.400 1,306 1.160 18 25 551 0.694	\$ \$ \$	32,858 2,480 1,470 1,200 18 25 568 0,755	\$ \$ \$	33.808 2 550 1,531 1 250 19 27 619 0.755	\$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0,648	\$ \$ \$	2 910 1,670 1 350 14 20 467 0.764	***	1.894 1,696 1.380 16 22 524 0.759	\$ \$ \$	1,640 1.420 16 22 536 0,713
	Heat Rate Fuel cost(\$000) Fuel Cost per MNBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Start cost(\$000) SO2(Ktons) SO2 Emit Rate	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01	\$ \$ \$	10.817 29,223 2.400 1,306 1.160 18 25 551 0.694 0.11	* * *	32,858 2,480 1,470 1,200 18 25 568 0,755 0,11	\$ \$ \$	33.808 2 550 1,531 1 250 19 27 619 0.755 0.11	\$ \$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0.648 0.11	\$ \$ \$	2 910 1,670 1 350 14 20 467 0.764 0.11	\$ \$ \$	1.894 1,696 1.380 16 22 524 0.759 0.11	\$ \$ \$	1,640 1.420 16 22 536 0.713 0.11
	Heat Rate Fuel cost(\$000) Fuel Cost per MI/IBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 cost(\$000)	\$ #DIV/0! \$ #DIV/0! \$ -	\$ \$ \$	10,817 29,223 2,400 1,306 1,160 18 25 551 0,694 0,11 97	* * *	32,858 2,480 1,470 1,200 18 25 568 0,755 0,11 87	\$ \$ \$ \$ \$	33.808 2 550 1,531 1 250 19 27 619 0.755 0.11 656	\$ \$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0,648 0.11 569	\$ \$ \$	2 910 1,670 1 350 14 20 467 0.764 0.11 668	*** * *	1.894 1,696 1.380 16 22 524 0.759 0.11 645	\$ \$ \$	1,640 1.420 16 22 536 0.713 0.11 600
	Heat Rate Fuel cost(\$000) Fuel Cost per MINBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01	\$ \$ \$	10.817 29,223 2.400 1,306 1.160 18 25 551 0.694 0.11	* * *	32,858 2,480 1,470 1,200 18 25 568 0,755 0,11	\$ \$ \$ \$	33.808 2 550 1,531 1 250 19 27 619 0.755 0.11	\$ \$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0.648 0.11	\$ \$ \$	2 910 1,670 1 350 14 20 467 0.764 0.11	*** * *	1.894 1,696 1.380 16 22 524 0.759 0.11	\$ \$ \$	1,640 1.420 16 22 536 0.713 0.11
	Heat Rate Fuel cost(\$000) Fuel Cost per MI/IBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 cost(\$000)	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01	\$ \$ \$	10.817 29,223 2.400 1,306 1.160 18 25 551 0.694 0.11 97 0.726	* * *	32,858 2,480 1,470 1,200 18 25 568 0.755 0.11 87 0.866	\$ \$ \$ \$	33.808 2 550 1,531 1 250 19 27 619 0.755 0.11 656 2 138	\$ \$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0.648 0.11 569 1.749	\$ \$ \$	2 910 1,670 1 350 14 20 467 0.764 0.11 668 2 040 0.305	\$ \$ \$ \$	1.894 1,696 1.380 16 22 524 0.759 0.11 645 2.035 0.306	\$ \$ \$	1,640 1.420 16 22 536 0.713 0.11 600 1 907
	Heat Rate Fuel cost(\$000) Fuel Cost per MNBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	\$ - #DIV/01 \$ #DIV/01 \$ - #DIV/01 \$ - \$ - \$ -	\$ \$ \$ \$	10.817 29,223 2.400 1.306 1.160 1.8 25 551 0.694 0.11 97 0.726 0.119 1,996	***	32,858 2.480 1,470 1,200 18 25 568 0.755 0.755 0.755 0.866 0.131 2,085	\$ \$ \$ \$	33.808 2 550 1,531 1 250 19 27 619 0.755 0.11 656 2 138 0 323 4,608	\$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0.648 0.11 569 1.749 0.308 3,472	\$ \$ \$	2 910 1,670 1 350 14 20 467 0.764 0.11 668 2 040 0.305 3,876		1.894 1,696 1.380 16 22 524 0.759 0.11 645 2.035 0.306 3,885	\$ \$ \$	1,640 1,420 16 22 536 0,713 0,11 600 1,907 0,305 3,564
	Heat Rate Fuel cost(\$000) Fuel Cost per MINBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ \$ 	\$ \$ \$ \$ \$ \$	10.817 29,223 2.400 1.306 1.160 1.8 25 551 0.694 0.11 97 0.726 0.119 97 0.726 0.119 31,079		32,858 2.480 1,470 1,200 18 25 568 0.755 0.755 0.755 0.866 0.131 2,085 34,895	\$ \$ \$ \$ \$	33.808 2 550 1,531 1 250 19 27 619 0.755 0.11 656 2 138 0 323 4,608 35,958	\$ \$ \$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0.648 0.11 569 1.749 0.308 3,472 33,719	\$ \$	2 910 1,670 1 350 14 20 467 0,764 0,764 0,11 668 2 040 0,305 3,876 41,125	\$ \$ \$ \$	1.894 1,696 1.380 16 22 524 0.759 0.11 645 2.035 0.306 3,985 27,426	\$ \$	1,640 1,420 16 22 536 0,713 0,11 600 1,907 0,305 3,564 26,053
	Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ \$ - #DIV/01	\$ \$ \$ \$ \$ \$	10.817 29,223 2,400 1,306 1,160 1,8 25 551 0,694 0,119 1,996 31,079 27,61		32,858 2.480 1,470 1.200 18 25 568 0.755 0.11 87 0.866 0.131 2,085 34,895 28,49	\$ \$ \$ \$	33.808 2 550 1,531 1 250 27 619 0.755 0.11 656 2 138 0 323 4,608 35,958 29,35	\$ \$ \$ \$ \$ \$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0,648 0,11 569 1.749 0.308 3,472 33,719 32,10	\$ \$	2 910 1,670 1 350 14 20 467 0.764 0.11 668 2 040 0.305 3,876 41,125 33,24	* * *	1.894 1,696 1.380 16 22 524 0.759 0.11 645 2.035 0.306 3,885 27,426 22,31	\$ \$ \$	1,640 1,420 16 22 536 0,713 0,111 600 1 907 0,305 3,564 26,053 22,56
	Heat Rate Fuel cost(\$000) Fuel Cost per MINBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ \$ 	\$ \$ \$ \$ \$ \$	10 817 29,223 2 400 1,306 1 160 1 160 1 18 25 551 0.694 0 11 97 0.726 0.119 1,996 31,079 27,61 2,093		32,858 2.480 1,470 1,200 18 25 568 0.755 0.755 0.755 0.866 0.131 2,085 34,895	\$ \$ \$ \$ \$	33.808 2 550 1,531 1 250 0 19 27 619 0.755 0.11 656 2 138 0 323 4,608 35,958 29,35 5,264	\$ \$ \$ \$ \$ \$ \$ \$	31,611 2.780 1,376 1.310 24 32 732 0.648 0.11 569 1.749 0.308 3,472 33,719 32,10	\$ \$ \$ \$ \$ \$ \$	2 910 1,670 1 350 14 20 467 0.764 0.11 668 2 040 0.305 3,876 41,125 33,24	* * * * * * * * * *	1.894 1,696 1.380 16 22 524 0.759 0.11 645 2.035 0.306 3,885 27,426 22,31 4,529	\$ \$ \$	1,640 1,420 16 22 536 0,713 0,11 600 1,907 0,305 3,564 26,053

EntityName		2008	2009	2010	2011		2013	2014	2015
Reid ST	Max Capacity(MW)	50	50	50	50	50	50	50	50
	Min Capacity(MW)	40	40	40		40	40	40	40
	Generation(GWh)	al a state de la composition de la composition de la composition de la composition de la composition de la comp	7	12	32	29	13	29	13
	Annual Cap. Fac	0.00%	1 52%	2.77%	7 36%		3 00%	6.67%	2 90%
	Fuel used(GBtu)		90	165	437	387	178	395	172
	Coal(Tons)		75						
	Heat Rate	#DIV/01	13 564	13.571	13.545	13.556	13 572	13.547	13 510
	Fuel cost(\$000)	\$ 000000000000000000000000000000000000	\$ 792	\$ 1,551	\$ 3,776	\$ 3,518			1.473
	Fuel Cost per MMBTu	#DIV/01	\$ 8785	\$ 9,420	\$ 8 646	\$ 9.081	\$ 9.451 \$		8 576
	VOM cost(\$000)		ş	ş -	- -		<u> </u>	- -	•
	VOM per MWh	#DIV/0!	<u>Ş</u>	\$	\$ - 39	÷	. 5 \$		
	Num starts()		33	31		5 5		3	
· · · · · · · · · · · · · · · · · · ·	Start Fuel used(GBtu)		30	29	36				
	Start cost(\$000)		\$ 1,602	\$ 1,548	\$ 1.887	\$ 188	\$ - \$	101 \$ 0.000	103
	SO2(ktons)	4071(0)	0 004	0.004 4.50	0.005	0.001	0.000	0.000	0.000
	SO2 Emit Rate	#DIV/01	4.50			0.00 \$ 1	and the first second of the		0.00
	SO2 cost(\$000) NOx(ktons)		\$ <u>1</u> 0.007	\$0	\$ 4 0.033	\$ 1 0.029	\$ 0 \$ 0.013	0.030	0.013
	NOX Emit Rate	#DIV/0!	0.007		0.035	0.025	0.15	0.030	0.015
	NOx cost(\$000)	ومعاريه والتعادية ترجل والمعاد والمعا		\$ -	\$ 71				
	NCX LOSI(9000)		⊋ <u>2</u> 0		·				23
	Total Operating Cost (\$000)	\$	\$ 2,394	\$ 3,099	\$ 5,663	\$ 3,706	\$ 1,683 \$	3,4D1 \$	1,576
	Op Cost per MWh		\$ 360.30	\$ 255.47	\$ 175.64	\$ 129.66	\$ 128 27 \$	- 1 1 4 - F - F - F - F - F - F - F - F - F -	123.95
******	Total Emissions Cost (\$000)		\$ 20	\$ 0	\$ 75		\$ 25 \$		
	Emit Cost per MWh		\$ 3.01	\$ 0.03	\$ 2.33		\$ 1.90 \$	1.95 \$	1.95
				7		1			
*********					······ ·				
EntityName		2008	2009	2010	201	2012	2013	2014	2015
Reid GT	Max Capacity(MW)	65	65	65			65	65	65
	Min Capacity(MW)				- 7				.
	Generation(GWh)		4	4		11	15	9	9
	Annual Cap. Fac	0.00%	0 70%	0.75%			2 58%	1.63%	1 55%
	Fuel used(GBtu)		48	51	80	133	175	111	104
	Coal(Tons)								
	Heat Rate	#DIV/01	12 046	11.931	11.905		11 899	11.947	11 831
	Fuel cost(\$000)		\$ 418	\$ 448	\$ 698		\$ 1,475 \$		902
	Fuel Cost per MMBTu		\$ 8733	\$ 8.814	\$ 8675		\$ 8.432		8.650
	VOM cost(\$000)	\$ -	\$ ~	\$ -	\$ -	. 	\$		•
	VOM per MWh	#DIV/0!	\$ -	\$	\$ -	\$	\$ - 4		
	Num starts()		154	148	154	174	251	196	173
	Start Fuel used(GBtu)						-		-
	Start cost(\$000)		\$ ·	\$ -	ş -	\$		\$ - \$	
	SO2(ktons)						0.000		
	SO2 Emit Rate	#DIV/01			· · · · · · · · · · · · · · · · · · ·		0.00		
	SO2 cost(\$000)	\$	\$ 0	\$ 0	\$ 0		\$ 0		
	NOx(ktons)		0.004	0.004	0.006		0.011	0.007	0.007
	NOx Emit Rate			0.15	0 15		0 15	0.15	0.15
	NOx cost(\$000)		\$ 10	\$ 9	\$ 13	\$ 17	\$ 22 5	\$ 14 \$	13
	Total Operating Cost (\$000)		\$ 418	\$ 448	\$ 698	\$ 1,132	\$ 1,475 5	\$ 931 \$	902
	Op Cost per MWh	* #DIV/01	\$ 418 \$ 105.20	\$ 105.15	\$ 698 \$ 103.27			\$ 100.50 \$	
	Total Emissions Cost (\$000)	#DIV/01 \$	\$ 103.20	\$ 103.13				\$ 100.50 \$	
·····	Emit Cost per MWh	#DIV/01	\$ 2.57	\$ 2.09				\$ 1.49 \$	
			7		4	1	1		
			••••••	faanne e end e	n satu T				
EntityName		2008	2009	2010) 201	1 2012	2013	2014	2015
Green 1	Max Capacity(MW)	231	231	231	231	231	231	231	231
	Min Capacity(MW)	180	180	180	180	180	180	180	180
	Generation(GWh)		1,956	1,800	1,950	1,840	1,927	1,652	1,957
	Annual Cap. Fac	0.00%	96 66%	88.979				81.64%	96.70%
	Fuel used(GBtu)		21,874	19,784			21,186	18,159	21,520
l .	Coal(Tons)		1,093,713	989,179	1,071.290	1,011,425	1,059,279		1,075,977
r				10.988			10 994	10.992	10 997
	Heat Rate	#DIV/01	11 183	10.000					
	Heat Rate Fuel cost(\$000)	#DIV/01 \$	11 183 \$ 36,749	\$ 40,358	\$ 46,927	\$ 43,491	\$ 52,964	\$ 32,632 \$	
								\$ 32,632 \$ \$ 1.797 \$	
	Fuel cost(\$000)	\$ 1999 -	\$ 36,749	\$ 40,358	\$ 2 19	\$ 2.150	\$ 2,500		\$ 1812
· · · · · · · · · · · · · · · · · · ·	Fuel cost(\$000) Fuel Cost per MMBTu	\$ #DIV/01	\$ 36,749 \$ 1 680	\$ 40,358 \$ 2.040 \$ 7,490	\$ 2 196 \$ 8,872	\$ 2.150 \$ 8,594	\$ 2,500 \$ 9,250	\$ 1.797 \$	\$ 1812 \$ 13,071
· · · · · · · · · · · · · · · · · · ·	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000)	\$ #DIV/0! \$	\$ 36,749 \$ 1 680 \$ 7,559	\$ 40,358 \$ 2.040 \$ 7,490	\$ 2 190 \$ 8,872 \$ 4.550) \$ 2.150 2 \$ 8,594) \$ 4.670	\$ 2,500 \$ 9,250	\$ 1.797 \$ \$ 8,144 \$	\$ 1812 \$ 13,071
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh	\$ #DIV/0! \$	\$ 36,749 \$ 1.680 \$ 7,559 \$ 3.865	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160	\$ 2 190 \$ 8,872 \$ 4.550) \$ 2.150 2 \$ 8,594) \$ 4.670 7 14	\$ 2 500 \$ 9,250 \$ 4 800	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$	\$ 1 812 \$ 13,071 \$ 6 680 13 20
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per NWh Num starts()	\$ #DIV/0! \$	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 8	\$ 2 190 \$ 8,872 \$ 4.550 18) \$ 2.150 2 \$ 8,594) \$ 4.670 7 14 3 31 9 \$ 1,719	\$ 2 500 \$ 9,250 \$ 4 800 13 23	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$ 18	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155
	Fuel cost(\$000) Fuel Cost per MI/BTU VOM cost(\$000) VOM per NWh Num starts() Start Fuel used(GBtu)	\$ #DIV/0! \$ #DIV/0! \$	\$ 36,749 \$ 1 680 \$ 7,559 \$ 3 865 7 17 \$ 919 2.133	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 8 20 \$ 1,104 1.929	\$ 2 190 \$ 8,872 \$ 4,550 18 \$ 975 2,085) \$ 2.150 2 \$ 8,594) \$ 4,670 7 14 3 31 3 \$ 1,719 3 1.972	\$ 2 500 \$ 9,250 \$ 4 800 13 23 \$ 1,316 2,066	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$ 18 43 \$ 2,466 \$ 1.771	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$ #DIV/0 \$ #DIV/0	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 17 \$ 919 2.133 0.20	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 8 20 \$ 1,104 1.929 0.20	\$ 2 190 \$ 8,872 \$ 4,550 18 \$ 975 2,085 0,20	\$ 2.150 \$ 8,594 \$ 4,670 1 31 \$ 1,719 \$ 1.972 \$ 0.20	\$ 2500 \$ 9,250 \$ 4800 13 23 \$ 1,316 2.066 0.20	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$ 18 43 \$ 2,466 \$ 1.771 0.20	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20
	Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per NWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons)	\$ #DIV/0! \$ #DIV/0! \$	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 17 \$ 919 2.133 0.20 \$ 299	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 8 20 \$ 1,104 1.929 0.20 \$ 222	\$ 2 190 \$ 8,872 \$ 4.550 16 \$ 970 2.086 0.20 \$ 1.812	\$ 2.150 \$ 8,594 \$ 4,670 1 31 \$ 1,719 \$ 1,719 \$ 0.20 \$ 1,732	\$ 2 500 \$ 9,250 \$ 4 800 13 23 \$ 1,316 2.066 0.20 \$ 1,807	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$ 18 43 \$ 2,466 \$ 1.771	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1,767
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate	\$ - #DIV/0I \$ #DIV/0I \$ #DIV/0I	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 17 \$ 919 2.133 0.20	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 8 20 \$ 1,104 1.929 0.20	\$ 2 190 \$ 8,872 \$ 4.550 16 \$ 970 2.086 0.20 \$ 1.812	\$ 2.150 \$ 8,594 \$ 4,670 1 31 \$ 1,719 \$ 1,719 \$ 0.20 \$ 1,732	\$ 2500 \$ 9,250 \$ 4800 13 23 \$ 1,316 2.066 0.20	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$ 18 43 \$ 2,466 \$ 1.771 0.20	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1,767
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per NWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 cmit Rate SO2 cost(\$000)	\$ - #DIV/0I \$ #DIV/0I \$ #DIV/0I	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 17 \$ 919 2.133 0.20 \$ 299	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 8 20 \$ 1,104 1.929 0.20 \$ 222	\$ 2 190 \$ 8,877 \$ 4.550 11 \$ 977 2.086 0.20 \$ 1.81 2.979 0.21	\$ 2.150 2 \$ 8,594 0 \$ 4,670 7 14 31 9 \$ 1,719 9 \$ 0,20 3 \$ 1,732 9 2,775 0,277 3 0,27 0,277	\$ 2 500 \$ 9,250 \$ 4 800 13 23 \$ 1,316 2,066 0,20 \$ 1,807 2,919 0,28	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$ 18 43 \$ 2,466 \$ 1.771 0.20 \$ 1,505 \$	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1,767 2.955 0.27
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per NWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$ - #DIV/DI \$ #DIV/DI \$ * #DIV/DI	\$ 36,749 \$ 1 680 \$ 7,559 \$ 3 865 7 17 \$ 919 2.133 0.20 \$ 299 1.013	\$ 40,358 \$ 2,040 \$ 7,490 \$ 4,160 8 200 \$ 1,104 1,929 0,20 \$ 222 0,815 0,08	\$ 2 190 \$ 8,877 \$ 4,550 11 \$ 977 2,088 0,20 \$ 1,817 2,979 0,21	\$ 2.150 2 \$ 8,594 0 \$ 4,670 7 14 31 9 \$ 1,719 9 \$ 0,20 3 \$ 1,732 9 2,775 0,277 3 0,27 0,277	\$ 2 500 \$ 9,250 \$ 4 800 13 23 \$ 1,316 2,066 0,20 \$ 1,807 2,919 0,28	\$ 1.797 \$ \$ 8,144 \$ \$ 4.930 \$ 18 43 \$ 2,466 \$ 1.771 0.20 \$ 1,505 \$ 2.482	<pre>\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1,767 2.955 0.27</pre>
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per NWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 cost(\$000) NOx(ktons) NOx cost(\$000) NOx cost(\$000)	\$	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 7 \$ 919 2.133 0.20 \$ 299 1.013 0.09 \$ 2,885	\$ 40,358 \$ 2,040 \$ 7,490 \$ 4,160 \$ 20 \$ 20 \$ 1,104 1,929 0,20 \$ 222 0,815 0,08 \$ 1,964	\$ 2 190 \$ 8,877 \$ 4,550 111 \$ 927 2,089 0,20 \$ 1,817 2,977 0,21 \$ 6,415) \$ 2,150 \$ 8,594 8,594 > 4,670 14 3 31 31 > 1,719 9 1.972 9 1.972 0.20 2.775 3 0.275 0.27 9 3 \$,5508 3 3.558	\$ 2500 \$ 9,250 \$ 4800 13 23 \$ 1,316 2.066 0.20 \$ 1,807 2.919 0.28 \$ 5,546	\$ 1.797 \$ 8,144 \$ 5 4.930 \$ 43 3 2,466 \$ 1.771 0.20 \$ 1,505 \$ 2.482 0.27 \$ 4,738 \$	<pre>\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1,767 2.955 0.27 \$ 5,522</pre>
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per NWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2 (ktons) SO2 cost(\$000) NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$ #DIV/01 \$ #DIV/01 \$ \$ \$ \$ \$ \$ \$	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 17 \$ 919 2.133 0.20 \$ 299 1.013 0.09 \$ 2,885 \$ 45,227	\$ 40,358 \$ 2,040 \$ 7,490 \$ 4,160 8 20 \$ 1,104 1.929 0.20 \$ 222 0.815 0.08 \$ 1,964 \$ 48,952	\$ 2 19(\$ 8,87 \$ 4,55(0,20 \$ 1,81 2,97 0,2(\$ 6,419 \$ 55,77) \$ 2,150 2 \$ 8,594 3 \$ 4,670 4 31 31 9 1,719 9 9 1,772 0.20 3 \$ 1,732 2 2.775 0.27 3 \$ 5,508 4 \$ 53,805	\$ 2,500 \$ 9,250 \$ 4,800 13 23 \$ 1,316 2.066 0.20 \$ 1,607 2.919 0.28 \$ 5,546 \$ \$ 63,530	\$ 1.797 \$ 8,144 \$ \$ 4,330 \$ 433 \$ 2,466 \$ 1.771 0.20 \$ 1,505 \$ 2,482 0.27 \$ 4,738 \$ \$ 43,242 \$	<pre>\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1,767 2.955 0.27 \$ 5,522 \$ 53,220</pre>
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start cost(\$000) Start cost(\$000) SO2(ktons) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ \$ \$ #DIV/01	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 \$ 919 2.133 0.20 \$ 299 1.013 0.09 \$ 2,885 \$ 45,227 \$ 23,12	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 \$ 1,104 1.929 0.20 \$ 2222 0.815 0.08 \$ 1,964 \$ 48,952 \$ 27.19	\$ 2 19(\$ 8,87; \$ 4,55(111 \$ 977 2,085 0,22 \$ 1,81; 2,979 0,22 \$ 6,419 \$ 55,77* \$ 29,11) \$ 2,150 2 8,594 0 \$ 4,670 14 31 3 1,719 9 1,972 0 0,200 3 1,732 0 2,775 3 0,27 9 \$ 9	\$ 2500 \$ 9,250 \$ 4 800 13 23 \$ 1,316 2.066 0.20 \$ 1,807 2.919 0.28 \$ 5,546 \$ 63,530 \$ 32.97	\$ 1.797 \$ 8,144 \$ 4.930 \$ 4.930 \$ 3,2466 \$ 1.771 0.20 \$ 1,505 \$ 2.482 0.27 \$ 4,738 \$ \$ 43,242 \$ \$ 26.18 \$	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1,767 2.955 0.27 \$ 5,522 \$ 53,220 \$ 27,20
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2(ktons) SO2 cost(\$000) NOx(ktons) NOx cost(\$000) NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000)	\$ #DIV/01 \$ #DIV/01 \$ \$ \$ #DIV/01 \$ \$ #DIV/01 \$	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 5 919 2.133 0.20 \$ 299 1.013 0.09 \$ 2,885 \$ 45,227 \$ 45,227 \$ 3,183	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 8 20 \$ 1,104 1.929 0.20 \$ 222 0.815 0.08 \$ 1,964 \$ 48,952 \$ 27.19 \$ 2,186	\$ 2 199 \$ 8,877 \$ 4,557 2,088 0,20 \$ 1.81 2,977 0,21 \$ 6,413 \$ 56,777 \$ 29,11 \$ 8,223) \$ 2,150 2 \$ 8,594 0 \$ 4,670 14 31 14 3 31 9 1,719 9 1,972 0.20 3 2,775 3 0.27 3 0.27 3 0.27 9 5,508 \$ 5,508 \$ 2,9.24 4 \$ 53,805 \$ 2,9.24 \$ 4 \$ 53,805 \$ 2,9.24 \$ 4 \$ 53,805 \$ 2,9.24 \$	\$ 2500 \$ 9,250 \$ 4 600 13 23 \$ 1,316 2,066 0,20 \$ 1,607 2,919 0,28 \$ 5,546 \$ 63,530 \$ 32,97 \$ 7,354	\$ 1.797 \$ 8,144 \$ \$ 4.930 \$ 4.930 \$ 3,2466 \$ 1.771 0.20 \$ 1,505 \$ 2.482 0.77 \$ 4,738 \$ \$ 43,242 \$ \$ 43,242 \$ \$ 26.18 \$ \$ 26.18 \$	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 1.767 2.955 0.27 \$ 5,522 \$ 53,220 \$ 7,289
	Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start cost(\$000) Start cost(\$000) SO2(ktons) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ \$ \$ #DIV/01	\$ 36,749 \$ 1680 \$ 7,559 \$ 3865 7 \$ 919 2.133 0.20 \$ 299 1.013 0.09 \$ 2,885 \$ 45,227 \$ 23,12	\$ 40,358 \$ 2.040 \$ 7,490 \$ 4.160 \$ 1,104 1.929 0.20 \$ 2222 0.815 0.08 \$ 1,964 \$ 48,952 \$ 27.19	\$ 2 199 \$ 8,877 \$ 4,557 2,088 0,20 \$ 1.81 2,977 0,22 \$ 6,415 \$ 56,777 \$ 29,11 \$ 8,233) \$ 2,150 2 \$ 8,594 0 \$ 4,670 14 31 14 3 31 9 1,719 9 1,972 0.20 3 2,775 3 0.27 3 0.27 3 0.27 9 5,508 \$ 5,508 \$ 2,9.24 4 \$ 53,805 \$ 2,9.24 \$ 4 \$ 53,805 \$ 2,9.24 \$ 4 \$ 53,805 \$ 2,9.24 \$	\$ 2500 \$ 9,250 \$ 4 600 13 23 \$ 1,316 2,066 0,20 \$ 1,607 2,919 0,28 \$ 5,546 \$ 63,530 \$ 32,97 \$ 7,354	\$ 1.797 \$ 8,144 \$ 4.930 \$ 4.930 \$ 3,2466 \$ 1.771 0.20 \$ 1,505 \$ 2.482 0.27 \$ 4,738 \$ \$ 43,242 \$ \$ 26.18 \$	\$ 1 812 \$ 13,071 \$ 6 680 13 20 \$ 1.155 2.098 0.20 \$ 0.27 \$ 5,522 \$ 53,220 \$ 7,289 \$ 7,289

EntityName	The second second second second second second second second second second second second second second second se	200B	2009	2010	2011	2012	2013	2014	2015
Green Z	Max Capacity(MW)	223	223	223	223	223	223	223	223
	Min Capacity(MW)	180	180	180	160	180	180	180	180
	Generation(GWh)		1.713	1,872	1.604	1,850	1.763	1,865	1,748
	Annual Cap. Fac	0.00%	67 68%	95.85%	82 12%	94.42%	90.26%	95.49%	89 50%
· · · · · · · · · · · · · ·	Fuel used(GBtu)		19,358	20,800	17,820	20,557	19,594	20,731	19,425
	Coal(Tons)		967,890	1,040,003	891,016	1,027,860	979,697	1,036,537	971,248
	Heat Rate	#DIV/0!	11 302	11.109	11 109	11.115	11 112	11.114	11 110
	Fuel cost(\$000)	\$.	\$ 32,521	\$ 42,432	\$ 39,026		\$ 48,985	\$ 37,253	\$ 35,198
· · · · · · · · · · · · · · · · · · ·	Fuel Cost per MMBTu	#DIV/01	\$ 1.6BO	\$ 2.040	\$ 2 190		\$ 2,500	\$ 1.797	\$ 1 812
	VOM cost(\$000)	\$ -	\$ 6,609	\$ 7,789	\$ 7,299	\$ 8,637	\$ 8,464	\$ 9,196	\$ 11.679
	VOM per MWh	#DIV/0!	\$ 3 859	\$ 4.160	\$ 4.550	\$ 4.670	\$ 4800	\$ 4.930	\$ 6 680
	Num starts()		8	7	6	13	14	11	15
and the second second second	Start Fuel used(GBtu)		25	23	22	24	38	20	41
	Start cost(\$000)	\$	\$ 1,174	\$ 1,107	\$ 1,034	\$ 1,271	\$ 1.905	\$ 1,0B9	\$ 2,142
	SO2(ktons)		1.868	2.028	1.738	2.004	1.911	2.021	1.894
	SO2 Emit Rate	#DIV/01	0.20	0.19	0.20	0.20	0.20	0.20	0.20
	SO2 cost(\$000)	\$	\$ 264	\$ 233	\$ 1,508	\$ 1,760	\$ 1,672	\$ 1,718	\$ 1,595
	NOx(ktons)		0.990	0.975	2.428	2.812	2.674	2.838	2.657
	NOx Emit Rate		0.10	0.09	0.27	0.27	0.27	0,27	0.27
	NOx cost(\$000)	5 -	\$ 2,818	\$ 2,348	\$ 5,233	\$ 5,582	\$ 5,081	\$ 5,418	\$ 4,966
	10x cost(2000)	energia de la companya de la companya de la companya de la companya de la companya de la companya de la company				12025000000		N. M. M. HAR	
	Total Operating Cost (\$000)		\$ 40,304	\$ 51,328	\$ 47,359	\$ 54,107	\$ 59,354	\$ 47,538	\$ 49,019
	Op Cost per MWh	#DIV/01	\$ 23.53	\$ 27.41	\$ 29.52	\$ 29.25	\$ 33.66	\$ 25.49	\$ 28.04
	Total Emissions Cost (\$000)	\$ -	\$ 3,082	\$ 2,581		\$ 7,341		\$ 7,136	\$ 6,561
									* 775
	Emit Cost per MWh	#DTV/01	\$ 1.80 2009	\$ 1.38 2010	\$ 4.20	\$ 3.97 2012	\$ 3.83 2013	\$ 3.83 2014	
		#DIV/01	\$ 1.80	\$ 1.38	\$ 4.20				
	Emit Cost per MWh	2008	2009	2010	2011	2012	2013	2014	201
Total	Emit Cost per MWh Max Capacity(MW)	2008	2009	2010	2011	2012	2013 1,737	2014 1,737	201
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW)	2008	2009 1,738 1,255	2010 1,737 1,255	2011 1,737 1,255	2012 1,737 1,255	2013 1,737 1,255	2014 1,737 1,255	201 1.737 1,255
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh)	2008 1,743 1,070	2009 1,738 1,255 12,531	2010 1,737 1,255 12,980	2011 1,737 1,255 12,468	2012 1,737 1,255 12,679	2013 1,737 1,255 12,762	2014 1,737 1,255 12,799	201 1.737 1,255 12,826
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac	2008	2009 1,738 1,255 12,531 82 32%	2010 1,737 1,255 12,980 85.28%	2011 1,737 1,255 12,468 81 92%	2012 1,737 1,255 12,679 83.08%	2013 1,737 1,255 12,762 83 85%	2014 1,737 1,255 12,799 84,10%	201 1.737 1,255 12,820 84 289
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu)	2008 1,743 1,070	2009 1,738 1,255 12,531 82 32% 139,691	2010 1,737 1,255 12,980 85.28% 143,951	2011 1,737 1,255 12,468 81 92% 138,665	2012 1,737 1,255 12,679 83.08% 140,599	2013 1,737 1,255 12,762 83 85% 140,722	2014 1,737 1,255 12,799 84.10% 141,260	201 1.737 1,255 12,826 84 289 141,514
Totai	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)	2008 1,743 1,070 	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497	2010 1,737 1,255 12,980 85.28% 143,951 6,514,057	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339	201 1.737 1,255 12,826 84 289 141,514 6,407,813
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	2008 1,743 1,070 0.00% #DIV/01	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11,037	201 1.737 1,255 12,826 84 289 141,514 6,407,813 11,033
Total	Emit Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	2008 1,743 1,070 0,00% 	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11,090 \$ 311,537	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188	2012 1,737 1,255 12,679 83,08% 140,599 6,356,369 11,089 \$ 352,926	2013 1,737 1,255 12,762 83 85% 140,722 6,366,971 11 027 \$ 379,743	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11.037 \$ 260,858	201 1.737 1,255 12,826 84 289 141,514 6,407,813 11 033 \$ 262.013
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	2008 1,743 1,070 - - - #DIV/01 \$ - #DIV/01	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1 948	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11,090 \$ 311,537 \$ 2,164	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2 699	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847	201 1.737 1,255 12,826 84 289 141,514 6,407,813 11 033 \$ 262,011 \$ 1 852
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000)	2008 1,743 1,070 	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,812	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2699 \$ 43,814	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845	201 1.737 1,255 12,826 84 289 141,514 6,407,813 11 033 \$ 262.011 \$ 1855 \$ 55,250
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh	2008 1,743 1,070 - - - #DIV/01 \$ - #DIV/01	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1 948 \$ 32,718 \$ 2 611	2010 1,737 1,255 12,980 85.28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 42,820 \$ 3.377	2013 1,737 1,255 12,762 83 85% 140,722 6,366,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504	201 1.737 1.252 12,826 84 289 141,514 6,407,813 11.033 \$ 262.013 \$ 1.855 \$ 55,256 \$ 4 308
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(G8tu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	2008 1,743 1,070 	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718 \$ 225	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11,090 \$ 311,537 \$ 2,164 \$ 35,812 \$ 2,759 289	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315	201 1.737 1.255 12,826 84 269 141,514 6,407,813 111033 \$ 262.012 \$ 1855 \$ 55,255 \$ 4 300 28:
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num stars() Start Fuel used(GBtu)	2008 1,743 1,070 - - - #DIV/01 \$ #DIV/01 \$ #DIV/01	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718 \$ 32,718 \$ 2611 295 279	2010 1,737 1,255 12,980 85,28% 143,951 5,514,057 11.090 \$ 311,537 \$ 2.164 \$ 35,812 \$ 2,759 289 283	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281	2012 1,737 1,255 12,679 83,08% 140,599 6,356,369 11,089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3,377 306 262	2013 1,737 1,255 12,762 83,85% 140,722 6,366,971 11,027 \$ 379,743 \$ 2,699 \$ 43,814 \$ 3,433 363 246	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253	201 1.737 1.255 12,826 84 289 141,514 6,407,813 11 033 \$ 262.013 \$ 1852 \$ 55,255 \$ 4 300 280 280 280 280 280 280 280 2
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	2008 1,743 1,070 	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1 948 \$ 32,718 \$ 2 611 295 279 \$ 12,359	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759 289 283 \$ 12,615	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 262 \$ 3 262 \$ 40,914 \$ 3 262 \$ 3 262 \$ 3 262 \$ 40,914 \$ 40,914 \$ 3 262 \$ 40,914 \$ 3 262 \$ 3 262 \$ 40,914 \$ 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 3 262 \$ 3 3 3 3 262 \$ 3 3 3 262 \$ 3 3 3 3 262 \$ 3 3 3	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 246 \$ 11,304	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982	201 1.733 1.255 12.826 84 289 141,514 141,514 141,514 5 1855,250 \$ 4300 283 2335 \$ 11,088
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons)	2008 1,743 1,070 0.00% #DIV/0! \$ #DIV/0! \$ #DIV/0! \$ \$	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1 948 \$ 32,718 \$ 2 611 295 279 \$ 12,359 20,430	2010 1,737 1,255 12,980 85.28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759 289 283 \$ 12,615 21,740	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20.538	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754 21.040	2013 1,737 1,255 12,762 83 85% 140,722 6,366,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 246 \$ 11,304 20,628	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21,140	201 1.737 1.255 12,826 84 289 141,514 6,407,813 11 033 \$ 262,013 \$ 152,55 \$ 4300 283 \$ 11,088 20,834 20,934 20,
Totai	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(Ktons) SO2 Emit Rate	2008 1,743 1,070 - - #DIV/01 \$ - #DIV/01 \$ - - - \$ - - * #DIV/01	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718 \$ 22,074 \$ 1948 \$ 32,718 \$ 221,074 \$ 1948 \$ 32,718 \$ 221,074 \$ 1948 \$ 32,718 \$ 225 279 \$ 12,359 20,430 0,029	2010 1,737 1,255 12,980 85.28% 143,951 5,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759 289 283 \$ 12,815 21,740 0,30	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20,538 0.30	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3,377 306 262 \$ 11,754 21.040 0.30	2013 1,737 1,255 12,762 83 85% 140,722 5,360,971 11 027 \$ 379,743 \$ 2,699 \$ 43,814 \$ 3,433 363 246 \$ 11,304 \$ 11,304 20,628 0,29	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21.140 0.30	201 1.737 1.255 12,826 64 289 141,514 6,407,813 11 033 5 262,013 \$ 2
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons)	2008 1,743 1,070 0.00% #DIV/0! \$ #DIV/0! \$ #DIV/0! \$ \$	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718 \$ 2611 295 279 \$ 12,359 20.430 0,299 \$ 2,860	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,812 \$ 2,759 289 283 \$ 12,815 21,740 0,30 \$ 2,550	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20.538 0.337 (\$ 12,646 20.538 0.337 (\$ 12,646 20.538 0.337 (\$ 12,646 20.538 0.337 (\$ 12,646 20.538 0.337 (\$ 12,646 20.538 0.337 (\$ 12,646 20.538 0.337 (\$ 12,646 20.538 (\$ 12,646 (\$ 12,646\\ (\$ 12,646\\ (\$ 12,646\\ (\$ 12,646\\ (\$ 12,646\\ (\$ 12,646\\ (\$ 12,646\\ (\$ 12,646\\ (\$ 12,646\\ (2012 1,737 1,255 12,679 83,08% 140,599 6,356,369 11,089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3,377 306 262 \$ 11,754 21,040 0,30 \$ 18,473	2013 1,737 1,255 12,762 83,85% 140,722 6,366,971 11,027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 246 \$ 11,304 20,628 0,29 \$ 18,049 \$	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21,140 0,300 \$ 17,969	201 1.733 1.255 12,826 84 289 141,514 6,407,813 11 033 \$ 262,013 \$ 1855 \$ 55,250 \$ 4 300 286 233 \$ 11,088 20.83 0.22 \$ 17,544
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(Ktons) SO2 Emit Rate	2008 1,743 1,070 - - #DIV/01 \$ - #DIV/01 \$ - - - \$ - - * #DIV/01	2009 1,738 1,255 12,531 82 32% 139,691 139,691 139,691 147 \$ 272,074 \$ 1 948 \$ 32,718 \$ 2 611 295 279 \$ 12,359 20,430 0,29 \$ 2,860 \$ 2,480 \$ 2,48	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759 289 283 \$ 12,815 21,740 0,330 \$ 2,500 5,212	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 2999 281 \$ 12,646 20.538 0.30 \$ 17,827 13.775	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754 21.040 0.30 \$ 18,473 13.672	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 246 \$ 11,304 20.628 0.29 \$ 18,049 \$ 18,049 13.832	2014 1,737 1,255 12,799 B4.10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21.140 0.30 \$ 17,969 13.642	201 1.733 1.255 12.826 84 289 141,514 6,407,813 1 1033 \$ 262.011 \$ 1855.255 \$ 4 300 288 20.833 \$ 0.21 \$ 11,088 20.833 0.22 \$ 17,544 13.888
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000)	2008 1,743 1,070 0.00% #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1 948 \$ 32,718 \$ 2 611 295 279 \$ 12,359 20.430 0.29 \$ 2,860 5 248 0 075	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759 289 283 \$ 12,815 21.740 0.30 \$ 2,500 \$ 2,502 0.07	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20.538 0.30 \$ 17,627 13.775 0.20	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754 21.040 0.30 \$ 18,473 13.672 0.19	2013 1,737 1,255 12,762 83 85% 140,722 6,366,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 2466 \$ 11,304 20.628 0.29 \$ 18,049 13.832 0.20	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,992 21.140 0.30 \$ 17,969 13.642 0.19	201 1.737 1.255 12,826 84 289 141,514 6,407,813 11 033 \$ 262.013 \$ 1852 \$ 4300 283 \$ 55,255 \$ 4 300 283 20.833 0.22 \$ 11,088 0.22 \$ 17,544 13,888 0.2
Totai	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	2008 1,743 1,070 - - #DIV/01 \$ - #DIV/01 \$ - - - \$ - - * #DIV/01	2009 1,738 1,255 12,531 82 32% 139,691 139,691 139,691 11147 \$ 272,074 \$ 1 948 \$ 32,718 \$ 2 611 295 279 \$ 12,359 20,430 0,29 \$ 2,860 \$ 2,480 \$ 2,	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759 289 283 \$ 12,815 21,740 0,330 \$ 2,500 5,212	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20.538 0.30 \$ 17,827 13,775 0.20	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754 21.040 0.30 \$ 18,473 13.672 0.19	2013 1,737 1,255 12,762 83 85% 140,722 6,366,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 2466 \$ 11,304 20.628 0.29 \$ 18,049 13.832 0.20	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,992 21.140 0.30 \$ 17,969 13.642 0.19	201 1.737 1.255 12,826 84 289 141,514 6,407,813 11 033 \$ 262.013 \$ 1852 \$ 4300 283 \$ 55,255 \$ 4 300 283 20.833 0.22 \$ 11,088 0.22 \$ 17,544 13,888 0.2
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	2008 1.743 1.070 - 0.00% - #DIV/01 \$ - #DIV/01 \$ - \$ - #DIV/01 \$ - - \$ - - \$ - - \$ - - \$ - - \$ -	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718 \$ 2611 295 279 \$ 12,359 20.430 0.29 \$ 2,860 \$ 2,48 0 075 \$ 14,686	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,812 \$ 2,759 289 283 \$ 12,815 21.740 0.30 \$ 2,500 \$ 2,520 \$ 2,527 \$ 12,557	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20.538 0.30 \$ 17,827 13,775 0.20 \$ 29,693	2012 1,737 1,255 12,679 83,08% 140,599 6,356,369 11,089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3,377 306 262 \$ 11,754 21,040 \$ 3,377 306 262 \$ 11,754 21,040 \$ 3,377 306 262 \$ 11,754 21,040 \$ 3,377 306 262 \$ 11,754 21,040 \$ 3,377 306 262 \$ 2,510 \$ 42,820 \$ 3,377 306 262 \$ 2,510 \$ 42,820 \$ 3,377 306 262 \$ 2,510 \$ 42,820 \$ 3,377 306 262 \$ 3,377 306 262 \$ 3,377 306 262 \$ 11,754 21,040 \$ 3,377 306 262 \$ 11,754 21,040 \$ 3,377 306 20,020 \$ 3,377 306 20,020 \$ 3,177 306 20,020 \$ 3,177 306 20,020 \$ 3,377 306 20,020 \$ 3,177 306 20,020 \$ 11,754 21,040 \$ 3,107 \$ 3,107 \$ 3,000 \$ 3,177 3 0,000 \$ 3,177 3 0,000 \$ 3,177 3 0,000 \$ 3,177 \$ 3,000 \$ 3,1000 \$ 3,10000 \$ 3,10000 \$ 3,10000 \$ 3,10000 \$ 3,100000 \$ 3,100000 \$ 3,1000000 \$ 3,1000000000000000000000000000000000000	2013 1,737 1,255 12,762 83,85% 140,722 6,366,971 11,027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 246 \$ 11,304 20.628 0.29 \$ 18,049 13,832 0.20 \$ 26,281	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21.140 0.30 \$ 17,969 13.642 0.19 \$ 26,042	201 1.733 1.252 12,826 84 289 141,514 6,407,813 11 033 \$ 262,013 \$ 1855 \$ 55,250 \$ 4 300 286 20.83 0.22 \$ 17,544 13,888 0.2 \$ 25,944 20,000
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	2008 1,743 1,070 	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718 \$ 2 611 295 279 \$ 12,359 20.430 0.29 \$ 2,860 \$ 2,480 0.755 \$ 14,886 \$ 317,152	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,812 \$ 2,759 283 \$ 2,815 21.740 0.30 \$ 2,550 \$ 2,550 \$ 360,164 \$ 360,164	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20,538 0.30 \$ 17,827 13,775 0.22 \$ 367,748 \$ 367,748	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754 21.040 0.30 \$ 18,473 13.672 0.19 \$ 27,138 \$ 407,500	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 246 \$ 11,304 20.628 0.29 \$ 18,049 13.832 0.20 \$ 26,281 \$ 434,861	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21.140 0.30 \$ 17,969 13.642 0.19 \$ 26,042 \$ 317,686	201 1.733 1.255 12.826 84 289 141.514 5.407.813 11033 \$ 262.013 \$ 1855.250 \$ 4 300 283 233 \$ 11,080 20.834 0.21 \$ 17.544 13.888 0.2 \$ 25,94 \$ 328,34
Totai	Emit Cost per MWh Min Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(Kions) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	2008 1,743 1,070 0,00% #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - \$ - \$ - \$ - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - \$ - \$ - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ - #DIV/01 \$ * - #DIV/01 \$ * - #DIV/01 \$ * - #DIV/01 * * * * * * * * * * * * *	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1 948 \$ 32,718 \$ 2 611 295 279 \$ 12,359 20,430 0.29 \$ 2,860 0 2248 0 075 \$ 14,886 \$ 317,152 \$ 317,152	2010 1,737 1,255 12,980 85,28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,612 \$ 2,759 289 283 \$ 12,815 21.740 0.30 \$ 2,2507 \$ 2,12,815 21.740 0.30 \$ 2,5212 0.07 \$ 12,557 \$ 360,164 \$ 27.75	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 283 \$ 12,646 20.536 0.30 \$ 17,827 0.20 \$ 29,693 \$ 367,748 \$ 29,50	2012 1,737 1,255 12,679 83.08% 140,599 1.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754 21.040 0.30 \$ 18,473 13.672 0.19 \$ 27,138 \$ 407,500 \$ 32,14	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 363 246 \$ 11,304 20.628 0.29 \$ 18,049 13.832 0.20 \$ 26,281 \$ 434,861 \$ 34.08	2014 1,737 1,255 12,799 84,10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21.140 0.30 \$ 17,969 \$ 26,042 \$ 317,686 \$ 24.82	201 1.737 1.255 12,826 84 28% 141,514 6,407,813 11 033 \$ 262,011 \$ 1852 \$ 55,255 \$ 4 30% 20,837 0.22 \$ 17,54 13,888 0.22 \$ 17,54 13,888 0.22 \$ 25,94 \$ 328,34 \$ 25,66 \$ 25,66 \$ 25,67 \$ 2
Total	Emit Cost per MWh Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	2008 1,743 1,070 	2009 1,738 1,255 12,531 82 32% 139,691 6,336,497 11 147 \$ 272,074 \$ 1948 \$ 32,718 \$ 2 611 295 279 \$ 12,359 20.430 0.29 \$ 2,860 \$ 2,480 0.755 \$ 14,886 \$ 317,152	2010 1,737 1,255 12,980 85.28% 143,951 6,514,057 11.090 \$ 311,537 \$ 2,164 \$ 35,812 \$ 2,759 289 283 \$ 12,815 21.740 0.30 \$ 2,500 \$ 2,2500 \$ 2,2500 \$ 2,2507 \$ 360,164 \$ 27.75 \$ 360,164	2011 1,737 1,255 12,468 81 92% 138,665 6,262,389 11 122 \$ 314,188 \$ 2 266 \$ 40,914 \$ 3 282 299 281 \$ 12,646 20,530 \$ 20,530 \$ 17,827 13.775 0,327 \$ 29,693 \$ 367,748 \$ 29,551 \$ 47,520	2012 1,737 1,255 12,679 83.08% 140,599 6,356,369 11.089 \$ 352,926 \$ 2,510 \$ 42,820 \$ 3.377 306 262 \$ 11,754 21.040 0.30 \$ 18,473 13.672 0.19 \$ 27,138 \$ 407,500 \$ 3.214 \$ 45,612	2013 1,737 1,255 12,762 83 85% 140,722 6,368,971 11 027 \$ 379,743 \$ 2 699 \$ 43,814 \$ 3 433 3 63 246 \$ 11,304 20,628 0,29 \$ 18,049 13.832 0,20 \$ 18,049 13.832 0,20 \$ 34,08 \$ 434,861 \$ 34,08 \$ 44,330	2014 1,737 1,255 12,799 84.10% 141,260 6,373,339 11.037 \$ 260,858 \$ 1.847 \$ 44,845 \$ 3.504 315 253 \$ 11,982 21.140 0.30 \$ 17,969 13.642 0.39 \$ 25,042 \$ 317,686 \$ 24.82 \$ 44,012 \$ 317,686 \$ 24.82 \$ 44,012 \$ 317,686 \$ 24.82 \$ 44,012 \$ 317,686 \$ 24,82 \$ 44,012 \$ 317,686 \$ 24,82 \$ 44,012 \$ 317,686 \$ 24,82 \$ 44,012 \$ 317,686 \$ 24,82 \$ 317,686 \$ 317,68	201 1.737 1.255 12,826 84 289 141,514 6,407,812 11 033 \$ 262.013 \$ 262.013 \$ 1855 \$ 4 300 280 280 \$ 11,088 0.23 \$ 17,54 13,88 0.22 \$ 25,94 \$ 326,34 \$ 25,94 \$ 326,34 \$ 25,94 \$ 25

ntityName		1000	2016		2017		2018		2019	10	2020		2021		2022		2023			
B Wilson 1	Max Capacity(MW)		417		417		417		417		417		417	Ś.	417		417			
	Min Capacity(MW)		325		325		325		325		325		325		325		325			
	Generation(GWh)		3,390		2,965	공범	3,384		3,216		3,385		3,223		3,409		3.211			
	Annual Cap. Fac		92.54%		81 17%		92.63%		88 04%		92.41%		38 24%		93.32%		87 89%			•••••
	Fuel used(G8tu)		37,206		32,550		37,130		35,285		37,151		35,366		37,416		35,220			
	Coal(Tons)		17,640	1^{\prime}	415.201	1,6	514,347		34,116		15,270		37,664		26,778		31,301			
	Heat Rate		10.976		10.977		10,973		10 972		10.975		10.972		10.976		10 970			
	Fuel cost(\$000)	\$ 1	68,198	\$	60,314	\$											69,771			
	Fuel Cost per MM8Tu	\$	1.833	\$	1 853	\$	1.873	\$		\$		ş		\$		\$	1 981			
	VOM cost(\$000)	\$	12,441	5	11,179	\$	13,095	\$	12.800	\$	13,845	Ş :		\$		\$	14,223			
*****	VOM per MWh	\$	3.670	\$	3.770	\$	3.870	\$	3.980	\$	4.090	\$	4 200	\$	4.310	\$	4 430			
	Num starts()		10.03		14.23	영상	8.32		10.03		10.03		9.20		10.03		9.18			
	Start Fuel used(GBtu)		50		77		46		55		53		50		52		55			
	Start cost(\$000)	\$	2,999	\$	4,740	\$	2,877	\$	3,547	\$	3,532	\$	3,375	\$	3,610	\$	3,903			
	SO2(ktons)		10.883		9,522	53	10.861		10.321		10.867		10.345		10,945		10.303			
•••••••	SO2 Emit Rate		0.59		0.59		0.59		0.59	10	0.59		0.59		0.59		0.59			
	SO2 cost(\$000)	\$	8,979	\$		\$		5		\$	14 T 44 T	\$		\$	3,305	5	2,874			
n	NOx(ktons)		1.073		0.934		1.074	2	1.016		1.076		1 017		1.083		1.014		1997 - 19 1	
	NOx Emit Rate		0.06		0.05		0.05		0.06		0.05		0.06		0.06		0.06		9 · · · · · · · · ·	
		\$	1,876	\$	1,517	\$		ŝ		\$		\$		\$	1,651	\$	1,548		5	
	NOx cost(\$000)	<u> </u>	1,070	<u>~</u>	1,317	<u> -</u>	1,005		1,22,3	*	1,0.0	4	2,510		-100-			and a state of		
							05 517		03 141		00 447		00 202		91,564	\$	87,896		: : :	
	Total Operating Cost (\$000)		83,637	\$	76,233	\$	85,517		83,141				85,383	\$	26.86	₹ \$	27.38		4	
	Op Cost per MWh	\$	24.67	\$	25.71	Ş	25.27	\$	25.85	\$		ş	26.49	\$						
	Total Emissions Cost (\$000)		10,855	\$	8,725	ş		\$	7,324	\$		ş	5,169	\$	4,957	\$	4,422			•••••
	Emit Cost per MWh	\$	3.20	\$	2.94	\$		\$	2.28	\$		\$	1.60	\$	1.45	\$	1.38		÷	
			299.04		333.10		345.64		353.75		352.20		366.74		360.06		425.37		ł	
						_													T	
ntityName		1.00	2016		2017	100	2018		2019	1.03	2020		2021	- 223	2022		2023	tri e La construcción A construcción	<u></u>	
IMPL 1	Max Capacity(MW)		152		152		152		152		152		152	195	152		152			
	Min Capacity(MW)		140		140	-80	140		140		140		140	22	140		140			
	Generation(GWh)		1,226	l	1,124		1,224		1,061		1,127		1,158		1,227		1,122			
	Annual Cap. Fac		91.72%		84 28%		91.80%		79.59%		84.29%		86 87%		92.05%		84 17%			
	Fuel used(GBtu)		13,274		12,164		13,247		11,488		12,194		12,537		13,289		12,148			
	Coal(Tons)		577,143		528,875		575,974	4	499,477		530,194	5	545,065		577,791		528,166		đ	
	Heat Rate		10.826)	10.825		10.824		10 826		10.822		10 824		10.828		10.825		an an an an an an an an an an an an an a	
••••••	Fuel cost(\$000)	\$	24,186	\$	22,406	\$	24,653	\$	21,620	\$	23,182	\$	24.120	\$	25,861	\$	23,919		d.	
	Fuel Cost per MMBTu	\$	1.822	\$	1 842	ŝ	1.861	\$	1 882	\$		\$	1 924	\$	1.946	\$	1 969		4	
			7,394	\$	6,967	\$	7,796	5	6,940	\$		\$	8,003	\$	8,714	\$	8,181		J	
	VOM cost(\$000)	\$	6.030	\$	6.200	\$	6.370	ş	6 540	\$		\$	6.910	\$	7.100	\$	7.290		4	
	VOM per MWh	\$		₹.		7		?	21.35	1	13.76		15 04		13.80	۰.	13 89		÷	
	Num starts()		15.04	ş	13.76		13.76						28		26		26			
	Start Fuel used(GBtu)		28	Ì	26		26		38		26					ŝ			ä	
	Start cost(\$000)	\$	1,689	<u>\$</u>	1,585	\$	1,625	\$	2,463	\$		\$	1,920	\$	1,807	÷.,	1,867			
(502(ktons)		2.190		2.007		2.186		1.896		2.012		2.069		2.193		2.005		ę	
	SO2 Emit Rate		0.33	÷	0.33		0.33		0.33		0.33		0.33		0.33	·• :	0.33		·	
	SO2 cost(\$000)	\$	1,807	\$	1,519	\$	1,543	\$	1,064	5	831	\$		\$		\$	559		<u> </u>	
	NOx(ktons)	1.15	0.556		0.507		0.555		0.479		0.510		0 524	23	0.556		0.505		<u> 1</u>	
29(2):2(m):2(m):2(m):2(m):2(m):2(m):2(m):2	NOx Emit Rate		0.08	2	0.08		0,08		0.08		0.08		0.08		0.08		0.08		са (С.,	
	NOx cost(\$000)	\$	972	\$	823	\$	870	\$	724	\$	775	\$	798	\$	847	\$	772	<u> A A A A A A A</u>	1	
	1			÷		100														
	Total Operating Cost (\$000)	\$	33,269	\$	30,959	\$	34,075	\$	31,024	\$	32,466	\$	34,043	\$	36,382	\$	33,967		din	
	Op Cost per MWh	\$	27.13	\$		\$	27.84	Ş	29.24	.\$	28.81	\$	29.39	\$	29.64	\$	30.27		N	
	Total Emissions Cost (\$000)	\$		\$	2,342		2,413	\$	1,787	: \$	1,606	\$	1,522	\$	1,509	\$	1,331		d	
			2.772	1.00					1 20	s	1.43	- 12 -				- -			11	
	Emit Cost der NWh	5	2,779	ं \$	2.08	\$	1.97	\$	1.68	- P	1.10	\$	1.31	\$	1.23	\$	1.19			
	Emit Cost per NWh	8 M M	2,779	<u>; ş</u>	2.08	÷	1.97	ş	1.00	<u>~</u>	1.15	ş	1.31	<u>\$</u>	1.23		1.19	· · · · · · · · ·		
	Emit Cost per MWh	8 M M		<u>\$</u>	2.08		1.97	\$	1.00		1.13	. Ş	1.31	\$	1.23		1.19			
FolityName	Emit Cost per MWh	8 M M	2.27		• • • • • • • • • • • •			Į	2019		2020	\$ 	1.31	\$	1.23		1.19 2023		1	· · ·.
11401 0		8 M M	2.27 2016	5	2017	2	2018	Į	2019		2020	\$		\$						· · · · ·
11401 0	Max Capacity(MW)	8 M M	2.27 2016 158	s i	2017 158	7 1	2018 158	Į	2019 158		2020 158	ş	2021 158		2022 158		2023 158			
11401 0	Max Capacity(MW) Min Capacity(MW)	8 M M	2.27 2016 158 140	5	2017 158 140	1	2018 158 140	Į	2019 158 140		2020 158 140	5	2021 158 140		2022 158 140		2023 158 140			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh)	8 M M	2.27 2016 158 140 1,189	5	2017 158 140 1,259	1	2018 158 140 1,167	I	2019 158 140 1,256		2020 158 140 1,071	5	2021 158 140 1,255		2022 158 140 1,194	\$	2023 158 140 1,237			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac	8 M M	2.27 2016 158 140 1,189 85.55%	5	2017 158 140 1,259 90.82%	7	2018 158 140 1,167 84.18%	I	2019 158 140 1,256 90 66%		2020 158 140 1,071 77.05%	5	2021 158 140 1,255 90 60%		2022 158 140 1,194 86.14%	\$	2023 158 140 1,237 89.27%			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu)	\$	2.27 2016 158 140 1,189 85.55% 12,885	5	2017 158 140 1,259 90.82% 13,645	7	2018 158 140 1,167 84.18% 12,645	I	2019 158 140 1,256 90 66% 13,619		2020 158 140 1,071 77.05% 11,605		2021 158 140 1,255 90 60% 13,609	\$	2022 158 140 1,194 86.14% 12,940	\$	2023 158 140 1,237 89.27% 13,409			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235	5	2017 158 140 1,259 90.82% 13,645 593,241	1	2018 158 140 1,167 84.18% 12,645 549,785	I	2019 158 140 1,255 90 66% 13,619 592,109		2020 158 140 1,071 77.06% 11,605 504,590		2021 158 140 1,255 90 60% 13,609 591,708		2022 158 140 1,194 86.14% 12,940 562,596	\$	2023 158 140 1,237 89.27% 13,409 582.997			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.638	5	2017 158 140 1,259 90 82% 13,645 593,241 10 840	2	2018 158 140 1,167 84.18% 12,645 549,785 10.840		2019 158 140 1,256 90 66% 13,619 592,109 10,839		2020 158 140 1,071 77.05% 11,605 504,590 10.837		2021 158 140 1,255 90 60% 13,609 591,708 10 840		2022 158 140 1,194 86,14% 12,940 562,596 10,839	\$ 	2023 158 140 1,237 89.27% 13,409 582.997 10 839			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133	7 	2018 158 140 1,167 84.18% 12,645 549,785 10.840 23,532	I	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630		2020 158 140 1,071 77.05% 11,605 504,590 10.837 22,062	5	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181	\$ 	2023 158 140 1,237 89.27% 13,409 582.997 10 839 26,402			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per M/IBTu	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822	5	2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842	2 1 \$ \$	2018 158 140 1,167 84.18% 12,645 549,785 10.840 23,532 1.861	5 5	2019 158 140 1,256 90 66% 13,619 592,109 10 839 25,630 1 882		2020 158 140 1,071 77.05% 11,605 504,590 10.837 22,062 1.901	\$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946	\$ 	2023 158 140 1,237 89.27% 13,409 582.997 10 839 26,402 1 969			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost(\$000)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169	5	2017 158 140 1,259 90,82% 13,645 593,241 10,840 25,133 1,842 7,804	\$	2018 158 140 1,167 84.18% 12,645 549,785 10,840 23,532 1,861 7,431	I \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217		2020 158 140 1,071 77.05% 11,605 504,590 10.837 22,062 1.901 7,196		2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476	\$ 	2023 158 140 1,237 89,27% 13,409 582,997 10,839 26,402 1,969 9,019			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per M/IBTu	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.638 23,477 1.822 7,169 6.030		2017 158 140 1,259 90,82% 13,645 593,241 10,840 25,133 1,842 5,7,804 5,7,804 5,200	2 	2018 158 140 1,167 84,18% 12,645 549,785 10.840 23,532 1.861 7,431 6.370	I \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540		2020 158 140 1,071 77.06% 11,605 504,597 22,062 1.901 7,196 6.720	\$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910		2022 158 140 1,194 86,14% 12,940 562,596 10,839 25,181 1,945 8,476 7,100	\$ 	2023 158 140 1,237 89,27% 13,409 582,997 10,839 26,402 1,969 9,019 7,290			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost(\$000)	\$	2.27 2016 158 140 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6.030 17.05		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,804 6,200 17 ,05	2 	2018 158 140 1,167 84,18% 12,645 549,785 10.840 23,532 1.861 7,431 6,370 17,05	I \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1,882 8,217 6,540 17 05		2020 158 140 1,071 77.06% 11,605 504,590 10.837 22,062 1.901 7,196 6.720 24,19		2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910 17 05		2022 158 140 1,194 86,14% 12,940 562,596 10,839 25,181 1,946 8,476 7,100 17,05	\$ 	2023 158 140 1,237 89,27% 13,409 582,997 10 839 26,402 1 969 9,019 9,019 7,290 17 05			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coał{Tons} Heat Rate Fuel cost(S000) Fuel cost(\$000) Fuel Cost per MIMBTu VOM cost(\$000) VOM per MWh	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.638 23,477 1.822 7,169 6.030		2017 158 140 1,259 90,82% 13,645 593,241 10,840 25,133 1,842 5,7,804 5,7,804 5,200	2 	2018 158 140 1,167 84,18% 12,645 549,785 10.840 23,532 1.861 7,431 6.370	I \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34		2020 158 140 1,071 1,075 10,605 504,590 10.837 22,062 1,901 7,196 6,720 24,19 46		2021 158 140 1,255 90,60% 13,609 591,708 10,840 26,184 1,924 8,675 6,910 17,05 34		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7,100 17.05 34	\$	2023 158 140 1,237 89,27% 13,409 582,997 10 839 26,402 1 969 9,019 7,290 17.05 34			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rale Fuel cost(S000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	\$	2.27 2016 158 140 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6.030 17.05		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,804 6,200 17 ,05	\$	2018 158 140 1,167 84,18% 12,645 549,785 10.840 23,532 1.861 7,431 6.370 17,05 34	\$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172		2020 158 140 1,071 77.05% 11,605 504,590 10.837 22,062 1.901 7,196 6,720 24,19 46 3,066		2021 158 140 1,255 90.60% 13,609 591,708 10.840 26,184 1.924 8,675 6,910 17.05 34 2,276		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7,100 17.05 34 2,398	\$ 	2023 158 140 1,237 89.27% 13,409 582.997 10 839 26,402 1 969 9,019 7,290 17.05 34 2,413			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6.030 17.05 34	5	2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,604 6,200 17,05 33	\$ \$ \$ \$ \$	2018 158 140 1,167 84,18% 12,645 549,785 10.840 23,532 1.861 7,431 6.370 17,05 34	\$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34		2020 158 140 1,071 77.05% 11,605 504,590 10.837 22,062 1.901 7,196 6.720 24.19 46 3,066 1,915		2021 150 1,255 90 60% 13,609 591,708 10 80 26,184 1 924 8,675 6,910 17 05 34 2,276 2 245		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7.100 17.05 34 2,398 2,135	\$	2023 158 140 1,237 89,27% 13,409 26,402 1 969 9,019 7,290 17.05 34 2,413 2,213			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coał{Tons} Heat Rate Fuel cost(\$000) Fuel cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) 0 SO2(ktons)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10,838 23,477 1.822 7,169 6.030 17.05 34 2,043 2,126		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,604 6,200 17,05 33 3,2,026	2 \$ \$ \$ \$ \$	2018 158 140 1,167 84.18% 12,645 549,785 10.840 23,532 1.861 7,431 6.370 17.05 34 2,147	\$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172		2020 158 140 1,071 77.05% 11,605 504,590 10.837 22,062 1.901 7,196 6,720 24,19 46 3,066		2021 158 1255 90.60% 13,609 591,708 10.840 26,184 1924 8,675 6.910 17.05 34 2,276 2 246 0.33		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7,100 17.05 34 2,398	\$	2023 158 140 1,237 89.27% 13,409 582.997 10 839 26,402 1 969 9,019 7,290 17.05 34 2,413			
11401 0	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start tost(\$000) § SO2(ktons) SO2 Emit Rate	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6.030 17.05 34 2.043 2.126 0.33		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,604 6.200 17.05 33 2,026 2,252 2,023	\$	2018 158 140 1,167 84,18% 12,645 549,785 10,840 23,532 1,861 7,431 6,370 17,05 34 2,147 2,087 0,33	\$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33		2020 158 140 1,071 77.05% 11,605 504,590 10.837 22,062 1.901 7,196 6.720 24.19 46 3,066 1,915	\$	2021 150 1,255 90 60% 13,609 591,708 10 80 26,184 1 924 8,675 6,910 17 05 34 2,276 2 245		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7.100 17.05 34 2,398 2,135	\$ \$ \$	2023 158 140 1,237 89,27% 13,409 26,402 1 969 9,019 7,290 17.05 34 2,413 2,213			
HMPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) 0 SO2(ktons) SO2 Emit Rate SO2 cost(\$000)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6,030 17.05 34 2,043 2,043 2,043 2,126 0,33 1,754		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,604 6,200 17 05 33 2,026 2 252 0,33 3,1,704	\$	2018 158 140 1,167 84.18% 12,645 549,785 10.840 23,532 1.861 7,431 6.370 17.05 34 2,147 2.087 0.33 1,473	\$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261		2020 158 140 1,071 77.06% 11,605 504,590 10.837 22,062 1.901 7,196 6.720 24,19 46 3,066 1.915 0.33 791	\$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910 17 .05 34 2,276 2 246 0,33 786		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 8,476 7,100 17.05 34 2,398 2,135 0.33	\$	2023 158 140 1,237 89,27% 13,409 582,997 10 839 26,402 1 969 9,019 7,290 17.05 34 2,413 2.213 0.33			
1MPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MI/BTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) 0 SO2(ktons) SO2 Emit Rate SO2 cost(\$000) 0 NOx(ktons)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6,030 17,05 34 2,043 2,043 2,126 0.33 1,754 0,537		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,804 6,200 17,05 33 2,026 2,252 0,33 1,704 0,569	\$	2018 158 140 1,167 84,18% 12,645 549,785 10,840 23,532 1,861 7,431 6,370 17,05 34 2,147 2,087 0,33 1,473 0,526	\$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569		2020 158 140 1,071 77.06% 11.605 504,590 10.837 22,062 1.901 7,196 6.720 24.19 46 3,066 1.915 0.33 791 0,484	\$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910 17 05 34 2,276 2,246 0,33 786 0,568		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7,100 17.05 3,44 2,398 2,135 0,33 645 0,539	\$	2023 158 140 1,237, 89,27% 13,409 582,997 10,839 26,402 1,969 9,019 7,290 17,05 34 2,413 2,213 0,33 617			
IMPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) 0 SO2(ktons) SO2 Emit Rate SO2 cost(\$000) 0 NOx(ktons) NOx Emit Rate	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6.030 17.05 34 2,043 2,126 0.33 1,754 0.53 0.08		2017 158 140 1,259 90.82% 13,645 593,241 10.840 25,133 1.842 5,7,804 6,200 17.05 33 2,026 2.252 0,33 1,704 0,569 0,08		2018 158 140 1,167 84,18% 12,645 549,785 10,840 23,532 1,861 7,431 6,370 17,05 34 2,147 2,087 0,33 1,473 0,526 0,08	\$	2019 158 140 1,256 90 66% 13,619 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569 0,08		2020 158 140 1,071 77.06% 11,605 504,590 10.837 22,062 1.901 7,196 6.720 24,19 46 3,066 1.915 0.33 791 0.484 0.08	S	2021 158 140 1,255 90,60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910 17.05 34 2,276 2 246 0,33 786 0,568 0,08		2022 158 140 1,194 86,14% 12,940 562,596 10,839 25,181 1,946 8,476 7,100 17,05 34 2,398 2,135 0,33 645 0,5339 0,08	\$	2023 158 140 1,237 89,27% 13,409 26,402 1969 9,019 7,290 17.05 34 2,413 0,33 617 0 5500 0,08			
HMPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MI/BTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) 0 SO2(ktons) SO2 Emit Rate SO2 cost(\$000) 0 NOx(ktons)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6,030 17,05 34 2,043 2,043 2,126 0.33 1,754 0,537		2017 158 140 1,259 90.82% 13,645 593,241 10.840 25,133 1.842 5,7,804 5,600 17.05 33 2,026 2.252 0,33 5,1704 0,569 0,08		2018 158 140 1,167 84.18% 12,645 549,785 10.840 23,532 1.861 6.370 17.05 34 2,147 2.087 0.33 1,473 0.526 0.58	\$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569		2020 158 140 1,071 77.06% 11.605 504,590 10.837 22,062 1.901 7,196 6.720 24.19 46 3,066 1.915 0.33 791 0,484	\$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910 17 05 34 2,276 2,246 0,33 786 0,568		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7,100 17.05 3,44 2,398 2,135 0,33 645 0,539	\$ 	2023 158 140 1,237 89.27% 13,409 582.997 10 839 26,402 1 969 9,019 7,290 17.05 34 2,413 2,213 0.33 617 0 560			
EntityName HMPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start fuel used(GBtu) Start cost(\$000) 0 SO2(ktons) SO2 Emit Rate SO2 cost(\$000) 0 NOx(ktons) NOx Emit Rate NOx cost(\$000)	\$ \$ \$ \$ \$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6.030 17.05 34 2,043 2,126 0.33 1,754 0.537 0.08 938		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,604 6,200 17 05 3 3 3 2,026 2 252 0,33 5 2,026 2 0,569 0,08 5 925		2018 158 140 1,167 84,18% 12,645 549,785 10,840 23,532 1,861 7,431 6,370 17,05 34 2,147 2,087 0,526 0,08 825	\$ \$ \$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10.839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569 0,08 856		2020 158 140 1,071 77.06% 11,605 504,590 10.837 22,062 1.901 7,196 6.720 24,19 46 3,066 1.915 0.33 791 0,484 0.08 736	\$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910 17 05 34 2,276 2 246 0,33 786 0.568 0.08 865		2022 158 140 1,194 86,14% 12,940 562,596 10,839 25,181 1.946 8,476 7,100 17.05 34 2,396 2,135 0,33 645 0,539 0,08 821		2023 158 140 1,237 89 27% 13,409 582.997 10 839 26,402 1 965 9,019 7,290 17 05 34 2,413 2,213 0,33 617 0 560 0,08 855			
1MPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MIABTU VOM cost(\$000) VOM per HWh Num starts() Start Fuel used(GBtu) Start cost(\$000) 0 \$02(ktons) SO2 Emit Rate SO2 cost(\$000) 0 NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10.838 23,477 1.822 7,169 6.030 17.05 .34 2,043 2,126 0.33 1,754 0.537 0.08 938 32,689		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,804 6,200 17 05 33 2,026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 1,255 0,224 1,255 0,3241 1,255 0,3241 1,259 2,241 1,259 2,241 1,259 2,241 1,259 2,241 2,269 2,241 2,269 2,241 2,269 2,269 2,241 2,269 2,269 2,2026 2,269 2,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,2026 2,252 0,33 5,252 0,33 5,2026 2,252 0,33 5,2741 2,056 3,355 2,056 2,252 0,33 5,270 2,056 2,252 0,33 5,270 0,33 5,270 0,33 5,270 0,35 5,270 0,569 0,569 0,575		2018 158 140 1,167 84,18% 12,645 549,785 10,840 23,532 1,861 7,431 6,370 17,05 34 2,147 2,087 0,33 1,473 0,526 0,08 825 33,111	\$ \$ \$ \$ \$ \$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10.839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569 0,08 856 36,019		2020 158 140 1,071 77.06% 11,605 504,590 10.837 22,062 1.901 7,196 6.720 24.19 46 3,066 1.915 0.33 791 0.484 0.08 736	\$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 8,675 6,910 17 05 34 2,276 2 246 0,33 786 0,568 0,08 865 37,136		2022 158 140 1,194 86.14% 12,940 562,596 10.839 25,181 1.946 8,476 7.100 17.05 34 2,398 2,135 0.33 645 0,539 0.08 821 36,055		2023 158 140 1,237 89.27% 13,409 582.997 10 839 26,402 1 969 9,019 7,290 17 05 34 2,413 2,213 0,33 617 0 560 0,08 855 37,834			
IMPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start cost(\$000) Start cost(\$000) Start cost(\$000) Start cost(\$000) O NO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10,838 23,477 1.822 7,169 6.030 17.05 34 2.126 0.33 1,754 0.537 0.08 938 938 32,689 27.50		2017 158 140 1,259 90,82% 13,645 593,241 10,840 25,133 1,842 5,7,804 6,200 17,05 33 2,026 2,252 0,33 1,704 0,569 0,08 925 34,963 5,27,78		2018 158 140 1,167 84,18% 12,645 549,785 10.840 23,532 1.861 6.370 17,05 34 2,147 0.33 1,473 0.526 0.526 0.58 0.528 33,111 28,38	\$ \$ \$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569 0,08 858 36,019 28,67		2020 158 140 1,071 77.06% 11,606 504,590 10.837 22,062 1.901 7,196 6.720 24,19 46 3,066 1.915 0.33 791 0.484 0.08 736 32,325 30,19	\$ \$ \$ \$ \$ \$	2021 158 140 1,255 90,60% 13,609 591,708 10,840 26,184 1,924 8,675 6,910 17,05 4,2276 2,246 0,33 7,86 0,568 0,568 0,568 37,136 29,58		2022 158 140 1,194 86,14% 12,940 562,596 10.839 25,181 1.946 8,476 7,100 7,05 34 2,398 2,135 0.33 645 0,539 0.08 821 36,055 30,20		2023 158 140 1,237 89,27% 13,409 582,997 10 839 26,402 1 969 9,019 7,290 17.05 34 2,413 0,33 617 0 5560 0.08 8555 37,834 30,58			
IMPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTU VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start tost(\$000) 0 SO2(ktons) SO2 Emit Rate SO2 cost(\$000) 0 NOx (ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh Total Emissions Cost (\$000)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10,838 23,477 1.822 7,169 6,030 17,05 34 2,043 2,126 0,33 1,754 0,537 0,08 938 32,689 27,50 2,693		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,804 6,200 17 05 33 2,026 2 252 0,33 1,704 0.569 925 34,963 2,27,78 5 27,78		2018 158 140 1,167 84,18% 12,645 549,785 10,840 23,532 1,861 7,431 6,370 17,05 34 2,147 2,087 2,033 1,473 0,333 1,473 0,526 0,038 825 33,111 26,38 2,299	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569 0,08 858 36,019 28,67 2,119		2020 158 140 1,071 77,06% 504,590 10.837 22,062 1.901 7,196 6,720 24,19 24,19 24,19 46 3,066 1,915 0,33 791 0,484 0,33 791 0,484 0,33 791 0,484 0,33 791 0,484 0,33 791 0,484 0,33 791 0,484 0,33 791 0,484 0,33 791 0,527	\$ \$ \$ \$ \$ \$	2021 158 140 1,255 90 60% 13,609 591,708 10 840 26,184 1 924 8,675 6,910 17,05 34 2,276 2,246 0,33 786 0,568 0,0568 0,0568 37,136 29,58 1,651		2022 158 140 1,194 86,14% 12,940 562,596 10,839 25,181 1,946 8,476 7,100 17,05 34 2,398 2,135 0,33 645 0,539 0,08 821 36,055 30,200 1,466		2023 158 140 1,237 89,27% 13,409 582,997 10,839 26,402 1,969 9,019 7,290 17,05 34 2,413 2,413 4,413 0,33 617 0,560 0,008 855 37,834 30,58 1,473			
HMPL 2	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start fuel used(GBtu) Start cost(\$000) 0 SO2(ktons) SO2 Emit Rate SO2 cost(\$000) 0 NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.27 2016 158 140 1,189 85.55% 12,885 560,235 10,838 23,477 1.822 7,169 6.030 17.05 34 2.126 0.33 1,754 0.537 0.08 938 938 32,689 27.50		2017 158 140 1,259 90 82% 13,645 593,241 10 840 25,133 1 842 7,804 6,200 17,05 33 2,026 2,527 0,33 1,704 0,569 925 34,963 2,27,78 5,27,78		2018 158 140 1,167 84,18% 12,645 549,785 10,840 23,532 1,861 7,431 6,370 17,05 34 2,147 2,087 2,033 1,473 0,333 1,473 0,526 0,038 825 33,111 26,38 2,299	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2019 158 140 1,256 90 66% 13,619 592,109 10,839 25,630 1 882 8,217 6,540 17 05 34 2,172 2,247 0,33 1,261 0,569 0,08 858 36,019 28,67		2020 158 140 1,071 77.06% 11,606 504,590 10.837 22,062 1.901 7,196 6.720 24,19 46 3,066 1.915 0.33 791 0.484 0.08 736 32,325 30,19	\$ \$ \$ \$ \$ \$	2021 158 140 1,255 90,60% 13,609 591,708 10,840 26,184 1,924 8,675 6,910 17,05 4,2276 2,246 0,33 7,86 0,568 0,568 0,568 37,136 29,58		2022 158 140 1,194 86,14% 12,940 562,596 10,839 25,181 1,946 8,476 7,100 17,05 0,539 0,08 821 36,055 30,20 1,466		2023 158 140 1,237 89,27% 13,409 582,997 10,839 26,402 1,969 9,019 7,290 17,05 34 2,413 2,413 4,413 0,33 617 0,560 0,008 855 37,834 30,58 1,473			

IntityName			2016		2017		2018		2019		2020		2021		2022		2023			····
Coleman 1	Max Capacity(MW)		149		149	2.5	149		149		149		149		149		149			··
	Min Capacity(MW)		70		70		70		70		70		70		70		70		de la se	
	Generation(GWh)		1,200		1,042	11	1,204		1,212	213	1,144		1,198		1,199		1,136			
	Annual Cap. Fac		91.68%		79.79%		92.21%		92 84%		87.43%		91 81%		91.89%		87 02%		N	
	Fuel used(G8tu)		12,950		11,238	÷.	12,989		13,078		12,348		12.932		12,943		12.253		dia an	
	Coal(Tons)	5	63,044		488,625		554,718	5	68,613		536,879		62.255		562,727		532.750		1999 - 19	
	Heat Rate		10.792		10.790		10.791		10 792	:h:	10.791		10.791	19	10.791		10 788			
	Fuel cost(\$000)	\$	24,994	\$	21,937	\$	25,639	\$	26,117	\$	24,919	\$	26,420	\$	26,753	\$	25,634		2	
	Fuel Cost per MMBTu	\$	1.930	\$	1 952	\$		\$	1 997	\$	2.018	\$	2 043	\$	2.067	\$	2 092			
	VOM cost(\$000)	\$	1,716	\$	1,531	\$	A	\$	1,878	5		\$	1,953	\$	2,015	\$	1,965			
••••••	VOM per MWh	e i	1.430	5	1.470	\$		5	1.550	s		\$	1 630	5	1.680	\$	1 730			
	Num starts()		1.15	. 1 .	20		15	.7	15	٠. ا	15	7	15		15		15			
••••••			23		30		23		23	80	24		23	255	24		25		59 T T T	
······	Start Fuel used(GBtu)			\$		\$		\$		\$	659	ŝ		\$	683	\$	734			••••
	Start cost(\$000)	\$		₹.		7	0.740	3	0.746	7	0.704	Ϋ.	0.737	1	0.738	¥ -	0.698			• • • • • • • • • • •
	SO2(ktons)		0.738	• • • •	0.641						0.11		0.11		0.11		0.11			
	SO2 Emit Rate		0.11		0.11		0,11	1	0.11	\mathbb{C}^{n}	291	1		\$		\$	195			
	SO2 cost(\$000)	\$		\$		\$		5		\$		· ? .		7		₹.	1 968			
	NOx(ktons)		2.072		1 808		2.079		2 092		1.976		2 071		2.074				Sec. 1	
	NOx Emit Rate		0.320		0 322		0.320		0 320		0.320		0.320	<u> </u>	0.320	•	0.321		- 14 an - 1	
	NOx cost(\$000)	5	3,622	\$	2,938	\$	3,263	\$	3,159	\$	3,005	\$	3,154	\$	3,162	\$	3,006			
							AREASE.				ang ang			11	(dense)				93 1	
	Total Operating Cost (\$000)	\$	27,276	\$	24,235	\$	28,062	\$	28,609	5	27,398	\$	29,026	\$	29,451	\$	28,333			
	Op Cost per MWh	5	22.73	\$	23.27	\$		\$	23.61	\$	23.94	\$	Z4,22	\$	24.55	\$	24.94			
	Total Emissions Cost (\$000)	\$	4,231	\$	3,423	\$		\$	3,577	\$	3,296	\$	3,412	\$	3,385	\$	3,201			
	Emit Cost per MWh	5	3.53	\$	3.29	\$	3.14	\$	2.95	\$	2.88	\$	2.65	\$	2.82	\$	2.82		11	
	Turne cost ber (1110)					-				<u> </u>							!		:	
•••••••••							••••••													
EntityName			2016		2017	- 11	2018		2019	1.0	2020		2021	- 20	2022		2023	Negotion -	5. F	
	May Capacity (EUU)		138		138	ليبيها	138		138	ښې	138		138		138		138		100	
Coleman 2	Max Capacity(MW)						138 70		70	39	13B 70		70		130 70	• •	70			••••••
	Min Capacity(MW)		70		70	연합				00				말만	1,056		1,115		소문 문	
	Generation(GWh)		966		1,115	6	1,113		1,035		1,117		1,112						ile en el composition de la composition de la composition de la composition de la composition de la composition Composition de la composition de la comp	••••••••
	Annual Cap. Fac		79.69%		92 22%		92.10%		85.66%		92.18%		91 99%		87.39%		92 23%		<u>i</u>	•••••••
	Fuel used(GBtu)		11,622		13,414		13,398		12,460	승을	13,445		13,378	승물	12,710		13,416			
	Coal(Tons)	•	505,289		583,233		582,528		541,749		584,586		581,663		552,592		583,315		3 (i.i.)	
	Heat Rate		12.031		12 033	20	12.034		12 033	3 i i i	12.033		12 030	20	12.031	·	12 033			
	Fuel cost(\$000)	\$	22,430	\$	26,185	\$	26,448	\$	24,883	\$	27,133	\$	27,332	\$	26,271	\$	28,067			
	Fuel Cost per MMBTu	\$	1.930	\$	1 952	\$	1.974	\$	1 997	\$	2.018	\$	2 043	\$	2.067	\$	Z 092			
*******	VOM cost(\$000)	\$	1,410	\$	1,672	\$	1,715	\$	1,636	\$	1,821	\$	1,857	\$	1,817	\$	1,973		<u>.</u>	
	VOM per MWh	\$	1.460	\$	1 500	\$	1.540	\$	1 5BO	\$	1.630	\$	1 670	\$	1.720	\$	1 770			
	Num starts()	1.53	21		13		15		15	30	15		15	22	15		11			
	Start Fuel used(GBtu)		31		20	13	24	• • • •	25	39	24		24		25		18			
	Start cost(\$000)	\$	774	\$	496	5	629	\$	655	\$	641	\$	683	\$	702	\$	524			
	SO2(ktons)	•	0.662		0.765	1	0.764	· . T	0.710	्रि	0.766		0.763		0.724		0.765		승규가	
			0.002		0.11	12	0.11		0.11	10	0.11		0.11	100	0.11		0.11		249 mm	
	SO2 Emit Rate				579	\$	539	\$	398	\$	317	5	267	\$	219	\$	213			
	SO2 cost(\$000)	\$	547	\$		<u>्र</u>		?		₹.	2.156	. 7	2 152		2.041		2 146		- 19 meres 19 meres	
	NOx(ktons)		1.877		2 148		2.148		1 998	걸음				영감	0.321		0 320			•• •• •• ••
	NOx Emit Rate	110-Q	0.323		0 320	10	0.321	··	0.321	100	0.321	<u>.</u>	0 322	197					<u> </u>	e
	NOx cost(\$000)	\$	3,280	<u>Ş</u>	3,491	5	3,370	\$	3,018	\$	3,280	\$	3,278	\$	3,113	: \$	3,277			
		1993		ŧ		-02				19	공장하시다			19		÷.,.	1.2212.221		1944 - A	
	Total Operating Cost (\$000)	\$	24,614	\$	28,353	\$	28,791	\$.	27,175	\$	29,595	\$	29,872	\$	28,790	\$	30,564			
******	Op Cost per MWh	\$	25.48	\$	25.43	\$	25.86	\$	26.24	\$	26.49	\$	26.86	\$	27.25	\$	27.41			
	Total Emissions Cost (\$000)	\$	3,827	\$	4,069	\$	3,909	\$	3,416	. \$	3,596	\$	3,545	\$	3,331	\$	3,490		94 L	
	Emit Cost per MWh	\$	3.96	\$	3.65	\$	3.51	\$	3.30	\$	3,22	\$	3.19	\$	3.15	\$	3.13		- (
		1								:		Ì		1						
**********		4								1										
EntityName	İ.	i se	2016	1	2017	T	2018		2019	1	2020	1	2021	T	2022	1	2023	a Nava San A		
	May Capacity (MUA)		+54			.		.	154		154	.	154	-	154		154		s ner	
Coleman 3	Max Capacity(NW)	-111	10	į.,	154	19	154		154		110		110		110	11	110	공항하	日本	
	Min Capacity(MW) Generation(GWh)		110 1,211	÷	110 1,227	- 1	110 1,162		1,212		1,222	2	1,068		1,229	5 s s s	1,233			
	magneration(syvn)		·	£	5.221	. C.	1,102		×,≪⊥∠	11	1,666			1.52		5.12	91.43%			
							00 100		90 0704		00 200								승규는 문	
	Annual Cap. Fac		89.55%	ę.,	90 98%	12	86.13%		89 87%		90.30%		79.16%		91.10%					
	Annual Cap. Fac Fuel used(GBtu)		89.55% 13,115		90 98% 13,288		12,579	 	13,126		13,225		11,565		13,309	са. С к	13,356			
	Annual Cap. Fac. Fuei used(GBtu) Coal(Tons)		89.55% 13,115 570,214		90 98% 13,288 577,757		12,579 546,905	 	13,126 570,700		13,225 574,991		11,565 502,839		13,309 578,646	e a c E e ta e	13,356 580,686			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate		89.55% 13,115 570,214 10.826		90 98% 13,288 577,757 10 827		12,579 546,905 10.826		13,126 570,700 10.827		13,225 574,991 10.826		11,565 502,839 10 829		13,309 578,646 10.829		13,356 580,686 10 829			· · · · ·
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	\$	89.55% 13,115 570,214 10.826 25,312	\$	90 98% 13,288 577,757 10 827 25,939	\$	12,579 546,905 10.826 24,831		13,126 570,700 10,827 26,213	\$	13,225 574,991 10.826 26,688	\$	11,565 502,839 10 829 23,628	\$	13,309 578,646 10.829 27,509	\$	13,356 580,686 10 829 27,940			· · · · ·
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate		89.55% 13,115 570,214 10.826		90 98% 13,288 577,757 10 827	\$	12,579 546,905 10.826	\$	13,126 570,700 10,827 26,213 1 997	\$ \$	13,225 574,991 10.826 26,688 2.018	\$	11,565 502,839 10 829 23,628 2 043	\$ \$	13,309 578,646 10.829 27,509 2.067	\$ \$	13,356 580,686 10 829 27,940 2 092			
· · · · · · · · · · · · · · · · · · ·	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)		89.55% 13,115 570,214 10.826 25,312	\$ \$	90 98% 13,288 577,757 10 827 25,939	\$	12,579 546,905 10.826 24,831		13,126 570,700 10,827 26,213 1,997 1.916	\$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991	* * *	11,565 502,839 10 829 23,628 2 043 1.783	\$	13,309 578,646 10.829 27,509 2.067 2,114	\$ \$ \$	13,356 580,686 10 829 27,940 2 092 2.183			· · · · · · · · · · · · · · · · · · ·
	Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000)	\$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769	\$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841	\$ \$	12,579 546,905 10.826 24,831 1,974	\$ \$	13,126 570,700 10,827 26,213 1 997	\$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991	* * *	11,565 502,839 10 829 23,628 2 043	\$ \$	13,309 578,646 10.829 27,509 2.067 2,114	\$ \$ \$	13,356 580,686 10 829 27,940 2 092			· · · · · · · · · · · · · · · · · · ·
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh	\$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460	\$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500	\$ \$ \$	12,579 546,905 10.826 24,831 1.974 1,789	\$ \$	13,126 570,700 10,827 26,213 1,997 1.916	\$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991	* * *	11,565 502,839 10 829 23,628 2 043 1.783	\$ \$ \$	13,309 578,646 10.829 27,509 2.067 2,114	\$ \$ \$	13,356 580,686 10 829 27,940 2 092 2.183			· · · · · · · · · · · · · · · · · · ·
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	\$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16	\$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16	\$ \$ \$	12,579 546,905 10.826 24,831 1.974 1,789 1.540 17	\$ \$	13,126 570,700 10,827 26,213 1,917 1,916 1,580 17	\$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991 1.630	* * *	11,565 502,839 10 829 23,628 2 043 1.783 1 670	* * * *	13,309 578,646 10.829 27,509 2.067 2,114 1.720	\$ \$ \$	13,356 580,686 10 829 27,940 2 092 2.183 1 770			· · · · · · · · · · · · · · · · · · ·
	Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	\$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22	\$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22	* * * *	12,579 546,905 10.826 24,831 1,974 1,789 1.540 17 24	\$ \$	13,126 570,700 10.827 26,213 1 997 1.916 1 580 17 24	\$ \$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24	* * *	11,565 502,839 10 829 23,628 2 043 1.783 1 670 24 32	* * * *	13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22	* * *	13,356 580,686 10 829 27,940 2 092 2.183 1 770 17 24			
	Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551	\$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22 562	* * * *	12,579 546,905 10.826 24,831 1,974 1,789 1.540 17 24 628	\$ \$	13,126 570,700 10,827 26,213 1 997 1,916 1 580 17 24 643	\$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24 659	* * *	11,565 502,839 10 829 23,628 2 043 1.783 1 670 24 32 892	****	13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638	* * *	13,356 580,686 10 829 27,940 2.092 2.183 1 770 17 24 714			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) Start cost(\$000)	\$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748	\$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22 562 0,757	* * * *	12,579 546,905 10.826 24,831 1,974 1,789 1,540 17 24 628 0,717	\$ \$	13,126 570,700 10,827 26,213 1 997 1.916 1 580 17 24 643 0,748	\$ \$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24 659 0.754	* * *	11,565 502,839 10 829 23,628 2 043 1.783 1 670 24 32 892 0.659	* * * * *	13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759	* * *	13,356 580,686 10 829 27,940 2.092 2.183 1 770 17 24 714 0.761			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate	\$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0,748 0,111	\$ \$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.11	****	12,579 546,905 10.826 24,831 1,974 1,789 1,540 17 24 628 0,717 0,11	\$ \$ \$	13,126 570,700 10.827 26,213 1 997 1.916 1 580 17 24 643 0.748 0.11	\$ \$ \$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24 659 0.754 0.11	* * * * *	11,565 502,839 10 829 23,628 2 043 1.783 1 670 24 32 892 0.659 0.11	* * * * *	13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759 0.11	\$ \$ \$ \$	13,356 580,686 10 829 27,940 2.092 2.183 1 770 17 24 714 0.761 0.11			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000)	\$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748 0.11 617	\$ \$ \$ \$	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.11 573	****	12,579 546,905 10.826 24,831 1,974 1,789 1,540 17 24 628 0,717 0,11 506	\$ \$	13,126 570,700 10.827 26,213 1 997 1.916 1 580 17 24 643 0.748 0.11 420	\$ \$ \$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24 659 0.754 0.11 311	* * * * *	11,565 502,839 10 829 23,628 2 043 1,783 1 670 24 32 892 0,659 0,11 231	* * * * *	13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759 0.11 229	\$ \$ \$ \$	13,356 580,686 10 829 27,940 2 092 2.183 1 770 17 24 714 0.761 0.11 212			· · · · · · · · · · · · · · · · · · ·
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748 0,11 617 2.005		90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.111 573 2 030	****	12,579 546,905 10.826 24,831 1.974 1.789 1.540 17 24 628 0.717 0.11 506 1.922	\$ \$ \$	13,126 570,700 10.827 26,213 1 997 1.916 1 580 17 24 643 0.748 0.11 420 2 007	***	13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24 659 0.754 0.111 311 2.023	* * * * *	11,565 502,839 10 829 23,628 2 043 1,783 1 670 24 32 892 0,659 0,11 231 1 773	* * * * *	13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759 0.11 229 2.028	* * * *	13,356 580,686 10 829 27,940 2 092 2.183 1 770 17 24 714 0.761 0.11 212 2 039			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate	\$ \$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748 0.748 0.748 0.711 617 2.005 0.306	88888 8888	90 98% 13,288 577,757 10.827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.11 573 2 030 0 306	\$ \$ \$ \$	12,579 546,905 10,826 24,831 1,974 1,789 1,540 17 24 628 0,717 0,111 506 1,922 0,306	\$ \$ \$	13,126 570,700 10.827 26,213 1 997 1.916 1 580 17 24 643 0.748 0.11 420 2 007 0 306	\$ \$ \$ \$	13,225 574,991 10.826 26,688 2,018 1,991 1,630 17 24 659 0,754 0,754 0,111 311 2,023 0,306	· · · · · · · · · · · · · · · · · · ·	11,565 502,839 10 829 23,628 2 043 1,783 1 670 24 32 892 0,659 0,11 231 1 773 0 307		13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759 0.111 229 2.028 0.305	\$ \$ \$ \$	13,356 580,686 10 829 27,940 2 .092 2.183 1 770 17 24 714 0.761 0.11 212 2 039 0 305			· · · · · · · · · · · · · · · · · · ·
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748 0,11 617 2.005	88888 8888	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.111 573 2 030	****	12,579 546,905 10.826 24,831 1.974 1.789 1.540 17 24 628 0.717 0.11 506 1.922	\$ \$ \$	13,126 570,700 10.827 26,213 1 997 1.916 1 580 17 24 643 0.748 0.11 420 2 007	***	13,225 574,991 10.826 26,688 2,018 1,991 1,630 17 24 659 0,754 0,111 311 2,023 0,306	· · · · · · · · · · · · · · · · · · ·	11,565 502,839 10 829 23,628 2 043 1,783 1 670 24 32 892 0,659 0,11 231 1 773		13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759 0.111 229 2.028 0.305	\$ \$ \$ \$	13,356 580,686 10 829 27,940 2 092 2.183 1 770 17 24 714 0.761 0.11 212 2 039			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate	\$ \$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748 0.748 0.748 0.711 617 2.005 0.306	88888 8888	90 98% 13,288 577,757 10.827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.11 573 2 030 0 306	\$ \$ \$ \$	12,579 546,905 10,826 24,831 1,974 1,789 1,540 17 24 628 0,717 0,11 506 1,922 0,306 3,016	\$ \$ \$	13,126 570,700 10,827 26,213 1,997 1,916 1,580 17 24 643 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,740 0,200000000	\$ \$ \$ \$ \$	13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24 659 0.754 0.11 311 2.023 0.306 3,077	· · · · · · · · · · · · · · · · · · ·	11,565 502,839 10,829 23,628 2,043 1,783 1,670 24 32 892 0,659 0,11 231 1,773 0,307 2,700		13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759 0.11 229 2.028 0.305 3.093	* * * *	13,356 580,686 10,829 27,940 2,092 2,183 1,770 17 24 7,14 0,761 0,11 212 2,039 0,305 3,113			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate	\$ \$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748 0.748 0.748 0.711 617 2.005 0.306	 M. A. A. A. A. A. A. A. A. A. A. A. A. A.	90 98% 13,288 577,57 10 827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.11 573 2 030 0 306 3,299		12,579 546,905 10,826 24,831 1,974 1,789 1,540 17 24 628 0,717 0,111 506 1,922 0,306	\$ \$ \$	13,126 570,700 10.827 26,213 1 997 1.916 1 580 17 24 643 0.748 0.11 420 2 007 0 306	\$ \$ \$ \$ \$	13,225 574,991 10.826 26,688 2,018 1,991 1,630 177 24 659 0,754 0,111 3,111 2,023 0,306 3,077 29,337		11,565 502,839 10,829 23,628 2 043 1,783 1 670 24 32 892 0,659 0,11 231 1 773 0 307 2,700 26,304		13,309 578,646 10.829 27,509 2.067 2,114 1.720 16 22 638 0.759 0.11 229 2.028 0.305 3.093 30,261		13,356 580,686 10 829 27,940 2 092 2.183 1 770 24 714 0.761 0.11 212 2 039 0 305 3,113 30,837			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost (\$000) Fuel Cost per MMBTu VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	\$ \$ \$ \$ \$	89,55% 13,115 570,214 10,826 25,312 1,930 1,769 1,460 12 25 551 0,748 0,111 617 2,005 0,306 3,504		90 98% 13,288 577,757 10.827 25,939 1 952 1,841 1 500 1 16 22 562 0.757 0.11 573 2 030 0 306 3,299 28,342		12,579 546,905 10,826 24,831 1,974 1,789 1,540 1,77 0,111 506 1,922 0,306 3,016	\$ \$ \$	13,126 570,700 10,827 26,213 1,997 1,916 1,580 17 24 643 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,740 0,200000000		13,225 574,991 10.826 26,688 2,018 1,991 1.630 177 24 659 0.754 0.111 3111 2.023 0.306 3,077 29,337		11,565 502,839 23,628 2 043 1,783 1 670 24 32 892 0,659 0,11 231 1 773 0 307 2,700 26,304 24,63		13,309 578,646 10,829 27,509 2,107 2,114 1,720 16 22 638 0,759 0,11 229 2,028 0,305 3,093 30,261 24,62		13,356 580,686 10 829 27,940 2 092 2,183 1 770 17 24 714 0,761 0,11 212 2 039 0 305 3,113 30,837 25,00			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ \$ \$ \$ \$ \$ \$	89,55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 16 22 551 0.748 0.748 0.748 0.748 0.306 3,504	As the state of the second	90 98% 13,288 577,757 10 827 25,939 1 952 1,841 1 500 16 22 562 0.757 0.11 573 2 030 0 306 3,299 28,342 23,09		12,579 546,905 10,826 24,831 1,974 1,789 1,540 1,77 24 628 0,717 0,11 506 1,922 0,306 3,016 27,248 23,45	\$ \$ \$ \$ \$ \$ \$ \$	13,126 570,700 10,827 26,213 1 997 1,916 1 580 17 24 643 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,748 0,074 2,007 0,306 3,031 28,771 23,73		13,225 574,991 10.826 26,688 2.018 1,991 1.630 17 24 659 0.754 0.754 0.306 3,077 29,337 24,02		11,565 502,839 23,628 2 043 1,783 1 670 244 32 892 0,659 0,11 231 1 773 0 307 2,700 26,304 24,63		13,309 578,646 10,829 27,509 2,114 1,720 16 22 638 0,759 0,11 229 2,028 0,305 3,093 30,261 24,62		13,356 580,686 10 829 27,940 2 092 2,183 1 770 17 24 714 0,761 0,11 212 2 039 0 305 3,113 30,837 25,00			
	Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$ \$ \$ \$ \$ \$ \$	89.55% 13,115 570,214 10.826 25,312 1.930 1,769 1.460 22 551 0.748 0.11 617 2.005 0.306 3.504 27,631		90 98% 13,288 577,757 10.827 25,939 1.952 1.841 1 500 16 22 562 0.757 0.11 573 2 030 0 306 3,299 28,342 23.09 3,872		12,579 546,905 10,826 24,831 1,974 1,789 1,540 1,77 0,11 506 1,922 0,306 3,016 27,248 23,45 3,522	\$ \$ \$ \$ \$ \$ \$ \$	13,126 570,700 10,827 26,213 1 997 1,916 1 580 17 24 643 0,748 0,748 0,11 407 2 007 2 007 2 007 2 0305 3,031 28,771 23,73 3,450	* * * * * * * * * * * * *	13,225 574,991 10,826 26,688 2,018 1,991 1,630 17 24 659 0,754 0,754 0,754 0,754 0,754 0,754 0,754 0,306 3,077 29,337 24,02 3,388		11,565 502,839 10 829 23,628 2 043 1,783 1 670 24 32 892 0,659 0,011 231 1 773 0 307 2,700 26,304 24,63 2,931		13,309 578,646 10,829 27,509 2,067 2,114 1,720 16 22 638 0,759 0,111 229 2,028 0,305 3,093 30,261 24,62 3,322		13,356 580,686 10 829 27,940 2 092 2.183 1 770 0 17 24 714 0.761 0.11 212 2 039 0 305 3,113 30,837 25.00 3,325			

EntityName			2016		2017		018	2019		2020		2021		2022		2023		<u> </u>	
Reld ST	Max Capacity(MW)		50		50		50	50 40		50 40	• •	50 40		50 40		50 40			
	Min Capacity(MW)		40 23		40 22		40	24		22		19		37	• • • •	22			
	Generation(GWh) Annual Cap. Fac		5.12%		5 09%	0.0	00%	5 37%		5.02%		4 25%		8.55%		5 00%			
	Fuel used(GBtu)		305		302	••••		318		298		252		507		297			
	Coal(Tons)		305																
	Heat Rate		13.560		13 537	#DIV/	01	13 531		13.548		13 566		13.552		13 555			
	Fuel cost(\$000)	\$	2,689	\$	2,808	\$	- 5	2,943	\$		Ş		\$	5,009	\$	3,095			
***************************************	Fuel Cost per MMBTu	5	8,811	\$	9 311	#DIV/	0! \$	9.251	\$	9.296	\$	9 579	\$.	9.875	\$	10 434			
	VOM cost(\$000)	\$		\$		\$	\$	·	\$		\$		\$		\$	÷.		inte Niteres	
	VOM per MWh	\$		\$		#DIV/	01 \$	i .	\$	di kasa da kara sa	\$		\$		Ş				
	Num starts()		2		5		-	3		2		2		12		2			
	Start Fuel used(GBtu)		2		5			2		2		2		11		2			
	Start cost(\$000)	\$	102	\$	215	\$	- \$		\$		\$		\$	575	Ş	121			
	5O2(ktons)	68	0.000		0.001		+000	0.000		0.000		0.000		0.002		0.000			
	SO2 Emit Rate		0.00		0 00	#DIV/		0.00		0.00	· _	0 0 0 0	\$	0.01 0	·	0.00			
	SO2 cost(\$000)	\$	0	<u></u>		\$	1	5 0 0.024	\$	0 0.022	\$	0.019	7	0.039		0.022			
	NOx(ktons)		0.023		0.023	#D11//		0.024		0.022		0.15		0.035		0 15			• • • • • • • • • • • • • • • • • • • •
	NOx Emit Rate		0.15		0.15	#DIV/ \$	0		5	0.15 34	e		\$	60	\$	34			
	NOx cost(\$000)	<u> </u>	40	<u>~</u>	10	3		5 30	3	27	2	4.2							
	Table Operation Cost (6000)		7 700		3,024	\$	-	\$ 3,056	\$	2,887		2,534	•	5,584		3,217			
	Total Operating Cost (\$000) Op Cost per HWh	\$	2,790 123.99	\$ \$	135 70	[₽] #DIV/			5	131.06	\$		\$	149.19	\$	146 98			
·····	Total Emissions Cost (\$000)	\$	40	\$	38	\$			5	34	\$	29	\$	60	\$	34			
	Emit Cost per MWh	•	1.79	\$	1.70	#DIV		\$ 1.54	\$	1.55	\$	1.56	\$	1.60	\$	1.55	-226203	994	••••
				Ť								:							
				 [···· · · ·											
EntityName		144	2016		2017	100	2018	2019	:::	2020		2021		2022		2023	enterneter Transform		
Reid GT	Max Capacity(MW)		65		65		65	65		65		65		65		65			
	Min Capacity(MW)						-	9											
	Generation(GWh)		9		11		10	and a second second		9		9		9		9		4	••••••
	Annual Cap. Fac		1.64%	:··	1.93%		84%	1 54%		1,49%		1 58%		1.57%		1 59%			
	Fuel used(GBtu)		110		130		125	103	22	101		106		106	· ····	107			
	Coal(Tons)							** 075		11.015		11 764		11.935		11 789			
	Heat Rate		11.772		11 819		901	11 825		11.916				1,053	e	1,085			
	Fuel cost(\$000)	\$	967	\$	1.154			\$ 951 ¢ 0.204	\$ 5	952 9.390	\$	1,020 9 646	ş	9.896	\$ \$	10 168			
	Fuel Cost per MMBTu	\$	8.749	\$	8 890	1. S. 1997		\$ 9.204		3.330	. ?	9 040	\$	3,030	\$	10 100			•• ••• • • •
	VOM cost(\$000)	\$		5	· · · · · · · · · ·	ş		\$ - F -	\$?	· · · · ·	\$		\$	····			
	VOM per MWh	\$	+77	\$	- 182	\$	121	\$- 199	7	186		229		173		155			
	Num starts()		173	ģ. e. e	102		121	193		100							지하는		
	Start Fuel used(GBtu)			\$		\$		\$ -	\$		\$	••••••••••••	\$		\$				
	Start cost(\$000) SO2(ktons)	\$		1.				۲ -				•				• • •			
	SO2 Emit Rate			in i					22			•				*			
·	SO2 cost(\$000)	\$	0	\$	0	\$	0	\$ D	\$	0	\$	0	\$	0	\$	0			
• • • • • • • • • • • • • • • • • • • •	NOx(ktons)		0.007		0.009		.006	0.007		0.007		0.007		0.007		0.007			
	NOx Emit Rate		0.15		0 15		0.15	0 15	122	0.15		0.15		0.15		0 15			
	NOx cost(\$000)	\$	13	\$	14	\$	13	\$ 10	\$	10	\$	11	5	11	\$	11 -	2426.226	1992	
						0.000													
	Total Operating Cost (\$000)	\$	967	\$	1,154			\$ 951	\$	952	5	1,020	\$	1,053	\$	1,085			
	Op Cost per MWh	\$	102.99	5	105.08			\$ 108.83	\$	111.89	\$	113.48	\$	118.10	\$.	119 87		(1) []	
	Total Emissions Cost (\$000)	\$		5			13		:\$	10		11							
			13		14	\$	¥	\$ 10			\$		\$	11	\$	11	Carlos Sura		
	Emit Cost per MWh	\$	13 1.35		14 1.26		1.23	\$ 1.17	\$	1.18	3 5	1.18	\$	11 1,19	\$ \$	1.19	1412424414		
	Emit Cost per MWh						1.23										18 (18 (19 (19 (19 (19 (19 (19 (19 (19 (19 (19		
	Emit Cost per MWh		1.35	\$	1.26	\$		\$ 1.17	\$	1.18	\$	1.18	\$	1,19	\$	1.19	14.174.14414 		
EntityName			1.35 2016	\$	1.26 2017	\$	2018	\$ 1.17 2019	\$	1.18 2020	\$	2021	\$	1.19 2022	\$	1.19 2023		: 	
EntityName Green 1	Max Capacity(MW)		1.35 2016 231	\$	1.26 2017 231	\$	2018 231	\$ 1.17 2019 231	\$	1.18 2020 231	\$	1.18 2021 231	\$	1.19 2022 231	\$	1.19			
the second second second second second second second second second second second second second second second s	Max Capacity(MW) Min Capacity(MW)		1.35 2016 231 180	\$ 3	1.26 2017 231 180		2018 231 180	\$ 1.17 2019 231 180	\$	1.18 2020 231 180	\$	1.18 2021 231 180	\$	1.19 2022	\$	1.19 2023 231			
the second second second second second second second second second second second second second second second s	Max Capacity(MW) Min Capacity(MW) Generation(GWh)		1.35 2016 231 180 1,782	\$	1.26 2017 231 180 1.940	\$	2018 231 180 ,797	\$ 1.17 2019 231 180 1,955	\$	1.18 2020 231	\$ 	1.18 2021 231	\$	1.19 2022 231 180	\$ [1.19 2023 231 180			
the second second second second second second second second second second second second second second second s	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac.		1.35 2016 231 180 1,782 87.62%	\$ J	1.26 2017 231 180 1.940 95 85%	\$ 	2018 231 180 ,797 .81%	\$ 1.17 2019 231 180 1,955 96 61%	\$	1.18 2020 231 180 1,822 89.78%	\$ 	1.18 2021 231 180 1,947	\$	1.19 2022 231 180 1,635	\$ [1.19 2023 231 180 1,938			· · · · · · · · · · · · · · · · · · ·
the second second second second second second second second second second second second second second second s	Max Capacily(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu)		1.35 2016 231 180 1,782 87.82% 19,586	\$	1.26 2017 231 180 1.940 95 85% 21,325	\$ 11 88 19	2018 231 180 ,797 8,81% 9,754	\$ 1.17 2019 231 180 1,955 96 61% 21,497	\$	1.18 2020 231 180 1,822	5	1.18 2021 231 180 1,947 96 21%	\$	1.19 2022 231 180 1,635 80.78%	5	1.19 2023 231 180 1,938 95 76%			· · · · · · · · · · · · · · · · · · ·
the second second second second second second second second second second second second second second second s	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac.		1.35 2016 231 180 1,782 87.62%	\$ 5 1	1.26 2017 231 180 1.940 95 85%	\$ 11 88 19 987	2018 231 180 ,797 .81%	\$ 1.17 2019 231 180 1,955 96 61%	\$	1.18 2020 231 180 1,822 89.78% 20,022	5	1.18 2021 231 180 1,947 96 21% 21,405	\$	1.19 2022 231 180 1,635 80.78% 17,969 898,461 10.993	\$ []	1.19 2023 231 180 1,938 95 76% 21,301 ,065,074 10 993			
the second second second second second second second second second second second second second second second s	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons)	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276	\$	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10,994	\$ 11 88 19 987 10	2018 231 180 ,797 .81% 0,754 7,704	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996	\$	1.18 2020 231 180 1,822 89.78% 20,022 001,121 10.991 38,243	\$ 	1.18 2021 231 180 1,947 96 21% 21,406 070,298	\$	1.19 2022 231 180 1,635 80.78% 17,969 898,461 10.993 35,130	\$ 	1.19 2023 231 180 1,938 95 76% 21,301 ,065,074 10 993 42,134			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate		1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1.783	\$	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10.994 39,451 1 850	\$ 1 88 19 987 10 \$ 36 \$ 1	2018 231 180 ,797 .81% 0,754 .704 0,992 5,940 870	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996 \$ 40,629 \$ 1 890	\$	1.18 2020 231 180 1,822 89.78% 20,022 001,121 10.991 38,243 1.910	\$ 	1.18 2021 231 180 1,947 96 21% 21,406 070,298 10 995 41,356 1 932		1.19 2022 231 180 1,635 80.78% 17,969 898,461 10.993 35,130 1.955	\$	1.19 2023 231 180 1,938 95 76% 21,301 ,065,074 10 993 42,134 1 978			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921	\$	1.26 2017 231 180 1.940 95 85% 21,325 (,056,246 10,994 39,451 1.850 13,675	\$ 1 88 19 987 10 \$ 36 \$ 1 \$ 13	2018 231 180 ,797 ,81%),754 ,704),992 ,940 .870),029	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996 \$ 40,629 \$ 1 890 \$ 14,564	\$	1.18 2020 231 180 1,822 89.78% 20,022 001,121 10.991 38,243 1.910 13,936	\$ 	1.18 2021 231 180 1,947 96 21% 21,405 070,298 10 995 41,356 1 932 15,303	\$	1.19 2022 231 180 1,635 80.78% 17,969 898,461 10.993 35,130 1.955 13,207	\$ 1 \$ \$	1.19 2023 231 180 1,938 95 76% 21,301 ,065,074 10 993 42,134 1 978 16,083			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1,783 12,224 6.860	\$	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10,994 39,451 1.850 13,675 7 050	\$ 1 88 19 987 987 5 36 5 1 5 13 5 13 5 7	2018 231 180 ,797 ,81% 9,754 7,704 ,992 5,940 1.870 3,029 7,250	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1.074.845 10 996 \$ 40,629 \$ 1 890 \$ 1 890 \$ 1 4,564 \$ 7 450	\$	1.18 2020 231 180 1,822 89.78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650	\$ 	1.18 2021 231 180 1,947 96 21% 21,406 070,298 10,995 41,356 1932 15,303 7 860		1,19 2022 231 180 1,635 80,78% 17,969 898,461 10,993 35,130 1,955 13,207 8,080	\$ 1	1.19 2023 231 180 1,938 95 76% 21,301 ,065,074 10,993 42,134 1978 16,083 8 300			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost (\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts()	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1.783 12,224 6.860 15	\$	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10.994 39,451 1.850 13,675 7.050 13	\$ 1 88 19 987 10 \$ 36 \$ 1 \$ 13 \$ 7 \$ 7	2018 231 180 ,797 ,81% ,704),992 5,940 1.870 3,029 7.250 13	\$ 1.17 2019 231 180 1,955 96 61% 10 996 \$ 40,629 \$ 1 890 \$ 14,564 \$ 7 456 1 3 13	\$	1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15	\$ 	1.18 2021 231 1,947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13	\$	1,19 2022 231 180 1,635 80,78% 17,969 898,461 10.993 35,130 1.955 13,207 8.080 21	\$ 1 \$ \$ \$	1.19 2023 231 180 1,938 95 76% 21,301 ,065,074 10 993 42,134 1978 16,083 8 300 13			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1,783 12,224 6.860 15 34	\$	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10,994 39,451 1.850 13,675 7 050 13 1 3 22	\$ 11 88 19 987 10 \$ 36 \$ 1 \$ 13 \$ 7	2018 231 180 ,797 .81% 9,754 7,704 9,992 5,940 .870 1,029 7,250 13 30	\$ 1.17 2019 231 180 1,955 96 614 21,497 1,074,845 10,996 \$ 40,629 \$ 1890 \$ 14,564 \$ 7,450 13 20	\$	1.18 2020 231 180 1,822 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34	\$ 1. \$ \$ \$	1.18 2021 231 1.947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 22	\$ 	1,19 2022 231 1,635 80,78% 17,969 898,461 10,993 35,130 1,955 13,207 8,080 21 49	\$ 1	1.19 2023 231 180 1,938 95 76% 21,301 ,065,074 10,993 42,134 1 978 16,083 8 300 13 23			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	\$	1.35 2016 231 1.80 1,782 87.82% 19,586 979,276 10.991 34,921 1.783 12,224 6.860 15 34 2,034	\$	1.26 2017 2311 1800 1.940 95 85% 21,325 10.994 10.994 10.994 13,675 7 050 13,675 7 050 13,22 1,364	\$ 11 88 19 987 10 \$ 36 \$ 1 \$ 13 \$ 7 \$ 1 \$ 13 \$ 7	2018 231 180 ,797 ,81% 0,754 7,704 0,992 5,940 1,870 1,029 7,250 13 30 1,857	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996 5 40,629 5 18,564 \$ 18564 \$ 7 450 13 20 \$ 12,74	\$	1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251	\$ 1. \$ \$ \$	1.18 2021 231 180 1,947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 22 1,468	\$	1,19 2022 231 160 1,635 80,78% 17,969 898,461 10.993 35,130 1,955 13,207 8,080 21 49 3,403	1	1.19 2023 231 180 1,938 95 76% 21,301 10,993 42,134 1978 16,083 8 300 13 23 1,636			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start cost(\$000) Start cost(\$000) Start cost(\$000) Start cost(\$000)	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1.783 12,224 6.860 15 34 2,034 1,910	\$	1.26 2017 231 180 1.940 95 85% 21.325 1,066,246 10.994 39,451 1.850 13,675 7 050 13,675 7 050 13 22 1.364 2,079	\$ 1 88 19 987 10 5 36 5 1 5 13 5 13 5 7 7 5 1 1 1 1	2018 231 180 ,797 ,81% ,754 ,704),992 ,990 ,029 7,250 13 30 1,857 1,926	\$ 1.17 2019 231 180 1,955 9,651% 21,497 1,074,845 10,996 \$ 40,629 \$ 1,890 \$ 1,890 \$ 1,4564 \$ 7,450 13 20 \$ 1,274 2,096	\$	1.18 2020 231 180 1,822 89.78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952	\$ 1. \$ \$ \$	1.18 2021 231 180 1,947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 22 1,468 2,087	\$ 	1.19 2022 231 180 1,635 80,78% 17,969 898,461 10.993 35,130 1.955 13,207 8.080 21 49 3,403 1.752	\$ 1 \$ \$ \$	1.19 2023 231 180 1,938 95 76% 21,301 21,301 1993 42,134 1993 42,134 1993 42,134 1993 42,134 1993 42,134 1993 43,036 13,037 23 1,636 2,077			
the second second second second second second second second second second second second second second second s	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start tost(\$000) SO2(ktnns) SO2 Emit Rate	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1.783 12,224 6.860 15 34 2,034 1,910 0.20	\$	1.26 2017 231 180 1.940 95 B5% 21,325 1,066,246 10,994 39,451 1 850 13,675 7 050 13 22 1,364 2,079 0,20	\$ 1 88 19 9 87 10 5 36 5 1 5 13 5 1 5 1 1 1 1 1	2018 231 180 ,797 .81% 9,754 ,704 9,992 5,940 1.870 1.870 1.870 1.857 1.926 0.20	\$ 1.17 2019 231 180 1.955 96 61% 21,497 1.074.845 1.096 \$ 40,629 \$ 1 690 \$ 14,564 \$ 7 450 13 20 \$ 14,564 \$ 7 450 13 20 \$ 2,197 1,074.845 1,497 1,497 1,074.845 1,497 1,096 \$ 40,629 \$ 1,497 1,096 \$ 40,629 \$ 1,497 1,096 \$ 40,629 \$ 1,497 1,096 \$ 40,629 \$ 1,497 1,074.845 1,497 \$ 1,497 \$ 1,696 \$ 1,497 \$ 1,497 \$ 1,696 \$ 1,497 \$ 1,497 \$ 1,497 \$ 1,497 \$ 1,696 \$ 1,496 \$ 1,497 \$ 1,497 \$ 1,497 \$ 1,497 \$ 1,497 \$ 1,696 \$ 1,496 \$ 1,274 \$ 20 \$ 0,000 \$ 1,274 \$ 0,600 \$ 0,200 \$ 0,200 \$ 0,000 \$ 0,0000 \$ 0,00000 \$ 0,00000 \$ 0,00000 \$ 0,00000 \$ 0,000000 \$ 0,000000 \$ 0,00000000000000000000000000000000000	\$	1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 13,936 7,650 15 34 2,251 1.952 0.20	\$ 1.	1.18 2021 231 180 1,947 96 21% 21,406 10 995 41,356 1 932 15,303 7 860 13 22 1,468 2.087 0.20	\$ 	1.19 2022 231 180 1,635 80,78% 17,969 898,461 10.993 35,130 1.955 13,207 8.080 21 3,403 1.752 0.20	\$ 1 \$ \$ \$	1.19 2023 231 180 1,938 95 76% 21,301 0,065,074 10 993 42,134 1 978 16,083 8 300 113 23 1,636 2.077 0.20			
the second second second second second second second second second second second second second second second s	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emik Rate SO2 cost(\$000)	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1.783 12,224 6.860 15 34 2,034 2,034 1,910 0.220 0.256	\$	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10,994 39,451 1 850 13,675 7 050 13,3 22 1,364 2,079 0,220 1,574	\$ 11 88 19 987 10 \$ 36 \$ 1 \$ 13 \$ 7 \$ 1 \$ 13 \$ 7 \$ 11 \$ \$ 8 \$ 9 \$ 7 \$ 10 \$ \$ 8 \$ 9 \$ 9 \$ 7 \$ 9 \$ 9 \$ 9 \$ 9 \$ 9 \$ 9 \$ 9	2018 231 180 ,797 .81% 0,754 .754 .992 .992 .992 .992 .029 .250 13 300 1,857 1.926 0.20 1,360	\$ 1.17 2019 231 180 1,955 96 614 21,497 1,074,845 10,996 \$ 40,629 \$ 1890 \$ 14,564 \$ 7,450 13 200 \$ 1,274 2,096 0,20 \$ 1,176	\$	1.18 2020 231 160 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0.20 806	\$ 1.	1.18 2021 231 180 1,947 96 21% 96 21% 96 21% 91 995 41,356 1 932 15,303 7 860 1 932 15,303 7 860 22 1,468 2.087 0.200 731	\$ 	1.19 2022 231 180 1,635 80,78% 17,969 898,461 10.993 35,130 1.955 13,207 8.080 21 49 3,403 1.752 0.20 529	1	1.19 2023 231 180 1,938 95 76% 21,301 065,074 10 993 42,134 1,978 16,083 8 300 13 1,636 2,077 0,220 579			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost \$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1.783 12,224 6.860 15 34 2,034 1,910 0.20 1,576 2.695	\$	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10,994 39,451 1.850 13,675 7 050 13,675 7 050 13,222 1,364 2,079 0,20 1,574 2,934	\$ 1 88 19 987 10 5 36 5 1 3 5 13 5 13 5 13 5 1 1 1 1 1 2 2	2018 231 180 ,797 ,81% ,704 ,992 ,992 ,992 ,992 ,029 ,250 13 30 1,857 1,926 0,20 0,20 2,700	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996 \$ 40,629 \$ 40,629 \$ 1830 \$ 14,564 \$ 7 450 13 20 \$ 1,274 2,096 \$ 1,274 2,096 \$ 1,274 2,096 \$ 2,255	\$ 1 1 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0.20 806 6 2,754	\$ 1.	1.18 2021 231 180 1,947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 1 3 22 1,468 2.087 0.20 731 1 2,944	\$ 	1.19 2022 231 180 1,635 80,78% 898,461 10,993 35,130 1,955 13,207 8,080 21 49 3,403 1,752 0,20 529 2,462	1	1.19 2023 231 180 1,938 95 76% 21,301 10,993 42,134 1978 16,083 8 300 13 23 1,636 2.077 0.20 579 2.935			
	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emik Rate SO2 cost(\$000) NOX(ktons) NOX Emik Rate	\$ * * * * * * * * * * *	1.35 2016 231 180 1,782 87,82% 19,586 979,276 10,991 34,921 1,783 12,224 6,860 15 34 2,034 1,910 0,020 1,576 2,695 0,28	\$	1.26 2017 231 1.80 1.940 95 85% 21.325 1.056,246 10.994 39,451 1.850 13,675 7 050 13 22 1.364 2.079 0.20 1.574 2.934 0.28	\$ 11 88 19 987 10 \$ 36 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ \$ 1 \$ \$ 7 \$ \$ 7 \$ \$ 7 \$ \$ 8 \$ \$ 9 \$ 7 \$ 8 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 8 \$ \$ 9 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ \$ \$	2018 231 180 ,797 81% ,797 81% ,992 ,940 802 102 102 102 102 102 102 102 102 102 1	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996 \$ 40,629 \$ 1 850 \$ 40,629 \$ 1 850 \$ 1,564 \$ 7 450 13 20 \$ 1,274 2,095 0,205 0,275 0,2		1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0.20 806 2,754 6,28	\$ 	1.18 2021 231 180 1.947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 22 1,468 2.087 0.20 731 2,944 0.28	\$ 	1.19 2022 231 180 1,635 80,78% 17,969 898,461 10,993 35,130 1,955 13,207 8.080 21 49 3,403 1,752 0,20 529 2,462 0,27	\$	1.19 2023 231 180 1,938 95 76% 21,301 10,993 42,134 1 978 16,083 8 300 13 23 1,636 2.077 0.20 579 2,935 0.28			
	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost \$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons)	\$	1.35 2016 231 180 1,782 87,82% 19,586 979,276 10,991 34,921 1,783 12,224 6,860 15 34 2,034 1,910 0,020 1,576 2,695 0,28	\$	1.26 2017 231 1.80 1.940 95 85% 21,325 1.966,246 10.994 10.994 13,675 7 050 13 22 1,364 2.079 0.20 1.574 2.934 0.28	\$ 11 88 19 987 10 \$ 36 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ \$ 1 \$ \$ 7 \$ \$ 7 \$ \$ 7 \$ \$ 8 \$ \$ 9 \$ 7 \$ 8 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 8 \$ \$ 9 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ \$ 9 \$ 7 \$ \$ 9 \$ 7 \$ \$ \$ \$	2018 231 180 ,797 ,81% ,704 ,992 ,992 ,992 ,992 ,029 ,250 13 30 1,857 1,926 0,20 0,20 2,700	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996 \$ 40,629 \$ 40,629 \$ 1830 \$ 14,564 \$ 7 450 13 20 \$ 1,274 2,096 \$ 1,274 2,096 \$ 1,274 2,096 \$ 2,255		1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0.20 806 6 2,754	\$ 	1.18 2021 231 180 1,947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 1 3 22 1,468 2.087 0.20 731 1 2,944	\$ 	1.19 2022 231 180 1,635 80,78% 898,461 10,993 35,130 1,955 13,207 8,080 21 49 3,403 1,752 0,20 529 2,462	\$	1.19 2023 231 180 1,938 95 76% 21,301 10,993 42,134 1978 16,083 8 300 13 23 1,636 2.077 0.20 579 2.935 0.28			
	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOH per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	\$	1.35 2016 231 180 1,782 87.82% 19,586 979,276 10.991 34,921 1.783 12,224 6.860 15 34 2,034 2,034 1,910 0.20 1,576 2.695 0.28 4,711	\$ 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.26 2017 231 180 1.940 95 85% 21,325 1,066,246 10,994 39,451 1 850 13,675 7 050 13 3 22 1,364 2,079 0,220 1,574 2,934 0,28 4,767	\$ 1 88 9 99 987 10 5 36 6 5 1 5 13 5 7 5 1 1 5 1 2 2 5 4	2018 231 180 7,797 81% 7,754 9,92 5,940 8,029 7,250 13 30 4,857 1,926 0,20 1,360 2,700 0,27 4,236	\$ 1.17 2019 231 180 1.955 96 61 ⁴ 21,497 1.074.845 1.096 \$ 40,629 \$ 1890 \$ 14,564 \$ 7 450 13 20 \$ 14,564 \$ 7 450 13 20 \$ 1,274 2.096 0.220 \$ 1,176 2.955 0.27 \$ 4,462		1.18 2020 231 160 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0.220 806 2,754 6,28 4,189	\$ 	1.18 2021 231 180 1947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 22 1,468 2.087 0.20 731 2.944 0.28 4,484	\$ 	1.19 2022 231 180 1,635 80,78% 17,969 898,461 10,993 35,130 1,955 13,207 8.080 21 49 3,403 1,752 0,20 529 2,462 0,27	\$ 1 \$ \$	1.19 2023 231 180 1,938 95 76% 21,301 065,074 10 993 42,134 1,978 16,083 8 300 13 1,636 2.077 0.20 579 2.935 0.28 4,482			
	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1.35 2016 231 180 17,82 87,82% 979,276 10,991 34,921 1,783 12,224 6.860 15 34 4 2,034 1,910 0,20 1,576 2.695 0,28 4,711		1.26 2017 231 180 1.940 95 85% 21,325 21,325 21,325 1,666,246 10,994 39,451 1,850 13,675 7 050 13,675 7 050 13,675 7 050 13,222 1,364 2,079 0,20 1,574 2,934 0,28 4,767 54,490	\$ 1 88 19 987 10 \$ 36 \$ 1 \$ 13 \$ 13 \$ 13 \$ 13 \$ 1 \$ 13 \$ 1 \$ 13 \$ 1 \$ 1 \$ 2 \$ 3 \$ 4 \$ 2 \$ 4 \$ 4 \$ 5 1	2018 231 180 ,797 ,81% ,704 ,704 ,992 5,940 8,029 7,250 13 30 ,4857 1,926 2,700 0,27 1,260 2,700 0,27 1,236	\$ 1.17 2019 231 180 1,955 96 6149 21,497 1,074.845 10 996 \$ 40,629 \$ 1806 \$ 40,629 \$ 1806 \$ 14564 \$ 7 450 13 20 \$ 1,274 2,096 \$ 1,274 2,096 \$ 1,275 0.27 \$ 4,462 \$ 56,468 \$ 56,468	*	1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0.20 806 2,754 6,28	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1.18 2021 231 180 1.947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 22 1,468 2.087 0.20 731 2,944 0.28		1.19 2022 231 180 1,635 80,78% 17,969 898,461 10.993 35,130 1.955 13,207 8,080 21 3,403 1.752 0,220 529 2,462 0,27 3,755	\$ 1 \$ \$	1.19 2023 231 180 1,938 95 76% 21,301 10,993 42,134 1 978 16,083 8 300 13 1,636 2.077 0.20 579 2.935 0.28 4,482 59,854			
and the second se	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOX(ktons) NOX Emit Rate NOX cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1.35 2016 231 180 1,782 19,586 979,276 10,991 34,921 1.783 12,224 6.860 15 34 2,034 1,910 0.20 1,576 2,695 0.28 4,711 49,180 2,760		1.26 2017 231 180 1.940 95 85% 21,325 10,954 10,954 39,451 1 850 13,675 7 050 13 22 1,364 2,079 0,20 1,574 2,934 2,079 0,20 1,574 2,038 4,767 54,490 28.09	\$ 11 88 19 987 10 \$ 36 \$ 11 \$ 13 \$ 7 7 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 1 \$ 5 \$ 1 \$ 5 \$ 1 \$ 5 \$ 1 \$ 5 \$ 1 \$ 5 \$ 2	2018 231 180 ,797 ,81% ,754 ,704 992 ,940 1.870 1,029 7,250 13 30 1,857 1,926 0.20 1,360 0.27 4,236 1,826 28.84	\$ 1.17 2019 231 180 1,955 96 6149 21,497 1,074.845 10 996 \$ 40,629 \$ 1806 \$ 40,629 \$ 1806 \$ 14564 \$ 7 450 13 20 \$ 1,274 2,096 \$ 1,274 2,096 \$ 1,275 0.27 \$ 4,462 \$ 56,468 \$ 56,468	*	1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0,20 806 2,754 0,28 4,189 54,429	\$ \$ \$ \$ \$ \$ \$ \$ \$	1.18 2021 231 180 1,947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 2,22 1,468 2,087 0,20 731 2,944 0,28 4,484 58,127		1.19 2022 231 180 1,635 80,78% 17,969 898,461 10.993 35,130 1.955 13,207 8.080 21 3,403 1.752 0.20 529 2.462 0.27 3,755	\$ 1 \$ \$	1.19 2023 231 180 1,938 95 76% 21,301 10,993 42,134 1 978 16,083 8 300 13 23 1,636 2.077 0.20 579 2.935 0.28 4,482 59,854 30.89			
	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac. Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1.35 2016 231 180 17,82 87,82% 979,276 10,991 34,921 1,783 12,224 6.860 15 34 4 2,034 1,910 0,20 1,576 2.695 0,28 4,711		1.26 2017 231 180 1.940 95 B5% 21,325 1,066,246 10,994 39,451 1 850 13,675 7 050 13 22 1,364 2,079 0,20 1.574 2,034 0,20 1.574 2,034 0,20 1.574 2,034 0,20 1.574 2,034 0,20 1.574 2,034 0,20 1.574 2,034 0,20 1.574 2,034 0,20 1.574 2,034 0,20 1.574 2,034 1.575	\$ 11 888 19 987 366 \$ 11 \$ 13 \$ 7 7 \$ 16 \$ 11 \$ 13 \$ 7 8 7 \$ 11 \$ 13 \$ 5 1 \$ 13 \$ 5 1 \$ 14 \$ 15 \$ 15 \$ 15 \$ 16 \$ 16 \$ 17 \$ 16 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19 \$ 19	2018 231 180 ,797 ,81% ,704 ,704 ,992 5,940 8,029 7,250 13 30 ,4857 1,926 2,700 0,27 1,260 2,700 0,27 1,236	\$ 1.17 2019 231 180 1,955 96 61% 21,497 1,074.845 10 996 \$ 40,629 \$ 1 850 \$ 40,629 \$ 1 850 \$ 1 850 \$ 1 4564 \$ 7 450 13 20 \$ 1,274 2,096 0 20 \$ 1,176 2,055 0,27 \$ 4,462 \$ 56,468 \$ 28,88 \$ 28,88	* 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.18 2020 231 180 1,822 89,78% 20,022 001,121 10.991 38,243 1.910 13,936 7,650 15 34 2,251 1.952 0.20 806 2,754 0.28 4,189 54,429 29.88	\$ 	1.18 2021 231 180 1.947 96 21% 21,406 070,298 10 995 41,356 1 932 15,303 7 860 13 22 1,468 2.087 0.20 731 2.944 0.28 4.484		1.19 2022 231 180 1635 80,78% 17,969 898,461 10.993 35,130 1.955 13,207 8.080 21 49 3,403 1.752 0.20 529 2.462 0.27 3,755 51,740 31.65	\$	1.19 2023 231 180 1,938 95 76% 21,301 0,065,074 10 993 42,134 1 978 16,083 8 300 113 23 1,636 2.077 0.20 579 2.935 0.28 4,482 59,854 30,89 5,061			

EntityName			2016		2017		2018		2019		2020		2021	·	2022		2023	1999 - 1999 -			
Green 2	Max Capacity(MW)		223		223	100	223		223	1111	223		223		223		223]
0100112	Min Capacity(MW)		180		180		160		180		160		180		180		180		13 E (
	Generation(GWh)		,867		1,742	29	1,770		1,561		1,873		1,759	12.5	1,860		1,748				
	Annual Cap. Fac		.30%		89.16%		90.63%		79.89%		95.59%		90.02%		95.22%		89.48%				
			,750		19,355		19,675		17,344		20,816		19,543		20,674		19,424		111		
	Fuel used(GBtu)	1,037			967.733		983,764		67,178		40,808		977,149		133,688		971,204				
	Coal(Tons)		.115		11 112	M	11.114		11 113		11,117		11 113		11.115		11 112				
	Heat Rate			\$	35.806	\$	36,793				39,759	\$	37,757	\$	40,417	\$	38,421				
	Fuel cost(\$000)	- 1 - C. A. C	,998				1,870	7	1 890	\$	1.910	\$	1 932	\$	1.955	s	1 978				
	Fuel Cost per MMBTu		.783	\$	1 850	\$? \$	13,823	\$	15,029	\$	14,508				
	VOM cost(\$000)		,807	5	12,279	\$	12,835				14,325 7.650	3	7 860	3	8.080	.₹ \$	8.300				· · · · · ·
	VOM per MWh	\$ 6	.860	5	7 050	\$	7.250	\$		\$?		•		.?	15			1 A.	
	Num starts()		11		15	533	13		21		12		14 37		12		42				
	Start Fuel used(GBtu)		19		42		38		61		21	<u>.</u>	A REPORT OF A REPORT OF		22	<u>.</u> .					
	Start cost(\$000)		,076	\$.	2,294	Ş	2,098	\$		\$	1,351	5		\$	1,476	\$	2,674				
	SO2(ktons)		.023		1.887		1.919		1.691		2.030		1.906		2.016		1.894		· · · · ·		
	SO2 Emit Rate		0.20		0.20	49	0.20		0.20		0.20		0.20		0.20	<u>.</u>	0.20				
	502 cost(\$000)		,669	\$	1,429	\$	1,354	\$	949	\$	838	\$	667	\$	609	\$	528		-90.		
	NOx(ktons)		.835		2.643	분분	2.702		2.368		2.847		2.671		2.038		2.662		12		
	NOx Emit Rate		0.27		0.27		0.27		0.27		0.27		0.27		0.27		0.27				
/**** (*****************************	NOx cost(\$000)	\$ 4	,955	\$	4,294	\$	4,239	\$	3,576	\$	4,331	\$	4,068	\$	4,327	\$	4,065	يەربىۋىيە <u>،</u>			
	1		3.9.N																		
	Total Operating Cost (\$000)	\$ 50	,881	\$	50,380	\$	51,726	\$	47,866	\$	55,435	\$	53,846	\$	56,922	\$	55,603				
	Op Cost per MWh		7.25	\$	28.92	\$	29.22	\$	30.67	\$	29.60	\$	30.62	\$	30.60	\$	31.81				
	Total Emissions Cost (\$000)		5,625	\$	5,723	\$	5,594	\$	4,524	5	5,169	\$	4,735	\$	4,936	\$	4,594				
	Trotal Elinearona wast (total)											\$	2.69	\$				a sa sa sa sa sa sa sa sa sa sa sa sa sa	442.7		
	Emit Cost per MWh	\$	3.55	5	3.29	\$	3.16	\$	2.90	\$	2.76	-	2,09		2.65	\$	2.63				
	Emit Cost per MWh	\$	3.55	\$	3.29	\$	3,16	\$	2.90	5	2.75	3	2,09	~	2.65	>	2.63				
	Emit Cost per MWh	\$	3.55	\$	3.29	\$	3.16	\$	2,90	5		3		<u> </u>		>					
	Emit Cost per MWh		2016		3.29	\$ 	2018	\$ 	2019	- 5	2020	<u>}</u>	2021	,	2022	> 	2023	-			
Total	Emit Cost per MWh					\$		\$ [5	2020 1,737	<u>}</u>			2022 1,737	Ì	2023 1,737				
Total			2016		2017	Ş	2018	\$ [2019	5	2020 1,737 1,255		2021 1,737 1,255		2022 1,737 1,255	<u></u>	2023 1,737 1,255				
Total	Max Capacity(MW) Min Capacity(MW)		2016 1,737		2017 1,737	\$	2018 1,737	\$ [2019 1,737	5	2020 1,737		2021 1,737		2022 1,737 1,255 12,856	``	2023 1,737 1,255 12,771				
Total	Max Capacity(MW) Min Capacity(NW) Generation(GWh)	1	2016 1,737 1,255		2017 1,737 1,255		2018 1,737 1,255	\$	2019 1,737 1,255		2020 1,737 1,255		2021 1,737 1,255		2022 1,737 1,255	* 	2023 1,737 1,255 12,771 83 91%				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac	1 1 12 84	2016 1,737 1,255 2,863 1.28%		2017 1,737 1,255 12,446 81 78%		2018 1,737 1,255 12,831 84.31%		2019 1,737 1,255 12,541		2020 1,737 1,255 12,791	~	2021 1,737 1,255 12,749		2022 1,737 1,255 12,856	> 	2023 1,737 1,255 12,771				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu)	1 1 12 84 141	2016 1,737 1,255 2,863 1,28% 1,804		2017 1,737 1,255 12,446 81 78% 137,410		2018 1,737 1,255 12,831 84.31% 141,542		2019 1,737 1,255 12,541 82.40% 138,318		2020 1,737 1,255 12,791 83.81%		2021 1,737 1,255 12,749 83 76%		2022 1,737 1,255 12,856 84.47%		2023 1,737 1,255 12,771 83 91%				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons)	1 1 12 84 14] 6,410	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,364		2017 1,737 1,255 12,446 81 78% 137,410 ,220,910		2018 1,737 1,255 12,831 84.31% 141,542 ,405,725		2019 1,737 1,255 12,541 82,40%		2020 1,737 1,255 12,791 83.81% 141,208		2021 1,737 1,255 12,749 83 76% 140,695		2022 1,737 1,255 12,856 84.47% 141,863		2023 1,737 1,255 12,771 83 91% 140,931				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate	1 12 84 141 6,410 11	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,364 1,024	6	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041	6	2018 1,737 1,255 12,831 84.31% 141,542 ,405,725 11.031	Г 6,	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11,029	6,3	2020 1,737 1,255 12,791 83.81% 141,208 388,439 11.040	6	2021 1,737 1,255 12,749 83 76% 140,695 5,368,643 11 036	6,	2022 1,737 1,255 12,856 84.47% 141,863 393,278 11.035	6	2023 1,737 1,255 12,771 83 91% 140,931 5,375,494				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000)	1 12 84 14] 6,410 11 \$ 264	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,364 1,024 4,171	6	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135	6	2018 1,737 1,255 12,831 84.31% 141,542 ,405,725 11.031 269,508	6, 5	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11,029 268,560	1 6,3 \$ 2	2020 1,737 1,255 12,791 83.81% 141,208 388,439 11.040 276,781	6	2021 1,737 1,255 12,749 83 76% 140,695 368,643 11 036 278,705	6,	2022 1,737 1,255 12,856 84.47% 141,863 393,278	6	2023 1,737 1,255 12,771 83 91% 140,931 ,375,494 11.035 286,469				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu	1 12 84 14] 6,410 11 \$ 264 \$	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,024 4,171 1.863	6	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1 900	6	2018 1,737 1,255 12,831 84.31% 141,542 ,405,725 11.031 269,508 1.904	5, 5, 5	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11,029 268,560 1,942		2020 1,737 1,255 12,791 83.81% 141,208 888,439 11.040 276,781 1,960	6 \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 368,643 11 036 278,705 1 981	6, \$	2022 1,737 1,255 12,856 84.47% 141,863 393,278 11.035 286,444 2,019	6	2023 1,737 1,255 12,771 83 91% 140,931 3,375,494 11,035 285,469 2 033				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MINBTu VOM cost(\$000)	1 12 84 14) 6,410 11 \$ 264 \$ 3 \$ 56	2016 1,737 1,255 2,863 1,28% 1,804 0,364 1,024 4,171 1,863 5,929	6 \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1 900 56,948	6 \$ \$ \$	2018 1,737 1,255 12,831 84.31% 141,542 ,405,725 11.031 269,508 1.904 59,508	6, \$ \$	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11 029 268,560 1 942 59,578	1 6,3 \$ \$	2020 1,737 1,255 12,791 83.81% 441,208 388,439 11.040 276,781 1,960 62,506	6 \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 ,368,643 11 036 278,705 1 981 64,936	5, \$ \$	2022 1,737 1,255 12,856 84.47% 141,863 393,278 11.035 286,444 2.019 66,065	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 140,931 1,375,494 11,035 286,469 2,033 68,135				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(GBtu) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh	1 12 84 14) 6,410 11 \$ 264 \$ 3 \$ 56	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,024 4,171 1,863 5,929 4,426	6	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1 900 55,948 4 576	6	2016 1,737 1,255 12,831 84,31% 141,542 405,725 11.031 269,508 1.904 59,508 4.638	5, 5, 5	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11,029 268,560 1,942 59,578 4,751		2020 1,737 1,255 12,791 83.81% 441,208 388,439 11.040 276,781 1,960 62,506 4.887	6 \$ \$	2021 1,737 1,255 12,749 83,76% 140,695 3,68,643 11 036 278,705 1 981 64,936 5 094	6, \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11.035 286,444 2,019 56,065 5,139	6	2023 1,737 1,255 12,771 83 91% 140,931 ,375,494 11,035 286,469 2 033 68,135 5 335				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per M/HBTu VOM cost(\$000) VOM per MWh Num starts()	1 12 84 14) 6,410 11 \$ 264 \$ 3 \$ 56	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,804 1,024 4,171 1,863 5,929 4,426 296	6 \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1 900 56,948 4 576 309	6 \$ \$ \$	2018 1,737 1,255 12,831 84,31% 141,542 405,725 11,031 269,508 1,904 59,508 4,638 233	6, \$ \$	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11 029 268,560 1 942 59,578 4,751 330	1 6,3 \$ \$	2020 1,737 1,255 12,791 83.81% 441,208 388,439 11.040 276,781 1.960 62,506 4.887 310	6 \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 ,368,643 11 036 278,705 1 981 64,936 5 094 354	5, \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11.035 286,444 2,019 66,065 5,139 304	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 1,375,494 11,035 286,469 2 033 68,135 5 335 5 335 269				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu)	1 1 12 84 141 6,410 11 \$ 264 \$ 1 \$ 56 \$ 2	2016 1,737 1,255 2,863 1,28% 1,804 0,364 1,024 4,171 1,863 5,929 4,426 296 244	6 \$ \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1,900 56,948 4 576 309 278	6 \$ \$ \$	2018 1,737 1,255 12,831 84.31% 141,542 405,725 11.031 269,508 1.904 59,508 4.638 4.638 233 245	6,, \$ \$ \$	2019 1,737 1,255 12,541 82,40% 82,40% 138,318 248,787 11 029 268,560 1 942 59,578 4,751 330 283	1 6,3 \$ \$ \$ \$	2020 1,737 1,255 12,791 83.81% (41,208 388,439 11.040 276,781 1,960 62,506 4,887 310 255	6 \$ \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 3,368,643 11 036 278,705 1 981 64,936 5 094 354 354	5, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11.035 286,444 2.019 66,065 5,139 304 265	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 ,375,494 11,035 286,469 2 033 68,135 5 335 269 249				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000)	1 12 84 14) 6,410 11 \$ 264 \$ 5 \$ 5 \$ 2 \$ 2 \$ 11	2016 1,737 1,255 2,863 1,28% 1,804 0,364 1,024 4,171 1.863 5,929 4,426 296 244 1,834	6 \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1 900 56,948 4 576 309 278 14,050	6 \$ \$ \$	2018 1,737 1,255 12,831 84.31% 141,542 405,725 11.031 269,508 4,638 233 245 12,467	6,, \$ \$ \$	2019 1,737 1,255 12,541 82,40% 248,787 11 029 268,560 1 942 59,578 4,751 330 283 14,942	1 6,3 \$ \$ \$ \$	2020 1,737 1,255 12,791 83.81% 83.81% 84.329 11.040 276,781 1.960 62,506 4.887 310 255 13,983	6 \$ \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 3,68,643 11 036 278,705 1 981 64,936 5 094 354 253 13,649	5, \$ \$	2022 1,737 1,255 84.47% 141,863 393,278 11.035 286,444 2.019 66,065 5.139 304 2.055 5.139	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 ,375,494 11,035 286,469 2 033 68,135 5 335 269 249 249 14,587				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start cost(\$000) Start cost(\$000) Start cost(\$000) So2(ktons)	1 12 84 14) 6,410 11 \$ 264 \$ 3 \$ 56 \$ 2 \$ 2 \$ 2 \$ 1	2016 1,737 1,255 2,863 1,28% 1,804 0,364 1,024 4,171 1,863 5,929 4,426 296 244 1,834 1,282	6 \$ \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1900 56,948 4 576 309 278 14,050 19,910	6 \$ \$ \$	2018 1,737 1,255 12,831 84,31% 141,542 ,405,725 11.031 269,508 1,904 59,508 4,638 233 245 12,467 21,199	6,, \$ \$ \$	2019 1,737 1,255 12,541 82.40% 138,318 248,787 11 029 268,560 1 942 59,578 4,751 330 283 14,942 20,456	1 6,3 \$ \$ \$ \$	2020 1,737 1,255 12,791 83.81% 141,208 888,439 11.040 276,781 1,960 62,506 4,887 310 255 13,983 21,001	6 \$ \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 1981 64,936 64,936 64,936 5094 354 253 13,649 20,812	5, \$ \$ \$	2022 1,737 1,255 12,856 84.47% 141,863 393,278 11,035 286,444 2,019 66,065 5,139 304 265 5,139 304 265 5,139 304	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 375,494 11 035 286,469 2 033 68,135 5 335 269 249 14,587 20,716				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 (ktons)	1 12 84 141 6,410 111 \$ 264 \$ 1 \$ 56 \$ 2 \$ 2 \$ 1 1 \$ 2 \$ 2	2016 1,737 1,255 2,863 1,28% 1,804 1,024 4,171 1,863 5,929 4,426 296 244 1,834 1,282 0,30	6 \$ \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1,900 56,948 4 576 309 278 14,050 19,910 0,29	6 \$ \$ \$ \$	2018 1,737 1,255 12,831 84,31% 44,5725 405,725 11,031 269,508 1,904 59,508 4,638 233 245 12,467 21,199 0,30	5, 5 5 5 5 5	2019 1,737 1,255 12,541 82,40% 138,318 248,767 11 029 268,560 1 942 59,578 4,751 330 283 14,942 20,456 0.30	1 6 3 \$ \$ \$	2020 1,737 1,255 12,791 83,81% 141,208 888,439 11,040 276,781 1,960 62,506 4,887 310 255 13,983 21,001 0,30	6 \$ \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 ,368,643 11 036 278,705 1 981 64,936 5 094 354 253 13,649 20,812 0,30	6, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11.035 286,444 2,019 66,065 5,139 304 265,5139 304 265 15,293 21,263 0,30	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 140,931 3,375,494 11.035 286,469 2 033 68,135 5 335 269 249 14,587 20,716 0.29				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000)	1 12 84 141 6,410 11 \$ 264 \$ 56 \$ 2 \$ 56 \$ 2 \$ 11 2; \$ 11 2; \$ 11	2016 1,737 1,255 2,863 1,28% 1,804 3,364 4,171 1,863 5,929 4,426 296 296 294 4,426 296 294 1,834 1,282 0,300	6 \$ \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1900 56,948 4 576 309 278 14,050 19,910 0,229 15,072	6 \$ \$ \$ \$	2018 1,737 1,255 12,831 84,31% 141,542 405,725 11,031 269,508 4,638 233 245 12,467 21,199 0,30 14,967	5, 5 5 5 5 5	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11 029 268,560 1 942 59,578 4,751 330 283 14,942 20,456 0,330 11,476	1 6,3 \$ \$ \$ \$	2020 1,737 1,255 12,791 83.81% 141,208 388,439 11.040 276,781 1.960 62,506 4.887 3100 255 13,983 21.001 0.300 8,674	6 \$ \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 3,68,643 11 036 278,705 1 981 64,936 5 094 354 253 13,649 20,812 0,330 7,284	5, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11,035 286,444 2,019 66,065 5,139 304 265 15,293 21,263 0,30 6,421	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 ,375,494 11,035 286,469 2 033 68,135 5 335 2 69 2 49 2 49 14,587 20,716 0,229 5,780				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emik Rate SO2 cost(\$000) NOx(ktons)	1 12 84 141 6,410 11 \$ 264 \$ 56 \$ 2 \$ 56 \$ 2 \$ 11 2; \$ 11 2; \$ 11	2016 1,737 1,255 2,863 1,28% 1,804 0,364 4,1024 4,171 1,863 296 296 244 1,834 1,834 1,834 1,834 1,834 1,834 2,826 2,44 1,834 1	6 \$ \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 (220,910 11 041 261,135 1 900 56,948 4 576 309 278 14,050 19,910 0,29 15,072 13,603	6 \$ \$ \$ \$	2016 1,737 1,255 12,831 84,31% 141,542 1405,725 11,031 269,508 4,638 233 245 12,467 21,199 0,30 14,967 13,714	5, 5 5 5 5 5	2019 1,737 1,255 12,541 82,40% 138,318 248,707 11 029 268,560 1 942 59,578 4,751 330 263 59,578 4,751 330 263 14,942 20,456 0,30 11,476	1 6 3 \$ \$ \$	2020 1,737 1,255 12,791 83,81% 141,208 988,439 11,040 276,781 1,960 62,506 4,887 310 2255 13,983 21,001 0,30 8,674 13,854	6 \$ \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 1981 1036 278,705 1981 64,936 64,936 64,936 5 094 354 253 13,649 20,812 0,30 7,284 13,746	6, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 393,278 210,035 5,139 304 265,055 5,139 304 265 5,139 304 265 15,293 21,263 0,30 6,421 13,666	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 375,494 11,035 286,469 2 033 68,135 5 335 269 249 14,587 20,716 0,29 5,780 13,859				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start cost(\$000) Start cost(\$000) Start cost(\$000) SO2(ktons) SO2 Emik Rate SO2 cost(\$000) NOx(ktons) NOx Kitons)	1 12 84 14] 6,410 \$ 26 \$ 1 \$ 56 \$ 2 \$ 1 \$ 11 22 \$ 11 21 \$ 11	2016 1,737 1,255 2,863 1,28% 1,804 1,034 4,171 1.863 5,929 4.426 296 294 1,834 1,282 296 2,557 3,680 0,19	6 \$ \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1900 56,948 4 576 309 278 14,050 19,910 0.29 15,072 13,603 0.20	6 \$ \$ \$ \$ \$	2018 1,737 1,255 12,831 84,31% 141,542 ,405,725 11.031 269,508 4,638 233 245 12,467 21,199 0,30 14,967 13,714 0,19	6, \$ \$ \$ \$	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11 029 268,560 1 942 59,578 4,751 330 283 14,942 20,456 0,30 11,476 13,515 0,20	1 6,3 \$ \$ \$	2020 1,737 1,255 12,791 83.81% 141,208 888,439 11.040 276,781 1,960 62,506 4.887 310 255 13,983 21.001 0.30 8,674 13.854 0.20	5	2021 1,737 1,255 12,749 83 76% 140,695 1981 64,936 64,936 64,936 64,936 5094 354 253 13,649 20.812 0.30 7.284 13,746 0.20	5, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 86,065 5,139 304 2,019 66,065 5,139 304 2,019 304 2,019 304 2,019 304 304 15,293 21,263 0,30 6,421 13,666 0,19	6 \$ \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 375,494 11 035 286,469 2 033 68,135 5 335 269 249 14,587 20,716 0.29 5,780 13,859 0.20				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost (\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emik Rate SO2 cost(\$000) NOx(ktons)	1 12 84 14] 6,410 \$ 26 \$ 1 \$ 56 \$ 2 \$ 1 \$ 11 22 \$ 11 21 \$ 11	2016 1,737 1,255 2,863 1,28% 1,804 0,364 4,1024 4,171 1,863 296 296 244 1,834 1,834 1,834 1,834 1,834 1,834 2,826 2,44 1,834 1	6 \$ \$ \$	2017 1,737 1,255 12,446 81 78% 137,410 210,135 1900 256,948 4 576 309 278 14,050 19,910 0,29 15,072 13,603 0,20	6 \$ \$ \$ \$ \$	2018 1,737 1,255 12,831 84,31% 141,542 405,725 11.031 269,508 4,638 233 245 12,467 21,199 0.30 14,967 13,714 0,19	6, \$ \$ \$ \$	2019 1,737 1,255 12,541 82,40% 138,318 248,707 11 029 268,560 1 942 59,578 4,751 330 263 59,578 4,751 330 263 14,942 20,456 0,30 11,476	1 6 3 \$ \$ \$	2020 1,737 1,255 12,791 83,81% 141,208 988,439 11,040 276,781 1,960 62,506 4,887 310 2255 13,983 21,001 0,30 8,674 13,854	5	2021 1,737 1,255 12,749 83 76% 140,695 1981 64,936 64,936 64,936 64,936 5094 354 253 13,649 20.812 0.30 7.284 13,746 0.20	6, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11.035 286,444 2.019 304 2.65 5,139 304 2.65 15,293 21,263 0.30 6,421 13,666	6 \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 375,494 11 035 286,469 2 033 68,135 5 335 269 249 14,587 20,716 0.29 5,780 13,859 0,20				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000)	1 1 1 2 84 6,410 1 1 5 5 5 5 5 5 2 6 5 5 5 2 7 5 5 5 5 2 7 5 5 5 5 7 7 5 5 5 7 7 7 5 7 7 7 7	2016 1,737 2,863 1,28% 1,28% 1,804 1,804 1,804 4,171 1,863 5,929 4,426 296 244 1,834 1,282 0,30 7,557 3,3680 0,19 3,912	6	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1900 56,948 4 576 309 278 14,050 19,910 0,229 15,072 13,603 0,20 22,105	6	2018 1,737 1,255 12,831 84.31% 141,542 405,725 11.031 269,508 4,638 233 245 12,467 21,199 0.30 14,967 13,714 0,19 21,517	5 5 5 5 5 5 5	2019 1,737 1,255 12,541 82,40% 138,318 248,787 11,029 268,560 1,942 59,578 4,751 330 283 14,942 20,456 0,30 11,476 13,515 0,20 20,407	5 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2020 1,737 1,255 12,791 83.81% 141,208 388,439 11.040 276,781 1.960 62,506 4.887 310 2255 13,983 21.001 0.300 8,674 13.854 0.20 21,072	6 \$ \$ \$ \$	2021 1,737 1,255 12,749 83 76% 140,695 3,68,643 11 036 278,705 1 981 64,936 5 094 3,54 4,253 13,649 20,812 0,330 7,284 13,746 0,20 20,935	5, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11,035 286,444 2,019 66,065 5,139 304 2,619 66,065 5,139 304 2,65 15,293 21,263 0,30 6,421 13,666 0,19 20,840	6 \$ \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 375,494 11,035 286,469 2 033 68,135 5 335 269 249 249 14,587 20,716 0,229 5,780 13,859 0,220 21,162				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	1 1 2 3 4 4 1 4 1 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,024 4,171 1,863 296 296 294 4,426 296 294 1,834 1,282 0,30 0,19 3,912 2,934	6	2017 1,737 1,255 12,446 81 78% 137,410 220,910 11 041 261,135 1900 56,948 4 576 309 278 14,050 19,910 0,29 15,072 13,603 0,20 22,105 332,133	6 * * * * * * * *	2016 1,737 1,255 12,831 84.31% 141,542 269,508 4,638 233 245 12,467 21,199 0,30 14,967 13,714 0,19 21,517 341,483	6, \$ \$ \$ \$ \$ \$ \$	2019 1,737 1,255 12,541 82,40% 138,318 248,707 11 029 268,560 1 942 59,578 4,751 330 263 1942 59,578 4,751 330 283 14,942 20,456 0.30 11,476 13,515 0,20 20,407 343,080	11 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2020 1,737 1,255 12,791 83,81% 441,208 988,439 11,040 276,781 1,960 62,506 4,887 310 2255 13,983 21,001 0,30 8,674 13,854 0,20 21,072 353,271	5	2021 1,737 1,255 12,749 83 76% 140,695 368,643 11 036 278,705 1 981 64,936 64,936 64,936 5 094 354 20,812 0,30 7,284 13,746 0,20 20,935	5, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11.035 286,444 2.019 304 2.65 15,293 21,263 0.30 6,421 13,666 0.19 20,840 367,803	6 \$ \$ \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 ,375,494 11,035 286,469 2 033 68,135 5 335 269 249 14,587 20,716 0.29 5,780 13,859 0,20 21,162 369,191				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel cost(\$000) Fuel cost(\$000) VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 cost(\$000) NOx (ktons) NOx cost(\$000) Total Operating Cost (\$000) Op Cost per MWh	1 1 1 2641 1 1 3 5 5 5 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5 2	2016 1,737 1,255 2,863 1,28% 1,28% 1,28% 1,28% 1,28% 2,96 2,96 2,96 2,96 2,96 2,96 2,96 2,96 2,96 2,96 2,96 2,92 2,934 2,934 2,888 2,934 2,888 2,934 2	5	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1 900 56,948 4 576 309 278 14,050 19,910 0,29 15,072 13,603 0,20 22,105 332,133 26,69		2018 1,737 1,255 12,831 84,31% 441,542 405,725 11.031 269,508 4,638 233 245 12,467 21,199 0.30 14,967 13,714 0,19 21,517 341,483 26,61	6, \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2019 1,737 1,255 12,541 82,40% 82,40% 138,318 248,787 11,029 268,560 1,942 59,578 4,751 330 283 14,942 20,456 0.30 11,476 13,515 0,20 20,407 343,080 27,36		2020 1,737 1,255 12,791 83.81% 88,439 11.040 276,781 1.960 62,506 4.887 3100 255 13,983 21.001 0.30 8,674 13.854 0.20 21,072 353,271 27,62	5	2021 1,737 1,255 12,749 83 76% 3,368,643 11 036 278,705 1 981 64,936 5 094 354 253 13,649 20,812 0,30 7,284 13,746 0,220 20,935	5, \$ \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 66,065 5,139 304 265 5,139 304 265 5,139 304 265 5,139 304 265 15,293 21,263 0,30 6,421 13,666 0,19 20,840 367,803 28,61	6 \$ \$ \$ \$ \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 ,375,494 11 035 286,469 2 033 68,135 5 335 269 249 14,587 20,716 0.29 5,780 13,859 0.20 21,162 369,191 28,91				
Total	Max Capacity(MW) Min Capacity(MW) Generation(GWh) Annual Cap. Fac Fuel used(GBtu) Coal(Tons) Heat Rate Fuel cost(\$000) Fuel Cost per MMBTu VOM cost(\$000) VOM per MWh Num starts() Start Fuel used(GBtu) Start cost(\$000) SO2(ktons) SO2 Emit Rate SO2 cost(\$000) NOx(ktons) NOx Emit Rate NOx cost(\$000) Total Operating Cost (\$000)	1 1 1 1 1 1 2 6 4 1 1 1 \$ 5 5 5 5 2 \$ 2 \$ 5 \$ 2 \$ 1 1 2 ; 5 \$ 2 \$ 5 \$ 2 \$ 5 \$ 5 \$ 2 \$ 5 \$ 5 \$ 2 \$ \$ 5 \$ 5	2016 1,737 1,255 2,863 1,28% 1,804 1,804 1,024 4,171 1,863 296 296 294 4,426 296 294 1,834 1,282 0,30 0,19 3,912 2,934	5	2017 1,737 1,255 12,446 81 78% 137,410 ,220,910 11 041 261,135 1 900 56,948 4 576 309 278 14,050 19,910 6,29 15,072 13,603 0,200 22,105 332,133 26,69 37,178		2018 1,737 1,255 12,831 84.31% 141,542 405,725 11.031 269,508 4.638 233 245 12,467 21,199 0.30 14,967 13,714 0.19 21,517 341,483 26,61	6, \$ \$ \$ \$ \$ \$ \$	2019 1,737 1,255 12,541 82,40% 138,318 248,707 11 029 268,560 1 942 59,578 4,751 330 263 1942 59,578 4,751 330 283 14,942 20,456 0.30 11,476 13,515 0,20 20,407 343,080	11 6 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	2020 1,737 1,255 12,791 83,81% 441,208 988,439 11,040 276,781 1,960 62,506 4,887 310 2255 13,983 21,001 0,30 8,674 13,854 0,20 21,072 353,271	5	2021 1,737 1,255 12,749 83 76% 140,695 1981 64,936 5 094 354 253 13,649 20,812 0,30 7,284 13,746 0,200 20,935 357,290 28,03 28,219	5, \$ \$ \$	2022 1,737 1,255 12,856 84,47% 141,863 393,278 11.035 286,444 2.019 304 2.65 15,293 21,263 0.30 6,421 13,666 0.19 20,840 367,803	6 \$ \$ \$ \$ \$ \$ \$ \$	2023 1,737 1,255 12,771 83 91% 140,931 286,469 2 033 68,135 5 335 5 335 269 249 14,587 20,716 0.29 5,780 13,859 0.20 21,162 369,191 28,91 26,942				

	1	2007	200	3 20	09	2010	1.0	2011	.]	2012		2013	2014		2015		2016		2017		2018		2019	į	2020		2021	20	022	2023
									1											<u> </u>										
BREC_TA	Off Peak																:							I						
	On Peak						I		L							<u> </u>				-		-				~		c		٤ .
BREC_TA Total			\$ ·	\$.		\$.	\$	-	\$		\$	·	\$ ·	\$	<u> </u>	\$		5	<u>.</u>	l >		\$	· ·	<u> </u>	<u> </u>	<u> -</u>	-			
КY	Off Peak										}									l.			- 1	i i	ĺ					
	On Peak																			<u> </u>										e
KY Total			\$.	\$.		\$.	\$	•	\$	~	\$	•	\$.	\$	•	\$	•	\$	2	ļ\$	•	\$	٠	<u>`</u>	•	\$	<u> </u>	3		<u>ə i</u>
W-ECAR	Model Off Peak			S 49.0	33 3	\$ 50.97	\$	51,36	\$	52.73	\$!	54.30	\$ 44.62	\$ 1	45.28	\$	45.93		46.15		47.19		47.99	-				\$ 49.		\$ 50.31
	Model On Peak			\$ 69.3	37 5	\$ 78.64	s	72.10	\$	76.37	\$ 3	77.67	\$ 73.16	\$	73.86	\$	74.57	\$	75.85		76.82		79.78		80.41	\$ 8.				\$ 86.67
W-ECAR Total - This Run	Model 7x24		\$.	\$ 59.	11 3	\$ 64.12	\$	61.21	\$	63.96	\$	65.40	\$ 58.18	\$	58,85	\$	59,53	\$	60.26	\$	61.26	\$	63.09	\$	63,11	\$ G	5,76	Ş 65.	94	\$ 67.58

Data Generation(GWh) Trans Recv Engy(GWh) Sum of Import egy(GWh) Total load(GWh) Trans Dev Engy(GWh) Sum of Export egy(GWh)	2007 2008 2009 12,531 303 240 11,527 1,548	2010 12,980 305 159 11,611 1,833	2011 12,468 305 308 11,702 1,379	2012 12,679 303 224 11,846 1,350	2013 12,762 266 300 11,919 1,409	2014 12,799 257 265 12,007 1,324	2015 12,826 267 300 12,100 1,294	2016 12.863 267 324 12,214 1.240	2017 12,445 268 622 12,285 1,048	2018 12,831 266 400 12,381 1,115	2019 12,541 266 536 12,477 865	2020 12,791 265 423 12,594 885	2021 12,749 268 528 12,671 873	2022 12,856 269 489 12,767 846	2023 12,771 268 607 12,862 783
Total Sources Gen SEPA Market Purchases Total Sources	12,531 303 240 13,075	12,980 305 159 13,444	12,468 305 308 13,081	12,679 303 224 13,20 6	12,762 266 300 13,328	12,799 267 265 13,331	12,826 267 300 13,394	12,863 267 324 13,454	12,446 268 622 13,336	12,831 266 400 13,497	12,541 266 536 13,344	12,791 265 423 13,479	12,749 268 528 13,545	12,856 269 489 13,614	12,771 268 607 13,646
Tatal Uses Native Load Smelter Load City of Henderson Load Sales Load Mkt Sales Losses	3,501 7,297 627 1,518 102	3,584 7,297 627 1,833 103	3,674 7,297 627 1,379 104	3,760 7,317 660 1,360 109	3,852 7,297 660 1,409 110	3,939 7,297 660 1,324 112	4,032 7,297 660 1,294 111	4,122 7,317 660 1,240 115	4,217 7,297 660 1,048 114	4,308 7,297 660 1,115 117	4,404 7,297 660	4,498 7,317 660 885 119	4,596 7,297 660 873 118	4,691 7,297 660 846 120 13,614	4,786 7,297 660 783 119 13,646
Total Uses Hend Share adj for losses Hend share at 100% CF Hend Est Energy Use	13,075 0.90% 95.85 839.7 632.4	13,444 0.90% 95.85 839.7 632.4	13,081 0.90% 95.85 839.7 632.4	13,206 0.93% 100.90 886.3 665.6	13,328 0.93% 100.90 883.9 665.6	13,331 0.94% 100.90 883.9 665.6	13,394 0.92% 100.90 883.9 665.6	13,454 0.95% 100.90 886.3 665.6	13,336 0.94% 100.90 883.9 665.6	13,497 0.95% 100.90 883.9 665.6	13,344 0.94% 100.90 683.9 665.6	13,479 0.95% 100.90 886.3 665.6	13,545 0.94% 100.90 883.9 665.6	0.95% 100.90 883.9 665.6	0.93% 100.90 883.9 665.6
BREC use of HMPL Share Cost to BREC of Excess Hend use SEPA Price	207.31 s 518 s 22.440	207.31 \$ 518 \$ 22.440	207.31 s 518 s s 22.440 s	220.64 552 28.330			218.22 \$ 546 \$ 29.750 100.8979921	\$ 29.750	\$ 29.750	s 30.500	\$ 31.240	+ +	218.22 \$ 546 5 \$ 31.240 5	31.240	218.22 s 546 s 32.000 100.8979921

EntityName	Data	2007 2008	2009	2010	2011 ⁰	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
D B Wilson 1	Generation(GWh)		3,019	3,433	3,141	3,317	3,161	3,380	3,218	3,390	2,965	3,384	3,216	3,365	3,223	3,409	3,211
	Fuel used(GBtu)		33,953	38,601	35.542	37,044	34,679	37,098	35,301	37,205	32,550	37,130	35,285	37,151	35,366	37,416	35,220
	Fuel cost(\$000)		60,097	65,622	62,199	90,758	89,124	66,776	64,070	68,198	60,314	69,545	66,794	71,070	66,469	73,260	69,771
	VOM cost(\$000)		7,352	8 454	10,578	11,264	10,685	11,729	11,488	12,441	11,179	13,095	12,800	13,845	13,538	14,693	14,223
	Num starts()		10	11	11	10	9	10	9	10	14	8	10	10	9	10	9 (
	Start Fuel used(GBtu)		66	72	67	52	56	54	50	50	77	45	55	53	50	52	55
	Start cost(\$000)		3,542	3,870	3.656	2.867	3,160	3,062	2,905	2,999	4,740	2,877	3,547	3,532	3,375	3,610	3,903
	502(ktons)		10	11	10	11	10	11	10	11	10	11	10	11	10	11	10
	SO2 cost(\$000)		1,390	1.299	9,025	9,514	8,876	9,224	8,694	8,979	7,208	7,668	5,790	4,488	3,621	3,305	2,874
	NOx(ktons)		.,С	0		-,	1		1		1				1	1	1
	NOx cost(\$000)		1,093	978	2,352	2.123	1,897	2,047	1,698	1,876	1,517	1,685	1,534	1,636	1.548	1,651	1,548
HMP&L Station 1			1,128	1,217	1,055	1,194	1,154	1,215	1,136	1,226	1,124	1,224	1,061	1,127	1,156	1,227	1.122
	Fuel used(GBtu)		12,204	13,167	11,417	12,928	12,491	13,156	12,298	13,274	12,164	13,247	11,488	12,194	12,537	13,289	12,148
	Fuel cost(\$000)		23,187	33,180	29,114	34,260	34,725	23,549	22,186	24,186	22,405	24,653	21,620	23,182	24,120	25,861	23,919
	VOM cost(\$000)	and a second state of the second state of the second state of the second state of the second state of the second	3,412	3,977	4,474	5,208	5,170	5,590	6,659	7,394	6,967	7,796	6,940	7,572	8,003	8,714	8,181
	Num starts()		16	15	15	14	14	15	15	15	14	14	21	14	15	14	14
	Start Fuel used(G8tu)		30	28	28	26	26	28	28	28	26	26	38	26	28	26	26
	Start cost(\$000)		1,599	1,529	1,525	1,435	1,457	1,617	1,651	1,689	1,585	1,625	2,463	1,712	1.920	1,807	1,867
	SO2(ktons)		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	SO2 cost(\$000)		282	250	1,635	1.873	1.804	1,845	1,709	1,807	1,519	1,543	1,064	631	724	662	559
	NOx(ktons)		0	0	σ	1	1	1	i	1	1	1	0	1	ŧ	ţ	1
	NOx cost(\$000)		580	484	1.052	1.075	990	1,053	960	972	823	870	724	775	798	847	772
HMP&L Station 2	Generation(GWh)		1,271	1,184	1,252	1,095	1,245	1,182	1,268	1,189	1,259	1,157	1,256	1,071	1,255	1,194	1,237
	Fuel used(GBtu)		13,767	12,827	13,564	11,668	13,501	12,809	13.741	12,885	13,645	12,645	13,619	11,606	13,609	12,940	13,409
	Fuel cost(\$000)		26,157	32,325	34,588	31,449	37,532	22,929	24,789	23,477	25,133	23,532	25,630	22.062	26,184	25,181	26,402
	VOM cost(\$000)	1	3,801	3,952	5 307	4,774	5,580	5,437	7,440	7,169	7,804	7,431	8,217	7.196	8,675	8.476	9,019
	Num starts()		17	19	17	23	17	17	13	17	17	17	17	24	17	17	17
	Start Fuel used(GBtu)		35	37	33	44	34	34	25	34	33	34	34	45	34	34	34
	Start cost(\$000)		1,859	2,007	1,826	2,427	1,882	1,969	1,449	2,043	2,026	2,147	2,172	3,068	2,276	2,398	2,413
	SO2(ktons)		2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
	SO2 cost(\$000)		318	243	1,943	1,720	1,949	1,797	1,909	1,754	1.704	1,473	1,261	791	786	645	617
	NOx(ktons)		0	0		0	i i	1	1	3	1	1	1	0	1	1	1
	NOx cost(\$000)		591	496	1.224	980	1,069	1.019	1.069	938	925	825	858	736	865	821	855
K C Coleman 1	Generation(GWh)		1,199	1,193	1 102	1.202	1,207	5,144	1,213	1,200	1,042	1,204	1.212	1.144	1,198	1,199	
	Fuel used(GBtu)		12,853	12,800	11,884	12,967	13.028	12,348	13,090	12,950	11,238	12,989	13,078	12,348	12,932 26,420	12,943 26,753	12,253 25,634
	Fuel cost(\$000)		30,847	31,744	30,304	36,047	37,913	23,388	25,001	24,994	21,937	25,639 1,817	26,117 1,878	24,919 1,819	1,953	20,755	1,965
	VOM cost(\$000)		1,390	1,432	1.377	1,538	1,594	1,545	1,686 15	1.716 15	1,531 20	1,517	1,070	1,519	1,555	2,015	1,803
	Num starts()		17 26	17 26	16	15 24	15 24	15 24	23	23	30	23	23	24	23	24	25
	Start Fuel used(GBtu)		26 557	20 583	25 572	24 555	551	572	553	567	767	605	614	659	653	683	734
	Start cost(\$000) SO2(ktons)		100	505	512	555	551	3/2		1	701	1	1	1	1	1	1
	SO2(ktons) SO2 cost(\$000)		103	84	588	649	650	598	628	609	485	523	418	291	258	223	195
	NOx(ktons)		100		2	2	2	2	2	2	2	2	2	2	2	2	2
	NOx cost(\$000)		2,408	2,067	4,122	4,134	3,965	3,772	3,913	3,622	2,938	3,263	3,159	3,005	3,154	3,162	3,006
K C Coleman 2	Generation(GWh)		1,111	1,040	1,101	1,090	1.038	1,093	1.111	966	1,115	1,113	1,036	1,117	1,112	1,056	1,115
	Fuel used(GBtu)	and the second second second second second second second second second second second second second second second	13,369	12,508	13,237	13,115	12,493	13,144	13,363	11,622	13,414	13,398	12,460	13,445	13,378	12,710	13 416
	Fuel cost(\$000)		32,085	31,019	33 753	36,461	36,355	24,895	25,523	22,430	26,185	26,448	24,883	27,133	27,332	26.271	28,067
	VOM cost(\$000)		1,289	1,247	1,376	1.428	1,402	1,508	1,577	1.410	1,672	1.715	1,636	1,821	1,857	1,817	1,973
	Num starts()		16	15	15	15	15	15	15	Z1	13	15	15	15	15	15	11
	Start Fuel used(GBtu)		25	22	24	25	24	25	24	31	20	24	25	24	24	25	18
	Start cost(\$000)		545	501	548	561	567	582	586	774	496	629	655	641	683	702	524
	SO2(ktons)	्रम् कर्मा हम	1	1	1	1	1	ŝ	1	1	5	1	1	1	ì	I	1
	502 cost(\$000)		107	82	655	656	623	637	641	547	579	539	396	317	267	219	213
	NOx(ktons)		1	1	2	2	2	2	2	2	z	2	2	2	2	2	2
	NOx cost(\$000)		2,487	2.125	4,599	4,189	3,810	4,040	4.012	3,280	3,491	3,370	3,018	3,280	3,278	3,113	3,277
K C Coleman 3	Generation(GWh)		1,125	1,225	1,225	1,050	1,237	1,229	1,155	1,211	1,227	1,162	1,212	1.222	1,068	1.229	1,233
	Fuel used(GBtu)	an an garaf	12,176	13,249	13,258	11,371	13,398	13,308	12,501	13,115	13,288	12,579	13,126	13,225	11,565	13,309	13,356
	Fuel cost(\$000)		29,223	32,858	33,808	31,511	38,988	25,205	23,877	25,312	25,939	24,831	26,213	26,688	23,628	27,509	27,940
	VOM cost(\$000)		1,306	1.470	1,531	1,376	1,670	1,696	1,640	1,769	1,841	1,789	1.916	1,991	1.783	2,114	2,183
	Num starts()		18	18	19	24	14	16	16	16	16	17	17	17	24	16	17
	Start Fuel used(GBtu)		25	25	27	32	20	22	22	22	22	24	24	24	32 892	22 638	24 714
	Start cost(\$000)		551	568	619	732	467	524	536	551	562	628	643 1	659	295	030	/14
	SO2(ktons)		1	1	1			1	1	617	1 573	506	420	311	231	229	212
	SO2 cost(\$000)		97	87	656	569	668	645	600	617 Z	5/3 2	2	420	2	231	225	212
	NOx(ktons)		1	0.007	2	2 3,472	2 3.876	2 3,885	2 3,564	3.504	3.299	3.016	3,031	3.077	2,700	3.093	3,113
	NOx cost(\$000)	<u></u>	1,996	2,085	4,608	3,412	3,010	2,003	10,00	J.J.J.	0,200	4,4 (1	2,221	0,011		-,	

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RA Reid GT	Generation(GWh)	userse ganagaan 🖡		-12.500 - 4	7	11	15	9	9	9	11	10	9	9	9	9	107
	Fuel used(GBtu)		48	51	80	133	175	111	104	110	130	125	103	101	106	105	
	Fuel cost(\$000)		418	448	698	1,132	1,475	931	902	967	1,154	1,127	951	95Z	1,020	1.053	1.085
	VOM cost(\$000)		Sector Sector		den Stellen um d	· .											· •
			154	149	154	174	251	196	173	173	182	121	199	186	229	173	155
	Num starts()		154	140	104	11.44	231	.10	17.0								
	Start Fuel used(GBtu)																. 1
	Start cost(\$000)						•		-		,						
	SO2(ktons)					•	0	· · · ·	• .		•	ō	0	0	Ð	0	a
	SOZ cost(\$000)		0	0	0	0	0	0	0	0	0	+		0	0 0	0	ŏ
	NOx(ktons)		0	0	0	0	0	0	0	0	0	0	0	-		4	
	NOx cost(\$000)		10	9	13	17	22	14	13	13	14	13	10	10	11	11	11
RA Reid Coal	Generation(GWh)							-									· [
	Fuel used(GBtu)																. [
																	· [
	Fuel cost(\$000)																
	VOM cost(\$000)				33												
	Num starts()		31	29			·										
	Start Fuel used(GBtu)		29	27	30												. 1
	Start cost(\$000)		1,540	1,478	1,646												
	SO2(ktons)		0	0	0												
	SO2 cost(\$000)		0	Q	3			•	-								
	NOx(ktons)											1					
	NOx cost(\$000)												·····	······	· · · ·		
R A Reid Gas	Generation(GWh)		. 7	12	32	29	13	29	13	23	22	-	24	22	19	37	22
K K KEIO Gas	Fuel used(GBtu)	and the second second	90	165	437	387	178	395	172	305	302		318	298	252	507	297
			792	1,551	3,776	3,518	1,683	3,300	1,473	2,689	2,808		2,943	2,774	2.418	5,009	3,095
	Fuel cost(\$000)			1,047	0,110	0,010		-,									· 1
	VOM cost(\$000)					5		3	3	2	5		3	2	2	12	2
	Num starts()	and the second	2	2	0			2	2	2	5		2	2	2	11	2
	Start Fuel used(GBtu)		2	2	6	5				102	215		113	113	115	575	121
	Start cost(\$000)		63	70	241	168	· · .	101	103	102	215		0	0	a	0	0
	SO2(ktons)	and the second second	0	0	0	0	0	0	o		-		0	0	ů	ñ	ō
	SO2 cost(\$000)		0	0	1	1	0	0	0	0	0	•	0	0	0	ő	ő
	NOx(ktons)		0		0	0	0	0	0	0	0			-		-	34
	NOx cost(\$000)		20		71	58	25	56	25	40	37		36	34	29	60	1,938
R D Green Stat 1			1,956	1,800	1,950	1.840	1,927	1,652	1,957	1,782	1,940	1,797	1,955	1,822	1,947	1,635	
R D Green Jaci	Fuel used(GBtu)		21,874	19.784	21,426	20,229	21,186	18,159	21,520	19,586	21,325	19,754	21,497	20,022	21,406	17,969	21,301
	Fuel cost(\$000)		36,749	40,358	46,922	43,491	52,964	32,632	38,993	34,921	39,451	36,940	40,629	38,243	41,356	35,130	42,134
			7,559	7,490	8.872	8,594	9,250	8.144	13,071	12,224	13,675	13,029	14,564	13,936	15,303	13,207	16,083
	VOM cost(\$000)	and the second second	7,559	, 450 B	0,012	14	13	18	13	15	13	13	13	15	13	21	13
	Num starts()		 A set of the set of			34	23	43	20	34	22	30	20	34	22	49	23
	Start Fuel used(GBtu)		17	20	18		1,316	2,466	1,155	2.034	1,364	1,857	1,274	2.251	1,468	3,403	1,636
	Start cost(\$000)	 A set of the second second second br/>second second br/>second second br/>second second br/>second second br/>second second br/>second second br/>second second br/>second second i>	919	1,104	979	1,719			2	2.034	2	2	2	2	2	2	2
	SO2(ktons)		2	2	2	2	2	2		1,576	1,574	1,360	1,176	806	731	529	579
	SOZ cost(\$000)		299	222	1,613	1,732	1,807	1,505	1.767		1,574	1,360	3	3	3	2	3
	NOx(ktons)	a an an an an an an an an an an an an an	1	1	3	3	3	2	3	3					4,484	3,755	4,482
	NOx cost(\$000)		2,885	1,964	6,419	5,508	5.546	4.738	5,522	4.711	4.767	4,236	4.462	4.189	1,759	1,860	1,748
R D Green Stat	2 Generation(GWh)		1,713	1,872	1,504	1,850	1.763	1,865	1,748	1,867	1,742	1,770	1,561	1,873			19,424
	Fuel used(GBtu)	الم المحمول	19,358	20,800	17,820	20,557	19,594	20,731	19,425	20,750	19,355	19,575	17,344	20.816	19.543	20,674	
	Fuel cost(\$000)		32,521	42,432	39,026	44,198	48,985	37,253	35,198	36,998	35,806	36,793	32,779	39,759	37,757	40,417	38,421
	VOM cost(\$000)		6,609	7,789	7,299	8,637	8,464	9,196	11,679	12,807	12,279	12,835	11,627	14,325	13,823	15,029	14,508
			6,509	7,105	6	13	14	11	15	11	15	13	21	12	14	12	15
	Num starts()			 A 1 A 2 A 2 A 2 A 	22	24	38	20	41	19	42	38	61	21	37	22	42
	Start Fuel used(GBtu)		25	23			1,905	1.089	2,142	1,076	2,294	2.098	3.460	1,351	2,266	1,476	2,674
	Start cost(\$000)		1,174	1,107	1.034	1,271			2,142	2	2	2	2	2	2	2	2
	SO2(ktons)	al a free arth	2	2	2	2	2	2			1,429	1,354	949	838	667	609	528
	SO2 cost(\$000)		264	233	1,508	1,760	\$,672	1,718	1,595	1,669		1,354	2	3	3	3	3
	NOx(ktons)		1		2	3	3	3	3	3	3			4,331	4,068	4.327	4,065
	NOx cost(\$000)	المستحير المرازات	2,815	2 348	5,233	5,582	5,081	5,418	4,966	4,955	4,294	4,239	3,576	4,331	4,000	4,327	4,000 [
		المحمد المستخدم المحمد	2 ·····														

Data	2007	2008		2009	201	3	2011	L	2012		2013		2014		2015		2016	2	017	2018		2019		2020		2021		2022		2023
Delivered Energy				1.548	1.833		1,379	1	1,360		1,409		1,324		1,294		1,240	1,0	148	1,115		866		885		873		846		783
Delivering Cost(\$			1	37,963	100,516	Sector and	81,998		85,218	9	93,792		75,932		75,239		72,642	62,2	277	67,403		54,904		54,824		54,731		53,107		50,372
Received Energy(SWh)		17 M A A A A A	1,548	1,833		1,379		1,360		1,409		1,324		1,294		1,240	1,0	148	1,115		866		885		873		846		783
Receiving Cost(\$0				89,845	103,349		83,498		86,557		94,683		78,325		78,194		75,027	64,	196	70,142		55,881		56,665		56,308		55,619		52,068
Mkt Sales				1,548	1,833		1,379		1,360		1,409		1,324		1,294		1,240	1,0	148	1,115		866		885		873		846		783
BREC Rev - Mode	:	#DIV/0!	s	58.04	s 56.39	\$	60.56	s	63.63	s	67.19	\$	59.17	\$	60.41	\$	60.50	\$ 61	.46 Ş	62.88	\$	65.67	\$	64.01	5	64.46	\$	65.72	ş	66.47
							07.400	-	86,557		94.683	~	78,325	÷	78,1 9 4	e	75.027	< 64 °	196 S	70,142	5	56,881	s	56,665	\$	56,308	s	55,619	ş	52,068
Adj Revenue		#DIV/0!			\$ 103,349		83,498			S I	67.19		59.17	2	60.41	÷	60.50		.46 \$	62.88	ŝ	65.67	s	64.01	s	64.46		65.72		66.47
Adjusted Price		#DIV/0!	\$	58.04	\$ 56.39	5	60.56	2	63.63	>	07.19	\$	39.17	\$	00.11	,	QQ.40	J 01		02.00		02.01	•		•					
		#DIV/0!																_			s		5		\$		s		¢	

#DIV/01

Study	Data	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2019	2019	2020	2021	2022	2023	
Journa	Delivered Energy(GWh)	1.		240	159		224	300	265	300	324	622	400	536	423	528	489	607	
	Delivering Cost(\$000)			14,613	9,752		15,455	19,846	16,161	18,489	20,354	37,604	23,775	33,812	26,725	37,652	34,185	43,950	
	Received Energy(GWh)		1999 - Secol	240	159		224	300	265	300	324	622	400	536	423	528	489	607	
	Receiving Cost(\$000)			15,742	10,505		16,613	21,449	17.322	19.657	21.624	40,334	25,321	36,120	28,562	40,377	36,405	46,703	
1		19 1 19 19 19 19 19 19 19 19 19 19 19 19				••••													
	Market Purchases			240	159	308	224	300	265	300	324	622	400	536	423	528	489	607	
	BREC Price	S	\$	s 65.53	\$ 66.17	\$ 67.28	\$ 74,14	s 71.54 s	65.38 \$	65.42 \$	66.75 \$	64.85 s	63.37 S	67.39 \$	67.48 \$	76.46 \$	74,47	5 76.94	
							s 16.613	s 21,449 s	17.322 \$	19.657 \$	21,624 S	40,334 S	25.321 \$	36,120 \$	28.562 \$	40,377 s	36,405	46,703	
	Adj Costs Adjusted Price	#DIV/0! #DIV/0!	#DIV/01 #DIV/01	\$ 15,742 \$ 65.53	\$ 10,505 \$ 66.17		\$ 10,013 \$ 74.14	s 71.54 s	65.38 s	65.42 \$	66.75 \$	64.85 S	63.37 \$	67.39 \$	67.48 S	76.46 S	74.47	76.94	
			#DIV/0!	\$	s .	s ·	s .	\$ \$	· s	· 5	· s	. \$. s	. \$. s	· s	• ;	5	

EXHIBIT 98

SUPPLEMENTAL DIRECT TESTIMONY OF ROBERT S. MUDGE

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COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Case No. 2007-00455

SUPPLEMENTAL DIRECT TESTIMONY OF ROBERT S. MUDGE

> ON BEHALF OF APPLICANTS

OCTOBER 2008

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$egin{array}{c} 1 \\ 2 \\ 3 \end{array}$		SUPPLEMENTAL DIRECT TESTIMONY OF ROBERT S. MUDGE
4	I.	INTRODUCTION
5		
6	Q.	Please state your name.
7		
8	Α,	My name is Robert S. Mudge.
9		
10	Q.	Are you the same Robert S. Mudge who previously submitted direct
11		testimony in this proceeding?
12		
13	А.	Yes, I am.
14		
15	Q.	What is the purpose of your supplemental direct testimony in this
16		proceeding?
17		
18	А.	The purpose of my supplemental testimony is to present the updated Unwind
19		Financial Model depicting the transaction (the "Unwind Transaction") under
20		which Big Rivers has proposed to terminate its 1998 power purchase and
21		lease transaction with E.ON US, LLC ("E.ON") (the "Lease Transaction"),
22		and the financial impact of operations thereafter, through the period of the
23		existing arrangements which terminate in 2023. Specifically, I discuss the

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1		material changes in the Unwind Financial Model since the most recently filed
2		version of June 2008, including the financial resolution of the Ambac
3		Assurance Company ("Ambac") credit downgrade resulting in the expected
4		termination of the lease transaction with Phillip Morris Capital Corporation
5		("PMCC") and its subsidiary, Bluegrass Leasing, (the "PMCC Buyout"), as
6		well as other changes to the Unwind Financial Model due to changes in cost
7		inputs and assumptions. I also present comparisons of revenue requirements,
8		Member rates, and balance sheet and credit metrics produced by the updated
9		Unwind Financial Model as compared to the June 2008 version of the
10		Unwind Financial Model.
11		
12	II.	DESCRIPTION OF CHANGES TO THE UNWIND FINANCIAL
13		
10		MODEL FROM THE JUNE 2008 UNWIND FINANCIAL MODEL
14		MODEL FROM THE JUNE 2008 UNWIND FINANCIAL MODEL
	Q.	MODEL FROM THE JUNE 2008 UNWIND FINANCIAL MODEL Would you please list the material changes in the Unwind Financial
14	Q.	
14 15	Q.	Would you please list the material changes in the Unwind Financial
14 15 16	Q. A.	Would you please list the material changes in the Unwind Financial
14 15 16 17		Would you please list the material changes in the Unwind Financial Model since the most recently filed version of June 2008.
14 15 16 17 18		Would you please list the material changes in the Unwind Financial Model since the most recently filed version of June 2008. The Unwind Financial Model has been updated in a number of important

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1		the reasons for the changes, are explained in the Third Supplemental Direct
2		Testimony of C. William Blackburn (Exhibit 78).
3		
4		First, the projected closing date of the Unwind Transaction to be used in the
5		Unwind Financial Model has been changed from April 30, 2008, as reflected
6		in the original December 2007 application, to December 31, 2008.
7		
8		Second, financial statements prior to the new December 31, 2008 closing date
9		have been updated to reflect actual results for 2007, which were not available
10		for the original December 2007 filing. Big Rivers' 2008 financial statements
11		have been projected based on actual results through July 2008 and using Big
12		Rivers' budgets for the balance of the year.
13		
14		Third, compensation from E.ON has been revised to reflect the new December
15		31, 2008 closing date. This change primarily concerns more accurate
16		estimates of the value of fuel and other inventory at closing, an updated
17		estimate of contributed SO_2 allowances, as well as other adjustments.
18		
19	Q.	Have there been other material changes to the Unwind Financial
20		Model?
21		

1	А.	Yes. Fourth, the Unwind Financial Model has been updated to reflect the
2		results of the September 8, 2008 run of the updated Big Rivers Production
3		Cost Model prepared by ACES Power Marketing at the direction of Big Rivers
4		(attached as Exhibit 97). The results of the updated Production Cost Model
5		change the anticipated plant dispatch used in the Unwind Financial Model
6		resulting from changes in market electricity prices, projected fuel costs,
7		projected variable O&M costs and related items.
8		
9		Fifth, the Unwind Financial Model has been updated to reflect changed labor
10		costs based in part on an updated workplan provided by Western Kentucky
11		Energy Corp. ("WKEC") (Exhibit 105) and in part on estimates by Big Rivers
12		of projected payroll and overhead items.
13		
14		Sixth, the Unwind Financial Model has been updated to incorporate changes
15		to non-labor fixed costs and capital expenditures. These non-labor fixed costs
16		and projected capital expenditures have been revised based on the updated
17		workplan provided by WKEC (Exhibit 105) and estimates made by Big Rivers.
18		These changes are made in four major categories: fixed production O&M,
19		administrative and general costs, marketing fees, and capital expenditures.
20		

1	Q.	Does the Unwind Financial Model also change to reflect the terms
2		and financial effects of the PMCC Buyout and the termination of the
3		leases with Bank of America Leasing (the "BoA Buyout")?
4		
5	А.	Yes. The Unwind Financial Model has been revised to model the financial
6		effects of the PMCC Buyout and the actual terms of the BoA Buyout (which
7		had been reflected on a pro forma basis in the June 2008 model).
8		
9	Q.	How are the costs of the PMCC Buyout and the BoA Buyouts
10		modeled?
11		
12	А.	The costs of buying out these leveraged lease transaction are recognized in
13		income on the closing date of the Unwind Transaction (now projected to be
14		December 31, 2008). With offsets from recognizing the unamortized gain
15		generated by the original lease transactions (that of both PMCC and BoA),
16		the net expense is approximately \$16.1 million. Mr. Blackburn explains Big
17		Rivers' request for this proposed accounting treatment in his testimony
18		(Exhibit 78).
19		
20		For purposes of the Unwind Financial Model, Big Rivers' cash outlay
21		associated with the PMCC Buyout is modeled as a net \$60.9 million once the
22		WKEC contribution of \$60.9 million is received at closing of the Unwind

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1		Transaction. This net amount reflects full repayment of the \$12.38 million
2		loan from PMCC undertaken at the time of the PMCC Buyout. The Unwind
3		Financial Model treats this net amount as financed using funds that would
4		otherwise have been used to prepay the RUS New Note on the date of closing
5		of the Unwind Transaction. The balance of the RUS prepayment is then
6		deferred to 2012. Big Rivers' cash net inflow associated with the BoA Buyout
7		is modeled as \$1.2 million.
8		
9	Q.	How does the reduction in the amount to be prepaid under the RUS
10		New Note change Big Rivers' expected financings?
11		
12	А.	In order to cover cash requirements, including capital expenditures and RUS
13		payments, the Unwind Financial Model assumes additional borrowings in the
14		capital markets will occur in 2011 and 2018 (both at year end). Moreover, the
15		Unwind Financial Model retains the assumption of a \$200 million borrowing
16		in 2015 (year end), which is already included in the June 2008 Unwind
17		Financial Model.
18		
19	Q.	What other assumptions in the Unwind Financial Model are changed
20		in the updated version?
21		

1	А.	The new Unwind Financial Model no longer incorporates the Member
2		Discount Adjustment, which expired in August 2008, as explained by Mr.
3		Blackburn in his testimony (Exhibit 78). In addition, as Mr. Blackburn also
4		explains, the new Unwind Financial Model no longer incorporates a 2%
5		Member rate increase, which was originally modeled for 2010 as established
6		in the original Section 4.7.5(a) of the Smelter Agreements. Also, in order to
7		reflect the terms of the new Smelter Agreements discussed in Mr.
8		Blackburn's testimony (Exhibit 78), the Unwind Financial Model reduces the
9		Smelter Surcharge by \$200,000 per month for the first 96 months following
10		closing and converts the Smelter Economic Reserve of \$7 million included in
11		the June 2008 Financial Model into an equivalent cash payment by Big
12		Rivers to the Smelters on the date of closing of the Unwind Transaction.
13		
14		Further, the Unwind Financial Model reflects Big Rivers' change to the
15		Member Rate Stability Mechanism ("MRSM") to incorporate a feathering of
16		the Fuel Adjustment Clause ("FAC") and Environmental Surcharge expenses
17		flowed through to the Non-Smelter Rates. For 2009, the MRSM provides full
18		crediting of all FAC and Environmental Surcharge expenses not otherwise
19		offset. In 2010, the amount of the MRSM crediting of FAC and
20		Environmental Surcharges expenses not otherwise offset is reduced by an
21		amount equivalent to \$2.00/MWh multiplied by the load. In 2011, the
22		amount of the MRSM crediting of FAC and Environmental Surcharge

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1		expenses not otherwise offset is reduced by an amount equivalent to
2		\$4.00/MWh multiplied by the load. And during 2012, the amount of the
3		MRSM crediting of FAC and Environmental Surcharges not otherwise offset
4		is reduced by an amount equivalent to \$6.00/MWh multiplied by the load.
5		
6		A Kentucky coal tax credit also has been incorporated into the new Unwind
7		Financial Model, serving to offset fuel costs to a modest degree in 2010 and
8		2011.
9		
10		Finally, the Unwind Financial Model has been updated to change the
11		assumed interest earnings rate applied to cash balances from 4.28% to 4.00%.
12		
13	III.	COMPARISON OF KEY RESULTS BETWEEN THE JUNE 2008
14		UNWIND FINANCIAL MODEL AND THE UPDATED UNWIND
15		FINANCIAL MODEL
16		
17	Q.	Have you prepared any comparisons between the results of the
18		Updated Unwind Financial Model and the previously-supplied June
19		2008 Unwind Financial Model?
20		
21	А.	Yes. In my testimony below I provide comparisons of these two versions of
22		the Unwind Financial Model across a number of dimensions.

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1		
2		A. Changes to Overall Revenue Requirements
3		
4	Q.	What is the effect on the overall revenue requirements of Big Rivers
5		between the updated Unwind Financial Model and the June 2008
6		version of the Unwind Financial Model?
7		
8	А.	Below I provide the changes in the overall revenue requirements over the
9		period 2009 – 2023:
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		

Analysis	<u>of Change in Total Revenue Requirement (\$M; 2009 - 2023)</u>	
1	Filed Model (6/08)	8,325.2
2	Increases from Operations	
2	Fuel Costs	184.5
4	Non-Fuel Variable Production O&M	112.2
5	A&G	69.0
6	Fixed Production O&M	43.5
7	Gain on Sale of Emissions Allowances	24.0
8	Marketing Fees	18.7
9	Smelter Economic Reserve	7.7
10	Transmission O&M	3.2
11	Interest Earnings	<u> 10.2</u>
12	Subtotal - Increases	473.1
13		
14	Reductions from Operations	the standard standard
15	Offsystem Sales	(243.5)
16	SEPA & Other Purchases	(20.6)
17	Depreciation & Amortization	(7.3)
18	Member Economic Reserve	(16.2)
19	Income Tax	(1.0)
20	RUS Note & PCB Restructuring Charge	(0.4)
21	Subtotal - Reductions	(288.9)
22		
23	Lease Buyout	en satureren an
24	Discontinuation of Net Lease Income	25.9
25	Discontinuation of CoBank Patronage	13.0
26	BoA Lease Gain not Amortized	10.6
27	Subtotal - Lease Buyout	49.5
28	· · · · ·	- Andrewski - Andrewski - Andrewski - Andrewski - Andrewski - Andrewski - Andrewski - Andrewski - Andrewski - A
29	Interest Expense (Incl. Financing Fees)	45.9
30	<u> </u>	n series de la s
31	Net Margin	(37.8)
32	Normagn	
33	Rebate Realized	6.9
34	Total	248.7
35 35	December Close/ \$60.9m Buyout	8,573.9
36		e na se se se se se se se se se se se se se
37	Percent Change	3%

Overall Revenue Requirements:

1

2

3 Q. Could you explain the reason for the estimated cost increases shown?

4

1	А.	The estimated cost increases result from a combination of factors, including:
2		1) the results of the updated Production Cost Model to reflect current market
3		conditions and commodity price escalations; 2) changes in other operating
4		cost assumptions revised in consultation with WKEC through changes to the
5		workplan and otherwise; 3) certain reductions in income accompanying the
6		PMCC Buyout and the BoA Buyout; and 4) changes in financing and interest
7		charges.
8		
9	Q.	Have you assessed the potential effect on revenue requirements and
10		rates produced solely from the PMCC Buyout and the BoA Buyout?
11		
12	А.	Yes. I separately provide the revenue requirements and rate impacts of the
13		PMCC Buyout and the BoA Buyout alone as Exhibit RSM-3.
14		
15		B. Changes to Member Rates
16		
17	Q.	What is the effect on Member Rates of the various changes to the
18		updated Unwind Financial Model as compared to the June 2008
19		Unwind Financial Model?
20		

1	А.	The increase in revenue requirements equates to a weighted	l average increase
2		of \$1.38/MWh to the Non-Smelter Members over the period	from 2009 to 2023
3		I present these results in the table below:	
4 5 6		Non-Smelter Member Rates:	
0	Rate	Impact Analysis (\$/ MWh)	
	1. No	n-Smelter Members	
_	1 2 3 4 5 6 7 8 9 1 1 1 1 1 1 1 1	Discontinued MRDA GRA Regulatory Account FAC Environmental Surcharge Surcharge Credit Rebate Realized DEconomic Reserve/ MRSM 1 Net 2 3 Overall Change	46.11 0.89 (0.79) (0.18) 0.63 0.63 0.69 0.31 0.08 (0.26) 1.45 1.38
7 8	1	4 December Close/ \$60.911 Buyou	47.49
9 10	C.	Changes to Smelter Rates	
10			
11	Q.	What is the effect on Smelter Rates of the various cha	inges to the
12		updated Unwind Financial Model as compared to the	June 2008
13		Unwind Financial Model?	

- 14
- 15 A. The increase in revenue requirements equates to a weighted average increase
- 16 of \$1.49/MWh to the Smelter Members over the 2009 to 2023 period. I
- 17 present these results in the table below:

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$rac{1}{2}$			Smelter Member Rates:	
3	Rate I	mpac	t Analysis (\$/ MWh)	
	2. Sm	elters		
	1		Filed Model (6/08)	49.93
	2	-	Discontinued MRDA	0.71
	3		GRA	(0.56)
	4		TIER Adjustment	0.20
	5		FAC	0.65
	6		Smelter Economic Reserve	0.07
	7		Environmental Surcharge	0.68
	8		Power Purchases	(0.14)
	9		Surcharge	(0.18)
	10		TIER Related Rebate	0.05
	11		Overall Change	1.49
4	12	2	December Close/ \$60.9m Buyout	51.42
5 6 7		D.	Changes to Balance Sheet and Credit Met	crics
8	Q.	Ha	ve you estimated the effect of the changes to	the Unwind
9		Fir	nancial Model between June 2008 and Octobe	er 2008 as they relate
10		to	Big Rivers' equity?	
11				
12	А.	Ye	s. The June 2008 version of the Unwind Financial	l Model indicated Big
13		Riv	vers would have a minimum 24% positive equity.	The updated Unwind
14		Fir	nancial Model submitted herein shows a minimum	positive 26% equity

16

15

level.

1	Q.	Have you estimated the effect of the changes to the Unwind
2		Financial Model between June 2008 and October 2008 as they relate
3		to TIER?
4		
5	А.	Yes. The June 2008 version of the Unwind Financial Model indicated Big
6		Rivers would have a minimum 1.22 TIER. The updated Unwind Financial
7		Model submitted herein shows a minimum 1.27 TIER.
8		
9	Q.	And have you estimated the effect of the changes to the Unwind
10		Financial Model between June 2008 and October 2008 as they relate
11		to ending cash balances?
12		
13	A.	I have. When expressed in terms of unrestricted cash on hand and the funds
14		being held in the Transition Reserve Account, and excluding all funds
15		available under lines of credit, the June 2008 version of the Unwind
16		Financial Model indicated \$74 million cash on hand, and the updated
17		Unwind Financial Model shows \$73.1 million cash on hand.
18		
19	Q.	Does this conclude your testimony at this time?
20		
21	A.	Yes.

Exhibit 98 Page 15 of 15

Exhibit RSM-3

Combined Impact of BofA and PMCC Lease Buyouts in Isolation [10/04/08]:

	Sis of Change in Total Revenue Requirement (\$M; 2005 - 2025)	8,573.9
1	December Close/ \$60.9m PMCC Buyout	0,010.0
2 3	Increases from Operations Fuel Costs	-
3 4	Non-Fuel Variable Production O&M	
5	A&G	· _
6	Fixed Production O&M	aen et al a a a a a a a a a a a a a a a a a a
7	Gain on Sale of Emissions Allowances	· •
8	Marketing Fees	-
9	Smelter Economic Reserve	1
10	Transmission O&M	
11	Interest Earnings	4.2
12	Subtotal - Increases	4.2
13		
14	Reductions from Operations	
15	Offsystem Sales	
16	SEPA & Other Purchases	
17	Depreciation & Amortization	
18	Member Economic Reserve	0.1
19	Income Tax	
20	RUS Note & PCB Restructuring Charge	0.4
21	Subtotal - Reductions	0.5
22		
23	Lease Buyout	
24	Continuation of Net Lease Income	(36.2)
25	Continuation of CoBank Patronage	(13.0)
26	Subtotal - Lease Buyout	(49.2)
27		
28	Interest Expense (Incl. Financing Fees)	(58.9)
29		
30	Net Margin	49.2
31		
32	Rebate Realized	
33	Total	(54.2)
34	December Close/ No BofA or PMCC Buyout	8,519.7
35		
36	Percent Change	-1%

Analysis of Change in Total Revenue Requirement (\$M; 2009 - 2023)

Non-Smelter Member Rates [10/04/08]:

Rate	Impact Analysis (\$/ MWh)	
1, No	n-Smelter Members	
1	December Close/ \$60.9m PMCC Buyout	47.49
2	MRDA Continued	(0.89)
3	GRA	0.47
4	Regulatory Account	
5		
6	FAC	
7	Environmental Surcharge	– .:
8	Surcharge Credit	
9	Rebate Realized	0.02
10	Economic Reserve/ MRSM	0.00
11	Net	0.02
12		
13	Overall Change	(0.39)
14	December Close/ No BofA or PMCC Buyout	47.09
	ter Rates [10/04/08]: Impact Analysis (\$/ MWh)	
2. Sn	nelters	
1	December Close/ \$60.9m PMCC Buyout	51.42
2	MRDA Continued	(0.71)
3	GRA	0.36
4	TIER Adjustment	0.05
5	FAC	
6	Smelter Economic Reserve	-
7	Environmental Surcharge	
8	Power Purchases	-
9	Surcharge	-

- 9 Surcharge
- 0.02 TIER Related Rebate 10 Overall Change December Close/ No BofA or PMCC Buyout (0.27) 11 51.15 12

VERIFICATION

I verify, state, and affirm that the foregoing testimony is true and correct to the best of my knowledge and belief.

12

Robert S. Mudge

District of Columbia, ss:) Washington, DC)

SUBSCRIBED AND SWORN TO before me by Robert S. Mudge on this the $\underline{\gamma \mu}$ day of October, 2008.

My Commission Expires

ANGELA GILBERT NOTARY PUBLIC DISTRICT OF COLUMBIA My Commission Expires January 1, 2009

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EXHIBIT 99

SUPPLEMENTAL DIRECT TESTIMONY OF DAVID A. SPAINHOWARD

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Case No. 2007-00455

SUPPLEMENTAL DIRECT TESTIMONY OF DAVID A. SPAINHOWARD

ON BEHALF OF APPLICANTS

OCTOBER 2008

Exhibit 99 Page 1 of 30

1 2 3		SUPPLEMENTAL DIRECT TESTIMONY OF DAVID A. SPAINHOWARD
4	I.	INTRODUCTION
5		
6	Q.	Please state your name, address and position with Big Rivers
7		Electric Corporation ("Big Rivers").
8		
9	А.	My name is David A. Spainhoward. My business address is 201 Third Street,
10		Henderson, Kentucky, 42420. I am Vice President External Relations &
11		Interim Chief Production Officer at Big Rivers.
12		
13	Q.	Are you the same David A. Spainhoward who previously submitted
14		direct testimony in this proceeding?
15		
16	Α.	Yes, I am.
17		
18	Q.	Please summarize the purpose of your supplemental direct
19		testimony in this proceeding.
20		
21	A.	The purpose of my supplemental testimony is to address certain
22		developments that have occurred with respect to the proposed unwind
23		("Unwind Transaction") of the 1998 transactions between Big Rivers and

Exhibit 99 Page 2 of 30

1	E.ON U.S. LLC ("E.ON") (formerly LG&E Energy Corp.) and certain E.ON
2	affiliates approved by the Kentucky Public Service Commission
3	("Commission") in Case Nos. 97-204 and 98-265 ("1998 Transactions").
4	
5	First, I describe several agreements that Big Rivers proposes to enter into
6	relating to the resumption by Big Rivers of the rights and responsibilities
7	under pre-1998 contracts ("Station Two Contracts") between Big Rivers, the
8	City of Henderson, Kentucky (the "City") and the City of Henderson Utility
9	Commission doing business as Henderson Municipal Power & Light
10	("HMP&L") (collectively, "Henderson") concerning the City's Station Two
11	generating facility ("Station Two"). For each of these agreements, all of
12	which are attached at Exhibit 87, I briefly describe the purpose of the
13	agreement, whether Big Rivers is seeking Commission approval for the
14	agreement or is merely filing the agreement for informational purposes, and
15	for those agreements for which Big Rivers is seeking Commission approval,
16	why such approval is necessary. In addition, to the extent that there is an
17	exchange of consideration under any of these agreements, I explain why the
18	consideration involved is reasonable.
19	
20	I then briefly summarize changes to the Big Rivers tariff for which Big Rivers
21	seeks approval in this proceeding, and also describe revisions to Big Rivers'

22 open access transmission tariff ("OATT") that is being filed with the

Exhibit 99 Page 3 of 30

1		Commission and that will be filed with the Federal Energy Regulatory
2		Commission ("FERC") (attached hereto as Exhibit 85).
3		
4		Next, to support Big Rivers' ongoing conduct of due diligence with respect to
5		its proposed resumption of the responsibility for operating and maintaining
6		the generating facilities currently leased to E.ON, I sponsor a list of due
7		diligence closing conditions and discuss Big Rivers' understanding of how
8		those conditions are expected to be satisfied.
9		
10		Finally, I address the effect on Big Rivers of the United States Court of
11		Appeals for the District of Columbia Circuit's ("D.C. Circuit") recent decision
12		in State of North Carolina v. EPA, in which the court struck down the Clean
13		Air Interstate Rule ("CAIR") promulgated by the United States
14		Environmental Protection Agency ("EPA"). I describe the CAIR and the
15		court's basis for striking the rule down. I then explain how I believe the
16		court's ruling is likely to impact Big Rivers and how Big Rivers is responding
17		to this development.
18		
19	II.	HENDERSON STATION TWO AGREEMENTS
20		
21		A. INTRODUCTION
22		

- Q. What is the purpose of the agreements relating to Station Two that
 Big Rivers is filing with the Commission?
- 3

4 A. The purpose of the agreements is to restore Big Rivers and Henderson to the 5relationship that prevailed among the parties with respect to Station Two prior to the 1998 Transactions. As the Commission is aware, in 1970 Big 6 7 Rivers and Henderson entered into a series of contracts concerning Station Two ("Station Two Contracts"), including a Power Sales Contract, a Power 8 9 Plan Construction and Operation Agreement, and a Joint Facilities Agreement. As part of the 1998 Transactions, E.ON, acting through a 10 subsidiary, assumed certain of Big Rivers' operational responsibilities with 11 12respect to Station Two pursuant to a series of agreements entered into by and among Big Rivers, E.ON, the City of Henderson, Kentucky, and the City of 13 14Henderson Utility Commission, including the Agreement and Amendments to Agreements by and among the City, the City of Henderson Utility 15 16 Commission, Big Rivers Electric Corporation, WKE Station Two Inc., LG&E Energy Marketing Inc. ("LEM"), and Western Kentucky Energy Corp. 17("WKEC") dated July 15, 1998 ("Station Two Agreement"). The new 18 19 agreements are meant to act in concert to eliminate the role of E.ON as the 20entity responsible for operating Station Two, and to permit Big Rivers to resume that role. The agreements further restore to Big Rivers other rights 21and responsibilities that were assigned to E.ON in 1998. 22

Exhibit 99 Page 5 of 30

1

2

Q.

Have these agreements been executed by the relevant parties?

3

4	A.	No. Certain of these agreements require execution by the City and the City
5		of Henderson Utility Commission. Although the agreements have been
6		briefly discussed with those entities, they have not yet agreed to the terms
7		proposed or to execute the agreements. The other agreements, although not
8		requiring execution by the City and the City of Henderson Utility
9		Commission, are dependent for their effectiveness on agreement by those
10		entities to the terms Big Rivers proposes for the resumption by Big Rivers of
11		its rights and responsibilities with respect to Station Two. Unless the City
12		and the City of Henderson Utility Commission agree to and execute these
13		agreements, the remaining agreements will have no force and effect, and
14		therefore have not been executed by the parties thereto.
15		
16	Q.	What is Big Rivers asking the Commission to do with respect to these
17		unexecuted agreements?
18		
19	A.	The agreements Big Rivers is filing herewith fall into two categories:
20		agreements that require Commission approval and for which Big Rivers is
21		seeking Commission approval, and agreements that do not require
22		Commission approval, but which Big Rivers is filing with the Commission for

Exhibit 99 Page 6 of 30

1		informational purposes. In my testimony below, I specifically identify those
2		agreements for which Big Rivers requires and is seeking Commission
3		approval. With respect to those agreements, Big Rivers requests that the
4		Commission approve the agreements as filed, with the understanding that it
5		is reasonable to anticipate that at least some of those agreements may be
6		amended prior to execution.
7		
8	Q.	If one or more of the agreements at issue are amended subsequent to
9		Commission approval, will Big Rivers seek Commission approval of
10		the amended agreements?
11		
12	Α.	In the event that any of the agreements for which Big Rivers is seeking
13		Commission approval is amended in a material way, Big Rivers will resubmit
14		the amended agreement(s) for Commission approval.
15		
16		B. DESCRIPTION OF AGREEMENTS RELATING TO STATION
17		TWO
18		
19	Q.	Please identify the Station Two-related agreements that Big Rivers
20		is submitting to the Commission.
21		

•

1	А.	There are five agreements that Big Rivers is submitting to the Commis	ssion
2		with respect to the Station Two transaction:	
3			
4		1. Amendment to Contract Among City of Henderson, Kentu	icky,
5		the City of Henderson Utility Commission and Big Rivers	
6		Electric Corporation;	
7		2. Second Amendatory Agreement (between Big Rivers, WK)	EC, the
8		City, and the City of Henderson Utility Commission);	
9		3. Station Two Termination and Release Agreement (betwee	en Big
10		Rivers and E.ON);	
11		4. Station Two G&A Allocation Agreement (between Big Riv	vers
12		and HMP&L); and	
13		5. Agreement for Assignment of Responsibility for Complyin	ig with
14		Reliability Standards Between Henderson Municipal Pow	ver &
15		Light and Big Rivers Electric Corporation.	
16			
17		These agreements are included in Exhibit 87.	
18			
19	Q.	What is the purpose of the Amendment to Contract Among City	y of
20		Henderson, Kentucky, the City of Henderson Utility Commissio	on and
21		Big Rivers Electric Corporation?	
22			

1	A.	Under Section 3.8 of the 1970 Station Two Power Sales Contract, Big Rivers
2		is permitted or obligated to purchase certain energy generated from Station
3		Two. Specifically, Big Rivers may purchase all or any portion of such energy
4		associated with HMP&L's reserved capacity which is not scheduled or taken
5		by HMP&L ("Excess Henderson Energy"). Further, if Station Two generates
6		Capacity in excess of the Total Capacity determined according to Section 3.6
7		of the Station Two Power Sales Contract ("Excess Henderson Capacity"), Big
8		Rivers is obligated to take and utilize all Energy associated with such Excess
9		Henderson Capacity. (The capitalized terms are defined in the Station Two
10		Power Sales Contract.)
11		
12		Section 3.8(c) of the Station Two Power Sales Contract provides that the price
13		for Excess Henderson Energy or Energy associated with Excess Henderson
14		Capacity shall be \$1.50 per MWh. The amendment revises Section 3.8 by
15		increasing the price to be paid by Big Rivers for Excess Henderson Energy or
16		Energy associated with Excess Henderson Capacity to \$2.50 per MWh. This
17		increase will take effect on a prospective basis following the effective date of
18		the amendment. Big Rivers requests that the Commission approve this
19		amendment.
20		
21		Additionally, to resolve any questions about how much energy Big Rivers is

Exhibit 99 Page 9 of 30

1		take and pay for all energy associated with HMP&L's reserved capacity not
2		used by HMP&L to serve its (HMP&L's) own needs or those of its native load
3		customers. This ensures that HMP&L will have a buyer for all of its excess
4		energy.
5		
6	Q.	Why is Big Rivers agreeing to this increase in the price for Excess
7		Henderson Energy and Energy associated with Excess Henderson
8		Capacity?
9		
10	А.	Big Rivers is agreeing to this increase as an incentive to secure agreement of
11		the City and the City of Henderson Utility Commission to the early
12		termination of E.ON's assumption of Big Rivers' rights and responsibilities
13		with respect to Station Two, which agreement is a condition to closing the
14		Unwind Transaction. Big Rivers is also agreeing to this increase and
15		contract changes to eliminate future questions about the amount of energy
16		Big Rivers must pay for under Section 3.8 of the Power Sales Agreement. Big
17		Rivers is obligating itself to take and pay for all unused energy as described
18		above. Accordingly, Big Rivers requests that the Commission approve this
19		amendment as fair, just and reasonable.
20		
21	Q.	Please describe the Second Amendatory Agreement.
22		

1	A.	The Second Amendatory Agreement, between Big Rivers, LEM, WKEC, the
2		City, and the City of Henderson Utility Commission provides for acceleration
3		of the expiration date of the Station Two Agreement, while preserving for the
4		City any contractual rights in its favor that, by the terms of the Station Two
5		Agreement itself, are intended to survive the expiration thereof. This
6		contract sets the stage for the termination of LEM's and WKEC's assumption
7		of Big Rivers' rights and responsibilities with respect to Station Two. It
8		provides for WKEC to pay an as yet undetermined expiration fee to HMP&L
9		and incorporates various releases, including the termination and release of
10		certain deeds and assignments of easements and rights of way. Big Rivers
11		requests that the Commission approve this agreement in order to permit the
12		parties to implement the Unwind Transaction.
12 13		parties to implement the Unwind Transaction.
	Q.	parties to implement the Unwind Transaction. What does the Station Two Termination and Release Agreement
13	Q.	
13 14	Q.	What does the Station Two Termination and Release Agreement
13 14 15	Q. A.	What does the Station Two Termination and Release Agreement
13 14 15 16		What does the Station Two Termination and Release Agreement accomplish?
13 14 15 16 17		What does the Station Two Termination and Release Agreement accomplish? This agreement, between Big Rivers and E.ON, provides for the termination
13 14 15 16 17 18		What does the Station Two Termination and Release Agreement accomplish? This agreement, between Big Rivers and E.ON, provides for the termination of obligations as between Big Rivers and E.ON with respect to the Station
13 14 15 16 17 18 19		What does the Station Two Termination and Release Agreement accomplish? This agreement, between Big Rivers and E.ON, provides for the termination of obligations as between Big Rivers and E.ON with respect to the Station Two Agreement and related agreements, letter agreements, guaranties,

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1		Commission approve this agreement in order to permit the parties to
2		implement the Unwind Transaction.
3		
4	Q.	What is the purpose of the Station Two G&A Allocation Agreement?
5		
6	A.	This agreement between Big Rivers and HMP&L provides for the allocation
7		of general and administrative ("G&A") expenses (<i>i.e.</i> , labor, office expenses,
8		etc.) associated with the operation and maintenance of Station Two. Big
9		Rivers requests that the Commission approve this agreement.
10		
11	Q.	Please explain the purpose of the Agreement for Assignment of
12		Responsibility for Complying with Reliability Standards Between
13		Henderson Municipal Power & Light and Big Rivers Electric
14		Corporation.
15		
16	А.	This agreement is designed to allocate responsibility as between Big Rivers
17		and HMP&L for complying with North American Electric Reliability
18		Corporation electric reliability standards with respect to Station Two and
19		HMP&L's operation of its transmission system. Big Rivers requests that the
20		Commission approve this agreement.
21		
22		

1

III. TARIFF CHANGES

 $\mathbf{2}$

Q. Please identify the areas of Big Rivers' Tariff which Big Rivers is proposing to change.

5

First, Big Rivers is filing a new Tariff superseding its Tariff filed on 6 A. December 28, 2007, attached hereto as Exhibit 83 (clean) and Exhibit 84 78 (redlined), to remove references to the Member Discount Adjustment ("MDA"), 9 which expired as described by C. William Blackburn in his Third Supplemental Direct Testimony, Exhibit 78. Second, there have been a 10 number of changes in the Big Rivers' Large Industrial Customer Expansion 11 12Rate to comply with the Commission's Order in Case No. 2007-00164, dated February 1, 2008. Third, Big Rivers is making a small clarifying change to 13 the Environmental Surcharge consistent with the Commission's Order in 1415Case No. 2007-00460, dated June 25, 2008. And fourth, Big Rivers is updating the Member Rate Stability Mechanism included in the Tariff to 16 reflect both an updated Economic Reserve Account amount and to include 17 "feathering" of the use of the Economic Reserve, as described in Mr. 18 Blackburn's testimony. 19 2021Q. What tariff changes did Big Rivers make to remove references to the

22 MDA?

1		
2	А.	Big Rivers has deleted the Member Discount Adjustment Rider ("MDA").
3		That rider expired by its own terms on August 31, 2008. In addition, Big
4		Rivers has eliminated references to the MDA in: (1) the Rural Delivery Point
5		Tariff; (2) the Big Rivers Large Industrial Customer Tariff; and (3) the
6		Renewable Resource Energy Service Tariff Rider.
7		
8	Q.	Please describe the tariff changes made to the Large Industrial
9		Customer Expansion Rate.
10		
11	А.	In Case No. 2007-00164, the Commission ordered changes to the Large
12		Industrial Customer Expansion Rate. The changes Big Rivers now makes
13		implement the Commission's Order, as well as modifications Big Rivers
14		proposed in its original application in this case.
15		
16	Q.	Please explain the clarifying change to the Environmental
17		Surcharge.
18		
19	A.	On Original Sheet No. 72 of the Environmental Surcharge, definition (5) has
20		been deleted to implement the Commission's Order in Case No. 2007-00460.
21		
22	Q.	Please describe the change to the Member Rate Stability Mechanism.

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•

1

2	A.	The Member Rate Stability Mechanism, incorporated at Original Sheet No.
3		76 to the Tariff, originally referenced the establishment of an Economic
4		Reserve of \$75 million. Due to the changes to the compensation between Big
5		Rivers and E.ON relating to fuel costs reported in the June 2008 update, Big
6		Rivers will be establishing an Economic Reserve of \$157 million, and Original
7		Sheet No. 76 reflects this updated amount. In addition, the Member Rate
8		Stability Mechanism is revised to incorporate the feathering of the use of the
9		Economic Reserve as briefly described in Mr. Blackburn's Third
10		Supplemental Direct Testimony, Exhibit 78, and described in detail in the
11		Supplemental Direct Testimony of William Steven Seelye, Exhibit 103, at
12		pages 3 through 10. Specifically, the revisions incorporate the Expense
13		Mitigation Adjustment to regulate the rate at which the Member Rate
14		Stability Mechanism uses up the Economic Reserve.
15		
16	IV.	OPEN ACCESS TRANSMISSION TARIFF FILING
17		
18	Q.	What changes does Big Rivers now propose with respect to its Open
19		Access Transmission Tariff?
20		
21	А.	Big Rivers in December 2007 filed a newly restated OATT (filed as Exhibit 33
22		to the Application) to replace in its entirety the OATT previously filed with

Exhibit 99 Page 15 of 30

1	and approved by the Commission (filed as Exhibit 32 to the Application).
2	Because the revised OATT in this filing is based on the FERC's new
3	transmission tariff requirements set forth in Order No. 890, Preventing
4	Undue Discrimination and Preference in Transmission Service, 72 FR 12,266
5	(March 15, 2007), FERC Stats. & Regs. \P 31,241 (2007), and because the
6	current OATT is based on the E.ON generation lease transaction in which
7	Big Rivers owned the transmission and E.ON supplied generation-based
8	services from the leased assets, Big Rivers recognized that it would not be
9	practical to attempt to present the changes to the new OATT as a revision to
10	the currently approved OATT. Instead, Big Rivers submitted a new and
11	restated First Revised Big Rivers OATT as part of the December 2007
12	Application (Exhibit 33).
13	
14	Soon after Big Rivers' filing of its new OATT in December 2007, the FERC on
15	January 16, 2008 issued its order on rehearing of its Order No. 890,
16	Preventing Undue Discrimination and Preference in Transmission Service,
17	Order No. 890-A, FERC Stats. & Regs. ¶ 31,261 (2008). Order No. 890-A
18	changed a variety of the required terms and conditions of FERC's pro forma
19	OATT. On January 30, 2008, Big Rivers submitted a replacement First
20	Revised OATT to the Commission to reflect these FERC changes (Exhibit A
21	to Big Rivers' January 30, 2008 Motion to Amend Application).
00	

22

1		Subsequently, on June 23, 2008, FERC issued an order on rehearing of Order
2		No. 890-A, Order No. 890-B, Preventing Undue Discrimination and Preference
3		in Transmission Service, 123 FERC \P 61,299 (2008). Once again FERC
4		changed certain of the terms and conditions of its pro forma OATT on which
5		Big Rivers' filed OATT in these proceedings is based. Moreover, FERC
6		precedent interpreting other utilities' submitted OATTs has continued to
7		cause Big Rivers to modify certain terms included in the February 2008
8		version of the First Restated Big Rivers OATT. Big Rivers now believes that
9		it is necessary to replace the February 2008 version of the OATT with
10		another replacement First Restated Big Rivers OATT containing provisions
11		conforming to FERC's most recent OATT precedent. Accordingly, Big Rivers
12		has submitted a new First Restated Big Rivers OATT as Exhibit 85.
13		
14	Q.	Why is it important to harmonize Big Rivers' OATT with these
15		changes in FERC precedent?
16		
17	А.	Prior to closing of the Unwind Transaction, Big Rivers intends to make a
18		filing at the FERC seeking a declaratory order that its updated OATT meets
19		the requirements of a valid reciprocity tariff. In order to obtain that
20		declaratory order, FERC must find that the terms and conditions of Big
21		Rivers' OATT are consistent with or superior to the most recently adopted
22		version of the FERC Order No. 890-B pro forma tariff. Accordingly it is

Exhibit 99 Page 17 of 30

1		important that Big Rivers' OATT be updated to reflect FERC's most recent
2		precedent so that Big Rivers can file with both FERC and this Commission
3		the same version of the OATT.
4		
5	Q.	Can you identify the changes made to the new Order No. 890-B
6		version of the OATT as compared to the Order No. 890-A version of
7		the OATT submitted in February?
8		
9	A.	Yes. These changes are reflected in Exhibit 86 to the Application
10		Supplement and show changes between Exhibit 85 and the version of the
11		OATT Big Rivers submitted as Exhibit A to Big Rivers' January 30, 2008
12		Motion to Amend Application (substitute Exhibit 33).
13		
14		First, Big Rivers has generically implemented all of the FERC's Order No.
15		890-B changes to the OATT. These changes are minor, and consist largely of
16		removing a descriptive requirement of FERC approval from references to
17		reserve sharing programs and a clarification that non-Network Resources can
18		be relied upon to serve Network Load when used as part of a reserves sharing
19		agreement. Certain other minor wording changes from Order No. 890-B are
20		also implemented.
21		

1	Second, in response to FERC's clarification that all Transmission Providers,
2	including non-jurisdictional Transmission Providers such as Big Rivers, must
3	be subject to the FERC's proposed penalties for failure to meet certain
4	customer response deadlines regarding the processing of system impact
5	studies and facilities studies, Big Rivers has revised Section 19.9 to
6	incorporate the pro forma Order No. 890 requirements that require
7	penalizing the Transmission Provider in those situations. Big Rivers has
8	incorporated the penalty levels required by the FERC in this section.
9	
10	Third, in response to FERC clarification regarding the permissible amount of
11	unreserved use penalties and the proper method of allocating those penalties
12	to customers, Big Rivers has revised Sections 3, 13.7(c), 14.5, 15.8, 28.6, and
13	30.4, as well as Schedules 4 and 9, of the OATT to provide greater clarity in
14	its unreserved use charges. Charges for unreserved use are revised to make
15	clear that the total amount charged for the unreserved service taken
16	including the penalty cannot exceed 200 percent of the otherwise applicable
17	rate. References to penalties are changed to refer to charges for unreserved
18	use to reflect this change. And the methodology for crediting these various
19	penalty charges has been revised to make clear that amounts received for
20	unreserved use in a given hour will be returned to all customers who did not
21	incur an unreserved use charge in that hour, regardless of whether they may
22	incur an unreserved use charge in other hours during the month. This is a

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	change from the prior crediting methodology which provided for crediting
	only to customers that incurred no penalties in a given month, and is made to
	comply with FERC's clarified requirements.
V.	DUE DILIGENCE
Q.	What is the status of Big Rivers' conduct of due diligence concerning
	its generating units and sites?
A.	Mark A. Bailey provides a discussion of Big Rivers' conduct of due diligence
	in his Supplemental Direct Testimony, Exhibit 104. As Mr. Bailey explains,
	Big Rivers is continuing to engage in due diligence, and will keep on doing so
	up to closing of the Unwind Transaction. I have attached as Exhibit DAS-2
	to my supplemental testimony a list of certain due diligence closing
	conditions and our current understanding of how those conditions are
	expected to be satisfied. Big Rivers is continuing to pursue the outstanding
	issues with E.ON.
	As discussed in the Supplemental Testimony of Paul W. Thompson (Exhibit
	91), the Third Amendment to Transaction Termination Agreement, Exhibit
	80, reflects the resolution of various environmental, operational, and other
	issues between WKEC and Big Rivers that have been identified in the course
	Q.

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1		of due diligence. The Third Amendment also updates certain Schedules to
2		the Transaction Termination Agreement updating SO_2 allowance allocations
3		and capital expenditure fundings by WKEC in order to accommodate a 2009
4		closing. The Third Amendment is filed in substantially final form pending
5		execution by the parties.
6		
7	VI.	ENVIRONMENTAL ISSUES
8		
9		A. THE CAIR AND THE EFFECT OF COURT REVIEW
10		
11	Q.	Please briefly describe the CAIR.
12		
13	A.	The CAIR was promulgated by the EPA in 2005. Its purpose was to facilitate
14		attainment of the National Ambient Air Quality Standards ("NAAQS") for
15		fine particulate matter by reducing or eliminating the impact of SO_2 and NOx
16		emissions generated at power plants located in "upwind" states, including
17		Kentucky, on air quality in "downwind" states, particularly those east of the
18		Mississippi River. The reductions were to occur in two phases: NOx
19		reductions were to start in 2009, SO_2 reductions were to start in 2010, and a
20		second phase for both pollutants was to begin in 2015, at which time
21		emissions were to be reduced by approximately 70 percent. The CAIR

1		provided for utilization of a "cap and trade" approach to achieve these
2		reductions, including an optional interstate allowance trading program.
3		
4		Under the cap and trade approach, the EPA allocates a specific amount of
5		SO_2 and NO_x emissions allowances to specific states. The states, in turn,
6		allocate the allowances to electric generating units ("EGUs") located within
7		their borders. The plants then surrender the allowances back to the state for
8		compliance purposes, based on each EGU's actual annual emissions. If a
9		plant has installed emissions controls on its EGU(s), it likely will have a
10		surplus of allowances that it can either bank for use in future years or sell to
11		other power plants that need to obtain additional allowances for compliance
12		purposes. If a plant has not installed SO_2 and NOx emissions controls on its
13		EGU(s), it likely will be in a deficit position, and will need to purchase
14		allowances from other sources and/or install control units.
15		
16	Q.	Why did the D.C. Circuit court strike down the CAIR?
17		
18	A.	The court concluded that the CAIR was inconsistent with the Clean Air Act
19		in numerous respects. Among other things, the court rejected the EPA's
20		proposed cap and trade approach because allowances were to be distributed
21		based on regional contributions to SO ₂ and NOx emissions, as opposed to
22		contributions by individual states. As a result, states that are heavily

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dependent on coal-fired generation would receive more allowances than
states that rely mainly on oil or gas generation, causing the latter states to
subsidize emission reductions in the former states. The court concluded that
the federal Clean Air Act required each state to prohibit emissions within its
borders that significantly contribute to downwind pollution, rather than
paying for emissions reductions in other states.

7

In addition, the court rejected as inconsistent with the Clean Air Act the 8 EPA's mandated surrender rate for SO2 allowances, which was intended to 9 provide for the retirement of excess allowances under the pre-existing SO_2 10 allowance trading program. The EPA had determined that EGUs in states 11 12electing to participate in the CAIR allowance trading program would surrender two allowances for each ton of actual emissions beginning in 2010, 1314and would surrender 2.85 allowances per ton beginning in 2015. The court 15ruled that the EPA could not remove allowances from the market in this 16 manner. The court also found that the 2015 compliance deadline did not 17 provide sufficient protection to downwind states projected to be in non-18 attainment with the NAAQS for fine particulates in 2010. The court found 19 other defects as well, and concluded that because the EPA put forth the CAIR as an integrated whole, the CAIR should be vacated in its entirety and 20remanded the case to the EPA to promulgate a new rule consistent with the 2122court's rulings.

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- 1
- 2

Q. When will the court's ruling become effective?

3

4 A. The ruling will become legally effective when the court issues its mandate. I understand that the court has ordered that the mandate not be issued until $\overline{\mathbf{5}}$ after disposition of any timely petition for rehearing. I further understand 6 7 that, at the EPA's request, the court has extended the deadline for filing petitions for rehearing until September 24, 2008. I anticipate that petitions 8 9 for rehearing will be filed, and that ultimately the case will be appealed to the United States Supreme Court. Thus, it is uncertain when the court's 10 11 ruling will become effective.

12

13 Q. Is the fate of the CAIR regulations relevant to Big Rivers' application
14 in this case?

15

A. Yes, it is. As part of its application in this case, to support the proposed
Environmental Surcharge, Big Rivers submitted a limited Big Rivers Electric
Corporation Environmental Compliance Plan ("Environmental Compliance
Plan"), which was included as Exhibit DAS-1 to my previous testimony,
Exhibit 18. This plan included separate SO₂, NOx, and SO₃ programs. As I
explained in my previous testimony, the SO₂ and NOx programs in the
Environmental Compliance Plan were premised, in part, on the provisions of

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1		the CAIR, including the allowance cap and trade program. Moreover,
2		Kentucky's proposed state implementation plan ("SIP") for fine particulates
3		relies significantly on the reductions that would have been produced under
4		the CAIR. The D.C. Circuit's decision to strike down the CAIR creates
5		substantial uncertainties regarding what steps Big Rivers will need to take in
6		order to be compliant with SO_2 and NOx emissions rules, and also creates
7		uncertainties concerning how the Kentucky SIP will be brought into
8		compliance with federal mandates.
9		
10		B. IMPACT ON BIG RIVERS
11		
12	Q.	What do you anticipate will be the impact of the CAIR ruling on Big
12 13	Q.	What do you anticipate will be the impact of the CAIR ruling on Big Rivers?
	Q.	
13	Q. A.	
13 14	-	Rivers?
13 14 15	-	Rivers? It is difficult to determine the impact of the court's ruling with any degree of
13 14 15 16	-	Rivers? It is difficult to determine the impact of the court's ruling with any degree of certainty at this time. As I noted previously, the ruling is subject to likely
13 14 15 16 17	-	Rivers? It is difficult to determine the impact of the court's ruling with any degree of certainty at this time. As I noted previously, the ruling is subject to likely petitions for rehearing before the D.C. Circuit, and possible Supreme Court
13 14 15 16 17 18	-	Rivers? It is difficult to determine the impact of the court's ruling with any degree of certainty at this time. As I noted previously, the ruling is subject to likely petitions for rehearing before the D.C. Circuit, and possible Supreme Court review. If the D.C. Circuit's decision stands, upon issuance of the mandate
13 14 15 16 17 18 19	-	Rivers? It is difficult to determine the impact of the court's ruling with any degree of certainty at this time. As I noted previously, the ruling is subject to likely petitions for rehearing before the D.C. Circuit, and possible Supreme Court review. If the D.C. Circuit's decision stands, upon issuance of the mandate the EPA will be obligated to go back to the drawing board and attempt to

Exhibit 99 Page 25 of 30

1		rule would be subject to further litigation. It is also conceivable that federal
2		legislation could be enacted to address these issues.
3		
4	Q.	What is Big Rivers' status with respect to SO ₂ emissions?
5		
6	A.	Big Rivers currently has control devices (Flue Gas Desulphurization Systems
7		or scrubbers) on all units except for Reid Station Unit One, which accounts
8		for less than 5 percent of Big Rivers' annual generation. Following the
9		installation of the Coleman Station scrubber in 2006, Big Rivers has an
10		annual surplus of SO_2 allowances under the pre-CAIR allowances regime,
11		which allowances can either be banked for future use or sold on the open
12		market for financial gain. This annual surplus should continue pending
13		reinstatement of the CAIR regulations or promulgation of a new rule. Based
14		on modeled load demand, Big Rivers also should be in a relatively solid
15		position to comply with future SO_2 regulations.
16		
17	Q.	What is Big Rivers' status with respect to NOx emissions?
18		
19	A.	The pre-CAIR program, known as the "NOx SIP Call," requires that EGUs
20		maintain NOx emissions at a level below their allowance allocation only
21		during the Ozone Season (between May 1 and September 30). Under this
22		program, Big Rivers operates at a slight deficit for NOx emissions, in large

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1		measure because neither the Green Station nor the Coleman Station has
2		significant Selective Catalytic Reduction ("SCR") control units installed for
3		NOx reduction. The CAIR was structured to have two NOx emissions control
4		periods: the existing Ozone Season and an Annual Season, the latter
5		covering the entire calendar year. Under the CAIR, Big Rivers' deficit for
6		NOx emissions would have grown greater, due to the requirement to control
7		emissions on a year-round basis. This would have required Big Rivers to
8		purchase significantly more allowances in the market, and would have
9		confronted Big Rivers with a choice as to whether to install SCR units prior
10		to 2015, a choice that would be driven in part by the estimated future price of
11		NOx allowances.
12		
12 13	Q.	Does the court's ruling impact the results of the financial model
	Q.	Does the court's ruling impact the results of the financial model employed by Big Rivers in modeling the Unwind Transaction?
13	Q.	
13 14	Q.	
13 14 15	-	employed by Big Rivers in modeling the Unwind Transaction?
13 14 15 16	-	employed by Big Rivers in modeling the Unwind Transaction? Yes. With the CAIR vacated, and until a new rule is developed, Big Rivers
13 14 15 16 17	-	employed by Big Rivers in modeling the Unwind Transaction? Yes. With the CAIR vacated, and until a new rule is developed, Big Rivers will have more SO ₂ allowances to bank or sell than modeled, and fewer NOx
13 14 15 16 17 18	-	employed by Big Rivers in modeling the Unwind Transaction? Yes. With the CAIR vacated, and until a new rule is developed, Big Rivers will have more SO ₂ allowances to bank or sell than modeled, and fewer NOx allowances to purchase than modeled. However, the current price per
13 14 15 16 17 18 19	-	employed by Big Rivers in modeling the Unwind Transaction? Yes. With the CAIR vacated, and until a new rule is developed, Big Rivers will have more SO ₂ allowances to bank or sell than modeled, and fewer NOx allowances to purchase than modeled. However, the current price per allowance has decreased as a result of the court's ruling, which lowers the

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1		elimination of the CAIR. Mr. Blackburn describes the changes to the
2		financial model that result from the D.C. Circuit's decision.
3		
4	Q.	Does the vacation of the CAIR have other implications for Big
5		Rivers' environmental compliance?
6		
7	A.	Yes. The Kentucky Department of Air Quality ("DAQ") enforces other
8		federally mandated clean air programs, some of which were dependent on
9		emissions reductions resulting from the CAIR to ensure EGU compliance
10		with federal air quality standards. These include the Clean Air Visibility
11		Rule and, as I noted above, the NAAQS for fine particulate matter. The D.C.
12		Circuit's decision to strike down the CAIR raises uncertainty as to how EGUs
13		in Kentucky, including Big Rivers, will meet the attainment standards under
14		these programs.
15		
16	Q.	How is Big Rivers responding to the state of uncertainty produced
17		by the striking down of the CAIR?
18		
19	Α.	At this time, Big Rivers is monitoring developments as they occur, in the
20		judicial process as well as in the state and federal regulatory and legislative
21		arenas. Big Rivers is a member of the Utility Information Exchange of
22		Kentucky ("UIEK"), which held a meeting on August 27, 2008 with the

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1		Kentucky Energy and Environmental Cabinet to discuss the ramifications of
2		the court's ruling. UIEK informed the Kentucky Energy and Environmental
3		Cabinet that new construction projects of control equipment will not be
4		discontinued based on the CAIR rule being struck down, and that operation
5		of control equipment will likely continue for the most part as is. Big Rivers
6		will continue to stay in close contact with the DAQ to keep abreast of
7		developments and will participate in any new rulemaking proceedings
8		through the UIEK.
9		
10	Q.	Has Big Rivers revised its environmental projections to reflect the
11		vacation of the CAIR?
12		
13	A.	Yes. Big Rivers currently anticipates that that there will be no replacement
14		for the CAIR until January 1, 2011 at the earliest. Accordingly, Big Rivers
15		has revised its projections for its three separate environmental programs to
16		reflect the assumption that existing emissions rules will remain in place for
17		the years 2009 and 2010. Big Rivers' revisions are reflected in the Production
18		Work Plan filed as Exhibit 105 and reflected in the Unwind Financial Model.
18 19		Work Plan filed as Exhibit 105 and reflected in the Unwind Financial Model.
	Q.	Work Plan filed as Exhibit 105 and reflected in the Unwind Financial Model. Do these changes have any effect on the Environmental Surcharge
19	Q.	

1	А.	Neither the Environmental Surcharge mechanism nor Big Rivers' limited
2		Environmental Compliance Plan has changed. Only the costs estimated in
3		Big Rivers' limited Environmental Compliance Plan have changed. These
4		changes, of course, flow through the Unwind Financial Model. The
5		Commission does not need to take any further action with respect to the
6		Environmental Surcharge mechanism or Big Rivers' ES tariff.
7		
8	Q.	Does this conclude your testimony at this time?
9		
10	А.	Yes.

Exhibit DAS-2

Status of Disposition of Certain Closing Conditions

Section 10.3 of the Termination Agreement contains 42 closing conditions, certain of which require continuing due diligence and resolution of identified issues. Some of those due diligence closing conditions are time sensitive; for example Section 10.3 (w) No Damage to Generating Plants. For instance, if there is an occurrence the day of the close that would result in a "Material Casualty Damage," then Big Rivers and WKEC would have to either not close or satisfactorily resolve the situation in order to close.

Closing condition 10.3 (y), Environmental Conditions –As a result of information gained through the Environmental Audit and other due diligence, Big Rivers has identified several issues that are resolved in the Third Amendment to the Termination Agreement. In anticipation that subsequent issues could arise prior to closing, an attempt has been made to develop a process to address them.

Closing condition 10.3 (cc), Gypsum Facilities of Plant Green. The facilities have been restored, and the condition satisfied.

Closing condition 10.3 (dd), Condition of Generating Plants. See description of Section 10.3(w) in the first paragraph, above. Additionally, Big Rivers identified an issue regarding the Wilson stack which is resolved in the Third Amendment.

Closing condition 10.3 (ee), Capabilities of Generating Plants. Physical testing of the Generating Plant capabilities has been conducted with the exception of the Reid combustion turbine, which is part of the "2 Unit Plant Reid" test. This condition has been met with respect to the Generating Plants that have been tested.

Closing condition 10.3 (ff), No Forced Outage at Generating Plants. For obvious reasons, this condition cannot be met or considered met until the close.

Closing condition 10.3 (hh), Gypsum Offtake. WKEC is negotiating the terms of a different gypsum offtake contract which Big Rivers will review. It is too soon to determine the outcome of this as a closing condition.

Closing condition 10.3 (ii), Operating Plans. Big Rivers has submitted a revised operating plan in this filing. That plan is based in large part on the WKEC operating plan. Big Rivers will continue to monitor the current WKEC operating plan for deviations and will treat this as a closing condition to be addressed on the date of the closing.

Closing condition 10.3 (jj), Clean Out of Wilson Ponds. The referenced ponds have been cleaned out. The Third Amendment to the Termination Agreement addresses ponds to be cleaned out prior to the close.

Closing condition 10.3 (mm), No Unresolved Disputes. This closing condition cannot be met until the date of the close. Big Rivers and E.On are working through issues as they occur in an attempt to make sure this condition is met.

Big Rivers has worked through hundreds of closing condition issues in an attempt to eliminate all questions before the date of the closing. The above information is being provided to give the Commission and the other parties to this proceeding additional confidence that Big Rivers and the E.ON Parties are working diligently to resolve issues as they occur in order to minimize closing condition issues that must be resolved on the date of the closing.

VERIFICATION

I verify, state, and affirm that the foregoing testimony is true and correct to the best of my knowledge and belief.

David A. Spainhoward

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by David A. Spainhoward on this the <u>7</u>th day of October, 2008.

Paula Mitchell Notary Public, Ky. State at Large My Commission Expires <u>1-12-09</u>

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EXHIBIT 100

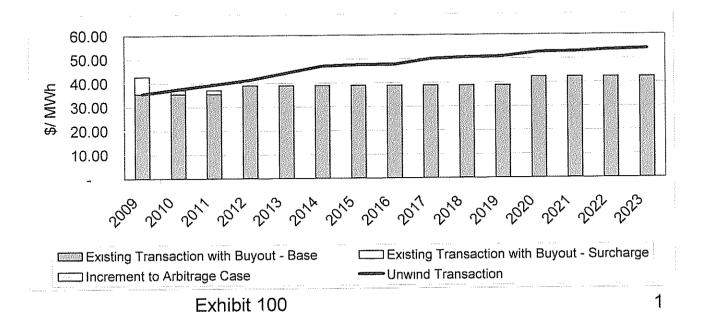
COMPARISON OF RATES UNDER THE UNWIND TRANSACTION AND RATES UNDER THE EXISTING TRANSACTION

Existing Transaction/ Arbitrage Case

Rates Compared to Unwind

Member Rate Summary (Blended Basis)	Wtd. Avg.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Existing Transaction (9/30/08) Base % Change	39.23	35.45	35.42 0%	35.39 0%	38.90	38.87 0%	38.84 0%	38.81 0%	38.79 0%	38.76 0%	38.74 0%	38.72 0%	42.24 9%	42.21 0%	42.19 0%	42.17
Surcharge	0.60	7.14	1.67	1.63	-	-	-	-	-	-	-	-	-	-	-	-
Increment to Arbitrage Case Total	39.83	42.59	37.09	37.02	38.90	38.87	38.84	38.81	38.79	38.76	38.74	38.72	42.24	42.21	42.19	42.17
Overall % Change	an cuntu an Aitheanarta		-13%	0%	5%	0%	0%	0%	0%	0%	0%	0%	9%	0%	0%	0%
Unwind (10/4/08)	47.49	35.45	37.42	39.29	41.26	44.14	47.01	47.49	47.64	49.94	50.54	50.84	52.67	52.88	53.57	53.98

Comparative Rate Graph:



Existing Transaction/ Arbitrage Case

Energy Balance and Rates

PMCC 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 Lease Buyout @ 12/31/08

1	Energy Balance (GWh)
2	

2																
3	Sales												4 400	4 505	4 604	4 700
4	Members	3,501	3,584	3,674	3,760	3,852	3,939	4,032	4,122	4,217	4,308	4,404	4,498	4,596	4,691	4,786
5	Arbitrage	2,042	1,961	2,924	3,568	3,440	3,356	3,264	3,179	3,084	2,995	2,901	2,812	2,714	2,612	2,517
6	Smelters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	e
7	Losses	44	44	52	58	57	<u> </u>	57	57	57	57	57	57	57	57	<u> </u>
8	Sales + Losses	5,586	5,588	6,650	7,386	7,349	7,352	7,354	7,358	7,358	7,360	7,363	7,368	7,367	7,360	7,301
9	Purchases								7 000	7 000	7 000	7 000	7 009	7 009	7.008	7,008
10	Base (LEM)	5,254	5,252	6,322	7,008	7,008	7,008	7,008	7,008	7,008	7,008	7,008	7,008 267	7,008 267	267	267
11	SEPA	305	305	305	267	267	267	267	267	267	267	267	207 93	92	85	86
12	Market	28	32	24	<u>111</u>	74	77	<u>79</u>	83	83	85	88				
13	Total	5,586	5,588	6,650	7,386	7,349	7,352	7,354	7,358	7,358	7,360	7,363	7,368	7,367	7,360	7,361
14																
15	Energy Rates (\$/ Mwh)															
16																
17	Sales															
18	Members							00 04	00.70	aa 7 0	20.74	20 72	42.24	42.21	42.19	42.17
19	Base	35.45	35.42	35.39	38.90	38.87	38.84	38.81	38.79	38.76	38.74 0%	38.72 0%	42.24	42.21		
20	Base % Change		0%	0%	10%	0%	0%	0%	0%	0%	U%	Ų70	970	U 70		-
21	Surcharge	7.14	1.67	1.63	-	-	-	-	-	-	-	-	-	_	_	-
22	Increment to Arbitrage Case								-						40.40	42.17
23	Total	42.59	37.09	37.02	38.90	38.87	38.84	38.81	38.79	38.76	38.74	38.72	42.24 9%	42.21 0%	42.19 0%	42.17
24	Overall % Change		-13%	0%	5%	0%	0%	1999-0020-77-577	0%	0%	0%	0%		54.82	55.16	55.02
25	Arbitrage	49.42	48.14	47.44	51.17	59.97	53.15	54.32	53.21	54.11	54.71	57.13	54.39	54.02	55.10	35.02
26	Smelters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
27	Purchases								04.50	04.00	00.00	00.00	22.00	23.36	23.72	24.08
28	Base (LEM)	20.33	20.63	20.95	20.27	20.59	20.92	21.25	21.59	21.93	22.28	22.63 31.24	22.99 31.24	23.30	31.24	32.00
29	SEPA	22.44	22.44	22.44	28.33	29.04	29.75	29.75	29.75	29.75	30.50		200	200	200	200
30	Market (Peak)	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
																~

Exhibit 100

Existing Transaction/ Arbitrage Case

Cash Flows	PMCC Lease Buyout @ 12/31/08	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
------------	--	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	--

32 Cash Flow (\$M)

33											444 F	4477 0	101.0	104 4	119.5	127.0	156.9	159.8
34	Beginning Balance	146.0	147.2	37.9	33.1	44.0	54.4	53.4	78.6	96.0	111.5	117.8	121.8	121.1	115.5	127.0	100.0	100.0
35																		
36	Receipts								450.0	400 0	150.0	163.4	166.9	170.5	190.0	194.0	197.9	201.9
37	Members			149.1	132.9	136.0	146.3	149.7	153.0	156.5	159.9 169.1	165.4 166.9	163.9	165.7	152.9	148.8	144.1	138.5
38	Arbitrage			100.9	94.4	138.7	182.6	206.3	178.4	177.3	109.1	100.9	105.5	- 105.7	102.0	140.0		
39	Smelters				-	-	-	-	-		-	54.7	- 54.9	- 54.8	55.4	55.7	56.9	57.1
40	Other			<u> 57.6</u>	<u> </u>	<u> </u>	<u>49.9</u>	<u>52.1</u>	<u>53.1</u>	<u>53.8</u>	<u>54.4</u> 383.5	<u> </u>	385.6	391.1	398.4	398.5	398.9	397.4
41	Total			307.6	284.5	329.7	378.8	408.1	384.4	387.6	303.0	303.0	303.0	391.1	330.4	000.0	000.0	001.4
42	Disbursements								440.0	440.0	454 0	153.7	156.1	158.6	161.1	163.7	166.2	168.8
43	Base Purchases			106.8	108.3	132.4	142.0	144.3	146.6	148.9	151.3		100.1 8.1	8.3	8.3	8.3	8.3	8.5
44	SEPA Purchases			6.8	6.8	6.8	7.6	7.8	7.9	7.9	7.9	7.9 16.6	0.1 17.1	0.3 17.5	0.5 18.6	18.4	17.0	17.2
45	Market Energy Purchases			5.6	6.5	4.8	22.2	14.9	15.3	15.7	16.6		17.1	11.8	10.0	11.6	11.5	11.4
46	Market Purchase Related			17.7	18.4	10.8	12.6	12.3	12.3	12.1	12.0	11.9 21.9	22.6	23.2	23.9	24.6	25.4	26.1
47	A&G			17.3	17.8	18.3	18.9	19.5	20.0	20.6	21.3	21.9	22.0	23.2	23.9	24.0	20.4	376.6
48	RVP			-	-	-	-	-	-	-	-	-	-	-	-	-		80.1
49	Purchase of Production Invento	лгу		_	-	-		-	-	-	40.0	= =	- 52.0	- 54.4	53.3	- 57.0	57.7	57.1
50	Other			28.5	7.6	35.1	45.1	55.8	43.2	50.1	48.9	50.7				******		745.9
51	Total			182.8	165.5	208.2	248.4	254.5	245.3	255.4	258.0	262.7	267.7	273.8	276.9	283.6	286.1	745.9 13.5
52	BREC Share of Capital Expendite	ures		24.5	18.4	13.6	13.3	8.2	7.9	8.4	9.5	11.1	11.7	13.3	12.3	12.8	13.0	13.5
53	Debt Service																	(200.2)
54	New Borrowing			-	-	-	-	-	-	-	-		-	-	-	-	93.6	(390.3) 115.3
55	Principal Repayment (incl. ARV	/P)		39.2	41.0	53.3	77.0	80.7	78.6	77.0	82.5	84.5	88.3	91.2	91.2	66.2		
56	Interest			<u> 52.9</u>	48.7	<u> 44.3</u>	41.1		35.2	31.2	27.2	22.8	18.5		10.5	6.0	3.4	
57	Total			92.1	89.7	97.6	118.1	120.2	113.8	108.3	109.7	107.3	106.8	105.7	101.7	72.2	97.0	(275.0)
58	PMCC Lease Buyout																	
59	Termination Payment (net)		(214.0)															
60	GIC		92.6															
61	B Loan		(0.3)															
62	Net		(121.7)															
63	PMCC Loan		12.4	(13.0)														(07 O)
64	Net Cash Flow		(109.3)	(4.8)	10.9	10.4	(1.0)	25.2	17.4	15.5	6.3	3.9	(0.6)	(1.6)	7.5	29.9	2.8	(87.0)
65	Ending Balance		37.9	33.1	44.0	54,4	53.4	78.6	96.0	111.5	117.8	121.8	121.1	119.5	127.0	156.9	159.8	72.8
	-					I	Exhib	it 10(כ									3

Existing Transaction/ Arbitrage Case

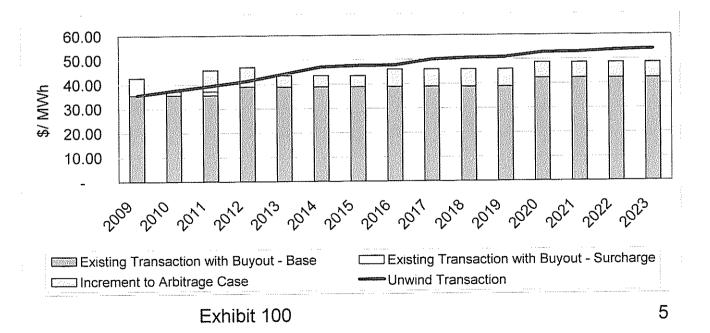
	Income Statement and Balance Sheet		2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
67 68 69 70	Income Statement Revenues Members		149.1 100.9	132.9 94.4	136.0 138.7	146.3 182.6	149.7 206.3	153.0 178.4	156.5 177.3	159.9 169.1	163.4 166.9	166.9 163.9	170.5 165.7	190.0 152.9	194.0 148.8	197.9 144.1	201.9 138.5
71 72 73 74	Arbitrage Other Total		<u>37.9</u> 287.9	<u>38.1</u> 265.4	<u>12.2</u> 287.0	<u>102.0</u> <u>10.1</u> 338.9	<u>10.4</u> 366.4	<u>11.7</u> 343.0	<u>12.8</u> 346.6	<u>13.8</u> 342.8	<u>14.5</u> 344.8	<u>15.3</u> 346.1	<u>16.2</u> 352.4	<u>18.0</u> 360.9	<u>19.9</u> 362.7	<u>23.9</u> 365.8	<u>29.7</u> 370.1
75 76 77	Expenses Base Purchases SEPA Purchases		106.8 6.8	108.3 6.8	132.4 6.8	142.0 7.6	144.3 7.8	146.6 7.9	148.9 7.9	151.3 7.9	153.7 7.9	156.1 8.1	158.6 8.3	161.1 8.3	163.7 8.3	166.2 8.3 28.4	168.8 8.5 28.6
78 79 80	Market Purchases and Related A&G Interest		23.3 17.3 59.9 32.7	24.9 17.8 55.2 24.3	15.5 18.3 53.0 46.3	34.8 18.9 50.0 51.1	27.2 19.5 46.7 56.0	27.6 20.0 42.5 51.0	27.9 20.6 39.4 55.6	28.6 21.3 35.6 55.0	28.6 21.9 31.9 56.1	28.9 22.6 28.0 57.6	29.3 23.2 25.2 59.2	30.3 23.9 21.2 57.8	30.0 24.6 17.6 61.9	25.4 25.4 16.5 62.6	26.1 26.1 14.0 62.6
81 82 83 84	Other Total Net Margin		246.9 40.9	237.4	272.4	304.5 34.5	301.3 65.0	295.7 47.3	300.3 46.2	299.7 43.1	300.1 44.8	301.3 44.8	303.9 48.5	302.7 58.3	306.2 56.5	307.5 58.4	308.6 61.5
85 86 87	Balance Sheet																
88 89	Assets Net Utility Plant	913	955	964	967	951	942	925	908	889	872	857	845	830	814	798	782
90 91 92	Sale-Leaseback Investments Cash & Investments Receivables & Other	- 38 <u>132</u>	33 129	44 	54 115	53 <u>113</u>	- 79 	96 104	112 99	118 <u>93</u>	122	121 83 061	120 <u>78</u> 1,043	127 <u>73</u> 1.030	157 <u>68</u> 1.039	160 <u>63</u> 1,021	73 <u>138</u> 994
93 94 95	Assets Liabilities & Equities	1,083	1,118	1,131	1,136	1,117	1,132	1,125	1,118	1,100	1,082	ŗ		381	437	496	557
96 97 98	Equities Sale-Leaseback Obligation & Unamort Debt	(135) i - 1,040	(94) - 994	(66) - 960	(52) - 913	(17) - 843	48 - 770	95 - 699	141 - 630	184 - 556	229 - 480	274 - 402	323 - 320	239	- 184	- 102	390
99 100	RVP/ Lease Advance Payables & Other	153 27	191 27	200 38	232 42	244 48	269 46	286 46	302 45	315 45	328 	341 	355 45	365 <u>45</u>	373	378 <u>45</u>	0
101	Liabilities & Equities	1,083	1,118	1,131	1,136 Exi	1,117 1ibit 1	1,132 100	1,125	1,118	1,100	1,082	1,061	1,043	1,030	1,039	1,021 4	994

Existing Transaction/ Smelter Sale Case (200MW)

Rates Compared to Unwind

<u>Member Rate Summary</u> (Blended Basis)	Wtd. Avg.	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Existing Transaction (9/30/08) Base % Change	39.23	35.45	35.42	35.39 0%	38.90 10%	38.87 0%	38.84 0%	38.81 0%	38.79 0%	38.76 0%	38.74 0%	38.72 0%	42.24 9%	42.21 0%	42.19 0%	42.17 0%
Surcharge Increment to Arbitrage Case	0.60 <u>5.74</u>	7.14	1.67 	1.63 8.71	8.05	4.59	4.59	4.59	7.15	- 	7.14	7.14	6.31	6.30	<u></u> <u>6.30</u>	6.30
Total Overall % Change	45.56	42.59	37.09 -13%	45.73 23%	46.95 3%	43.46 -7%	43.42 0%	43.40 0%	45.94 6%	45.91 0%	45.88 0%	45.85 0%	48.55 6%	48.52 0%	48.49 0%	48.47 0%
Unwind (10/4/08)	47.49	35.45	37.42	39.29	41.26	44.14	47.01	47.49	47.64	49.94	50.54	50.84	52.67	52.88	53.57	53.98

Comparative Rate Graph:



Existing Transaction/ Smelter Sale Case (200MW)

Energy Balance and Rates

PMCC	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Lease															
Buyout															
@															
12/31/08															

1	Energy Balance (GWh)															
2																
3	Sales				0 700	0.000	0.000	4 000	4 400	4,217	4,308	4,404	4,498	4,596	4.691	4,786
4	Members	3,501	3,584	3,674	3,760	3,852	3,939	4,032	4,122		4,308	1,149	1,060	962	860	765
5	Arbitrage	2,042	1,961	1,873	1,816	1,688	1,604	1,512	1,427 1,752	1,332 1,752	1,243	1,149	1,000	1 752	1.752	1.752
6	Smelters	-	-	1,051	1,752	1,752	1,752	1,752	•	•	1,752 57	57	57	57	57	57
7	Losses	44	44	52	58	57	57	57	57	<u> </u>	7,360	7,363	7,368	7,367	7.360	7,361
8	Sales + Losses	5,586	5,588	6,650	7,386	7,349	7,352	7,354	7,358	7,358	7,300	7,303	7,300	1,001	1,000	1,003
9	Purchases						7 000	7 000	-	7 000	7 000	7,008	7,008	7,008	7,008	7,008
10	Base (LEM)	5,254	5,252	6,322	7,008	7,008	7,008	7,008	7,008	7,008 267	7,008 267	267	267	267	267	267
11	SEPA	305	305	305	267	267	267	267	267		207	88	93	92	85	86
12	Market	28	32	24	<u>_111</u>	74	77	79	83	83				÷		
13	Total	5,586	5,588	6,650	7,386	7,349	7,352	7,354	7,358	7,358	7,360	7,363	7,368	7,367	7,360	7,361
14																
15	Energy Rates (\$/ Mwh)															
16																
17	Sales															
18	Members								<u> </u>	00.70	0074	00.70	40.04	40.04	42.19	42.17
19	Base	35.45	35.42	35.39	38.90	38.87	38.84	38.81	38.79	38.76	38.74	38.72	42.24 9%	42.21	42.19	42.17
20	Base % Change		0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	9%	070	U 70	Ų /0
21	Surcharge	7.14	1.67	1.63		-	-		-	-			- 1	- 6.30	6.30	6.30
22	Increment to Arbitrage Case		-	8.71	8.05	4.59	4.59	4.59		7.15	7.14	7.14	6.31	<u> </u>		
23	Total	42.59	37.09	45.73	46.95	43.46	43.42	43.40	45.94	45.91	45.88	45.85	48.55	48.52	48.49	48.47
24	Overall % Change		-13%	23%	3%	-7%	0%	0%	6%	0%	0%	0%	6%	0%	0%	0%
25	Arbitrage	49.42	48.14	42.49	40.76	41.89	38.64	38.97	38.86	39.05	39.40	40.19	39.41	39.33	39.49	39.47
26	Smelters	-	-	27.87	34.22	34.22	34.22	34.22	36.23	36.23	36.23	36.23	38.36	38.36	38.36	38.36
27	Purchases												~~ ~~		00.70	04.00
28	Base (LEM)	20.33	20.63	20.95	20.27	20.59	20.92	21.25	21.59	21.93	22.28	22.63	22.99	23.36	23.72	24.08
29	SEPA	22.44	22.44	22.44	28.33	29.04	29.75	29.75	29.75	29.75	30.50	31.24	31.24	31.24	31.24	32.00
30	Market (Peak)	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
	-															_

Exhibit 100

Existing Transaction/ Smelter Sale Case (200MW)

С	ash Flows	PMCC Lease Buyout @ 12/31/08	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
32 33	Cash Flow (\$M)					بنو و مع	- 4 0	64.0	<u> </u>	70 0	84.5	94.6	99.0	99.5	114.3	151.6	161.5
34	Beginning Balance 146.0	147.2	37.9	33.1	44.0	54.5	54.8	61.9	68.3	73.2	84.5	94.0	99.0	33.3	114.5	131.0	101.0
35 36	Receipts																
37	Members		149.1	132.9	168.0	176.5	167.4	171.0	175.0	189.4	193.6	197.6	202.0	218.4	223.0	227.5	232.0
38	Arbitrage		100.9	94.4	79.6	74.0	70.7	62.0	58.9	55.4	52.0	49.0	46.2	41.8	37.8	33.9 67.2	30.2 67.2
39	Smelters		~	-	29.3	60.0	60.0	60.0	60.0	63.5	63.5	63.5	63.5	67.2 49.6	67.2 50.0	67.2 _ <u>51.2</u>	<u> </u>
40	Other		<u>57.6</u>	<u> </u>	<u>55.0</u>	48.7	48.5	48.7	48.8	<u>49.1</u> 357.4	<u>49.4</u> 358.4	<u>49.6</u> 359.7	<u>49.6</u> 361.2	<u>49.0</u> 377.0	378.0	379.9	380.8
41	Total		307.6	284.5	331.9	359.2	346.6	341.7	342.7	307.4	ə <u>ə</u> ə.4	339.7	001.2	577.0	510.0	010.0	000.0
42	Disbursements		106.8	108.3	132.4	142.0	144.3	146.6	148.9	151.3	153.7	156.1	158.6	161.1	163.7	166.2	168.8
43	Base Purchases		6.8	6.8	6.8	7.6	7.8	7.9	7.9	7.9	7.9	8.1	8.3	8.3	8.3	8.3	8.5
44 45	SEPA Purchases Market Energy Purchases		5.6	6.5	4.8	22.2	14.9	15.3	15.7	16.6	16.6	17.1	17.5	18.6	18.4	17.0	17.2
40	Market Purchase Related		17.7	18.4	22.2	18.3	8.5	8.4	8.4	8.3	8.3	9.1	10.1	11.0	12.0	12. 9	13.9
40	A&G		17.3	17.8	18.3	18.9	19.5	20.0	20.6	21.3	21.9	22.6	23.2	23.9	24.6	25.4	26.1
48	RVP		-	-	-	-	-	•	-	-	-	-	-	-	*	-	376.6
49	Purchase of Production Inventory		-	-	-	-	-	•	-	-			-	-		-	80.1
50			28.5	<u> </u>	27.8	23.5	26.1	22.6	27.3	28.8	29.2		32.2	34.7	38.0	39.1	39.4
51	51 Total		182.8	165.5	212.4	232.5	220.9	220.9	228.8	234.2	237.6	244.3	250.0	257.6	265.1	269.0 13.0	730.6 13.5
52	52 BREC Share of Capital Expenditures		24.5	18.4	13.6	13.3	8.2	7.9	8.4	9.5	11.1	11.7	13.3	12.3	12.8	15.0	13.5
53	Debt Service												_	-		-	(480.7)
54	New Borrowing		-	-	- 51.1	- 72.0	- 70.8	- 71.2	- 69.3	- 75.1	76.9	- 80.8	- 83.0	81.8	56.9	84.5	205.7
55	Principal Repayment (incl. ARVP)		39.2	41.0 48.7	51.1 44.3	41.1	39.5	35.2	31.2	27.2	22.8	18.5	14.5	10.5	6.0	3.4	_
56	Interest		52.9	<u>40,7</u> 89.7	95.5	113.1	110.3	106.4	100.6	102.3	99.7	99.3	97.5	92.3	62.8	88.0	(275.0)
57	Total		92.1	69.7	95.5	113.1	110.0	100.4	100.0	102.0	99.1	50.0	01.0	02.0			(,
58 59	PMCC Lease Buyout Termination Payment (net)	(214.0)															
59 60	GIC	92.6															
61	B Loan	(0.3)															
		(121.7)															
62 63	Net PMCC Loan	12.4	(13.0)														
64	Net Cash Flow	(109.3)	(4.8)	10.9	10.5	0.3	7.1	6.4	4.9	11.3	10.1	4.5	0.5	14.8	37.3	9.9	(88.3)
65	Ending Balance	37.9	33.1	44.0	54.5	54.8	61.9	68.3	73.2	84.5	94.6	99.0	99.5	114.3	151.6	161.5	73.2
	-																

Exhibit 100

Existing Transaction/ Arbitrage Case

		PMCC Lease Buyout @ 12/31/08	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
67 68	Income Statement																
69	Revenues																
70	Members		149.1	132.9	168.0	176.5	167.4	171.0	175.0	189.4	193.6	197.6	202.0	218.4	223.0	227.5	232.0
71	Arbitrage		100.9	94.4	79.6	74.0	70.7	62.0	58.9	55.4	52.0	49.0	46.2	41.8	37.8	33.9	30.2
72	Other		37.9	38.1	41.5	68.8	66.7	67.2	67.7	<u>71.9</u>	72.7	73.6	74.4	79.4	81.4	85.4	91.3
73	Total		287.9	265.4	289.1	319.4	304.8	300.2	301.6	316.7	318.3	320.2	322.6	339.5	342.2	346.8	353.5
74																	
75	Expenses														100 7	400.0	100.0
76	Base Purchases		106.8	108.3	132.4	142.0	144.3	146.6	148.9	151.3	153.7	156.1	158.6	161.1	163.7	166.2	168.8 8.5
77	SEPA Purchases		6.8	6.8	6.8	7.6	7.8	7.9	7.9	7.9	7.9	8.1 26.2	8.3 27.6	8.3 29.6	8.3 30.4	8.3 29.9	0.0 31.1
78	Market Purchases and Related		23.3	24.9	26.9	40.5	23.4	23.8	24.1	24.9 21.3	24.9 21.9	20.2 22.6	27.0	29.0	24.6	25.5 25.4	26.1
79	A&G		17.3	17.8	18.3	18.9 50.0	19.5 46.7	20.0 42.5	20.6 39.4	21.5 35.6	31.9	22.0	25.2	21.2	17.6	16.5	14.0
80	Interest		59.9 22.7	55.2	53.0	50.0 31.3	46.7 29.3	42.5 29.4	39.4 33.5	35.0 34.2	35.2	36.9	37.6	38.7	43.0	44.1	44.8
81	Other		32.7	24.3	36.2				274.5	275.2	275.5	278.0	280.6	282.8	287.8	290.4	293.3
82	Total		246.9	237.4	273.7	290.4	270.8	270.3	214.0	210.4	213.3	210.0	200.0	202.0	201.0	200.4	200.0
83	57 - 1 7 0		40.9	28.0	15.4	29.0	34.0	29.9	27.1	41.5	42.7	42.2	42.0	56.7	54.4	56.4	60.1
84 oc	Net Margin		40.5	20.0	10.4	20.0	04.0	£	27.1								
85 86	Balance Sheet																
87	Datatice Sileet																
88	Assets																
89	Net Utility Plant	913	955	964	967	951	942	925	908	889	872	857	845	830	814	798	782
90	Sale-Leaseback Investments	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-
91	Cash & Investments	38	33	44	55	55	62	68	73	84	95	99	100	114	152	162	73 137
92	Receivables & Other	132		124	<u> 119</u>	<u>115</u>	109	103	97	92	86	81	<u>75</u> 1.020	72	<u>67</u> 1,032	<u>62</u> 1.021	993
93	Assets	1,083	1,118	1,131	1,140	1,120	1,113	1,096	1,078	1,065	1,053	1,037	1,020	1,016	1,052	1,021	330
94																	
95	Liabilities & Equities	(105)	(n A)	(00)	(54)	(22)	12	42	69	111	153	196	238	294	349	405	465
96	Equities	(135)	(94)	(66)	(51)	(22)	12	42	60	111		100	- 200			-	
97	Sale-Leaseback Obligation & Unamorti	- 1.040	- 994	- 960	- 915	850	- 787	723	662	595	527	456	383	312	266	193	481
98 99	Debt RVP/Lease Advance	1,040	994 191	200	232	244	269	286	302	315	328	341	355	365	373	378	0
99 100		27	27	38	43	48	46	45	45	45	44	44	45	45	45	45	46
	·	1,083	1,118	1,131	1,140	1,120	1,113	1,096	1,078	1,065	1,053	1,037	1,020	1,016	1,032	1,021	993
101	Liaunites or Ednines	1,000	4,110	1,101	(,) ··· ()	.,				-,							

Exhibit 100

8

EXHIBIT 101

SUPPLEMENTAL DIRECT TESTIMONY OF BURNS E. MERCER

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Case No. 2007-00455

SUPPLEMENTAL TESTIMONY OF BURNS E. MERCER

> ON BEHALF OF APPLICANTS

OCTOBER 2008

Exhibit 101 Page 1 of 5

1 2 3		SUPPLEMENTAL TESTIMONY OF BURNS E. MERCER
4	I.	INTRODUCTION
5		
6	Q.	Please state your name.
7		
8	А.	My name is Burns E. Mercer.
9		
10	Q.	Are you the same Burns E. Mercer who previously submitted direct
11		testimony in this proceeding?
12		
13	А.	Yes, I am.
14		
15	Q.	What is the purpose of your supplemental testimony in this
16		proceeding?
17		
18	A.	The purpose of my supplemental testimony is to provide an update to the
19		Kentucky Public Service Commission ("Commission") on the views of the
20		Member Distribution Cooperatives ("Members") of Big Rivers Electric
21		Corporation ("Big Rivers"), including Meade County Rural Electric
22		Cooperative Corporation, Kenergy Corp., and Jackson Purchase Electric
23		Corporation, concerning certain developments relating to the Unwind

Exhibit 101 Page 2 of 5

1		Transaction for which Big Rivers is seeking approval in this proceeding.
2		Specifically, I testify to the Members' continued support for the Unwind
3		Transaction.
4		
5	II.	BIG RIVERS' MEMBERS CONTINUE TO SUPPORT THE UNWIND
6		TRANSACTION.
7		
8	Q.	Are you familiar with the arrangements under which Big Rivers has
9		terminated its leveraged lease transactions of undivided interests in
10		Plants Green and Wilson with a subsidiary of Philip Morris Capital
11		Corporation ("PMCC")?
12		
13	А.	Yes, I am aware that in order to address complications resulting from a
14		downgrade in the claims paying ability of Ambac Assurance Corporation, Big
15		Rivers agreed to terminate the PMCC lease transactions pursuant to a buy-
16		out structure involving financial contributions from Big Rivers and other
17		entities ("PMCC Buyout").
18		
19	Q.	Are you familiar with the arrangements involved in the termination
20		of Big Rivers' leveraged lease transactions involving Bank of
21		America Leasing ("BoA") in June 2008 (the "BoA Buyout")?
22		

1	А.	Yes.	Ţ	яm	fa
Τ.	£3	100.	JL.	cum	±a.

 $\mathbf{2}$

miliar with the BoA Buyout.

support the Unwind Transaction?

- 3 Q. Have you reviewed the revised financial model presented by Big 4 Rivers showing the effects of the Unwind Transaction, incorporating the PMCC Buyout, the BoA Buyout, and other changes to the Unwind 56 Transaction since the original version of the Unwind Financial $\overline{7}$ Model was filed on December 28, 2007? 8 9 Α. Yes, I have reviewed the revised Unwind Financial Model (Exhibit 79) and 10 am familiar with the projected results, as they are presented in Mr. Blackburn's testimony, Exhibit 78, including the projected rates for Big 11 Rivers' Members. 1213Q. In light of the foregoing developments, do the Members continue to 14
- 16

15

Yes, the Members have not changed their positions supporting the Unwind 17 Α. 18 Transaction. The Members believe that the Unwind Transaction continues to present the prospect of multiple benefits for the Members and for Big Rivers. 19 20as I explained in my previous testimony in this proceeding, Exhibit 26. Nothing that has occurred since I submitted my previous testimony has 21

1		changed the views of the Members concerning the desirability of expeditious
2		Commission approval of the Unwind Transaction.
3		
4	Q.	Are the Members familiar with Big Rivers' proposal to "feather" the
5		use of the Economic Reserve to the Members until the Economic
6		Reserve is exhausted?
7		
8	А.	Yes. The Member CEOs and boards are familiar with the proposal to feather
9		use of the Economic Reserve through the Member Rate Stability Mechanism,
10		described in the Supplemental Direct Testimony of William Steven Seelye,
11		Exhibit 101, and I have seen the graduated rate slope presented in Exhibit
12		WSS-17. The feathered rate slope approach for Member rates from the
13		effective date of the tariff until the Economic Reserve is exhausted (estimated
14		in Big Rivers' Unwind Financial Model to be during 2013) is an acceptable
15		approach to Big Rivers' Members. Of course, the Members also understand
16		that the Unwind Transaction contemplates that Big Rivers will file for a
17		general tariff review to be effective no earlier than January 1, 2010.
18		
19	Q.	Does this conclude your testimony at this time?
20		
21	A.	Yes.

Exhibit 101 Page 5 of 5

VERIFICATION

I verify, state, and affirm that the foregoing testimony is true and correct to the best of my knowledge and belief.

Bur bleve

Burns Mercer

COMMONWEALTH OF KENTUCKY) COUNTY OF <u>Henderson</u>)

Subscribed and sworn to before me by Burns Mercer on this the 7^{+-} day of October, 2008.

Paula mitchell

Notary Public, Ky. State at Large My commission expires: <u>1-12-09</u>

EXHIBIT 102

SUPPLEMENTAL DIRECT TESTIMONY OF MICHAEL H. CORE

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Case No. 2007-00455

SUPPLEMENTAL DIRECT TESTIMONY OF MICHAEL H. CORE

......

ON BEHALF OF APPLICANTS

OCTOBER 2008

Exhibit 102 Page 1 of 17

$egin{array}{c} 1 \\ 2 \\ 3 \end{array}$		SUPPLEMENTAL DIRECT TESTIMONY OF MICHAEL H. CORE
4	I.	INTRODUCTION
5		
6	Q.	Please state your name, address and position with Big Rivers
7		Electric Corporation ("Big Rivers").
8		
9	A.	My name is Michael H. Core. My business address is 201 Third Street,
10		Henderson, Kentucky, 42419. I am the President and Chief Executive Officer
11		of Big Rivers.
12		
13	Q.	Are you the same Michael H. Core who previously submitted direct
14		and rebuttal testimony in this proceeding?
15		
16	А.	Yes, I am.
17		
18	Q.	What is the purpose of your supplemental direct testimony in this
19		proceeding?
20		
21	А.	The purpose of my supplemental direct testimony is to provide an overview
22		concerning certain developments that have occurred with respect to the
23		proposed unwind ("Unwind Transaction") of the 1998 transactions between

Exhibit 102 Page 2 of 17

1	Big Rivers and E.ON U.S. LLC ("E.ON") (formerly LG&E Energy Corp.) and
2	certain E.ON affiliates approved by the Kentucky Public Service Commission
3	("Commission") in Case Nos. 97-204 and 98-265 ("1998 Transactions").
4	
5	First, I summarize how the Ambac Assurance Corporation ("Ambac") credit
6	downgrade resulted in Big Rivers agreeing to terminate its leveraged lease
7	transactions with respect to undivided interests in Plants Green and Wilson
8	with a subsidiary of Philip Morris Capital Corporation ("PMCC") ("Lease
9	Transactions") through a buyout ("PMCC Buyout"). I further describe an
10	amendment to the Transaction Termination Agreement ("Termination
11	Agreement") among Big Rivers, LG&E Energy Marketing Inc. ("LEM") and
12	Western Kentucky Energy Corp. ("WKEC") that has been entered into since I
13	provided rebuttal testimony in this proceeding.
14	
15	I also present a supplemental analysis of benefits and costs to Big Rivers and
16	its cooperative member systems ("Members") associated with the Unwind
17	Transaction reflecting these developments, and I recap the history of Big
18	Rivers' rates over the past ten years.
19	
20	In addition, I provide an overview of the status of negotiations concerning the
21	resumption by Big Rivers of the rights and responsibilities under pre-1998
22	contracts ("Station Two Contracts") between Big Rivers, the City of

Exhibit 102 Page 3 of 17

1		Henderson, Kentucky (the "City") and the City of Henderson Utility
2		Commission doing business as Henderson Municipal Power & Light
3		("HMP&L") (collectively, "Henderson") concerning the City's Station Two
4		generating facility ("Station Two"). Finally, I explain that time is of the
5		essence with respect to implementation of the Unwind Transaction, and urge
6		the Commission to act expeditiously to approve the transaction.
7		
8	Q.	The Application Supplement is a large filing. Does this indicate that
9		there are extensive and complex changes to the Application?
10		
11	A.	No. In reality, most of the material included in the Application Supplement
12		merely updates previously filed information with minor conforming changes
13		resulting from the PMCC Buyout. The Commission should not be put off by
14		the volume of the filing. The substance is straightforward and actually
15		streamlines Big Rivers' financial position.
16		
17	II.	OVERVIEW OF RECENT DEVELOPMENTS
18		
19	Q.	Please describe why Big Rivers sought postponement of the hearing
20		in this proceeding in June 2008.
21		

2negotiate a resolution to address the effect on the Lease Transactions of the3downgrade by Moody's Investor Services to its rating of Ambac's4creditworthiness. This downgrade event was independent of and unrelated to5Big Rivers' request for approval of the Unwind Transaction. Big Rivers6would have had to act to resolve the Ambac downgrade even if there had been7no proposed Unwind Transaction. However, the Unwind Transaction could8not go forward with the uncertainty created by the Ambac downgrade. As C.9William Biackburn explains in greater detail in his Third Supplemental10Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big11Rivers was using to satisfy contractual collateral requirements under the12Lease Transactions. The Ambac downgrade caused these swaps to no longer13qualify as collateral, and raised the possibility of Big Rivers being found in14default unless it could either replace the non-qualifying swaps or come to15some other arrangement.161717Q.181919A.19A.19Yes. Big Rivers has resolved the issues relating to Ambac's financial20downgrade by agreeing to terminate the Lease Transactions with PMCC21under a negotiated buyout structure, with financial contributions being made22by Big Rivers, E.ON, and PMCC. Big Rivers considered a variety of	1	A.	Big Rivers and E.ON sought postponement of the hearing in order to
 creditworthiness. This downgrade event was independent of and unrelated to Big Rivers' request for approval of the Unwind Transaction. Big Rivers would have had to act to resolve the Ambac downgrade even if there had been no proposed Unwind Transaction. However, the Unwind Transaction could not go forward with the uncertainty created by the Ambac downgrade. As C. William Blackburn explains in greater detail in his Third Supplemental Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big Rivers was using to satisfy contractual collateral requirements under the Lease Transactions. The Ambac downgrade caused these swaps to no longer qualify as collateral, and raised the possibility of Big Rivers being found in default unless it could either replace the non-qualifying swaps or come to some other arrangement. Q. Has Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	2		negotiate a resolution to address the effect on the Lease Transactions of the
 Big Rivers' request for approval of the Unwind Transaction. Big Rivers would have had to act to resolve the Ambac downgrade even if there had been no proposed Unwind Transaction. However, the Unwind Transaction could not go forward with the uncertainty created by the Ambac downgrade. As C. William Blackburn explains in greater detail in his Third Supplemental Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big Rivers was using to satisfy contractual collateral requirements under the Lease Transactions. The Ambac downgrade caused these swaps to no longer qualify as collateral, and raised the possibility of Big Rivers being found in default unless it could either replace the non-qualifying swaps or come to some other arrangement. Has Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	3		downgrade by Moody's Investor Services to its rating of Ambac's
 would have had to act to resolve the Ambac downgrade even if there had been no proposed Unwind Transaction. However, the Unwind Transaction could not go forward with the uncertainty created by the Ambac downgrade. As C. William Blackburn explains in greater detail in his Third Supplemental Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big Rivers was using to satisfy contractual collateral requirements under the Lease Transactions. The Ambac downgrade caused these swaps to no longer qualify as collateral, and raised the possibility of Big Rivers being found in default unless it could either replace the non-qualifying swaps or come to some other arrangement. 4 Yes. Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	4		creditworthiness. This downgrade event was independent of and unrelated to
 no proposed Unwind Transaction. However, the Unwind Transaction could not go forward with the uncertainty created by the Ambac downgrade. As C. William Blackburn explains in greater detail in his Third Supplemental Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big Rivers was using to satisfy contractual collateral requirements under the Lease Transactions. The Ambac downgrade caused these swaps to no longer qualify as collateral, and raised the possibility of Big Rivers being found in default unless it could either replace the non-qualifying swaps or come to some other arrangement. Q. Has Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	5		Big Rivers' request for approval of the Unwind Transaction. Big Rivers
 not go forward with the uncertainty created by the Ambac downgrade. As C. William Blackburn explains in greater detail in his Third Supplemental Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big Rivers was using to satisfy contractual collateral requirements under the Lease Transactions. The Ambac downgrade caused these swaps to no longer qualify as collateral, and raised the possibility of Big Rivers being found in default unless it could either replace the non-qualifying swaps or come to some other arrangement. Has Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	6		would have had to act to resolve the Ambac downgrade even if there had been
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 Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big Rivers was using to satisfy contractual collateral requirements under the Lease Transactions. The Ambac downgrade caused these swaps to no longer qualify as collateral, and raised the possibility of Big Rivers being found in default unless it could either replace the non-qualifying swaps or come to some other arrangement. Has Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	8		not go forward with the uncertainty created by the Ambac downgrade. As C.
11Rivers was using to satisfy contractual collateral requirements under the12Lease Transactions. The Ambac downgrade caused these swaps to no longer13qualify as collateral, and raised the possibility of Big Rivers being found in14default unless it could either replace the non-qualifying swaps or come to15some other arrangement.16	9		William Blackburn explains in greater detail in his Third Supplemental
 Lease Transactions. The Ambac downgrade caused these swaps to no longer qualify as collateral, and raised the possibility of Big Rivers being found in default unless it could either replace the non-qualifying swaps or come to some other arrangement. Has Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	10		Direct Testimony, Exhibit 78, Ambac insured certain default swaps that Big
13qualify as collateral, and raised the possibility of Big Rivers being found in14default unless it could either replace the non-qualifying swaps or come to15some other arrangement.16	11		Rivers was using to satisfy contractual collateral requirements under the
14default unless it could either replace the non-qualifying swaps or come to15some other arrangement.16	12		Lease Transactions. The Ambac downgrade caused these swaps to no longer
 some other arrangement. Q. Has Big Rivers been able to resolve this issue? A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	13		qualify as collateral, and raised the possibility of Big Rivers being found in
 16 17 Q. Has Big Rivers been able to resolve this issue? 18 19 A. Yes. Big Rivers has resolved the issues relating to Ambac's financial 20 downgrade by agreeing to terminate the Lease Transactions with PMCC 21 under a negotiated buyout structure, with financial contributions being made 	14		default unless it could either replace the non-qualifying swaps or come to
 17 Q. Has Big Rivers been able to resolve this issue? 18 19 A. Yes. Big Rivers has resolved the issues relating to Ambac's financial 20 downgrade by agreeing to terminate the Lease Transactions with PMCC 21 under a negotiated buyout structure, with financial contributions being made 	15		some other arrangement.
 18 19 A. Yes. Big Rivers has resolved the issues relating to Ambac's financial 20 downgrade by agreeing to terminate the Lease Transactions with PMCC 21 under a negotiated buyout structure, with financial contributions being made 	16		
 A. Yes. Big Rivers has resolved the issues relating to Ambac's financial downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	17	Q.	Has Big Rivers been able to resolve this issue?
 downgrade by agreeing to terminate the Lease Transactions with PMCC under a negotiated buyout structure, with financial contributions being made 	18		
21 under a negotiated buyout structure, with financial contributions being made	19	A,	Yes. Big Rivers has resolved the issues relating to Ambac's financial
	20		downgrade by agreeing to terminate the Lease Transactions with PMCC
22 by Big Rivers, E.ON, and PMCC. Big Rivers considered a variety of	21		under a negotiated buyout structure, with financial contributions being made
	22		by Big Rivers, E.ON, and PMCC. Big Rivers considered a variety of

Exhibit 102 Page 5 of 17

1		alternatives to address the effect of the Ambac downgrade, but concluded
2		that a negotiated buyout with PMCC would present the best means of
3		preserving satisfactory economics for the Unwind Transaction.
4		
5	Q.	Has Big Rivers revised the Unwind Financial Model to reflect the
6		PMCC Buyout?
7		
8	А.	Yes. I discuss the results of the revised financial model below, in my review
9		of the benefits and costs of the Unwind Transaction.
10		
11	Q.	Has there been a further amendment to the Termination Agreement
12		since you last testified in this proceeding?
13		
14	Α,	Big Rivers, LEM, and WKEC have entered into a further amendment to the
15		Termination Agreement that is being submitted with this supplement to its
16		Application in this proceeding. This amendment, entitled Third Amendment
17		to Transaction Termination Agreement, is included as Exhibit 80, and is
18		discussed in the Supplemental Testimony of Paul W. Thompson, Exhibit 91.
19		
20	Ш.	UPDATED ASSESSMENT OF THE BENEFITS OF THE UNWIND
21		TRANSACTION
22		

1	Q.	Have recent developments affected your evaluation of the benefits
2		and costs of the Unwind Transaction to Big Rivers and its Members?
3		
4	A.	Yes, although I continue to believe that the anticipated benefits of the
5		Unwind Transaction significantly outweigh the potential costs. The non-
6		monetary benefits that I described in my direct testimony, such as needed
7		financing flexibility for Big Rivers and the new power supply arrangements
8		with the aluminum smelters, have not changed at all, and neither have many
9		of the financial benefits that I previously described. The financial model that
10		Big Rivers has used to evaluate the benefits and risks of the Unwind
11		Transaction has been revised, however, to reflect the effect of the PMCC
12		Buyout (as discussed above) and other developments, as described in greater
13		detail by Mr. Blackburn in Exhibit 78.
14		
15	Q.	How has the Unwind Financial Model been changed?
16		
17	A.	Although Mr. Blackburn and Mr. Mudge describe the changes to the Unwind
18		Financial Model in greater detail in their testimony at Exhibit 78 and Exhibit
19		98, respectively, the changes are generally of three kinds. First, Big Rivers
20		has updated the Unwind Financial Model to reflect updated cost data for
21		contract labor, to reflect new projected fuel oil prices and other unit startup
22		costs, to incorporate increased materials costs, and to implement WKEC

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1		workplan updates. Second, Big Rivers has performed a new run of the
2		Production Cost Model (Exhibit 97) using updated regional assumptions to
3		reflect more current wholesale power markets. And third, Big Rivers has
4		implemented the terms of the resolution of the PMCC Buyout, including Big
5		Rivers' estimated \$60.9 million share of those costs, and the updated balance
6		schedule to the RUS Note.
7		
8	Q.	How is the PMCC Buyout related to the Unwind Transaction?
9		
10	A.	The problem which the PMCC Buyout sought to resolve, the Ambac credit
11		downgrade's effects on the PMCC Lease Transaction, is wholly unrelated to
12		the Unwind Transaction. Big Rivers would have needed to resolve this
13		financial issue whether or not the Unwind Transaction occurred. But the
14		terms of the PMCC Buyout are themselves integrated with the Unwind
15		Transaction – E.ON's agreement to pay an estimated \$60.9 million of the
16		costs of that PMCC Buyout is provided as a direct incentive to close the
17		Unwind Transaction, and the payment will not be provided if the Unwind
18		Transaction does not close.
19		
20	Q.	What are the effects of the Buyouts on the updated Unwind
21		Financial Model?
22		

1	А.	The updated Un	wind Financial Model indicates that the BoA Buyout and the	
2		PMCC Buyout w	PMCC Buyout will cause an increase in projected rates estimated to be	
3		\$0.39/MWh on a	weighted average basis for the Non-Smelter Members and	
4		\$0.27/MWh on a	weighted average basis for the Smelters, each measured	
5		over the 15 year	period modeled. See Exhibit RSM-3 to the Supplemental	
6		Testimony of Ro	bert S. Mudge, Exhibit 98. However, I further note that the	
7		PMCC Buyout p	provides a number of benefits on its own. The PMCC Buyout:	
8				
9		1. Eli	minates Big Rivers' obligation to replace Ambac in the PMCC	
10		Lea	ase Transactions in light of Ambac's credit downgrade – an	
11		obl	igation that would be very difficult to fulfill;	
12		2. Re	moves the risk of additional problems that may result from	
13		fur	ther Ambac downgrades;	
14		3. Sir	nplifies Big Rivers' creditor structure by reducing the number	
15		of	preditors;	
16		4. Sir	nplifies Big Rivers' ability to obtain consents, as it required	
17		COI	isents from PMCC, Ambac, and the RUS. The PMCC Buyout	
18		rei	noves PMCC, CoBank and CFC from the picture, and	
19		ult	imately Ambac will be removed when the pollution control	
20		bo	nds are refunded;	

1		5. Maintains Big Rivers' credit metrics necessary for obtaining an
2		investment grade credit rating, metrics which are still excellent;
3		and
4		6 Involves a contribution by E.ON in the amount of 50 percent of
5		Big Rivers' buyout cost as discussed in Mr. Blackburn's Third
6		Supplemental Direct Testimony.
7		
8	Q.	What is the effect of all the changes to the updated Unwind Financial
9		Model (not only the Buyouts) on rates from the June 2008 Unwind
10		Financial Model?
11		
12	А.	Rates to the Non-Smelter Members and Smelters show increases as a result
13		of the changes to the Unwind Financial Model. Overall (inclusive of all costs
14		including those related to the BoA Buyout and the PMCC Buyout), these
15		increases amount to a weighted average increase of \$1.38/MWh for the Non-
16		Smelter Members and \$1.49/MWh for the Smelters over the term of the
17		period modeled. See Supplemental Direct Testimony of Robert S. Mudge,
18		Exhibit 98, pages 13-14. However, the increased rates to the Non-Smelter
19		Members continue to be tempered by the Economic Reserve of \$157 million.
20		And Big Rivers' rates still remain amongst the lowest wholesale rates in the
21		region.

22

1	Q.	What is the effect of the revised Unwind Financial Model on Big
2		Rivers' balance sheet?
3		
4	А.	In my direct testimony I presented Exhibit MHC-1, a financial analysis of the
5		Unwind Transaction Profile as of December 12, 2007. Attached to this
6		Supplement Direct Testimony is Exhibit MHC-2, an updated Unwind
7		Transaction Profile comparing Big Rivers' pre-1998 balance sheet, its current
8		balance sheet, and the projected post-closing balance sheet. The financial
9		benefits of the Unwind Transaction are clear.
10		
11	Q.	Does Big Rivers still intend to pursue an investment grade credit
12		rating?
13		
14	A.	Yes. Big Rivers' financial metrics remain strong for pursuing an investment
15		grade credit rating, and Big Rivers intends to do so.
16		
17	Q.	Is Big Rivers still committed to completing the Unwind Transaction?
18		
19	А.	Yes. The overall advantages of the Unwind Transaction for Big Rivers and
20		its Members remain the same as presented in my Direct Testimony, Exhibit
21		14.
22		

1	Q.	Mr. Core, at an informal conference Big Rivers was asked to provide
2		a schedule showing its rates in recent history. Has such a schedule
3		been prepared by you or at your direction?
4		
5	Α.	Yes. Please see my Exhibit MHC-3, which presents a table showing average
6		revenue per MWh for Big Rivers' rural customers and large industrial
7		customers as well as an average revenue for the period 1998 through 2008.
8		
9	Q.	Is this rate history relevant to consideration of the Unwind
10		Transaction?
11		
12	А.	Yes. If the Unwind Transaction is implemented, Big Rivers' prices to its
13		Members, both for rural and large industrial customers, will increase. In
14		some years these increases may appear significant. But these increases
15		would appear very differently had they been implemented beginning in 1998
16		over a longer term. Since 1998, energy prices have increased across the
17		board as have the electricity prices of virtually all electric utilities. Even now,
18		if Big Rivers' Members' rates increase as a result of the Unwind Transaction
19		their rates will remain competitive, and they still will have enjoyed an
20		extended period of stable, low prices.
21		

Exhibit 102 Page 12 of 17

1		Finally, the rates in the Unwind Financial Model are not meant to be actual
2		proposed rates, and Big Rivers is not requesting approval for specific future
3		rate increases. The Unwind Financial Model is meant merely to be a decision
4		model and to demonstrate the financial viability of Big Rivers under the
5		Unwind Transaction given a set of reasonable, best-estimate assumptions.
6		
7	Q.	Have Big Rivers' negotiations with the parties to the Unwind
8		Transaction been at arms-length, with all consideration for the
9		transaction or value given or promised by or to Big Rivers or its
10		agents fully disclosed to the Commission and the parties?
11		
12	А.	Yes.
13		
14	IV.	STATUS OF NEGOTIATIONS REGARDING STATION TWO
15		
16	Q.	Has there been a final resolution among Big Rivers, E.ON, and
17		Henderson concerning the effect of the Unwind Transaction on the
18		existing Station Two arrangements?
19		
20	A.	No. The parties are continuing to negotiate towards termination of the
21		Station Two arrangements that were entered into as part of the 1998
22		Transactions, and resumption by Big Rivers of its rights and responsibilities

Exhibit 102 Page 13 of 17

1		with respect to Station Two, consistent with the underlying contracts among
2		Big Rivers, the City, and the City of Henderson Utility Commission
3		concerning Station Two ("Station Two Contracts") which were executed and
4		approved by the Commission in the 1970s. However, the parties have yet to
5		achieve final resolution of the issues involved. As David A. Spainhoward
6		explains in his supplemental testimony, Exhibit 99, draft agreements
7		necessary to effectuate this resolution have been presented to, but not yet
8		executed by, the City and the City of Henderson Utility Commission.
9		
10	Q.	Do you anticipate that the parties will come to terms and agree to
11		resumption by Big Rivers of its rights and responsibilities with
12		respect to Station Two?
12 13		respect to Station Two?
	A.	respect to Station Two? Yes, I believe that the parties will finalize the necessary agreements and
13	А.	
13 14	А.	Yes, I believe that the parties will finalize the necessary agreements and
13 14 15	А.	Yes, I believe that the parties will finalize the necessary agreements and provide for Big Rivers to resume its pre-1998 role with respect to Station Two.
13 14 15 16	A.	Yes, I believe that the parties will finalize the necessary agreements and provide for Big Rivers to resume its pre-1998 role with respect to Station Two. The parties, including both Board chairs, have met numerous times in
13 14 15 16 17	A.	Yes, I believe that the parties will finalize the necessary agreements and provide for Big Rivers to resume its pre-1998 role with respect to Station Two. The parties, including both Board chairs, have met numerous times in attempts to negotiate a resolution of the many issues relating to Station Two,
13 14 15 16 17 18	А. Q .	Yes, I believe that the parties will finalize the necessary agreements and provide for Big Rivers to resume its pre-1998 role with respect to Station Two. The parties, including both Board chairs, have met numerous times in attempts to negotiate a resolution of the many issues relating to Station Two,
 13 14 15 16 17 18 19 		Yes, I believe that the parties will finalize the necessary agreements and provide for Big Rivers to resume its pre-1998 role with respect to Station Two. The parties, including both Board chairs, have met numerous times in attempts to negotiate a resolution of the many issues relating to Station Two, and I am confident that the outstanding issues will be resolved.

Exhibit 102 Page 14 of 17

1	Α.	It is, pursuant to Subsection 10.2(q) of the Termination Agreement.
2		
3	Q.	Is Big Rivers seeking any Commission approvals with respect to
4		Station Two at this time?
5		
6	A.	Yes. As explained in greater detail by Mr. Spainhoward, Big Rivers is
7		submitting five unexecuted agreements to the Commission as part of its
8		Application Supplement in this proceeding. Although certain of these
9		agreements are being provided to the Commission solely for informational
10		purposes, Big Rivers is requesting that the Commission approve the
11		remaining agreements in their current, unexecuted forms. To the extent that
12		any of these agreements is modified in a material fashion, Big Rivers will of
13		course file the modified agreement(s) with the Commission and seek renewed
14		approval of the agreement(s) as modified.
15		
16	v.	NEED FOR EXPEDITIOUS COMMISSION APPROVAL
17		
18	Q.	Do you continue to recommend that the Commission approve the
19		Unwind Transaction, including the modifications presented in your
20		Application Supplement?
21		

1	A.	Yes, I continue to recommend Commission approval, without reservation. I
2		continue to believe that the Unwind Transaction will provide Big Rivers with
3		flexibility to finance and manage growth, enhance the long-term viability of
4		the aluminum smelters served by Big Rivers ("Smelters"), benefit the
5		economy of Western Kentucky, and create a win-win future for Big Rivers'
6		Members, E.ON and the Smelters.
7		
8	Q.	Is there need for the Commission to act expeditiously on the
9		Application?
10		
11	A.	I believe that there is. The Unwind Transaction has been years in the
12		making, and the parties have achieved a negotiated resolution of many
13		complicated issues. It is important that the Unwind Transaction be approved
14		as soon as is feasible, in order to preserve the delicate balance that has been
15		achieved. The parties already have spent much time and labor to resolve
16		issues that arose just prior to the scheduled commencement of the hearing in
17		this proceeding, and the passage of time presents the possibility of other
18		developments that could result in further delay. Accordingly, I urge the
19		Commission to act expeditiously to approve the Application, as supplemented,
20		so that the Unwind Transaction may go forward promptly and the resulting
21		benefits may be secured for Big Rivers and the other interested parties.
22		

- 1 Q. Does this conclude your testimony at this time?
- $\mathbf{2}$
- 3 A. Yes.

Unwind Transaction Profile, 10/4/08

		1997		2008	
		Audited Financials	<u>Pre Unwind +</u> Lease Buyouts	<u>Unwind + Lease</u> <u>Buyouts</u>	<u>Post Unwind +</u> Lease Buyouts
1 2 3	Balance Sheet (M\$) Net Utility Plant Sale-Leaseback Investments	914 -	912 197	99 (197)	1,011 -
4 5	Cash & Investments Transition Reserve			35 157	35 157
6 7	Economic Reserve Unrestricted	21	- 146 53	(21) 40	125 93
8 9	Receivables, Inventories & Other Assets	<u>61</u> 996	1,308	112	1,420
10 11 12	Equities Sale-Leaseback Obligation & Unamortized Gain	(293) -	(139) 240	511 (240)	372 - 626
13 14	RUS Debt Other Debt	1,256	765 262	(140) (16) (2)	246 176
15 16	Payables & Other Equities & Liabilities	<u> </u>	<u> </u>	(3) 112	1,420
17 18	Equity/ Assets	-29%	-11%		26%

Exhibit MHC-3

RATE HISTORY

YEAR	RURAL	LARGE	WEIGHTED
		INDUSTRIALS	AVERAGE
1998	36.72	30.70	34.11
1999	36.44	30.47	33.78
2000	36.25	30.12	33.58
2001	35.27	30.59	33.44
2002	35.38	31.22	33.97
2003	34.99	31.15	33.78
2004	35.06	30.31	33.55
2005	35.26	30.70	33.89
2006	35.58	30.67	34.11
2007	35.22	30.96	34.04
2008	35.30	30.74	34.03

VERIFICATION

I verify, state, and affirm that the foregoing testimony is true and correct to the best of my knowledge and belief.

Michael H. Core

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Michael H. Core on this the 7^{+h} day of October, 2008.

Paula Mitchell Notary Public, <u>Ky. State at</u> Karge My Commission Expires <u>1-12-0</u>9

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EXHIBIT 103

SUPPLEMENTAL DIRECT TESTIMONY OF WILLIAM STEVEN SEELYE

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Case No. 2007-00455

SUPPLEMENTAL DIRECT TESTIMONY OF WILLIAM STEVEN SEELYE

ON BEHALF OF APPLICANTS

OCTOBER 2008

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Exhibit 103 Page 1 of 10

SUPPLEMENTAL DIRECT TESTIMONY OF WILLIAM STEVEN SEELYE

1		
2	I.	OVERVIEW OF TESTIMONY
3		
4	Q.	Please state your name and business address.
5		
6	А.	My name is William Steven Seelye, and my business address is The
7		Prime Group, LLC, 6435 West Highway 146, Crestwood, Kentucky,
8		40014.
9		
10	Q.	By whom are you employed?
11		
12	А.	I am a senior consultant and principal for The Prime Group, LLC, a
13		firm located in Crestwood, Kentucky providing consulting and
14		educational services in the areas of utility regulatory analysis, revenue
15		requirements support, cost of service, rate design and economic
16		analysis.
17		
18	Q.	Are you the same William Steven Seelye who earlier provided
19		testimony in these proceedings?
20		

1	A .	I am. I filed my direct testimony as Exhibit 25 to the original
2		Application filed on December 28, 2007.
3		
4	Q.	Why are you presenting this Supplemental Direct Testimony?
5		
6	A.	I am presenting this Supplemental Direct Testimony in order to
7		sponsor certain changes to the Member Rate Stability Mechanism
8		("MRSM") which I originally sponsored in Exhibit 25 at pages 27-32. I
9		am sponsoring the revised MRSM tariff language attached as Exhibit
10		WSS-16.
11		
12	Q.	Is Big Rivers changing the method by which the MRSM will be
12 13	Q.	Is Big Rivers changing the method by which the MRSM will be used to draw down amounts in the Economic Reserve?
	Q.	
13	Q. A.	
13 14	-	used to draw down amounts in the Economic Reserve?
13 14 15	-	used to draw down amounts in the Economic Reserve?
13 14 15 16	A.	used to draw down amounts in the Economic Reserve? Yes.
13 14 15 16 17	A.	used to draw down amounts in the Economic Reserve? Yes.
13 14 15 16 17 18	A. Q.	used to draw down amounts in the Economic Reserve? Yes. Why is Big Rivers changing the MRSM?
13 14 15 16 17 18 19	A. Q.	used to draw down amounts in the Economic Reserve? Yes. Why is Big Rivers changing the MRSM? Originally, as presented in the Application and described in my Direct

Exhibit 103 Page 3 of 10

1		Surcharge charges billed to Members in that month to the extent such
2		total dollar amounts were not already offset by the Unwind Surcredits
3		and any Rebate Adjustments in that month. This proposed use of the
4		MRSM left existing rates to the Non-Smelter Members effectively
5		unchanged until exhaustion of the the Economic Reserve. In
6		consideration of the well-established ratemaking principle of
7		gradualism, Big Rivers proposes to modify the MRSM to alter the
8		speed at which the Economic Reserve will be drawn down and thereby
9		"feather" the effect of anticipated FAC and Environmental Surcharge
10		Expenses on the Non-Smelter Member rates until the Economic
11		Reserve is exhausted and the full amounts of the FAC and
12		Environmental Surcharge are applied without credit. The revised
13		MRSM tariff also reflects the increase in the level of the Economic
14		Reserve from \$75 million to \$157 million.
15		
16	Q.	Can you explain what you mean by incorporating "gradualism"
17		or "feathering" of the use of the Economic Reserve?
18		
19	A.	Yes. Incorporating "gradualism" or "feathering" simply refers to the
20		process of smoothing the transition between existing rates with all
21		FAC and Environmental Surcharge increases offset by the Economic
22		Reserve to the existing rates with all FAC and Environmental

Exhibit 103 Page 4 of 10

1	Surcharge increases included after the exhaustion of the Economic
2	Reserve. Absent some sort of gradualism, there potentially will be an
3	abrupt rate transition at the time the Economic Reserve is exhausted
4	and there is no offset to the FAC and Environmental Surcharge costs
5	that are then included in the Non-Smelter Member rates other than
6	the Unwind Surcredit and any Rebate Adjustment in that month.
7	Consistent with the ratemaking principle of gradualism, Big Rivers
8	over a course of years will use the MRSM to reduce the rate of
9	drawdown of the Economic Reserve so that the rate increases seen by
10	its Members will be less extreme once the Economic Reserve is
11	exhausted.
12	
13	The positive effect of incorporating gradualism to smooth Non-Smelter
14	Member Rates can be shown quite effectively graphically. Attached as
15	Exhibit WSS-17, I include a chart graphically comparing use of the
16	MRSM to draw down the Economic Reserve against all FAC and
17	Environmental Surcharge charges without gradualism as compared to
18	a use of the MRSM that smooths the drawdown of the Economic
19	Reserve by leaving some amount of FAC and Environmental
20	Surcharge charges as adjustments to Non-Smelter Rates without full
21	offset. As can be seen from this exhibit, through feathering the Non-

Exhibit 103 Page 5 of 10

1		Smelter Member rates more smoothly increase without as large a spike
2		at the exhaustion of the Economic Reserve.
3		
4	Q.	Do Big Rivers' Members support the concept of gradualism?
5		
6	А.	I am informed that they do. They recognize that existing rates will be
7		altered by FAC and Environmental Surcharge costs in years to come
8		and that the Non-Smelter Members will receive a contribution of the
9		full \$157 million of the Economic Reserve at whatever rate that
10		amount is distributed through the MRSM. Incorporating a
11		"feathering" approach to more gradually reduce the Economic
12		Reserve's offset of the total amount of potential FAC and
13		Environmental Surcharge cost increases to existing Non-Smelter
14		Member rates serves to smooth the rate transition that inevitably will
15		occur once the Economic Reserve is exhausted. Accordingly, the
16		Members are in agreement that smoothing the drawdown of the
17		Economic Reserve is preferable to a stark rate transition at the
18		exhaustion of the Economic Reserve. See Exhibit 102, Supplemental
19		Testimony of Burns E. Mercer.
20		

r.

1	Q.	How does Big Rivers propose to change the MRSM to
2		incorporate gradualism regarding the drawdown of the
3		Economic Reserve use?
4		
5	А.	During the first 12 months after the effective date of the tariff (<i>i.e.</i> ,
6		calendar year 2009, assuming a December 31, 2008 closing), Big Rivers
7		proposes to leave the MRSM as was previously proposed. Thus, in
8		those initial twelve months the Economic Reserve will be used in each
9		month to offset the total amount of FAC and Environmental Surcharge
10		charges not otherwise offset by the Unwind Surcredit or a Rebate
11		Adjustment in that month. Thus, for the first 12 months of the tariff
12		Member rates will remain level.
13		
14		During months 13 through 24 after the effective date of the tariff (i.e.,
15		calendar year 2010), the Economic Reserve will offset most of the total
16		amount of FAC and Environmental Surcharge increases in each month
17		not otherwise offset by the Unwind Surcredit or a Rebate Adjustment,
18		but not the total difference. Instead, the monthly withdrawal from the
19		Economic Reserve will be reduced by \$0.002/kWH multiplied by the
20		Non-Smelter sales for the month. The revised MRSM tariff defines
21		this amount as an Expense Mitigation Adjustment.

22

Exhibit 103 Page 7 of 10

1		Similarly, during months 25 through 36 after the effective date of the
2		tariff (i.e., 2011), the Expense Mitigation Adjustment increases to an
3		amount equal to \$0.004/kWh multiplied by the Non-Smelter Member
4		sales in each month. And in months 37 through 48 after the effective
5		date of the tariff (i.e., in 2012), the Expense Mitigation Adjustment
6		increases to an amount equal to \$0.006/kWh multiplied by the Non-
7		Smelter Member sales in each month. After month 48, the Expense
8		Mitigation Adjustment terminates and the Economic Reserve will be
9		used in each month to offset the net cost increases until the Economic
10		Reserve is fully exhausted. In essence, the Non-Smelter Members will
11		gradually begin to bear the cost increases associated with the FAC and
12		the Environmental Surcharge cost increases, thus "feathering" the
13		Economic Reserve application by smoothing rates to the Non-Smelter
14		Members and mitigating the large step up that would occur when the
15		Economic Reserve is completely depleted.
16		
17	Q.	Could you provide an example of how the revised MRSM would
18		operate in 2010 (months 13 through 24 after closing)?
19		
20	А.	Yes. Using the same example incorporated in my Direct Testimony at
21		page 29 (which would reflect how the MRSM would operate in 2009
22		when no Expense Mitigation Adjustment would apply), suppose that (i)
		Fyhihit 102

Exhibit 103 Page 8 of 10

1		the FAC amount billed to a Member for non-Smelter sales is \$10,150,
2		(ii) the Environmental Surcharge billed to a Member for non-Smelter
3		sales is \$20,200, and (iii) the Unwind Surcredit received is \$5,000.
4		Under prior operation of the MRSM, the Member's MRSM adjustment
5		for the month would have been a credit of \$25,350 (or \$10,150
6		+ $$20,200 - $5,000 = $25,350$). Assume further that the product of the
7		Member's non-Smelter sales is \$10,000 (\$0.002/kWh multiplied by non-
8		Smelter sales of 5,000,000 kWh). This \$10,000 would then be the
9		calculated Expense Mitigation Adjustment for that month. Under the
10		revised MRSM the Member's MRSM adjustment for the month would
11		be a credit of \$15,350. In other words, the MRSM of \$15,350 would
12		offset the FAC charge of \$10,150, plus the Environmental Surcharge of
13		\$20,200, less the Unwind Surcredit of \$5,000 and less the Expense
14		Mitigation Adjustment of \$10,000. I should point out that the figures
15		used in this example were developed simply to illustrate how the
16		MRSM will be determined and in no way represent amounts that will
17		likely occur.
18		
19	Q.	How would the above example change were it to occur in 2011
20		(months 25 through 36 after closing)?

21

1	А.	In 2011, the Expense Mitigation Adjustment would be calculated to be
2		\$20,000 (\$0.004/kWh multiplied by sales of 5,000,000 kWh). The
3		MRSM thus would credit \$5,350 to offset the FAC and Environmental
4		Surcharge (\$10,150 + \$20,200 - \$5,000 - \$20,000).
5		
6	Q.	And how would the same example change were it to occur in
7		2012 (months 37 through 48 after closing)?
8		
9	А.	In 2012, the Expense Mitigation Adjustment would be calculated to be
10		\$30,000 (\$0.006/kWh multiplied by sales of 5,000,000 kWh). Because
11		the Member Expense Adjustment of \$30,000 would exceed the \$25,350
12		calculated amount of the FAC plus the Environmental Surcharge less
13		the Unwind Surcredit, no amounts would be credited to the Member
14		from the Economic Reserve in that month and the Member would bear
15		the full cost of the FAC and Environmental Surcharge. However,
16		because the Unwind Surcredit separately would be flowed through
17		that rider, the Member would still receive that credit.
18		
19	Q.	Mr. Seelye, does this conclude your testimony at this time?
20		
21	А.	Yes, it does.

Exhibit 103 Page 10 of 10

Exhibit WSS-16

MEMBER RATE STABILITY MECHANISM (MRSM)

APPLICABILITY:

Applicable in all territory served by Big Rivers" Member Cooperatives.

AVAILABILITY:

Available pursuant to Section A.7. of this tariff for electric service provided by Big Rivers to its Member Rural Electric Cooperatives for all Rural Delivery Points and Large Industrial Customer Delivery Points, served under Rate Schedule C.4.d, and Rate Schedule C.7, respectively.

DEFINITIONS:

"Members" are Jackson Purchase Energy Corporation, Kenergy Corp. ("Kenergy"), and Meade County Rural Electric Cooperative Corporation.

"Smelters" are the aluminum reduction facilities of Alcan Primary Products Corporation and Century Aluminum of Kentucky General Partnership, as further described under the Wholesale Smelter Agreements.

"Smelter Agreements" are the two Wholesale Electric Service Agreements each dated as of October ____, 2008, between Big Rivers and Kenergy with respect to service by Kenergy to a Smelter.

MEMBER RATE STABILITY MECHANISM (MRSM)

Big Rivers will establish an Economic Reserve of \$157 million, plus any additional amounts that may be added at the time of closing the unwind arrangement with E.ON, which will be used to offset the effect of billing the FAC and Environmental Surcharge to non-Smelter sales, after taking into account the credits received from the Unwind Surcredit and the Rebate Adjustment. The Economic Reserve will be established as a stand-alone investment account, accruing interest. The MRSM will draw on the Economic Reserve to mitigate the monthly impacts of the FAC and Environmental Surcharge on each non-Smelter Member's bill, net of the credits received under the Unwind Surcredit and Rebate Adjustment. Each month the MRSM will mitigate the dollar impact of billings under the FAC and Environmental Surcharge *less* the total dollar amounts received under the Unwind Surcredit, *less* a monthly pro-rata portion of any lump sum rebates provided under the Rebate Adjustment, and *less* the Expense Mitigation Adjustment (EMA) which is defined below.

The amount of the MRSM credit provided to each member system during a month will each equal (i) the total dollar amount of FAC charges billed to the member during the month, <u>plus</u> (ii) the total dollar amount of Environmental Surcharge charges billed to the member during the month, <u>less</u> (iii) the total dollar amount of the Unwind Surcredits credited to the member during the month, <u>less</u> (iv) one-twelfth (1/12) of any rebates provided under the Rebate Adjustment during the current month or during any of the 11 preceding months, <u>less</u> (v) the total dollar amount of the month; provided that the amounts subtracted in items (iii), (iv) and (v) cannot exceed the total of items (i) and (ii), in which case the monthly MRSM adjustment would be zero.

Expense MITIGATION FACTOR (EMF) AND ADJUSTMENT (EMA)

The EMF shall be the following:

- i. \$0.000 per kWh for the first twelve (12) months following the effective date of this tariff;
- ii. \$0.002 per kWh for months 13 through 24 following the effective date of this tariff;
- iii. \$0.004 per kWh for months 25 through 36 following the effective date of this tariff; and
- iv. \$0.006 per kWh for months 37 through 48 following the effective date of this tariff.

The EMA for the month shall be the EMF multiplied by the S(m) which is the jurisdictional sales for the current expense month. The EMF and EMA will expire after month 48 following the effective date of this tariff.

If any portion of FAC or Environmental Surcharge costs are transferred to base rates, or if any portion of the FAC costs are transferred from base rates to the FAC, then the MRSM will account for any effect of such transfers so that the Members will not see any impact on their bills, either positive or negative, of such transfers.

The MRSM shall be no longer applicable and shall be terminated once the Economic Reserve is exhausted. During the last month of the MRSM, the amount remaining in the Economic Reserve will be prorated to each member on the basis of the total FAC and Environmental Surcharge charges applicable to non-Smelter sales less credits under the Unwind Surcredits, less monthly prorated amounts under the Rebate Adjustment and less the Expense Mitigation Adjustment as applicable. Exhibit WSS-17

Economic Reserve Analysis

(based on Unwind Presentation Draft 10_04_08.xls)

More gradual draws on Economic Reserve (red lines below) buffer what would otherwise be 40% rate increase in 2013

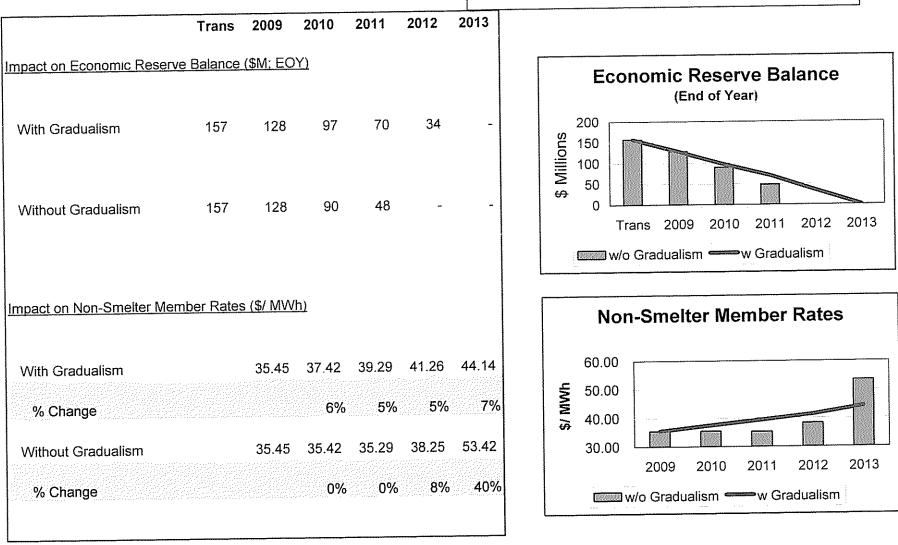


Exhibit WSS-17

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EXHIBIT 104

SUPPLEMENTAL DIRECT TESTIMONY OF MARK A. BAILEY

COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

Case No. 2007-00455

SUPPLEMENTAL DIRECT TESTIMONY OF MARK A. BAILEY

ON BEHALF OF APPLICANTS

OCTOBER 2008

Exhibit 104 Page 1 of 12

1 2 3		SUPPLEMENTAL DIRECT TESTIMONY OF MARK A. BAILEY
4	I.	INTRODUCTION
5		
6	Q.	Please state your name, address and position with Big Rivers
7		Electric Corporation ("Big Rivers").
8		
9	А.	My name is Mark A. Bailey. My business address is 201 Third Street,
10		Henderson, Kentucky, 42419. I am the Executive Vice President and Chief
11		Operating Officer of Big Rivers.
12		
13	Q.	Are you the same Mark A. Bailey who previously submitted Direct
14		and Rebuttal testimony in this proceeding?
15		
16	A.	Yes, I am.
17		
18	Q.	What is the purpose of your Supplemental Direct Testimony in this
19		proceeding?
20		
21	А.	The purpose of my Supplemental Direct Testimony is to address certain
22		developments that have occurred with respect to the proposed unwind
23		("Unwind Transaction") of the 1998 transactions between Big Rivers and

Exhibit 104 Page 2 of 12

1		E.ON U.S. LLC ("E.ON") (formerly LG&E Energy Corp.) and certain E.ON
2		affiliates approved by the Kentucky Public Service Commission
3		("Commission") in Case Nos. 97-204 and 98-265 ("1998 Transactions").
4		
5		First, I describe the status of Big Rivers' ongoing conduct of due diligence
6		with respect to the Big Rivers-owned generating facilities that currently are
7		leased to, and operated by, Western Kentucky Energy Corp. ("WKEC"), and
8		that will once again be operated by Big Rivers upon closing of the Unwind
9		Transaction. As I explain below, Big Rivers is abiding by the commitments it
10		has made with respect to its conduct of due diligence, and will continue to do
11		so. I then provide an update concerning Big Rivers' transition to resuming
12		operational control of the generating facilities. I demonstrate that Big Rivers
13		is continuing to ensure that it will have the personnel and arrangements in
14		place to guarantee a seamless transition when Big Rivers resumes
15		operational control of the facilities, including the necessary arrangements for
16		the provision of information technology ("IT") services and generation
17		dispatch services.
18		
19	П.	DUE DILIGENCE
20		
21	Q.	Is Big Rivers continuing to conduct due diligence with respect to the

22 generating facilities and sites?

Exhibit 104 Page 3 of 12

	1	
1		

A.	Yes, Big Rivers is continuing to engage in due diligence, and will continue to
	do so up to the closing of the Unwind Transaction. In a May 29, 2008
	memorandum to the Big Rivers Board of Directors, I explained that although
	I had become comfortable with the plant situation at that time, I recognized
	that a number of conditions remained to be met before the closing of the
	Unwind Transaction – and before I would be fully satisfied that the due
	diligence portion of the closing conditions under the Transaction Termination
	Agreement ("Termination Agreement") among Big Rivers, LG&E Energy
	Marketing Inc. and WKEC had been satisfied. Big Rivers has continued to
	conduct due diligence to ensure that all such closing conditions have been
	satisfied. See Exhibit MAB-8 (Big Rivers' March 6, 2008 Responses to the
	Attorney General's Supplemental Request, Item 88; Big Rivers' May 30, 2008
	Updated Responses to Data Requests, Tab 13; Big Rivers' June 24, 2008
	Updated Responses to Data Requests, Item 1).
Q.	Are there issues that remain to be resolved before Big Rivers can
	conclude that the closing requirements concerning the condition of
	the plants have been satisfied?
A.	Yes, there are. In his Supplemental Direct Testimony, Exhibit 99, David A.
	Spainhoward at Exhibit DAS-2 presents a list of certain due diligence closing
	Q.

Exhibit 104 Page 4 of 12

1		conditions and Big Rivers' understanding of how those conditions are
2		expected to be satisfied. Big Rivers is continuing to pursue resolution of the
3		outstanding issues with E.ON, consistent with its reaffirmed commitment at
4		the June 19, 2008 informal conference in this proceeding that it would
5		"finalize its due diligence on the generating facilities and sites using all
6		resources available to it."
7		
8	Q.	Big Rivers also committed to filing a report with the Commission
9		within 120 days after closing the Unwind Transaction concerning
10		resolution of the Big Rivers conditions to closing. Does Big Rivers
11		stand by this commitment?
12		
13	А.	Absolutely. As reaffirmed at the June 19 conference, Big Rivers will file a
14		report with the Commission within 120 days after closing, "stating that all
15		Big Rivers conditions to the closing of the Unwind Transaction have been
16		satisfied or waived, and if waived, the terms on which waiver was granted."
17		This includes conditions relating to due diligence, but all other Big Rivers
18		conditions to closing as well.
19		
20	Q.	In your Direct Testimony, you described a Production Work Plan
21		that Big Rivers had developed for operating the generating facilities

Exhibit 104 Page 5 of 12

1 following closing of the Unwind Transaction. Have there been $\mathbf{2}$ changes to this plan? 3 4 A. Yes. Big Rivers has recently updated its three-year Production Work Plan 5 covering the years 2009 through 2011. A copy of the revised Production Work 6 Plan is included as Exhibit 105. A summary of the major changes included in 7 the updated plan from the previous Production Work Plan covering the years 8 2008 through 2010 is included in Exhibit MAB-9. These changes have been 9 incorporated in Big Rivers' revised Unwind Financial Model, which is 10presented as Exhibit 79 and is described more fully in the Third 11 Supplemental Direct Testimony of C. William Blackburn, Exhibit 78. 1213 **Q**. You also explained in your Direct Testimony that Bob Berry will 14 become Vice President and Chief Production Officer for Big Rivers. 15 Will Mr. Berry be available at the hearing in this proceeding? 16 17 Yes, Mr. Berry will be available at the hearing to respond to any questions Α. addressed to his overall responsibility for operation and maintenance of Big 18 Rivers' generating fleet. As I noted in my direct testimony, Mr. Berry has 19

- 20 over 27 years of experience with Big Rivers and WKEC. He recently
- 21 managed operations at Green/Reid/Station Two and has previously worked at

Exhibit 104 Page 6 of 12

1		the Coleman Plant, and thus is well suited to provide information to the
2		Commission in this area.
3		·
4	III.	UPDATE ON TRANSITION
5		
6	Q.	In your Direct Testimony, you identified the Big Rivers management
7		team that will be in place after closing of the Unwind Transaction.
8		Have there been any changes to that team since you submitted your
9		Direct Testimony?
10		
11	A.	No, there have not been any changes to the post-closing management team.
12		
13	Q.	Has Big Rivers named managers for the individual generating
14		facilities?
15		
16	A.	Yes. Jim Garrett, who is currently plant manager of the Coleman Plant, is
17		transfering to the Sebree Station, replacing Bob Berry. Kenny Stewart,
18		currently the Wilson Plant manager, has elected to retire. Ron Gregory has
19		been promoted to plant manager at the Wilson Plant by WKEC, and will
20		become Big Rivers' Wilson Plant manager. Pat Waldeck, currently
21		production manager and interim plant manager at the Coleman Plant, will

Exhibit 104 Page 7 of 12

1		become Big Rivers' Coleman Plant manager. A list of the managers and their
2		individual experiences is attached as Exhibit MAB-10.
3		
4	Q.	Do you have any updates concerning the status of Big Rivers' efforts
5		to hire current WKEC employees to continue with Big Rivers?
6		
7	A.	I have one update, concerning Big Rivers' offers to "exempt" – <i>i.e.</i> , non-
8		bargaining – employees of WKEC. Big Rivers had offered positions to 150 of
9		these employees, and 149 accepted Big Rivers' offers to continue with Big
10		Rivers, including all of the plant managers. However, as I noted previously,
11		one of the plant managers subsequently elected to retire, so Big Rivers
12		currently expects 148 of the exempt employees to stay on with Big Rivers
13		when it resumes operational control of the generating facilities.
14		
15	Q.	What about the bargaining unit employees?
16		
17	A.	It is Big Rivers' intent to offer to hire all bargaining unit employees. We
18		expect most, if not all, to continue working with Big Rivers.
19		
20	Q.	Do you have a current estimate of the number of employees Big
21		Rivers will have after the closing of the Unwind Transaction?
22		· · ·

1	А.	Yes. We plan to have approximately 623 employees post-closing, down
2		slightly from the 630 employees I estimated in my Direct Testimony. This is
3		because, as I discuss below, we are outsourcing our IT and generation
4		dispatch services.
5		
6	Q.	In your Direct Testimony, you explained that Big Rivers was
7		exploring alternatives for obtaining IT and generation dispatch
8		services upon the expiration of certain transitional arrangements
9		with WKEC. Has Big Rivers contracted for IT services?
10		
11	А.	Yes. As I explained in my Direct Testimony, WKEC will provide certain
12		information technology services to Big Rivers for up to eighteen months
13		following the closing of the Unwind Transaction, pursuant to the Information
14		Technology Support Services Agreement. By the end of that eighteen month
15		period, Big Rivers must have fully transitioned to its long-term information
16		technology solution. Big Rivers has worked with Black & Veatch Corporation
17		("Black & Veatch") to determine the best options with respect to the IT
18		function. As a result of this effort, Big Rivers has decided to purchase and
19		implement various modules of Oracle's e-Business Suite Software, and has
20		negotiated an agreement with Oracle to purchase the software at a cost of
21		\$1.4 million, with an annual maintenance fee of \$300,000. Big Rivers also
22		has finalized agreements with EDS to configure and implement the software

Exhibit 104 Page 9 of 12

1		at a cost of \$7.3 million, and to provide certain IT services (application
2		management, help desk, desktop support, network and data center) for eight
3		years following the closing of the Unwind Transaction, at an annual cost of
4		\$2.3 million. The revised Unwind Financial Model includes all expected IT
5		costs.
6		
7	Q.	How did Big Rivers select Oracle as the software solutions provider?
8		
9	A.	E.ON has established a WKEC "quasi"-current state environment for post-
10		unwind Big Rivers (including Oracle, Maximo, PeopleSoft and Volts software)
11		under the Information Technology Support Services Agreement. Pending
12		transition to its long-term solution, Big Rivers will be operating on two IT
13		systems, the current WKEC system and the current Big Rivers system. Big
14		Rivers' long-term solution due diligence process involved both Big Rivers and
15		WKEC business area and technical staff, and included site visits and vendor
16		demonstrations. Big Rivers evaluated multiple options, including legacy
17		native, Oracle, SAP and Maximo, on both a quantitative and qualitative basis
18		Qualitative scoring included critical criteria such as business functionality,
19		business processes, technical requirements, strategic fit, vendor viability and
20		migration strategy. Oracle Release 12 was the clear winner.
21		

Exhibit 104 Page 10 of 12

Q. How did Big Rivers select EDS to be its IT services provider over other options, such as having the services provided in-house?

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Big Rivers solicited interest from three large outsourcers (EDS, IBM and 4 А. Capgemini) to configure and implement 20 modules of Oracle Release 12 and 5 6 provide the services I identified above. EDS alone responded favorably to Big Rivers' request. After twelve months of negotiations, an agreement between 7 Big Rivers and EDS was finalized on June 30, 2008, generally to become 8 9 effective upon the closing date of the Unwind Transaction. While on the 10 surface it appears that the EDS option (as compared to the in-house option) carries a 9% cost premium (absent any risk premium), when considered from 11 a risk management perspective. Big Rivers concluded that the deep and 12broad resources of EDS more than compensate for the in-house option risk. 13 14 Transitioning to Oracle Release 12 will be a monumental undertaking for Big Rivers. Big Rivers has no backstop beyond the eighteen month period during 15 which E.ON will be providing certain IT services, and thus believes that 16 outsourcing these IT services to EDS is the best solution. 17

18

Q. Has Big Rivers likewise contracted for generation dispatch services? A. Yes, Big Rivers has contracted with ACES Power Marketing ("APM") to

22 provide generation dispatch services to Big Rivers following expiration of its

Exhibit 104 Page 11 of 12

1		transitional arrangement with WKEC. APM is a national energy risk
2		management and transaction execution company of which Big Rivers is a
3		member-owner, along with numerous other cooperatives. APM already
4		provides power marketing and risk management services to Big Rivers, and
5		Big Rivers believes that there will be synergies in having APM also perform
6		generation dispatch.
7		
8	Q.	Does this conclude your testimony at this time?
9		

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10 A. Yes.

Exhibit MAB-8

ITEM 88

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Page <u>1 of 1</u>

BIG RIVERS ELECTRIC CORPORATION'S RESPONSE TO THE ATTORNEY GENERAL'S SUPPLEMENTAL REQUEST FOR INFORMATION TO JOINT APPLICANTS PSC CASE NO. 2007-00455 March 6, 2008

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3 Please reference the Response to HMP&L 1-7. When does Big Rivers 4 Item 88) anticipate it will complete its due diligence review of the facilities? 5 6 7 Big Rivers will complete its due diligence review of the generating Response) facilities at or near the time of the transaction closing. Big Rivers intends to continue its 8 due diligence between now and that time. For instance, Section 10.3 of the Transaction 9 Termination Agreement sets forth several closing conditions which are intended to assure 10 Big Rivers that the conditions of the plants are acceptable at the closing; such as, 10.3 (w) 11 No Damage to Generating Plants; (ff) No Forced Outage at Generating Plants; etc. 12 13 Due diligence requests for information are continuously sent to WKEC and when 14 responses are received, they are reviewed by Big Rivers' staff and/or counsel, and/or Big 15 Rivers' consultants. Big Rivers has positioned one person at each plant site to monitor 16 the plant operations and maintenance. It is important that Big Rivers be satisfied with the 17 condition of the plants at closing. Section 10.3 (dd) of the Transaction Termination 18 Agreement (Condition of Generating Plants) states, "Solely in the reasonable judgment 19 20 of Big Rivers, each Generating Plant shall be in all material respects in good condition and state of repair, ordinary wear and tear excepted, consistent with Prudent Utility 21 Practice." Big Rivers will only close the transaction if this and other closing conditions 22 are met. There will be no single final due diligence report which will make that 23 determination. Big Rivers' executive team and its advisors will make that determination, 24 based on almost constant due diligence which has previously taken place as well as future 25 due diligence that will continue to take place until the closing. 26 27 Mark A. Bailey 28 Witness) David A. Spainhoward 29 30 31 32 33

ITEM 13

Item 88) Provide any and all internal E. ON documents which address the subject of existing agreements which are the subject of the "Unwind Transaction" and "Termination Transaction", including any financial analyses and strategic analyses.

8 Big Rivers files this supplement to its response to Item 88 of the Attorney Response) General's Supplemental Request for Information in response to requests by the Attorney 9 General and the Commission Staff for more information regarding the generating plant 10 11 and plant site due diligence Big Rivers is performing in anticipation of the Unwind Transaction closing. For the convenience of the Commission and the parties, Big Rivers 12 has assembled in this supplemental response references to most of the information on its 13 due diligence that has been filed in the record in this matter. This Supplemental Response 14 15 also relates to Draft Settlement Concept No. 1 presented at the May 15, 2008, Informal 16 Conference in this matter.

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18 Big Rivers believes that its knowledge of the condition of its owned-leased and 19 previously operated plants at the closing of the Unwind Transaction will be substantially greater than the knowledge of facility conditions most utilities would have upon the 20 acquisition of generating plants. The due diligence conducted by Big Rivers on its 21 22 generating units and sites did not commence at the time the Unwind Transaction began to 23 appear viable. Big Rivers constructed those units and operated them until 1998. It 24 employs persons who have institutional history and memory regarding the condition of 25 those units through 1998. Robert Berry, the person who will be the Vice President and Chief Production Officer of Big Rivers after the Unwind Transaction closing is a former 26 Big Rivers employee, and the current plant manager of the Green/Reid/Station Two 27 operations. Testimony of Mark Bailey, Application Exhibit 5, page 8. "Almost every 28 29 Western Kentucky-based employee of WKEC will [also] become an employee of Big 30 Rivers, including the plant managers and personnel, most of whom were employees of Big Rivers prior to 1998, bringing with them a thorough knowledge of the operation of 31 the Big Rivers' generating stations and Station Two." Application, pages 32 and 33. 32

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Since 1998, subsidiaries of E.ON have had the obligation to operate and maintain the 4 generating units owned by Big Rivers, or operated by Big Rivers under agreements with 5 6 Henderson. Application, p. 8. During that period, WKEC has made millions of dollars 7 of capital improvements to the plants under budgets reviewed, investigated and contributed to by Big Rivers in connection with the budgeting and cost-sharing processes 8 established under the 1998 Transaction agreements. See Big Rivers' Response to Item 9 10 141 of Attorney General Initial Request for Information, Big Rivers' Response to Item 8 of Commission Staff Initial Request for Information and E.ON Entities' Response to Item 11 8 of Commission Staff Initial Request for Information. 12

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Big Rivers also engaged Stanley Consultants Inc. ("Stanley") in 2000 to begin making an 14 annual review of generating plant condition, including physical inspection of the plants, 15 review of plant inspection reports prepared by vendors and consultants and review of 16 17 plant operating and performance data. Beginning in 2006, when Big Rivers thought a 18 closing of the Unwind Transaction might be imminent, Stanley's reports to Big Rivers 19 were condensed to data that could be included in an annual report in the future without 20 the expense of preparing a full report should the Unwind not occur. Stanley's role 21 changed somewhat from outage visits and once a year on-site walk-down, to having two 22 full-time people who are stationed on-site. The Stanley reports, which have been 23 reviewed by Big Rivers as part of its due diligence, are filed in the record. Big Rivers' Response to Item 51 of the Commission Staff's Initial Information Requests. 24

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Big Rivers has made additional, in-depth due diligence of generating plant condition a
priority in the terms of the Termination Agreement itself (Application, Exhibit 3), in part
because there are no warranties in the Termination Agreement by the E.ON entities
regarding plant condition that extend beyond the Unwind Transaction closing. For
example, Big Rivers required warranties and representations from the E.ON parties
regarding environmental conditions (Section 11.1(k)), correctness of diligence materials
(Section 11.1(l)) and the obligation to deliver diligence materials (Section 11.1(m)).

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The Termination Agreement deals with a number of issues that would not have been 4 5 known to Big Rivers but for its ongoing diligence efforts prior to the date the Termination Agreement was negotiated. For example, the closing conditions expressly 6 require resolution or satisfaction before closing of issues related to: the Station Two 7 H1 boiler event (Section 10.3(1)); gypsum facilities removal (Section 10.3(cc)); status of 8 9 gypsum offtake agreement (Section 10.3(hh)); and cleaning of Wilson ponds (Section 10.3(jj)). The closing conditions also protect Big Rivers from the implications of due 10 11 diligence problems that Big Rivers discovers prior to closing, such as: casualty damage 12 to the generating plants (Section 10.3(w)); environmental conditions (Section 10.3(y)); condition of generating plants (Section 10.3(dd)); testing of generating plant capability 13 (Section 10.3(ee), and see also Section 12.7); forced outages (Section 10.3(ff)); 14 requirements that WKEC comply with its own operating plans, including expenditures 15 (Section 10.3(ii), and see also Section 12.2); compliance of plants with reliability 16 17 standards (Section 10.3(II)); and unresolved disputes (Section 10.3(mm)) The Termination Agreement specifically provides the methodology for certain due 18 19 diligence issues, such as determination of the quantities and value of inventory and 20 personal property (Article 4), receiving notice of forced outages prior to closing (Section 21 12.2(b)) and procedures to address noncompliance by WKEC with its operating plan 22 (Section 12.5(c)). Article 15 of the Termination Agreement contains extensive terms 23 regarding an environmental audit and environmental indemnities, which cover subjects 24 for which due diligence is difficult.

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Big Rivers' representatives have made hundreds of due diligence requests of the E.ON
Entities. Each due diligence request is separately tracked, and the product of the request
is placed on a Big Rivers FTP site, where those who need access to the information can
retrieve it.

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Big Rivers and others have filed in this proceeding in response to information requests a
number of items Big Rivers has considered in connection with its due diligence. Big
Rivers has filed a copy of 74 different reports and studies (under a Petition for

Item 88 Page 3 of 7

Confidential Treatment) that it has produced or collected with respect to the generating 4 facilities and sites. Big Rivers' Response to Item 6 of Henderson's Initial Data Request. 5 The Stanley reports have been filed, as noted above. The Smelters have filed the Stone & 6 Webster report, which Big Rivers has also considered (Big Rivers' Response to Item 83 7 8 of Attorney General's Second Request for Information), although neither Big Rivers nor the Smelters consider the Stone & Webster report to be a "work plan" for Big Rivers 9 going forward. Rebuttal Testimony of Henry Fayne, page 4. Although not filed in this 10 11 case, and protected by confidentiality agreements, Big Rivers has also reviewed engineering reports produced by Henderson regarding the Station Two units. Information 12 on the recent operation performance of the units regarding heat rate, net capacity factor, 13 equivalent availability factor and equivalent forced outage rate are filed with Big Rivers' 14 Response to Item 3 of the Commission Staff's Second Supplemental Information 15 Request. 16

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As Big Rivers has explained in its responses to information requests in this proceeding, 18 due diligence is a process, not an end in itself. See the rebuttal testimonies of Mark 19 Bailey, pages 2-5 (due diligence efforts of Big Rivers are more than adequate), and 20 Michael Core, pages 5-7 (due diligence is a process; a single, comprehensive "due 21 22 diligence report" not contemplated or required); see also Big Rivers' Response to Items 23 109 and 110 of the Attorney General's Initial Request for Information, and to Item 88 of Attorney General's Supplemental Request for Information. The components of Big 24 Rivers' due diligence plan include: (i) inspection of O&M records at each site; (ii) 25 engineering evaluation of condition of plants by Big Rivers and Stanley Consultants; (iii) 26 review E.ON's operating plans; and (iv) physical test of operating capability of the 27 28 generating facilities to be conducted prior to closing. Big Rivers' Response to Item 1 of 29 the Commission Staff's Initial Request for Information.

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31 || With respect to the due diligence process at the generating plants and sites, since 2005,

32 || Big Rivers has employed a person whose duties include visiting each generating plant

33 || each week to monitor the condition of the plant and the performance by WKEC of its

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4 obligations under the existing transaction. After the Termination Agreement was signed 5 in March of 2007, Big Rivers added two Stanley employees/consultants to this task, assigning one person full-time to each of the generating plant sites. These persons 6 7 became part of the Termination Agreement Execution Team ("TAE"). In addition to 8 their preexisting duties, members of the TAE track performance by Big Rivers and the 9 E.ON entities of their respective obligations under the Termination Agreement. This includes monitoring the condition of the generating plants so that Big Rivers' 10 management can determine on the date of closing whether, "[s]olely in the reasonable 11 judgment of Big Rivers, each Generating Plant shall be in all material respects in good 12 13 condition and state of repair, ordinary wear and tear excepted, consistent with Prudent 14 Utility Practice." Termination Agreement, Section 10.3(dd). In the Termination 15 Agreement Big Rivers obtained expanded rights to have these representatives present in the plants performing due diligence activities prior to closing. Termination Agreement, 16 17 Section 12.2(a).

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19 The TAE team members report at least weekly to a supervisor, who tracks compliance 20 with the Termination Agreement on a Gaant chart, and reports any due diligence issues to a Big Rivers vice president. Issues are evaluated and, as deemed appropriate, an issue 21 22 could be put on a list for resolution with the E.ON entities pursuant to a closing 23 condition, or added to the Production Work Plan for correction after closing. Any 24 material issues with the condition of a generating plant will be resolved before closing. 25 which could include a revision to the Production Work Plan with the cost of resolution 26 appropriately reflected in the Unwind Financial Model. Issues that arise may also be 27 reviewed by other Big Rivers employees, and Big Rivers' consultants and counsel as 28 appropriate. Big Rivers' Response to Items 127, 131 and 133 of Attorney General's 29 Initial Request for Information.

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The Big Rivers Production Work Plan, filed in response to Item 1 of the Commission
Staff's Second Supplemental Request for Information, has been included in the Unwind

33 || Financial Model, and will allow Big Rivers to meet the generation and reliability levels

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anticipated by the Unwind Financial Model. Big Rivers' Response to Commission 4 Staff's Second Supplemental Request, Item 2 and Item 92 of Attorney General's 5 Supplemental Request for Information. This includes capital expenditures for 6 7 environmental compliance that are anticipated and included in the Unwind Financial Model. Big Rivers' Response to Item 5 of the Commission Staff's Second Supplemental 8 9 Request for Information. Some of the items in the Big Rivers Production Work Plan and capital budget were not and are currently not in the WKEC capital budget. Testimony of 10 Mark Bailey, Application Exhibit 5, page 16; Big Rivers' Response to Item 94 of 11 Attorney General's Supplemental Request for Information. The projections in the 12 Production Work Plan are consistent with the projections in the Unwind Financial Model. 13 Big Rivers' Response to Item 2 of Commission Staff's Second Supplemental Request for 14 Information. In addition to assessing the physical condition of plants, Big Rivers has also 15 performed economic modeling on the reliability of Reid I, and included the results in the 16 17 Unwind Financial Model. Big Rivers' Response to Item 96 of Attorney General's 18 Supplemental Request for Information.

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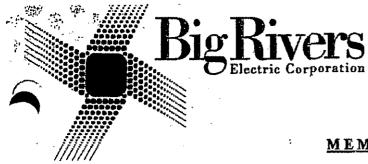
Ultimate management responsibility for evaluation of any generating plant and site due 20 21 diligence issues rests with Mark Bailey, who will succeed Michael Core as president and CEO of Big Rivers at some point after the Unwind Transaction closing. Mr. Bailey is an 22 electrical engineer with over 34 years of experience in the utility industry, including 10 23 years in coal-fired generating plants. He is the person who will have responsibility for 24 25 operating Big Rivers post-closing, and for securing the funds to correct any issues with 26 the generating plants that are not resolved prior to closing and included in the Production Work Plan at closing. He accordingly has an intense interest in detecting and resolving 27 28 any generating plant condition issues prior to closing.

29

Big Rivers has not planned to generate a "due diligence report," as such. Big Rivers'
Response to Item 51 of the Commission Staff's Initial Request for Information. Mr.

- 32 Bailey, however, has previously and as recently as on May 16, 2008, reported to the Big
- 33 || Rivers board of directors verbally and in a follow-up memorandum on his current

BIG RIVERS ELECTRIC CORPORATION'S RESPONSES TO THE ATTORNEY GENERAL'S SUPPLEMENTAL REQUEST FOR INFORMATION 1 PSC CASE NO. 2007-00455 (May 30, 2008) 2 3 satisfaction that Big Rivers will be taking back generating plants that, in the end, are in 4 5 appropriate condition to perform as anticipated under the Unwind Financial Model. A 6 copy of his memorandum to the Big Rivers board of directors on this subject dated May 7 29, 2008, is attached. Big Rivers will also create a post-closing memorandum on disposition of closing conditions, including those related to the condition of the 8 9 generating plants. Rebuttal Testimony of Michael Core, page 12: 10 11 The Smelters have also expressed their connfort with the plans of Big Rivers for operating and maintaining the generating units. Response of Smelters to Item 4 of Attorney 12 13 General's Supplemental Request for Information. Their consultant on the condition of 14 the generating units, Stone & Webster, concluded that Big Rivers' system is in 15 "reasonable condition, and capable of performing on a reliable basis, consistent with industry standards." Id. Ultimately, however, a determination of whether the plants are in 16 17 all material respects in good condition and state of repair is a business judgment only Big 18 Rivers can make. 19 20 Witness) Mark A. Bailey 21 22 23 24 25 26 27 28 29 30 31 32 33



201 Third Street P.O. Box 24 Henderson, KY 42419-0024 270-827-2561 www.bigrivers.com

MEMOR ANDUM

TO: Big Rivers' Board of Directors

FROM: Mark Bailey

DATE: May 29, 2008

SUBJECT: Condition of Big Rivers' Generating Plants

I am writing in follow-up to various conversations we have had over the past several years, including at the most recent May 16, 2008 board meeting, regarding the condition of Big Rivers' generating plants. As Big Rivers' President & CEO-Elect, I recognize that following the "unwind," I will be ultimately accountable and responsible to see that the company safely delivers low-cost, reliable power to its members. Based on my engineering education along with 34 years engineering and management experience in the electric utility industry including many years involving various operation and maintenance management assignments at a number of AEP power plants, I further recognize that reliable, low-cost generating facilities are the key to fulfilling that responsibility.

Because of their importance, I have paid close attention to our power plants, both while I was CEO of Kenergy as well as after joining Big Rivers last June as Executive Vice President. As you know, Big Rivers has utilized Stanley Consultants to monitor the plant conditions since the early 2000s through the present. We also have employees assigned to the plants to observe plant operations and maintenance and regularly communicate with local plant management. These individuals regularly review plant conditions and maintenance work that is performed, and also monitor plant budgets and expenditures.

I have examined the various reports produced by Stanley as well as reports prepared by Henderson Municipal Power & Light's engineering consultants. In addition, I have reviewed the Stone & Webster draft and final reports produced for the aluminum smelters as part of their due diligence of the "unwind" transaction. In general, it has been my observation that many of the items documented in many of these reports should have very little impact on the ability of the plants to produce low-cost, reliable electricity. I have also found that when major areas of concern have arisen, as they do in facilities as complex as generating stations, WKE addressed them in an effective manner.

In addition to these activities, I have examined the historical operating performance of the units. You may recall I have said on numerous occasions, both while I was with Kenergy as well as after joining Big Rivers, that based on my experience, a generating unit's performance will deteriorate rather quickly (e.g., 3–5 years) if it is not adequately maintained. In studying WKE expenditures since it began operating the units, I have found that base annual gross (including HMP&L's share of Station Two) capital and O&M expenditures have steadily increased from approximately \$36.5 million in 1999 to nearly \$65 million in 2007; a 78 percent increase which is nearly triple the rate of inflation (CPI) over that period. Given this information, combined with the fact that the Big Rivers' units are still performing well after ten years of WKE oversight, it is difficult to conclude they have not been adequately maintained. I have also recently

Your Touchstone Energy Cooperative



Big Rivers' Board of Directors May 29, 2008 Page Two

walked down all the units and spoken with local plant management about the condition and operation and maintenance of the facilities, and am comfortable with what I have seen and heard.

As you know, Bob Berry, currently the plant manager of the Reid-Green plant and a 27-year veteran of both Big Rivers and WKE, who has also worked in various maintenance and management positions at the Coleman Plant, will assume the position of Vice President of Power Production following the "unwind." Since Bob has agreed to re-join Big Rivers in this capacity, I have worked closely with him and am quite comfortable with his knowledge, experience and management philosophy. Together, we have worked with the current Big Rivers' personnel who have primary plant monitoring responsibilities to develop a Production Work Plan which Bob and I believe will enable Big Rivers to safely meet the generation and reliability levels included in the "unwind" financial model.

Based on the activities described earlier as well as my experience with generating facilities of various design, size and age including some with similar characteristics as the Big Rivers' units, I am comfortable with the current condition of the generating facilities with the exception of the Coleman Unit 1 low pressure (LP) turbine rotor which is currently undergoing repairs found necessary during its regularly scheduled routine outage. Assuming that turbine is properly repaired, demonstrates it can operate normally and generate its rated output following its return to service prior to close of the "unwind" transaction, I will be comfortable with it as well.

Even though I am presently comfortable with the plant situation, there are still a number of conditions that must be met between now and the "unwind' closing before I will be completely satisfied that the plant due diligence portion of the Termination Agreement closing conditions are satisfied. For example, the plants must continue to operate without any significant abnormalities arising between now and the closing that would impact their ability to reliably generate at their rated levels and at their predicted cost profile. In addition, WKE must complete the 2008 Production Work Plan scheduled to occur up to closing and spend the budgeted funds necessary to complete that work. The units must also demonstrate their ability to operate at their rated output under normal conditions for eight continuous hours. Other due diligence items found, if any, will also need to be addressed to Big Rivers' satisfaction. If these conditions are not met, then WKE will either need to make satisfactory corrections similar to what I described earlier in the case of the Coleman 1 LP turbine and/or agree to other remedies which will permit Big Rivers to satisfactorily correct the deficiencies post-close and recover any modeled revenue lost in the process.

In closing, I want to reiterate a point noted earlier. Power plants are complex facilities with many things that can go wrong which will occasionally occur even in the best-managed operations. While Big Rivers' plant management plans to rely heavily on condition-based maintenance practices designed to detect, predict, and permit correction of major problem areas before they occur to minimize significant unplanned situations, they will still likely happen occasionally as they have in the past. If the "unwind" proceeds and these unexpected situations arise, Big Rivers will be much stronger financially and thus much better positioned to deal with them than we are at present.

I hope you find this information helpful in understanding how I have become and why I am currently comfortable with the plant conditions and also in understanding what must occur between now and closing for the plant portions of the Termination Agreement closing conditions to be satisfied.

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Item 88) Provide any and all internal E. ON documents which address the subject of existing agreements which are the subject of the "Unwind Transaction" and "Termination Transaction", including any financial analyses and strategic analyses.

Big Rivers files this supplement to its response to Item 88 of the 8 **Response**) 9 Attorney General's Supplemental Request for Information in response to requests by 10 the Attorney General and the Commission Staff for more information regarding the 11 generating plant and plant site due diligence Big Rivers is performing in anticipation of 12 the Unwind Transaction closing. This Supplemental Response relates to Draft 13 Settlement Concept No.15 presented at the June 14, 2008, Informal Conference in this 14 matter. Refer also to Tab 13 of Big Rivers' May 30, 2008 filing. Specifically, the 15 attached document was prepared to provide additional information to the Public Service Commission concerning follow-up action taken or planned in response to the Stanley 16 17 Consultants report dated April 2007 entitled "Analysis of WKE Outages". The Stanley 18 recommendations can be found in the Executive Summary of that report on pages vi 19 through x.

Witness) Mark A. Bailey Robert Berry

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Coleman Unit 1

1. Identify the cause of wet bottom tube leaks and take corrective action.

Big Rivers' Response:

The tubes in question were original to the unit and had been in service for approximately 39 years. During the unit's 2008 spring outage which is currently in progress, all lower slope tubes were replaced from the lower water wall header to the water wall transition line.

2. The cause of the unit trip on June 5, 2004 due to No. 4 turbine bearing vibration should be identified. Determine if future actions are required.

Big Rivers' Response:

The unit was returning to service from a planned outage and during start-up when the turbine was being brought to normal operating speed, the turbine developed an internal rub causing a bow in the rotor resulting in higher than normal vibration on bearing number 4. The unit was removed from service and the turbine placed on turning gear to allow the rotor to straighten and return to normal condition. No further action was required and the unit was returned to service. The turbine generator is currently undergoing a complete overhaul/inspection described in item 4 which follows.

3. Due to the installation of the AOFA systems in 2004 on Coleman Unit 1 boiler fire-side tube corrosion or erosion could have detrimental impacts. Implement a regular program of mapping boiler tube thickness to monitor.

Big Rivers' Response:

WKE currently utilizes a Computerized Maintenance Management System (CMMS) to manage boiler mapping. Within the CMMS, a job plan is established to monitor boiler fire-side tube corrosion or erosion impacts. This job plan includes: scaffolding of the boiler, non-destructive examination (NDE) of boiler tubes, visual inspections, collecting tube samples, and metallurgical analysis as part of each 3-year scheduled maintenance outage. This activity is also included in the Big Rivers' Production Work Plan. 4. Plan for Coleman Unit 1 turbine generator overhaul.

Big Rivers' Response:

The Coleman Unit 1 turbine generator inspection is currently in progress with a scheduled completion date of July 19, 2008. The following is a partial list identifying major items addressed during this outage: replacement of L-0 (last row of turbine blades before the steam exhausts to the condenser), L-1 (next to last row), and L-2 (2nd from last row) rows of LP turbine blades on both the generator and turbine ends of the turbine rotor, total generator inspection and electrical testing per the original equipment manufacturer (OEM) recommendations, generator exciter refurbishment, replacement of HP-IP (high pressure – intermediate pressure) stub shaft extension with new ruggedized rotor, turbine throttle valve modification for positive seating, complete inspection of HP & IP turbine rotor, shells, and turbine valve inspection.

Coleman Unit 2

1. Since the upper and lower reheater has been replaced recently, the cause of the reheater leaks noted in 2004 should be identified and corrective action taken.

Big Rivers' Response:

Coleman Unit 2 experienced two reheat tube leaks in 2004. Both leaks were a result of sootblower (steam blown into the boiler against the tubes to remove ash accumulation) erosion. This issue was corrected by installing tube shields in the sootblower lane to protect the tubes from erosion. Coleman Unit 2 did not experience any reheat tube leaks in 2005 or 2006.

2. Identify the cause of wet bottom tube leaks. Determine if future repairs are required.

Big Rivers' Response:

The tubes in question are original to the unit and have (had) been in service for approximately 38 years. During the unit's 2007 spring outage, nondestructive examination (NDE) inspections were performed and 35 (of abnormally thin-walled tubes) of the 270 lower slope tubes were replaced from the lower header to outside the affected area as a result of this inspection.

3. Due to the installation of the AOFA systems in 2004 on Coleman Unit 2 boiler fire-side tube corrosion or erosion could have detrimental impacts. Implement a regular program of mapping boiler tube thickness to monitor.

Big Rivers' Response:

As described earlier in response to a similar recommendation for Coleman Unit 1, WKE currently utilizes a Computerized Maintenance Management System (CMMS) to manage boiler mapping. Within the CMMS, a job plan is established to monitor boiler fire-side tube corrosion or erosion impacts. This job plan includes: scaffolding of the boiler, NDE of boiler tubes, visual inspections, tube samples, and metallurgical analysis as part of each 3-year scheduled maintenance outage. This activity is also included in the Big Rivers' Production Work Plan.

Coleman Unit 3

 New superheater tubes were installed in 2003. The cause of the superheater tube leaks since 2003 appear to have been evaluated in a Sheppard T. Powell report dated March 6, 2007. The Sheppard T. Powell report dated March 6, 2007 stated "...A portion of the tube has been submitted for alloy identification...." Obtain alloy identification report from Sheppard T. Powell.

Big Rivers' Response:

New Secondary superheater tubes were installed on this unit in 2003. The referenced Sheppard T. Powell (S.T.P.) report involved a primary superheater tube sample which was sent for analysis, not the secondary superheater tubes installed in 2003. On March 20, 2007, the station received the S.T.P. report confirming the tube composition is consistent with SA210 (designation number developed by the American Society for Testing and Materials (ASTM) which describes the mechanical properties of steel boiler tubing). This is consistent with the boiler design. A detailed boiler tube sampling program is included in the Big Rivers' Production Work Plan.

2. Stanley Consultants has insufficient information to determine if all necessary repairs and/or replacement items were performed during the fall 2006 turbine generator unplanned overhaul. In preparation for the next planned turbine generator overhaul, obtain list of spare parts, repair and/or replacement items as required.

Big Rivers' Response:

The Coleman Unit 3 turbine generator is currently operating within the original equipment manufacturer (OEM) specifications. Station personnel

have reviewed reports from the OEM related to the C3 turbine generator recommendations and will have spare parts, repairs, and replacement items as required for the planned outage currently scheduled for 2012. These items are included in the Big Rivers' long term plan.

3. Due to the installation of the AOFA systems in 2004 on Coleman Unit 3 boiler fire-side tube corrosion or erosion could have detrimental impacts. Implement a regular program of mapping boiler tube thickness to monitor.

Big Rivers' Response:

As described in previous responses within this document to similar recommendations, WKE currently utilizes a Computerized Maintenance Management System (CMMS) to manage boiler mapping. Within the CMMS, a job plan is established to monitor boiler fire-side tube corrosion or erosion impacts. This job plan includes: scaffolding of the boiler, nondestructive examination (NDE) of boiler tubes, visual inspections, tube samples, and metallurgical analysis as part of each 3-year scheduled maintenance outage. This activity is also included in the Big Rivers' Production Work Plan.

Green Unit 1

 Plan for overlay welding or laser cladding of furnace walls to address furnace wall corrosion due to the delayed combustion characteristics of the coal re-burn system which generate higher levels of hydrogen sulfide (H2S) resulting in higher corrosion rates of the furnace walls. Investigate the possibility of relocation of IR sootblowers or additional IR sootblowers to reduce fireside deposits and combustion tuning to reduce flame impingement.

Big Rivers' Response:

Weld overlay (boiler tubes with extra material welded over them) was installed on the furnace east and west walls during the spring 2007 scheduled outage. An area, 95 feet high by 35 feet wide was overlaid with Alloy 33 (ASTM designation) corrosion resistant material. Water wall mapping revealed no loss of tube metal on the north or the south Walls. Ultrasonic testing will be performed again during the 2010 scheduled outage. An additional \$2.6 million is included in the Big Rivers' Production Work Plan to apply additional weld overlay during the 2010 planned outage if testing results indicate it is needed. There are no plans to move the IR sootblowers. General Electric Energy Environmental Research (GE EER), the original equipment manufacturer (OEM) for the Re-burn/OFA (over fire air) system, completed combustion tuning in April of 2008. 2. Green Unit 1 has not been chemically cleaned since 1997. The analysis of both water wall tube samples removed by Babcock & Wilcox during the fall 2004 outage revealed internal deposit weight densities of 21 grams per square foot (gms/ft2) and 24 gms/ft2. The third-party inspection report states "...chemical cleaning should be performed when deposit weight densities reach 12 gm/ft2..." It is expected that Green Unit 1 requires cleaning at this time.

Big Rivers' Response:

Boiler chemical cleaning is performed using a condition-based approach rather than a time-based approach. The Green Unit 1 boiler tube sample analysis report by Sheppard T. Powell (S.T.P.) and Associates dated February 23, 2004 confirmed the boiler needs chemical cleaning. The Big Rivers' Production Work Plan includes chemical cleaning the Green Unit 1 boiler during the 2010 scheduled outage.

Green Unit 2

 Monitor the condition of 2005 overlay welding of furnace walls to address furnace wall corrosion due to the delayed combustion characteristics of the coal re-burn system which generate higher levels of hydrogen sulfide (H2S) resulting in higher corrosion rates of the furnace walls. Investigate the possibility of relocation of IR sootblowers or additional IR sootblowers to reduce fireside deposits and combustion tuning to reduce flame impingement.

Big Rivers' Response:

During the spring 2008 scheduled outage, water wall tube mapping was conducted to monitor the effectiveness of the water wall tube weld overlay that was installed in 2005. An area 35 feet wide by 85 feet high on both the east and west furnace side walls are weld overlaid with Inconel 622 (ASTM designation) corrosion-resistant material. Ultrasonic testing showed no metal loss in the weld overlay area or on the north and south burner walls. Ultrasonic testing will be conducted again during the 2009 scheduled outage and \$2 million is included in the Big Rivers' Production Work Plan for additional weld overlay if the testing indicates it is needed. There are no plans to move the IR soot blowers. General Electric Energy Environmental Research (GE EER), the original equipment manufacturer (OEM) for the Re-burn/OAF (over fire air) system, completed combustion tuning in April of 2008.

2. Green Unit 2 has not been chemically cleaned since 1990. The David N. French Metallurgist 2005 analysis of a water wall tube sample revealed a deposit weight

June 24, 2008

density of 15 gms/ft2. This third-party inspection report indicated the water wall tube was considered clean and a chemical clean was not needed at this time. This contradicts the Babcock & Wilcox recommendation of performing a chemical clean when deposit weight densities reach 12 gm/ft2. The Green Unit 2 spring 2005 outage work order (WO5079905 indicates Green Unit 2 was to be chemically cleaned during the spring 2005 outage. Verify Green Unit 2 was chemically cleaned during the 2005 spring outage.

Big Rivers' Response:

Boiler chemical cleaning is performed using a condition-based approach rather than a time-based approach. A tube sample analysis report (number 05-070) performed by Dr. David N. French (metallurgist whom WKE uses to evaluate tube sample deposits) suggests chemical cleaning of the boiler should be considered when the deposit weight density reaches 25 grams/ft2. Per Dr. French's' recommendation, the chemical cleaning was deferred until the next scheduled outage. The Big Rivers' Production Work plan includes chemical cleaning of the Green Unit 2 boiler during the 2009 scheduled outage.

HMPL Unit 1

1. New high temperature reheater tubes were installed in 1999, the cause of the high temperature reheater tube leak that occurred in 2006 should be identified and corrective action taken.

Big Rivers' Response:

According to the metallurgical analysis performed by Dr. David N. French (metallurgist whom WKE uses to evaluate tube sample deposits) and a Riley Power report (number 202302) dated June 6, 2008, the Henderson Unit 1 high-temp reheater tubes are failing due to thinning as a result of coal ash corrosion. The tubes have initial evidence of creep in the form of oxide cracking on the ID (inside diameter). While not in the current Big Rivers' Production Work Plan, current plans are to replace the high-temp reheat tubes at an estimated cost of \$1.8 million during the scheduled spring outage of 2009.

Funding for this project will come from other planned projects that are not of as high a priority (e.g. deferred projects); from budgeted funds that might not entirely be needed to complete planned projects (e.g. overbudgeted projects); or by adding to the budget later if it is determined that there are no budgeted lower priority projects that can be deferred or enough money left over from under-budgeted completed projects. As demonstrated in Big Rivers' response to the Attorney General's Supplemental Request for Information, items 94 and 95, even if the entire \$1.8 million is added to the Financial Forecast, the rate impact of this change for both the non-smelter members and the smelters would be minimal.

2. Review the January 29, 2007 root cause analysis report. Determine if any future repairs are required as a result of the most recent thermal event.

Big Rivers' Response

A total of fourteen tube samples were removed and sent to David N. French (metallurgist whom WKE uses to evaluate tube samples) to determine if any significant damage had occurred. These included four samples on the east wall, four samples on the west wall, and six samples from the south wall were removed at elevations 492' 10" and 512' 10" within the boiler. The final report was received from the laboratory on Thursday February 8, 2007; the conclusions of this report are as follows.

- There was no evidence of metallurgical degradation of the sample water wall tubes resulting from the coolant disruption.
- Typical microstructures were observed in the tubing, as for new SA-178 Gr.C (ASTM designation).
- There has been no significant loss of expected life of the boiler tubes from the low water event.
- Some inside diameter (ID) corrosion pitting was observed but deemed superficial.
- Deposit weight density was measured on a sample from each of the three walls, and the measurements showed the waterside to be clean. Even with the high temperature excursion, the tubes have not been oxidized on the waterside.

HMPL Unit 2

1. Verify the high temperature reheater is being replaced during fall 2007 outage. If not accomplished during the fall 2007 outage, confirm the high temperature reheater is on the spring 2008 outage schedule.

Big Rivers' Response:

The H-2 high-temp reheater was replaced in October of 2007.

Reid Unit

1. The cause of the superheater tube leaks should be identified and corrective action

taken.

Big Rivers' Response:

Tube sample analysis concludes the Reid Unit 1 primary superheater is approaching the end of its useful life. Due to changes in environmental regulations such as CAIR, 316b, NOx, PM 2.5 and mercury, Big Rivers has in its 2009 Production Work Plan to evaluate the spending levels needed to maintain the future reliability of the Reid unit.

2. The cause of the water wall tube leaks should be identified and corrective action taken.

Big Rivers' Response:

Reid Unit 1 experienced numerous tube leaks on the lower water wall header tube stubs. These tubes experienced thinning due to exposure in the corrosive area of the boiler bottom ash hopper seal water. The lower water wall header stubs were replaced in the spring of 2004 which eliminated the water wall leaks associated with the thinning tube stubs.

Wilson Unit

 The IMR metallurgical report dated June 16, 2006 states "...superheater Tube #1... a moderately dirty deposit density of 41.4 gm/ft2 was measured from internal deposits, which indicates that the tube would benefit from internal cleaning." Perform recommendations from metallurgical report. Continue annual submission of superheater tube samples for metallurgical review.

Big Rivers' Response:

Tube samples were collected from the platens and finishing superheater sections during the spring 2008 outage. The samples were sent to Dr. David N. French, (metallurgist whom WKE uses to evaluate tube sample deposits) for analysis. The reports from both the platens and the finishing tube samples indicated there was a very thin oxide layer and the internal condition was reported to be good. The Big Rivers' Production Work Plan includes the replacement of the Wilson superheater tubes during the fall 2009 outage.

2. The Wilson unit has not been chemically cleaned since 1997. The most recent metallurgical report Stanley Consultants has received to date from BREC is dated June 16, 2006 and prepared by IMR Metallurgical Services. This third-party inspection report stated "Waterside deposits/scale on the inside surfaces of the tubing were measured in accordance with ASTM D3483, Test Method A. The

measured value recorded from superheater tube was a maximum of 41.4 g/ft2, while the values recorded from the water wall tubing were "cleaner" with a maximum deposit of 13.95 g/ft2. The values recorded are a combination of oxide scale and/or internal deposition." The need to perform a chemical clean of this unit should be verified.

Big Rivers' Response:

Boiler chemical cleaning is performed on a condition-based approach rather than a time-based approach. During the 2008 spring outage, tube samples were collected and sent to Sheppard T. Powell for analysis. The report from the north wall tube sample has been received and indicated that no chemical cleaning is needed at this time. The report from the south wall tube sample analysis is still pending. The Big Rivers' Production Work Plan contains plans to chemical clean the Wilson unit during the fall 2009 outage since an earlier report (prior to the 2008 sample reports) indicated the unit was borderline concerning the need for chemical cleaning and the outage length was such that the cleaning could be accommodated without extending the outage length.

3. Review the future Wilson outage work lists and post work documentation related to the turbine generator incident to assure the recommended repairs and inspections as a result of the loss of lube oil event are completed.

Big Rivers' Response:

Remote continuous vibration monitoring is performed on the main turbine/ generator. The data has not indicated any serious problems. The Big Rivers' Production Work Plan includes a high pressure-intermediate pressure (HP/IP) turbine/generator inspection for 2009. A complete evaluation will be performed on the HP/IP rotor at this time. Appropriate corrective actions will be based upon the findings of this evaluation.

All Units

- 1. Boiler Tube Leaks:
 - a) A comprehensive assessment should be performed to determine the root cause of boiler tube failures. An investigation of all aspects of boiler operation, leading to a tube failure to fully understand the cause should be performed. For example, boiler water treatment, so scale, foaming, corrosion, caustic embrittlement, and turbine blade deposition can be avoided or minimized. Water chemistry, outage, and maintenance records should be requested to aid in root cause analyses of corrosion and deposit problems.

Big Rivers' Response:

In addition to the Computerized Maintenance Management System (CMMS) to manage boiler tube mapping described previously, Big Rivers will implement a formal root cause analysis process for all tube leak outages. The person identified to fill the newly created (within the Big Rivers post-unwind organization) Manager of Maintenance Services will work with staff at each plant to implement and monitor this process. The process will include metallurgical analysis of failed tubes and an adjacent tube in the same area.

b) The rate of damage and the effects of water and steam chemistry on erosion/corrosion, boiler tube corrosion, turbine blade pitting and cracking, feedwater heater and condenser tube corrosion, etc., should be identified and lead to planned outages and equipment repairs or replacement.

Big Rivers' Response:

Drum inspections, internal condenser inspections, boiler tube samples and turbine inspections conducted on all units in the Big Rivers' system indicate there have been no problems related to water chemistry. Regular monitoring of these areas will continue so that in the event water chemistry becomes an issue, it can be addressed promptly.

c) Physical evidence in all tube failures should be analyzed. High velocities occur during a tube leak that will remove deposits in the leaking or ruptured tube. Therefore, it is recommended that a tube similar to a tube which has failed, in the same area, be removed for proper analysis.

Big Rivers' Response:

When the cause of a boiler tube failure is not readily determined, Big Rivers plans to send the tube failure along with a tube in the adjacent area to either Sheppard T. Powell and Associates or Dr. David N. French (metallurgist whom WKE uses to analyze tube samples) for analysis including life assessment and deposit composition. This will continue to be a part of the root cause analysis process.

d) As tube failures occur, they should be tracked and any patterns analyzed for similarity. A better assessment of the causes of the tube leaks could be performed if there was more information on where these leaks occurred. Mapping of the tube leaks would show how close the tube leaks are to any sootblowers or other equipment that may have caused abrasion to the inside of the tubes. Failures should be used to determine the locations for the next set of tube samples. In addition, there is a need to sample for external attack such as reducing atmosphere, sulfur attack and erosion wear patterns.

Big Rivers' Response:

All stations track tube failures detailing the location of the leak(s), tube inaterial, size of tube and thickness, date of repair, length of repair and estimated cause of failure. In the future, Big Rivers plans that the analysis process will include a composite drawing identifying the location of each failure.

e) The boiler water treatment program should be audited for compliance with the recommended EPRI guidelines and/or plant chemical vendor guidelines.

Big Rivers' Response:

The boiler water treatment plan being utilized by Western Kentucky Energy which is planned to be continued under Big Rivers is the program recommended by Dave Cline with Sheppard T. Powell and Associates. Sheppard T. Powell's staff was instrumental in formulating the EPRI Boiler Treatment guidelines. All stations are following the EPRI guidelines.

f) A continuous and consistent program of sampling boiler, economizer, superheater and reheater tubes should be implemented.

Big Rivers' Response:

As a result of the Boiler Condition Assessment team work, during each scheduled_outage the CMMS system (described in earlier responses) automatically generates a work order for boiler tube samples to be taken from the water walls, nose arch, superheater, economizer and reheat sections of each unit's boiler. The tube samples are sent to either Sheppard T. Powell and Associates or Dr. David N. French (metallurgist whom WKE uses for tube analysis) for analysis including life assessment and deposit composition.

g) An annual review of the recorded boiler operating temperatures and pressures, as compared to design parameters, should be performed.

Big Rivers' Response:

Each station's Performance Engineer and Production Manager perform a routine daily evaluation of the parameters listed in this recommendation. In addition to the station's efforts, Coleman and Green

station both have a standing performance monitoring contract with Black and Veatch to continuously monitor station operating parameters, including operating temperatures and pressures. The Wilson plant will also utilize Black and Veatch for performance monitoring after Big Rivers resumes operation and HMP&L Station Two will do so when the new system controls are installed in 2010 which will accommodate this activity.

2. BREC should consider having a BREC plant transition site representative at all of the BREC stations. This site representative would require access to maintenance records, operating logs, performance reports, and other pertinent information.

Big Rivers' Response:

Big Rivers currently has a representative at each location and they have access to all pertinent information.

Exhibit MAB-9

Explanation of Increases in the 2009 – 2011 Production Work Plan Compared to the 2008 – 2010 Production Work Plan

The Operation and Maintenance expenses (O&M) in the 2009 - 2011 Production Work Plan increased a total of \$7.3 million dollars compared to the 2008 - 2010 Production Work Plan. The plan over plan changes in the Production Work Plan is captured in five primary categories.

1) Contractor Rates; The existing maintenance contract expires in December of 2008 and budgetary quotes indicate a 15% increase in labor rates associated with the maintenance contracts. This equates to approximately \$4.1M over the three year plan.

2) Cost of Materials; We are experiencing a significant increase in materials due to increased steel prices. We are also experiencing large increases in chemical costs which are needed to maintain boiler and cooling water chemistry, and significant increases in dredging and industrial cleaning contracts due to rising diesel fuel cost. This equates to approximately \$2.9M over the three-year plan.

3) Scope of Work; Outage inspections completed during the 2008 outage cycle has identified the need for additional work that was not included in the 2008 – 2010 Production Work Plan. This additional work is primarily in the FGD (scrubber) at Sebree and the Boiler and Fuel handling areas at Coleman. The total scope of work increase over the three year plan is \$4.6M.

4) Diesel/Gas Prices; Diesel and gasoline prices have increased approximately \$900k in the 2009 -2011 Production Work Plan compared to the 2008 – 2010 Production Work Plan. The diesel and gas is used in the heavy (mostly coal handling) equipment at the plant sites.

5) Catalyst Management Plan; The catalyst regeneration and replacement was considered O&M in the 2008 – 2010 Production Work Plan; however, after further review it was determined to follow the WKE capitalization policy and capitalize these items. The catalyst regeneration and replacement is now considered a capital expense in the 2009 – 2011 Production Work Plan. This reduced the O&M expense by approximately \$5.4M, thus the total net O&M increase to the Production Work Plan is \$7.3M over the three year period.

The 2009 - 2011 capital budgets increased \$12.2M compared to the previous plan. This increase is due to the timing of the Wilson FGD (scrubber) repairs. In the 2008 - 2010 Production Work Plan the Wilson FGD repair project was spread equally over a four year period. The 2009 - 2011 Production Work Plan aligns the necessary repairs with the outage schedule. A more detailed repair plan for the Wilson FGD has required most of the repair work to be completed during the scheduled outages and less work during the non-outage years. Over a four year time period (2009 through 2012) the net increase to

Year	2008 - 2010 Capital Plan		2009 - 2011 Capital Plan		Plan over Plan Variance	
2009	\$	53,791,816	\$	64,894,651	\$	(11,102,835)
2010	\$	44,602,914	\$	38,029,726	\$	6,573,188
2011	\$	49,223,817	\$	56,909,547	\$	(7,685,730)
2012	\$	43,636,516	\$	34,082,833	\$	9,553,683
Total	\$	191,255,063	\$	193,916,757	\$	(2,661,694)

the capital budget is \$2.6M which is due to the capitalization of the catalyst regeneration and replacement. The table below reflects the capital increases/decreases by year.

Non-Labor O&M Variance Explanations from prior Model										
<u>2009</u>	<u>Coleman</u>	<u>Wilson</u>	<u>Green</u>	<u>R/SII</u>	<u>Total</u>					
Contractor Rates	-	65,000	65,000	7,000	137,000					
Cost of Materials	595,000	160,830	192,400	188,057	1,136,287					
Fuel/Gas Prices	140,000		60,000	94,000	294,000					
Scope of Work	726,000	31,000	739,140	220,000	1,716,140					
Catalyst Moved to Capital	-	(1,700,000)	-	71	(1,700,000)					
Other	-	-	(19,908)	71,101	51,193					
Total Increase/(Decrease)	1,461,000	(1,443,170)	1,036,632	580,158	1,634,620					
<u>2010</u>	<u>Coleman</u>	<u>Wilson</u>	Green	<u>R/SII</u>	Total					
Contractor Rates	849,326	198,785	736,711		1,784,822					
Cost of Materials	547,000	251,560	177,900	50,112	1,026,572					
Fuel/Gas Prices	145,000	32,257	30,000	93,000	300,257					
Scope of Work	473,000	28,200	559,240	106,000	1,166,440					
Catalyst Moved to Capital	-	(1,400,000)	-	- QAT	(1,400,000)					
Other	-	-	(10,950)	77,986	67,036					
Total Increase/(Decrease)	2,014,326	(889,198)	1,492,901	327,098	2,945,127					
<u>2011</u>	<u>Coleman</u>	<u>Wilson</u>	Green	<u>R/SII</u>	<u>Total</u>					
Contractor Rates	1,066,000	470,135	643,845	2,244	2,182,224					
Cost of Materials	274,000	232,000	116,900	138,523	761,423					
Fuel/Gas Prices	145,000	-	24,000	92,963	261,963					
Scope of Work	1,082,000	39,000	522,340	91,206	1,734,546					
Catalyst Moved to Capital	-	(1,820,000)	-	(512,593)	(2,332,593)					
Other		+	(17,093)	83,339	66,246					
Total Increase/(Decrease)	2,567,000	(1,078,865)	1,289,992	(104,318)	2,673,809					

Exhibit MAB-10

Jim Garrett

Jim Garrett is currently the Plant Manager of the Sebree facility and a 25 year veteran with Big Rivers and WKEC. Jim has held various positions within Big Rivers and WKEC, such as plant manager, project manager over large capital projects, maintenance manager and superintendent of maintenance. Prior to joining Big Rivers, Jim was employed by the Tennessee Valley Authority from 1978 to 1983 as a machinist and supervisor.

Pat Waldeck

Pat Waldeck is currently the interim Plant Manager of the Coleman facility and a 38 year veteran with Big Rivers and WKEC. Pat has held various positions within Big Rivers and WKEC, such as production manager and construction / start-up coordinator at both the Wilson and Green facilities. From 1998 to 2003, Pat was employed by Covanta Energy as the plant manager of the Quezon facility in Quezon, Philippines.

Ron Gregory

Ron is currently the Plant Manager of the Wilson facility and a 32-year veteran with Big Rivers and WKEC. Ron has held various positions within Big Rivers and WKEC, such as maintenance manager, supervisor of maintenance, maintenance planner and maintenance supervisor.

Exhibit _____

VERIFICATION

I verify, state, and affirm that the foregoing testimony is true and correct to the best of my knowledge and belief.

Mark A. Bailey

COMMONWEALTH OF KENTUCKY) COUNTY OF HENDERSON)

SUBSCRIBED AND SWORN TO before me by Mark A. Bailey on this the $7\frac{4}{10}$ day of October, 2008.

Paula Mitchell Notary Public, Ky. State at Large

My Commission Expires 1-12-09

EXHIBIT 105

UPDATED BIG RIVERS WORK PLAN

(LOCATED IN SEPARATE BOOK)

EXHIBIT 106

BIG RIVERS RUS FORM 12