

**Exhibit No. CRM-2
Dockets UE-150204/UG-150205
Witness: Chris R. McGuire**

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

**AVISTA CORPORATION dba AVISTA
UTILITIES,**

Respondent.

**DOCKETS UE-150204 and
UG-150205
(Consolidated)**

**EXHIBIT TO
TESTIMONY OF**

Chris R. McGuire

**STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

Staff Electric Attrition Study

July 27, 2015

Revised October 13, 2015

REVISED

STAFF - 2016 ELECTRIC ATTRITION STUDY
 Edited from Avista Response to Staff Data Request No. 130
 Calculation of General Revenue Requirement
 Washington - Electric System
 Twelve Months Ended December 31, 2014
 (000's of Dollars)

Line No.	Description	(a) Attrition Balances	(b) Revenue Growth Factor	(c) Attrition Study Results
1	2016 Rate Base	4380443	1.013115	4362276 1,380,019
2	Settlement Rate of Return			7.29%
3	Net Operating Income Requirement			99340 100,603
4	2016 Net Operating Income (at 2015 rates)	\$104,513	1.013115	403164 104,611
5	2016 Rate of Return (at 2015 rates)			7.58%
6	2016 Net Operating Income Deficiency (Surplus)			(3851) (4,008) [Line 3 - Line 4]
7	Gross-up Conversion Factor			0.62018
8	2016 Attrition Revenue Deficiency (Surplus)			(6299) (6,462)
9	2016 Total General Business Revenues (at 2015 rates)			499,982 [CRM-2, pg. 4, col. H, Lines 1-2]
10	Attrition-based 2016 revenue requirement			493773 493,520 [Line 8 + Line 9]
11	Percent Revenue Requirement Change (vs. 2015)			-24% 1.292%
12	Staff Pro Forma 2016 revenue requirement			479,047 [CHS-2]
13	Attrition Allowance			14726 14,473 [Line 10 - Line 12]

Multiparty Settlement - Cost of Capital
Washington - Electric System
Twelve Months Ended December 31, 2014

Proposed Cap Structure			
<u>Component</u>	<u>Capital Structure</u>	<u>Cost</u>	<u>Weighted Cost</u>
Total Debt	51.50%	5.20%	2.68%
Common	48.50%	9.50%	4.61%
Total	<u>100.00%</u>		<u>7.29%</u>

Revenue Conversion Factor
Washington - Electric System
Twelve Months Ended December 31, 2014

Line No.	Description	<i>Factor</i>
1	Revenues	<i>1.000000</i>
	Expense:	
2	Uncollectibles	0.005353
3	Commission Fees	0.002000
4	Washington Excise Tax	0.038527
5	Total Expense	<u>0.045880</u>
6	Net Operating Income Before FIT	<i>0.954120</i>
7	Federal Income Tax @ 35%	<u>0.333942</u>
8	REVENUE CONVERSION FACTOR	<u><u>0.620180</u></u>

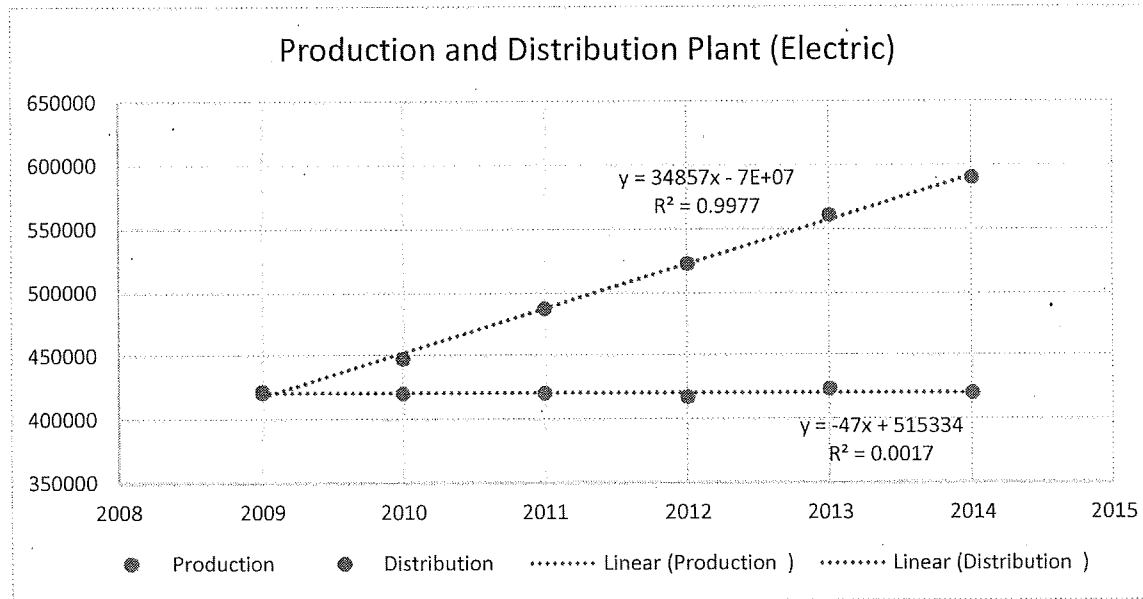
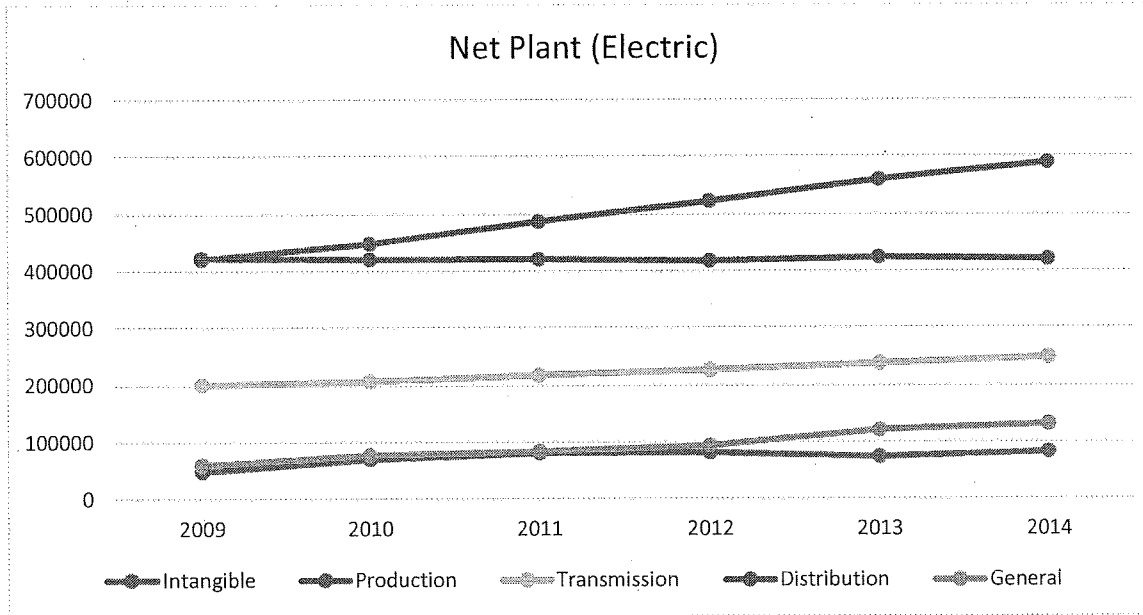
2016 ELECTRIC ATTRITION REVENUE REQUIREMENT

CER Line Number	DESCRIPTION	Determine Base Cost and Revenue to Escalate				Escalate Non-Energy Cost				Other Cost & Revenue Adjis.				
		12.2014 Commission Basis Report Restated	12.2014 (less) Normalized Net Power Supply [B]	Deferred Debit/Credit & Reg. Amorts Adjis [C]	Pro Forma Revenue Normalization Adjustment [D]	December 2014 Escalation Base [E]	Escalation Factor [F]	Non-Energy Cost Escalation Amount [G]	Trended 2016 Non-Energy Cost [H]	(plus) 12.2014 Pro-Formed Net Energy Cost [I]	Revenue Growth [J]	After Attrition Adj - CS2/Colstrip Incremental O&M Exp [K]	After Attrition Adj - Project Compass [L]	2016 Revenue and Cost [M]
1	Total General Business	\$ 488,372	\$ -	\$ -	\$ 10,688	\$ 499,060	1.31%	\$ 499,060	\$ 499,060	\$ 6,545	\$ -	\$ -	\$ -	\$ -505,605
2	Interdepartmental Sales	\$ 922	\$ -	\$ -	\$ -	\$ 922	1.31%	\$ 922	\$ 922	\$ 12	\$ -	\$ -	\$ -	\$ 934
3	Sales for Resale	\$ 60,998	\$ (60,998)	\$ -	\$ -	\$ -		\$ -	\$ -	\$ (2,595)	\$ -	\$ -	\$ -	\$ 51,162
4	Subtotal: Sales of Electricity	\$ 550,292	\$ (60,998)	\$ -	\$ 10,688	\$ 499,982		\$ 499,982	\$ 499,982	\$ 3,962	\$ -	\$ -	\$ -	\$ 557,701
5	Other Revenue	\$ 17,163	\$ (13,684)	\$ -	\$ -	\$ 3,479	0.00%	\$ 3,479	\$ 3,479	\$ -	\$ -	\$ -	\$ -	\$ 14,008
6	Total Electric Revenue	\$ 567,455	\$ (74,682)	\$ -	\$ 10,688	\$ 503,461		\$ 503,461	\$ 503,461	\$ 3,962	\$ -	\$ -	\$ -	\$ 571,709
EXPENSES														
Production and Transmission														
7	Operating Expenses	\$ 120,307	\$ (69,476)	\$ -	\$ -	\$ 50,831	4.82%	\$ 2,450	\$ 53,281	\$ -	\$ 180	\$ -	\$ -	\$ 142,767
8	Purchased Power	\$ 116,643	\$ (116,641)	\$ -	\$ -	\$ 2	9.55%	\$ -	\$ 2	\$ 1,907	\$ -	\$ -	\$ -	\$ 71,520
9	Depreciation/Amortization	\$ 23,715	\$ -	\$ -	\$ -	\$ 23,715	0.00%	\$ 2,264	\$ 25,979	\$ -	\$ -	\$ -	\$ -	\$ 25,979
10	Regulatory Amortization	\$ 8,101	\$ -	\$ -	\$ -	\$ 6,719	11.96%	\$ -	\$ 6,719	\$ -	\$ -	\$ -	\$ -	\$ 6,719
11	Taxes	\$ 12,828	\$ -	\$ -	\$ -	\$ 12,828		\$ 1,534	\$ 14,362	\$ -	\$ -	\$ -	\$ -	\$ 14,362
12	Subtotal: Production and	\$ 281,594	\$ (186,117)	\$ (1,382)	\$ -	\$ 94,095		\$ 6,248	\$ 100,343	\$ 1,907	\$ 180	\$ -	\$ -	\$ 263,520
Distribution														
13	Operating Expenses	\$ 21,299	\$ -	\$ -	\$ -	\$ 21,299	4.82%	\$ 1,026	\$ 22,325	\$ -	\$ -	\$ -	\$ -	\$ 22,325
14	Depreciation/Amortization	\$ 23,794	\$ -	\$ -	\$ -	\$ 23,794	9.55%	\$ 2,272	\$ 26,066	\$ -	\$ -	\$ -	\$ -	\$ 26,066
15	Regulatory Amortizations	\$ 25,575	\$ -	\$ -	\$ -	\$ 25,575	11.96%	\$ 3,108	\$ 29,095	\$ 252	\$ -	\$ -	\$ -	\$ 29,347
16	Taxes	\$ 70,568	\$ -	\$ -	\$ -	\$ 71,080		\$ 6,407	\$ 77,487	\$ -	\$ -	\$ -	\$ -	\$ 77,739
17	Customer Accounting	\$ 11,166	\$ -	\$ -	\$ 57	\$ 11,223	4.82%	\$ 541	\$ 11,764	\$ 35	\$ -	\$ -	\$ -	\$ 11,799
18	Customer Service & Information	\$ 1,383	\$ -	\$ -	\$ -	\$ 1,383	4.82%	\$ 67	\$ 1,450	\$ -	\$ -	\$ -	\$ -	\$ 1,450
19	Sales Expenses	\$ -	\$ -	\$ -	\$ -	\$ -	4.82%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	Administrative & General	\$ 46,210	\$ -	\$ -	\$ 21	\$ 46,231	4.82%	\$ 2,228	\$ 48,459	\$ 13	\$ -	\$ -	\$ -	\$ 48,472
21	Operating Expenses	\$ 16,947	\$ -	\$ -	\$ -	\$ 16,947	9.55%	\$ 1,618	\$ 18,565	\$ -	\$ -	\$ -	\$ -	\$ 18,565
22	Depreciation/Amortization	\$ -	\$ -	\$ -	\$ -	\$ -	11.96%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
23	Taxes	\$ 63,157	\$ -	\$ -	\$ 21	\$ 63,178		\$ 3,846	\$ 67,024	\$ 13	\$ -	\$ -	\$ -	\$ 67,024
24	Subtotal: A&G	\$ 427,968	\$ (186,117)	\$ (1,382)	\$ 490	\$ 240,959		\$ 17,108	\$ 258,067	\$ 2,207	\$ 180	\$ 3,087	\$ -	\$ 428,459
25	Total Electric Expenses	\$ 139,487	\$ 111,435	\$ 1,382	\$ 10,198	\$ 262,502		\$ (17,108)	\$ 245,394	\$ (100,631)	\$ 1,755	\$ (3,087)	\$ -	\$ 145,278

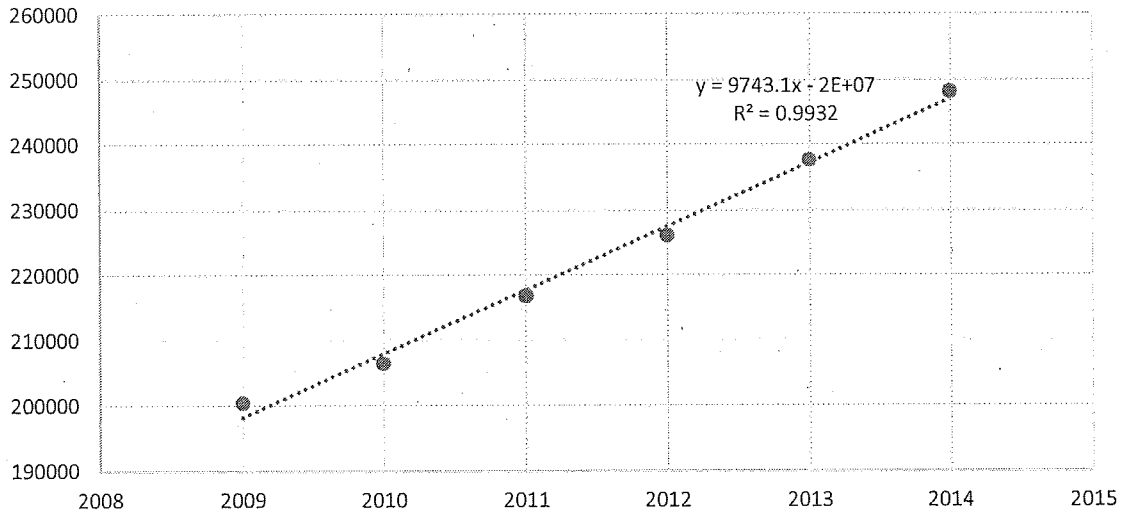
2016 ELECTRIC ATTRITION REVENUE REQUIREMENT

\$000s	Determine Base Cost and Revenue to Escalate				Escalate Non-Energy Cost				Other Cost & Revenue Adj				
	12.2014 Commission Basis Report Totals [A]	(less) 12.2014 Normalized Net Power Supply [B]	Deferred Debit/Credit & Reg. Amorts Adj [C]	Pro Forma Revenue Normalization Adjustment [D]	December 2014 Escalation Base [E]	Escalation Factor [F]	Non- Energy Escalation Amount [G]	Trended 2016 Non- Energy Cost Escalation [E]+[G]=[H]	(plus) 12.2014 Pro- Formed Net Energy Cost [I]	Revenue Growth [U]	After Attrition Adj - CS2/Colstrip Incremental O&M Exp [K]	After Attrition Adj - Project Compass [M]	2016 Revenue and Cost [H]-[I]-[J]=[K]
26	Federal Income Tax												
27	Current Accrual	\$ (7,683)	\$ 39,002	\$ 484	\$ 3,569	\$ 35,372	\$ (5,988)	\$ 29,384	\$ (63)	\$ 614	\$ (1,080)	\$ 6366	5657
28	Debt Interest	\$ (136)	\$ -	\$ (132)	\$ -	\$ (268)	\$ (586)	\$ (854)	\$ -	\$ -	\$ (339)	\$ 854	1005
29	Deferred Income Taxes	\$ 46,085	\$ -	\$ -	\$ -	\$ 46,085	\$ -	\$ 46,085	\$ -	\$ -	\$ -	\$ -	46,085
30	Amortized ITC - Noxon	\$ (128)	\$ -	\$ -	\$ -	\$ (128)	\$ -	\$ (128)	\$ -	\$ -	\$ -	\$ -	(\$128)
31	NET OPERATING INCOME	\$ 101,349	\$ 72,433	\$ 1,030	\$ 6,629	\$ 181,441	\$ (10,535)	\$ 170,906	\$ (65,410)	\$ 1,141	\$ (2,007)	\$ 144,511	105,983
	RATE BASE												
32	Plant in Service												
33	Intangible	\$ 102,620	\$ -	\$ -	\$ -	\$ 102,620	7.83%	\$ 8,034	\$ 110,654	\$ -	\$ 39,518	\$ 140,654	150,172
34	Production	\$ 746,101	\$ -	\$ -	\$ -	\$ 746,101	7.83%	\$ 58,410	\$ 804,511	\$ -	\$ -	\$ 804,511	\$ 401,091
35	Transmission	\$ 371,971	\$ -	\$ -	\$ -	\$ 371,971	7.83%	\$ 29,120	\$ 401,091	\$ -	\$ -	\$ 401,091	\$ 908,775
36	Distribution	\$ 842,795	\$ -	\$ -	\$ -	\$ 842,795	7.83%	\$ 65,980	\$ 908,775	\$ -	\$ -	\$ 908,775	\$ 212,279
37	General	\$ 196,867	\$ -	\$ -	\$ -	\$ 196,867	7.83%	\$ 15,412	\$ 212,279	\$ -	\$ -	\$ 212,279	\$ 247,682
38	Subtotal, Plant in Service	\$ 2,260,354	\$ -	\$ -	\$ -	\$ 2,260,354		\$ 176,956	\$ 2,437,310	\$ -	\$ -	\$ 2,437,310	\$ 2,437,310
39	Accumulated Depreciation and Amortization	\$ (20,242)	\$ -	\$ -	\$ -	\$ (20,242)	7.83%	\$ (1,585)	\$ (21,827)	\$ -	\$ (1,543)	\$ (21,826)	(23,370)
40	Production	\$ (325,531)	\$ -	\$ -	\$ -	\$ (325,531)	7.83%	\$ (25,485)	\$ (351,016)	\$ -	\$ -	\$ (351,016)	\$ (351,016)
41	Transmission	\$ (123,869)	\$ -	\$ -	\$ -	\$ (123,869)	7.83%	\$ (9,697)	\$ (133,566)	\$ -	\$ -	\$ (133,566)	\$ (133,566)
42	Distribution	\$ (252,722)	\$ -	\$ -	\$ -	\$ (252,722)	7.83%	\$ (19,785)	\$ (272,507)	\$ -	\$ -	\$ (272,507)	\$ (272,507)
43	General	\$ (65,720)	\$ -	\$ -	\$ -	\$ (65,720)	7.83%	\$ (5,145)	\$ (70,865)	\$ -	\$ -	\$ (70,865)	\$ (70,865)
44	Subtotal, Accumulated Depreciation and Amortization	\$ (788,084)	\$ -	\$ -	\$ -	\$ (788,084)		\$ (61,697)	\$ (849,781)	\$ -	\$ -	\$ (849,781)	(851,324)
45	Net Plant	\$ 1,472,270	\$ -	\$ -	\$ -	\$ 1,472,270		\$ 115,259	\$ 1,587,529	\$ -	\$ -	\$ 1,587,529	1,625,504
46	Deferred Taxes	(257,766)	\$ -	\$ -	\$ -	\$ (257,766)	7.83%	\$ (20,180)	\$ (277,946)	\$ (484)	\$ (1543)	\$ (279,790)	(279,790)
47	Net Plant After Deferred taxes	\$ 1,214,504	\$ -	\$ -	\$ -	\$ 1,214,504		\$ 95,080	\$ 1,309,584	\$ -	\$ -	\$ 1,309,584	1,345,715
48	Deferred Debits and Credits	10,846	\$ 13,250	\$ (6,250)	\$ -	\$ 24,596	0.00%	\$ -	\$ 24,596	\$ -	\$ -	\$ 24,596	4,596
49	Working Capital	47,807	\$ -	\$ -	\$ -	\$ 47,807	0.00%	\$ -	\$ 47,807	\$ -	\$ -	\$ 47,807	47,807
50	TOTAL RATE BASE	\$ 1,273,157	\$ -	\$ 13,750	\$ -	\$ 1,286,907		\$ 95,080	\$ 1,381,987	\$ -	\$ -	\$ 1,381,987	1,398,118
51	RATE OF RETURN	7.96%											7.58%
52	ATTRITION ADJUSTED REVENUE REQUIREMENT	7.29%											7.29%
53	Proposed Rate of Return	92,813											101,923
54	Return on Plant in Service at Proposed	(8,536)											(40,600)
55	Operating Income Deficiency	0.62018											0.62018
56	Revenue Conversion Factor	(13,764)											(6,547)
57	Revenue Requirement												1,013,115
58	Revenue Growth Factor												(6,462)
59	Attrition Adjusted Revenue Requirement												

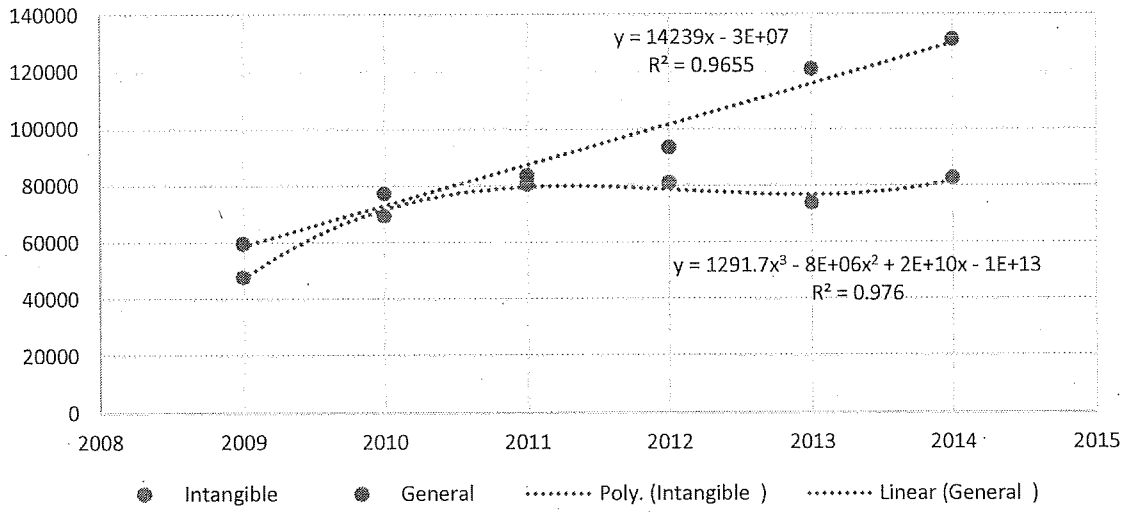
NET PLANT	2009	2010	2011	2012	2013	2014
Intangible	47814	69349	80337	80878	73799	82378
Production	422256	420349	420594	417278	423716	420570
Transmission	200441	206464	216868	226066	237633	248102
Distribution	420874	447550	486981	522324	560439	590073
General	59574	77177	83524	93233	120777	131147



Transmission Plant (Electric)

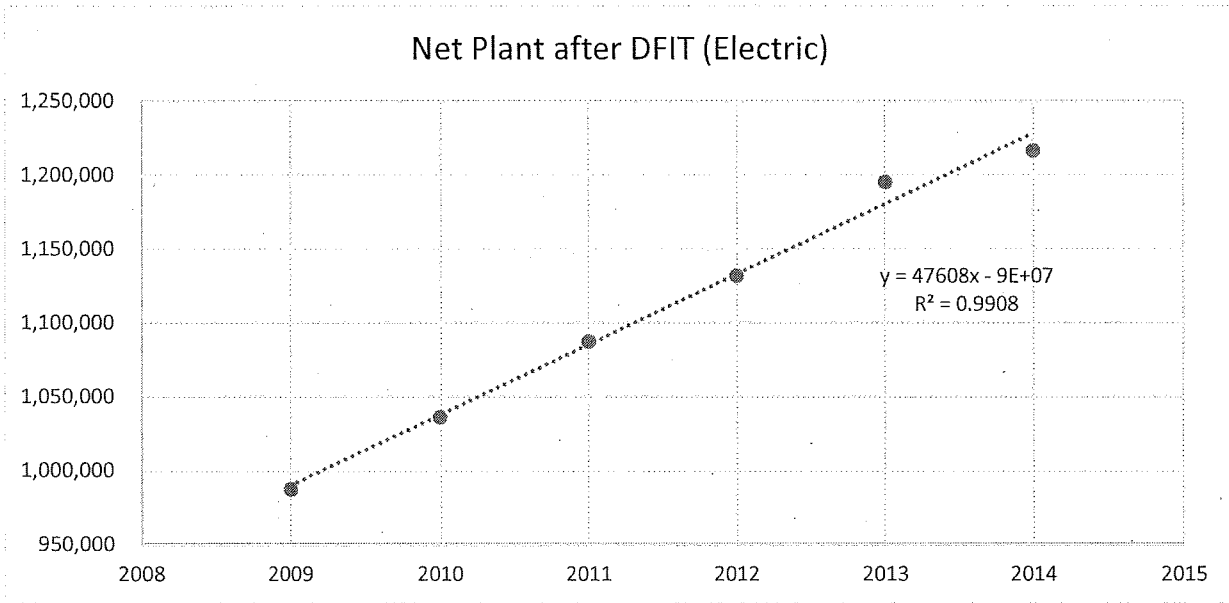


General and Intangible Plant (Electric)



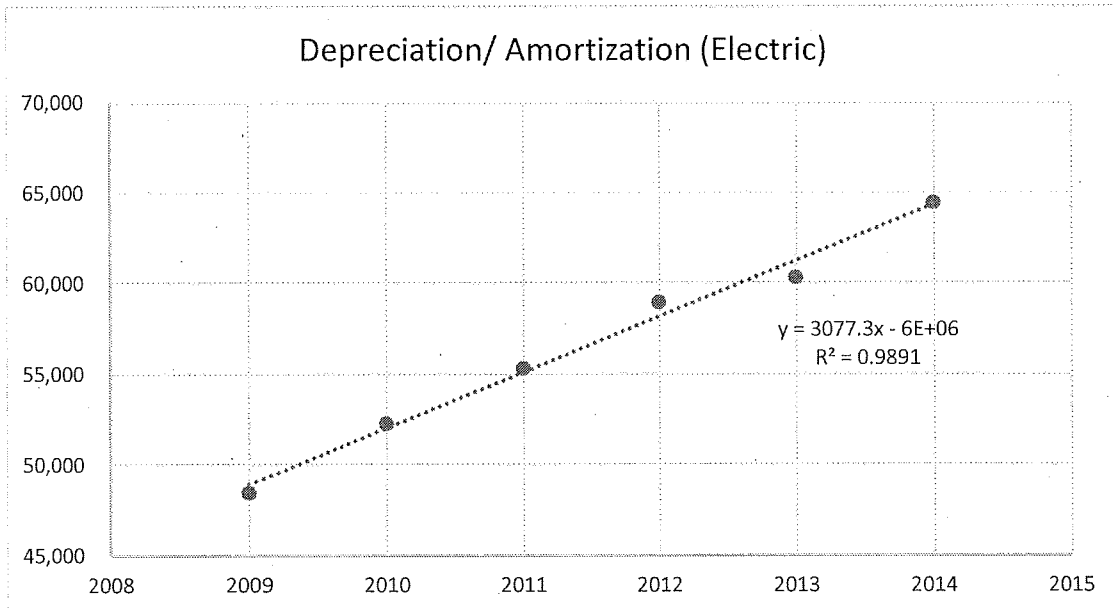
	2009	2010	2011	2012	2013	2014
Net Plant after DFIT	987,243	1,036,064	1,087,141	1,131,570	1,195,010	1,216,245

Annual Increase (slope below) 47,608
 Rate (Annual) 3.91%
 Rate (2-year, to 2016) **7.83%** (Escalation Factor)



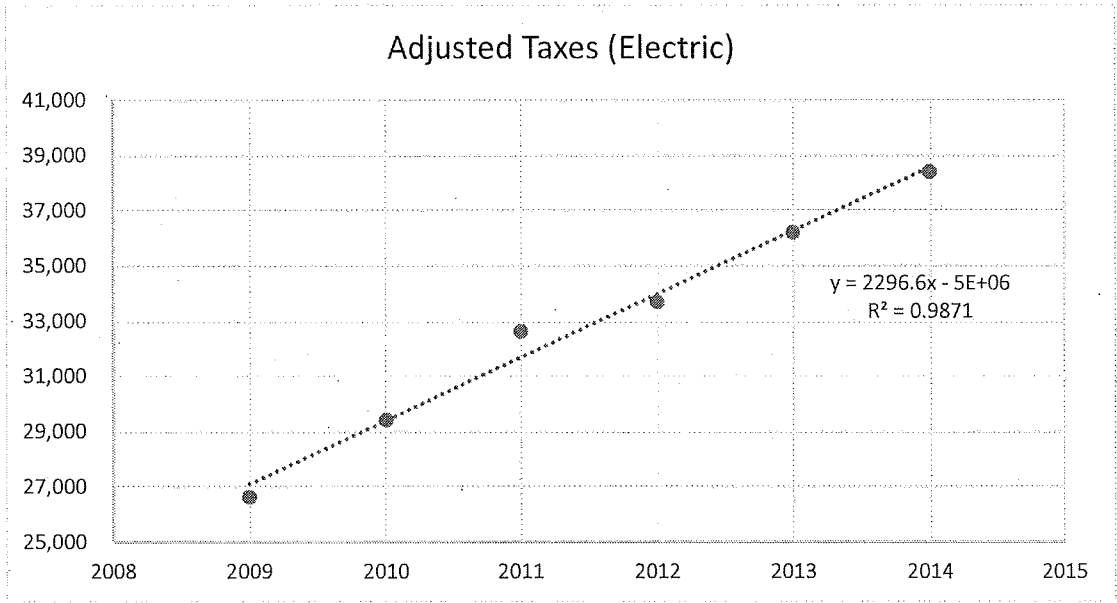
	2009	2010	2011	2012	2013	2014
Depreciation/ Amortization	48,466	52,270	55,304	58,946	60,308	64,456

Annual Increase (slope below) 3,077
 Rate (Annual) 4.77%
 Rate (2-year, to 2016) **9.55%** (Escalation Factor)



	2009	2010	2011	2012	2013	2014
Adjusted Taxes	26,617	29,412	32,614	33,701	36,201	38,403

Annual Increase (slope below) 2,297
 Rate (Annual) 5.98%
 Rate (2-year, to 2016) **11.96%** (Escalation Factor)



	2009	2010	2011	2012	2013	2014
Adj. Op Exp (2007-2014, excl. 2011-2012)	108,289	113,650			128,510	130,891
Adj. Op Exp (2011-2012)			123,419	134,594		
Adj. Op Exp (2013-2014)					128,510	130,891

	Slope	Rate (1yr)	Escalation
Rate (2013-2014, linear, slope below)	2,381.0	1.82%	3.64%
Company-proposed (2007-2014, linear)	3,926.7	3.00%	6.00%
Average		2.41%	4.82%

