

**EXH. KJB-26  
DOCKETS UE-170033/UG-170034  
2017 PSE GENERAL RATE CASE  
WITNESS: KATHERINE J. BARNARD**

**BEFORE THE  
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,**

**Complainant,**

**v.**

**PUGET SOUND ENERGY,**

**Respondent.**

**Docket UE-170033  
Docket UG-170034**

**NINTH EXHIBIT (NONCONFIDENTIAL) TO THE  
PREFILED REBUTTAL TESTIMONY OF**

**KATHERINE J. BARNARD**

**ON BEHALF OF PUGET SOUND ENERGY**

**AUGUST 9, 2017**

**PUGET SOUND ENERGY - ELECTRIC  
DEPRECIATION STUDY COMPARISON  
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2016  
2017 GENERAL RATE CASE**

LINE NO.	DESCRIPTION	(A)		(B)		(C)		(D)		(E)		(F)		(G)		(H)	
		ACTUAL	RESTATE	ADJ.	RESTATE	ADJ.	Colstrip 3&4 2025 Retirement	RESTATE	ADJ.	Colstrip 3&4 2025 Retirement	RESTATE	ADJ.	Colstrip 3&4 2029 Retirement	RESTATE	ADJ.	Colstrip 3&4 2029 Retirement	RESTATE
1	403 ELEC. DEPR. EXP.	\$ 249,419,038	\$ 306,788,478	\$ 57,369,439	\$ 320,541,050	\$ 71,122,012	\$ 13,752,572	\$ 387,189	\$ 1,739,314	\$ 13,752,572	\$ 1,739,314	\$ 312,305,209	\$ 62,886,171	\$ 5,516,732			
2	403 ELEC. PORTION OF COMMON	15,207,048	13,232,379	(1,974,669)	13,232,379	(1,974,669)	-	-	-	-	-	13,232,379	(1,974,669)	-			
3	403 DEPR. EXP. ON ASSETS NOT IN STUDY	55,938	55,938	-	55,938	-	-	-	-	-	-	55,938	-	-			
4	404 DEPR. EXP. ON ASSETS NOT IN STUDY	29,770,695	29,770,695	-	29,770,695	-	-	-	-	-	-	29,770,695	-	-			
5	SUBTOTAL DEPRECIATION EXPENSE	294,452,719	349,847,490	55,394,771	363,600,062	69,147,343	13,752,572	387,189	1,739,314	13,752,572	1,739,314	355,364,221	60,911,503	5,516,732			
6																	
7	403.1 DEPR. EXP. - FAS 143 (IN RATES)	1,352,125	1,739,314	387,189	1,739,314	387,189	-	387,189	1,739,314	-	1,739,314	387,189	387,189	-			
8	403.1 DEPR. EXP. - FAS 143 (NOT IN RATES)	1,476,017	-	(1,476,017)	-	(1,476,017)	-	(1,476,017)	-	-	(1,476,017)	-	(1,476,017)	-			
9	SUBTOTAL DEPR. EXP. - 403.1	2,828,141	1,739,314	(1,088,827)	1,739,314	(1,088,827)	-	1,739,314	1,739,314	-	1,739,314	1,739,314	(1,088,827)	-			
10																	
11	TOTAL DEPRECIATION EXPENSE	297,280,860	351,586,804	54,305,943	365,339,376	68,058,516	13,752,572	387,189	1,739,314	13,752,572	1,739,314	357,103,535	59,822,675	5,516,732			
12													59,822,675				
13	<b>AMORTIZATION EXPENSE</b>																
14	411.10 ACCRETION EXP. - FAS 143 (IN RATES)	1,424,661	1,820,785	396,124	1,820,785	396,124	-	396,124	1,820,785	-	1,820,785	396,124	396,124	-			
15	411.10 ACCRETION EXP. - FAS 143 (NOT IN RATES)	1,148,003	-	(1,148,003)	-	(1,148,003)	-	(1,148,003)	-	-	(1,148,003)	-	(1,148,003)	-			
16	SUBTOTAL ACCRETION EXPENSE 411.10	2,572,664	1,820,785	(751,879)	1,820,785	(751,879)	-	396,124	1,820,785	-	1,820,785	396,124	(751,879)	-			
17																	
18	FLEET DEPRECIATION EXPENSE IN FERC 403	846,819	539,849	(306,970)	539,849	(306,970)	-	(306,970)	539,849	-	539,849	(306,970)	(306,970)	-			
19																	
20																	
21	INCREASE(DECREASE) EXPENSE			\$ 53,247,094	\$ 66,999,666	\$ 13,752,572	\$ 13,752,572	\$ 33,499,833	\$ 66,999,666	\$ 13,752,572	\$ 33,499,833	\$ 58,763,826	\$ 29,381,913	\$ 2,758,366			
22	FIT			(18,636,483)	35%	(23,449,883)	(4,813,400)	11,724,942	(23,449,883)	(4,813,400)	11,724,942	(20,567,339)	10,283,670	965,428			
23				(34,610,611)	35%	(43,549,783)	(8,939,172)	(21,774,892)	(43,549,783)	(8,939,172)	(21,774,892)	(38,196,487)	(19,098,243)	(1,792,938)			
24	INCREASE(DECREASE) NOI																
25																	
26	<b>ADJUSTMENT TO RATE BASE</b>																
27	ADJ TO ACCUM. DEPR. AT 50% DEPREC. EXP LINE 1			(26,623,547)		(26,623,547)		(26,623,547)			(26,623,547)		(26,623,547)				
28	DFIT			9,318,241		9,318,241		9,318,241			9,318,241		9,318,241				
29	TOTAL ADJUSTMENT TO RATEBASE			(17,305,306)		(17,305,306)		(17,305,306)			(17,305,306)		(17,305,306)				
30																	
31																	
32																	
33																	
34																	
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36																	
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40																	
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**REVENUE REQUIREMENT EFFECT**

**REVENUE REQUIREMENT EFFECT**

**REVENUE REQUIREMENT EFFECT**

**REVENUE REQUIREMENT EFFECT**

CHANGE IN RATEBASE  
RATE OF RETURN 7.74%  
CHANGE IN NOI

DELTA BETWEEN ROR & NOI  
CONVERSION FACTOR 0.619051  
EFFECT ON REVENUE REQUIREMENT

\$ (4,469,586)  
(345,946)  
(8,985,946)  
8,640,000  
\$ 13,956,847

\$ (2,758,366)  
(213,498)  
(3,604,639)  
3,391,141  
\$ 5,477,968

ACCT. NO.	DESCRIPTION	ACQUISITION VALUE	CURRENT DEPRECIATION EXPENSE	CURRENT RATE %	PROPOSED RATE	Diff % RATE	PROPOSED DEPRECIATION EXPENSE AMOUNT	INCREASE (DECREASE) AMOUNT COLSTRIP 3&4 2025	INCREASE (DECREASE) ORIGINAL ADJUSTMENT	INCREASE (DECREASE) DUE TO 2025 RETIREMENT DATE
<b>ELECTRIC PLANT</b>										
<b>WITH 2025 RETIREMENT DATE FOR COLSTRIP 3&amp;4</b>										
<b>STEAM PRODUCTION PLANT</b>										
311.00	STRUCTURES AND IMPROVEMENTS									
	COLSTRIP 3	\$ 29,664,979.16	\$ 394,296.39	1.33%	4.25%	319.89%	\$ 1,261,312.21	\$ 867,015.82	\$ 271,505.12	\$ 595,510.70
	COLSTRIP 4	27,862,834.57	394,869.37	1.42%	4.59%	323.26%	1,276,448.27	881,578.90	273,459.58	608,119.32
	COLSTRIP 3-4	70,065,640.60	870,869.90	1.31%	3.94%	301.03%	2,621,547.75	1,750,677.85	525,494.71	1,225,183.14
	<b>TOTAL STRUCTURES AND IMPROVEMENTS</b>	127,593,454.33	1,660,035.66	1.30%	4.04%	310.80%	5,159,308.23	3,499,272.57	1,070,459.41	2,428,813.16
312.00	BOILER PLANT EQUIPMENT									
	COLSTRIP 3	137,645,881.58	1,974,272.86	1.44%	5.24%	363.88%	7,183,907.38	5,209,634.52	1,739,844.96	3,469,789.56
	COLSTRIP 4	126,930,413.23	1,998,527.38	1.64%	5.88%	358.56%	7,165,950.77	5,167,423.39	1,674,131.50	3,493,291.89
	COLSTRIP 3-4	15,254,041.73	228,489.08	1.49%	5.08%	340.62%	778,273.55	549,784.47	178,631.95	371,152.52
	<b>TOTAL BOILER PLANT EQUIPMENT</b>	279,830,336.54	4,201,289.32	1.50%	5.41%	360.08%	15,128,131.70	10,926,842.38	3,592,608.41	7,334,233.97
314.00	TURBOGENERATOR UNITS									
	COLSTRIP 3	42,228,337.04	794,063.43	1.87%	8.66%	463.33%	3,679,161.68	2,885,098.25	1,136,236.86	1,748,861.39
	COLSTRIP 4	39,133,170.24	722,141.74	1.92%	8.34%	434.39%	3,136,901.80	2,414,760.06	885,747.15	1,529,012.91
	<b>TOTAL TURBOGENERATOR UNITS</b>	81,361,507.28	1,516,205.17	1.86%	8.38%	449.55%	6,816,063.48	5,299,858.31	2,021,984.00	3,277,874.30
315.00	ACCESSORY ELECTRIC EQUIPMENT									
	COLSTRIP 3	6,769,581.50	84,348.44	1.28%	5.08%	397.21%	335,036.53	250,688.09	86,596.79	164,091.30
	COLSTRIP 4	6,474,413.60	85,465.65	1.40%	5.98%	427.27%	365,167.03	279,701.38	101,221.81	178,479.57
	COLSTRIP 3-4	7,639,006.24	97,796.07	1.28%	4.49%	350.72%	342,990.89	245,194.82	79,131.31	166,063.51
	<b>TOTAL ACCESSORY ELECTRIC EQUIP</b>	20,883,001.34	267,610.16	1.28%	5.00%	389.82%	1,043,194.44	775,584.28	266,949.91	508,634.37
316.00	MISC POWER PLANT EQUIPMENT									
	COLSTRIP 3	1,043,990.99	20,272.79	2.01%	8.60%	428.04%	86,775.79	66,503.00	23,406.39	43,096.62
	COLSTRIP 4	1,165,681.21	21,861.16	1.93%	8.64%	447.54%	97,837.46	75,976.30	27,548.28	48,428.02
	COLSTRIP 1-4	251,533.56	3,471.12	1.38%	3.72%	269.36%	9,349.88	5,878.76	1,503.82	4,374.95
	COLSTRIP 3-4	4,444,375.42	72,443.28	1.63%	5.13%	315.00%	228,192.88	155,749.60	48,632.65	107,116.94
	<b>TOTAL MISC POWER PLANT EQUIP</b>	6,905,581.18	118,048.35	1.71%	6.11%	357.61%	422,156.02	304,107.67	101,091.14	203,016.53
	<b>TOTAL STEAM PRODUCTION PLANT</b>	\$ 516,573,880.67	\$ 7,763,188.66			\$	\$ 28,568,853.87	\$ 20,805,665.21	\$ 7,053,092.88	\$ 13,752,572.33

ACCOUNT NUMBER	DESCRIPTION	ACQUISITION VALUE	CURRENT DEPRECIATION EXPENSE	CURRENT RATE %	PROPOSED RATE	Diff % RATE	PROPOSED DEPRECIATION EXPENSE AMOUNT	INCREASE (DECREASE) AMOUNT COLSTRIP 3&4 2029	INCREASE (DECREASE) AMOUNT ORIGINAL ADJUSTMENT	INCREASE (DECREASE) DUE TO 2029 RETIREMENT DATE	COLSTRIP 3&4
<b>ELECTRIC PLANT</b>											
<b>WITH 2029 RETIREMENT DATE FOR COLSTRIP 3&amp;4</b>											
<b>STEAM PRODUCTION PLANT</b>											
311.00	STRUCTURES AND IMPROVEMENTS										
	COLSTRIP 3	29,664,979.16	394,296.39	1.33%	3.02%	227.12%	895,524.12	501,227.73	\$ 271,505.12	\$	229,722.61
	COLSTRIP 4	27,862,834.57	394,869.37	1.42%	3.33%	234.62%	926,456.18	531,586.81	273,459.58		258,127.23
	COLSTRIP 3-4	70,065,640.60	870,869.90	1.31%	2.81%	214.27%	1,866,021.10	995,151.20	525,494.71		469,656.49
	<b>TOTAL STRUCTURES AND IMPROVEMENTS</b>	127,593,454.33	1,660,035.66	1.30%	2.89%	222.16%	3,688,001.40	2,027,965.74	1,070,459.41		957,506.33
312.00	BOILER PLANT EQUIP										
	COLSTRIP 3	137,645,881.58	1,974,272.86	1.44%	3.73%	258.88%	5,111,001.29	3,136,728.43	1,739,844.96		1,396,883.47
	COLSTRIP 4	126,930,413.23	1,998,527.38	1.64%	4.17%	254.30%	5,082,284.63	3,083,757.25	1,674,131.50		1,409,625.75
	COLSTRIP 3-4	15,254,041.73	228,489.08	1.49%	3.63%	243.44%	556,243.72	327,754.64	178,631.95		149,122.69
	<b>TOTAL BOILER PLANT EQUIP</b>	279,830,336.54	4,201,289.32	1.50%	3.84%	255.86%	10,749,529.64	6,548,240.32	3,592,608.41		2,955,631.91
314.00	TURBOGENERATOR UNITS										
	COLSTRIP 3	42,228,337.04	794,063.43	1.87%	6.23%	333.15%	2,645,423.04	1,851,359.61	1,136,236.86		715,122.75
	COLSTRIP 4	39,133,170.24	722,141.74	1.92%	5.89%	306.83%	2,215,713.59	1,493,571.85	885,747.15		607,824.71
	<b>TOTAL TURBOGENERATOR UNITS</b>	81,361,507.28	1,516,205.17	1.86%	5.97%	320.61%	4,861,136.63	3,344,931.46	2,021,984.00		1,322,947.46
315.00	ACCESSORY ELECTRIC EQUIPMENT										
	COLSTRIP 3	6,769,581.50	84,348.44	1.28%	3.57%	279.05%	235,373.72	151,025.28	86,596.79		64,428.49
	COLSTRIP 4	6,474,413.60	85,465.65	1.40%	4.18%	298.69%	255,279.27	169,813.62	101,221.81		68,591.81
	COLSTRIP 3-4	7,639,006.24	97,796.07	1.28%	3.16%	247.16%	241,709.50	143,913.43	79,131.31		64,782.12
	<b>TOTAL ACCESSORY ELEC EQUIP</b>	20,883,001.34	267,610.16	1.28%	3.51%	273.67%	732,362.49	464,752.33	266,949.91		197,802.42
316.00	MISC POWER PLANT EQUIP										
	COLSTRIP 3	1,043,990.99	20,272.79	2.01%	6.09%	303.20%	61,466.95	41,194.16	23,406.39		17,787.78
	COLSTRIP 4	1,165,681.21	21,861.16	1.93%	6.04%	313.04%	68,434.53	46,573.37	27,548.28		19,025.08
	COLSTRIP 1-4	251,533.56	3,471.12	1.38%	2.73%	197.97%	6,871.91	3,400.79	1,503.82		1,896.98
	COLSTRIP 3-4	4,444,375.42	72,443.28	1.63%	3.72%	228.05%	165,209.91	92,766.63	48,632.65		44,133.98
	<b>TOTAL MISC POWER PLANT EQUIP</b>	6,905,581.18	118,048.35	1.71%	4.37%	255.81%	301,983.31	183,934.96	101,091.14		82,843.81
	<b>TOTAL STEAM PRODUCTION PLANT</b>	\$ 516,573,880.67	\$ 7,763,188.66	1.50%	3.94%	261.92%	\$ 20,333,013.47	\$ 12,569,824.81	\$ 7,053,092.88		\$ 5,516,751.93

**COPY OF ADJUSTMENT KJB-20.06**

**PUGET SOUND ENERGY - ELECTRIC  
DEPRECIATION STUDY  
FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2016  
2017 GENERAL RATE CASE**

<b>LINE NO.</b>	<b>DESCRIPTION</b>	<b>ACTUAL</b>	<b>RESTATED</b>	<b>ADJUSTMENT</b>
1	403 ELEC. DEPRECIATION EXPENSE	\$ 249,419,038	\$ 306,788,478	\$ 57,369,439
2	403 ELEC. PORTION OF COMMON	15,207,048	13,232,379	(1,974,669)
3	403 DEPR. EXP. ON ASSETS NOT INCLUDED IN STUDY	55,938	55,938	-
4	404 DEPR. EXP. ON ASSETS NOT INCLUDED IN STUDY	29,770,695	29,770,695	-
5	SUBTOTAL DEPRECIATION EXPENSE	<u>294,452,719</u>	<u>349,847,490</u>	<u>55,394,771</u>
6				
7	403.1 DEPR. EXP- FAS 143 (RECOVERED IN RATES)	1,352,125	1,739,314	387,189
8	403.1 DEPR. EXP - FAS 143 (NOT RECOVERED IN RATES)	1,476,017	-	(1,476,017)
9	SUBTOTAL DEPRECIATION EXPENSE 403.1	<u>2,828,141</u>	<u>1,739,314</u>	<u>(1,088,827)</u>
10				
11	TOTAL DEPRECIATION EXPENSE	<u>297,280,860</u>	<u>351,586,804</u>	<u>54,305,943</u>
12				
13	<b><u>AMORTIZATION EXPENSE</u></b>			
14	411.10 ACCRETION EXP. - FAS 143 (RECOVERED IN RATES)	1,424,661	1,820,785	396,124
15	411.10 ACCRETION EXP. - FAS 143 (NOT RECOVERED IN RATES)	1,148,003	-	(1,148,003)
16	SUBTOTAL ACCRETION EXPENSE 411.10	<u>2,572,664</u>	<u>1,820,785</u>	<u>(751,879)</u>
17				
18				
19	FLEET DEPRECIATION EXPENSE IN FERC 403	<u>846,819</u>	<u>539,849</u>	<u>(306,970)</u>
20				
21				
22	INCREASE(DECREASE) EXPENSE			\$ 53,247,094
23	FIT		35%	(18,636,483)
24	INCREASE(DECREASE) NOI			<u>\$ (34,610,611)</u>
25				
26				
27	<b><u>ADJUSTMENT TO RATE BASE</u></b>			
28	ADJUSTMENT TO ACCUM. DEPREC. AT 50% DEPREC. EXPENSE LINE 19	50%		\$ (26,623,547)
29	DFIT			9,318,241
30	TOTAL ADJUSTMENT TO RATEBASE			<u>\$ (17,305,306)</u>

**PUGET SOUND ENERGY - ELECTRIC**  
**DEPRECIATION STUDY WITH 2025 RETIREMENT DATE FOR COLSTRIP 3&4**  
**FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2016**  
**2017 GENERAL RATE CASE**

LINE NO.	DESCRIPTION	ACTUAL	RESTATED	ADJUSTMENT
1	403 ELEC. DEPRECIATION EXPENSE	\$ 249,419,038	\$ 320,541,050	\$ 71,122,012
2	403 ELEC. PORTION OF COMMON	15,207,048	13,232,379	(1,974,669)
3	403 DEPR. EXP. ON ASSETS NOT INCLUDED IN STUDY	55,938	55,938	-
4	404 DEPR. EXP. ON ASSETS NOT INCLUDED IN STUDY	29,770,695	29,770,695	-
5	SUBTOTAL DEPRECIATION EXPENSE	<u>294,452,719</u>	<u>363,600,062</u>	<u>69,147,343</u>
6				
7	403.1 DEPR. EXP- FAS 143 (RECOVERED IN RATES)	1,352,125	1,739,314	387,189
8	403.1 DEPR. EXP - FAS 143 (NOT RECOVERED IN RATES)	1,476,017	-	(1,476,017)
9	SUBTOTAL DEPRECIATION EXPENSE 403.1	<u>2,828,141</u>	<u>1,739,314</u>	<u>(1,088,827)</u>
10				
11	TOTAL DEPRECIATION EXPENSE	<u>297,280,860</u>	<u>365,339,376</u>	<u>68,058,516</u>
12				
13	<b><u>AMORTIZATION EXPENSE</u></b>			
14	411.10 ACCRETION EXP. - FAS 143 (RECOVERED IN RATES)	1,424,661	1,820,785	396,124
15	411.10 ACCRETION EXP. - FAS 143 (NOT RECOVERED IN RATES)	1,148,003	-	(1,148,003)
16	SUBTOTAL ACCRETION EXPENSE 411.10	<u>2,572,664</u>	<u>1,820,785</u>	<u>(751,879)</u>
17				
18				
19	FLEET DEPRECIATION EXPENSE IN FERC 403	<u>846,819</u>	<u>539,849</u>	<u>(306,970)</u>
20				
21				
22	INCREASE(DECREASE) EXPENSE			\$ 66,999,666
23	FIT		35%	(23,449,883)
24	INCREASE(DECREASE) NOI			<u>\$ (43,549,783)</u>
25				
26				
27	<b><u>ADJUSTMENT TO RATE BASE</u></b>			
28	ADJUSTMENT TO ACCUM. DEPREC. AT 50% DEPREC. EXPENSE LINE 19	50%		\$ (33,499,833)
29	DFIT			11,724,942
30	TOTAL ADJUSTMENT TO RATEBASE			<u>\$ (21,774,892)</u>

**PUGET SOUND ENERGY - ELECTRIC**  
**DEPRECIATION STUDY WITH 2029 RETIREMENT DATE FOR COLSTRIP 3&4**  
**FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2016**  
**2017 GENERAL RATE CASE**

LINE NO.	DESCRIPTION	ACTUAL	RESTATED	ADJUSTMENT
1	403 ELEC. DEPRECIATION EXPENSE	\$ 249,419,038	\$ 312,305,209	\$ 62,886,171
2	403 ELEC. PORTION OF COMMON	15,207,048	13,232,379	(1,974,669)
3	403 DEPR. EXP. ON ASSETS NOT INCLUDED IN STUDY	55,938	55,938	-
4	404 DEPR. EXP. ON ASSETS NOT INCLUDED IN STUDY	29,770,695	29,770,695	-
5	SUBTOTAL DEPRECIATION EXPENSE	<u>294,452,719</u>	<u>355,364,221</u>	<u>60,911,503</u>
6				
7	403.1 DEPR. EXP- FAS 143 (RECOVERED IN RATES)	1,352,125	1,739,314	387,189
8	403.1 DEPR. EXP - FAS 143 (NOT RECOVERED IN RATES)	1,476,017	-	(1,476,017)
9	SUBTOTAL DEPRECIATION EXPENSE 403.1	<u>2,828,141</u>	<u>1,739,314</u>	<u>(1,088,827)</u>
10				
11	TOTAL DEPRECIATION EXPENSE	<u>297,280,860</u>	<u>357,103,535</u>	<u>59,822,675</u>
12				
13	<b><u>AMORTIZATION EXPENSE</u></b>			
14	411.10 ACCRETION EXP. - FAS 143 (RECOVERED IN RATES)	1,424,661	1,820,785	396,124
15	411.10 ACCRETION EXP. - FAS 143 (NOT RECOVERED IN RATES)	1,148,003	-	(1,148,003)
16	SUBTOTAL ACCRETION EXPENSE 411.10	<u>2,572,664</u>	<u>1,820,785</u>	<u>(751,879)</u>
17				
18				
19	FLEET DEPRECIATION EXPENSE IN FERC 403	<u>846,819</u>	<u>539,849</u>	<u>(306,970)</u>
20				
21				
22	INCREASE(DECREASE) EXPENSE			\$ 58,763,826
23	FIT		35%	(20,567,339)
24	INCREASE(DECREASE) NOI			<u>\$ (38,196,487)</u>
25				
26				
27	<b><u>ADJUSTMENT TO RATE BASE</u></b>			
28	ADJUSTMENT TO ACCUM. DEPREC. AT 50% DEPREC. EXPENSE LINE 19	50%		\$ (29,381,913)
29	DFIT			10,283,670
30	TOTAL ADJUSTMENT TO RATEBASE			<u>\$ (19,098,243)</u>