

**Exh. CRM-2
Dockets UE-190334, UG-190335,
and UE-190222
Witness: Chris R. McGuire**

**BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

**AVISTA CORPORATION, d/b/a
AVISTA UTILITIES,**

Respondent.

**DOCKETS UE-190334, UG-190335,
and UE-190222 (*Consolidated*)**

**EXHIBIT TO
TESTIMONY OF**

Chris R. McGuire

**STAFF OF
WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION**

Electric Revenue Requirement Growth Model

October 3, 2019

STAFF'S ANALYSIS				
Line No.	Electric Revenue Growth Rate Calculation - Rate Year 2: Category	(a)	(b)	(c)
		Growth Rate 2014-2018	Revenue Portion of Category	Growth Rate % (a) x (b)
1	Operating Expenses	2.18%	35.55%	0.77%
2	Depreciation/Amortization	6.73%	21.94%	1.48%
3	Taxes Other than Income	3.01%	10.05%	0.30%
4	Net Plant After ADFIT (REMOVED)	0.00%	32.46%	0.00%
5	Annual Growth In Sales Revenue		100.00%	-0.88%
6	Total Revenue Growth Rate %			1.67%
7	Net Plant After ADFIT (IF INCLUDED)	5.28%	32.46%	1.71%
8	Total Revenue Growth Rate %			3.38%
		No RB esc	w/ RB esc	
9	Revenue Base	\$ 411,394		
10	Revenue Increase Year 1	\$ 17,618		Exh. JH-2
11	Escalation Base	\$ 429,012		
12	Year 2 Increase	\$ 7,154	\$ 14,509	

AS FILED BY AVISTA				
	Electric Revenue Growth Rate Calculation - Rate Year 2: Category	(a)	(b)	(c)
		Growth Rate 2014-2018	Revenue Portion of Category	Growth Rate % (a) x (b)
	Operating Expenses ⁽¹⁾	2.42%	35.55%	0.86%
	Depreciation/Amortization ⁽²⁾	8.34%	21.94%	1.83%
	Taxes Other than Income	4.00%	10.05%	0.40%
	Net Plant After ADFIT	5.95%	32.46%	1.93%
	Annual Growth In Sales Revenue		100.00%	-0.88%
	Total Revenue Growth Rate %			4.14%
See Exh. EMA- 4, pg. 4 for growth rates and pg. 2 for revenue proportion and annual growth in sales revenue.				
⁽¹⁾ Reflects a 30 basis points efficiency adjustment in O&M expenses.				
⁽²⁾ The growth rate in depreciation/amortization expense is primarily driven by shorter-lived assets representing a higher proportion of investment in recent years.				

AVISTA UTILITIES

WASHINGTON ELECTRIC RESULTS

REVENUE GROWTH RATE CALCULATION
TWELVE MONTHS ENDED DECEMBER 31, 2021
(000'S OF DOLLARS)

Line No.	DESCRIPTION	12.2018 CBR Results Restated TOTAL	Remove Authorized Power Supply Authorized Remove Power Supply	Non-Energy Restated Total
	Adjustment Number Workpaper Reference	R-Ttl	Remove	NE-Total
	REVENUES			
1	Total General Business	\$496,969	(100,725)	\$396,244
2	Interdepartmental Sales	1,101	-	1,101
3	Sales for Resale	42,344	(42,344)	-
4	Total Sales of Electricity	540,414	(143,069)	397,345
5	Other Revenue	18,053	(9,967)	8,086
6	Total Electric Revenue	558,467	(153,036)	405,431
	EXPENSES			
	Production and Transmission			
7	Operating Expenses	132,992	(74,599)	58,393
8	Purchased Power	73,968	(73,968)	-
9	Depreciation/Amortization	28,724	-	28,724
10	Regulatory Amortization	3,308	-	3,308
11	Taxes	16,795	-	16,795
12	Total Production & Transmission	255,787	(148,567)	107,220
	Distribution			
13	Operating Expenses	23,753	-	23,753
14	Depreciation/Amortization	32,066	-	32,066
	Regulatory Amortization	-	-	-
15	Taxes	28,420	(\$3,887)	24,533
16	Total Distribution	84,239	(3,887)	80,352
17	Customer Accounting	11,983	(\$381)	11,602
18	Customer Service & Information	1,551	-	1,551
19	Sales Expenses	59	-	59
	Administrative & General			
20	Operating Expenses	51,109	(\$201)	50,908
21	Depreciation/Amortization	29,471	-	29,471
22	Regulatory Deferrals/Amortization	(1,999)	-	(1,999)
23	Taxes	-	-	-
24	Total Admin. & General	78,581	(201)	78,380
25	Total Electric Expenses	432,200	(153,036)	279,164
26	OPERATING INCOME BEFORE FIT	126,267	-	126,267
	FEDERAL INCOME TAX			
27	Current Accrual	12,179	-	12,179
28	Debt Interest	126	-	126
29	Deferred Income Taxes	1,014	-	1,014
30	Amortized ITC - Noxon	(317)	-	(317)
31	NET OPERATING INCOME	113,266	-	113,266
	RATE BASE PLANT IN SERVICE			
32	Intangible	\$189,271	\$0	\$189,271
33	Production	905,266	-	905,266
34	Transmission	477,024	-	477,024
35	Distribution	1,086,668	-	1,086,668
36	General	260,548	-	260,548
37	Total Plant in Service	2,918,777	-	2,918,777
	ACCUMULATED DEPRECIATION/AMORT			
38	Intangible	(43,469)	-	(43,469)
39	Production	(365,167)	-	(365,167)
40	Transmission	(140,271)	-	(140,271)
41	Distribution	(335,270)	-	(335,270)
42	General	(93,140)	-	(93,140)
43	Total Accumulated Depreciation	(977,317)	-	(977,317)
44	NET PLANT	1,941,460	-	1,941,460
45	DEFERRED TAXES	(411,001)	-	(411,001)
46	Net Plant After DFIT	1,530,459	-	1,530,459
47	DEFERRED DEBITS AND CREDITS &	(2,139)	-	(2,139)
48	WORKING CAPITAL	46,614	-	46,614
49	TOTAL RATE BASE	\$1,574,934	\$0	1,574,934

STAFF'S ANALYSIS					
REVENUE GROWTH RATE CALCULATION					
Authorized ROR					
Component	Capital Structure	Cost	Weighted Cost		Tax on equity return
Total Debt	51.5%	5.62%	2.89%		Tax
Common	48.5%	9.50%	4.61%		26.58%
Total	100.00%		7.50%		1.23%
			Tax on Equity Return	1.23%	
			Total % to apply to RB	8.73%	
	Revenue on CB Less PS*	Portion of Total	2014-2018 Growth Rate		
Depreciation	90,261	21.94%	6.73%		
O&M	146,266	35.55%	2.18%		
Taxes OTI	41,328	10.05%	3.01%		
Net Plant After ADFIT	1,530,459	133,539	32.46%	5.28%	
		100.00%			
Non PS Revenue		\$ 411,394	Non-ERM revenues (1)		
*includes revenue related expenses (1) Non-ERM Revenues, covering investment-related costs and operating expenses.					
Revenues Growth: (see w/ps - 2.25 years from 2018 to 03.31.2021)					
			Annual		
			\$ 11,822	\$ 3,638	
			Revenue Growth to remove: -0.88%		
		04.2021-03.2022 Growth Rate			
Depreciation		1.48%			
O&M		0.77%			
Taxes OTI		0.30%			
Net Plant After ADFIT		0.00%			
Revenues		-0.88%			
TOTAL		1.67%			

AS FILED BY AVISTA					
REVENUE GROWTH RATE CALCULATION					
Authorized ROR					
Component	Capital Structure	Cost	Weighted Cost		Tax on equity return
Total Debt	51.5%	5.62%	2.89%		Tax
Common	48.5%	9.50%	4.61%		26.58%
Total	100.00%		7.50%		1.23%
			Tax on Equity Return	1.23%	
			Total % to apply to RB	8.73%	
	Revenue on CB Less PS*	Portion of Total	2014-2018 Growth Rate		
Depreciation	90,261	21.94%	8.34%		O&M Includes 30 bps Efficiency Reduction
O&M	146,266	35.55%	2.42%		
Taxes OTI	41,328	10.05%	4.00%		
Net Plant After ADFIT	1,530,459	133,539	32.46%	5.95%	
		100.00%			
Non PS Revenue		\$ 411,394	Non-ERM revenues (1)		
*includes revenue related expenses (1) Non-ERM Revenues, covering investment-related costs and operating expenses.					
Revenues Growth: (see w/ps - 2.25 years from 2018 to 03.31.2021)					
			Annual		
			\$ 11,822	\$ 3,638	
			Revenue Growth to remove: -0.88%		
		04.2021-03.2022 Growth Rate			
Depreciation		1.83%			
O&M		0.86%			includes efficiency adj.
Taxes OTI		0.40%			
Net Plant After ADFIT		1.93%			
Revenues		-0.88%			
TOTAL		4.14%			

ELECTRIC COST AND REVENUE TREND CALCULATIONS 2014-2018

Commission Basis Results of Operations

AVISTA UTILITIES

(000'S OF DOLLARS)

Line	2014	2015	2016	2017	2018
No. REVENUES					
1 Total General Business	\$488,372	\$497,229	\$492,413	\$493,969	\$496,969
2 Interdepartmental Sales	922	928	946	1,005	1,101
3 Sales for Resale	60,998	49,505	57,854	57,892	42,344
4 Total Sales of Electricity	550,292	547,662	551,213	552,866	540,414
5 Other Revenue	17,163	16,920	17,310	21,855	18,053
6 Total Electric Revenue	567,455	564,582	568,523	574,721	558,467
EXPENSES					
Production and Transmission					
7 Operating Expenses	120,307	140,485	136,385	136,766	132,992
8 Purchased Power	116,643	85,107	78,794	77,895	73,968
9 Depreciation/Amortization	23,715	24,947	26,676	27,841	28,724
10 Regulatory Amortization	8,101	5,974	4,706	3,597	3,308
11 Taxes	12,828	14,133	14,654	14,743	16,795
12 Total Production & Transmission	281,594	270,646	261,215	260,842	255,787
Distribution					
13 Operating Expenses	21,299	24,056	21,415	21,461	23,753
14 Depreciation/Amortization	23,794	25,379	27,819	29,786	32,066
15 Taxes	25,821	27,448	27,287	27,300	28,420
16 Total Distribution	70,914	76,883	76,521	78,547	84,239
17 Customer Accounting	11,166	12,363	13,021	12,312	11,983
18 Customer Service & Information	1,383	1,454	1,406	1,449	1,551
19 Sales Expenses	0	0	0	0	59
Administrative & General					
20 Operating Expenses	46,210	49,942	48,989	47,166	51,109
21 Depreciation/Amortization	16,947	21,503	23,877	25,247	27,999
22 Regulatory Deferrals/Amortizati	0	0	0	(254)	(527)
23 Taxes	0	0	0	0	0
24 Total Admin. & General	63,157	71,445	72,866	72,159	78,581
25 Total Electric Expenses	428,214	432,791	425,029	425,309	432,200
26 OPERATING INCOME BEFORE FT	139,241	131,791	143,494	149,412	126,267
FEDERAL INCOME TAX					
27 Current Accrual	(7,683)	4,968	(29,081)	7,621	12,179
28 Debt Interest	(136)	1	21	27	125
29 Deferred Income Taxes	46,085	29,492	67,191	30,867	1,014
30 Amortized ITC - Noxon	(128)	(129)	(326)	(226)	(317)
	0	0	0	0	0
31 NET OPERATING INCOME	\$101,103	\$97,459	\$105,689	\$111,123	\$113,266
(1) Corrected excise tax error in 2014-2015.					
RATE BASE					
PLANT IN SERVICE					
32 Intangible	\$102,620	\$144,970	\$156,057	\$163,474	\$189,271
33 Production	746,101	779,441	832,833	879,704	905,266
34 Transmission	371,971	401,700	430,613	451,003	477,024
35 Distribution	842,795	895,055	970,455	1,033,739	1,086,668
36 General	196,867	212,726	233,266	242,339	260,548
37 Total Plant in Service	2,260,354	2,433,892	2,623,224	2,770,259	2,918,777
ACCUMULATED DEPRECIATION/AMORT					
38 Intangible	20,242	24,943	30,914	37,059	43,469
39 Production	325,531	342,899	351,625	352,091	365,167
40 Transmission	123,869	129,936	135,624	136,838	140,271
41 Distribution	252,722	273,578	295,383	314,013	335,270
42 General	65,720	73,050	80,093	85,360	93,140
43 Total Accumulated Depreciation	788,084	844,406	893,639	925,361	977,317
44 NET PLANT	1,472,270	1,589,486	1,729,585	1,844,898	1,941,460
45 DEFERRED TAXES	(257,766)	(317,860)	(353,900)	(396,851)	(411,008)
46 Net Plant After Deferred Inco	1,214,504	1,271,626	1,375,685	1,448,047	1,530,452
47 DEFERRED DEBITS AND CREDIT	10,846	7,458	4,566	2,110	(2,132)
48 WORKING CAPITAL	47,807	59,722	62,474	63,549	46,614
49 TOTAL RATE BASE	\$1,273,157	\$1,338,806	\$1,442,726	\$1,513,706	\$1,574,934

ELECTRIC COST AND REVENUE TREND CALCULATIONS 2014-2018

AVISTA UTILITIES 7.94% 7.28% 7.33% 7.34% 7.19%
WASHINGTON ELECTRIC RESULTS
(000'S OF DOLLARS)

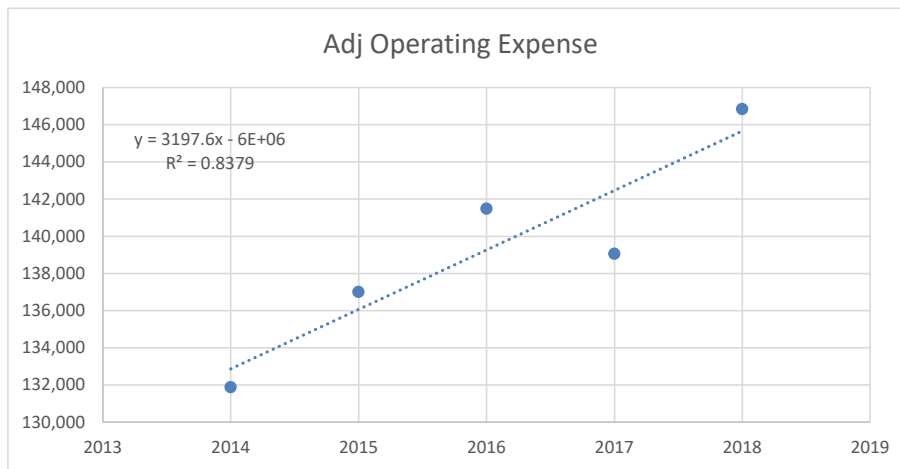
	2014	2015	2016	2017	2018
Line No.	Exclude Power Supply and Adder Schedule Expenses (DSM Tariff Rider and Residential Exchange Credit) from O&M				
1 Production/Transmission	120,307	140,485	136,385	136,766	132,992
2 Purchased Power	116,643	85,107	78,794	77,895	73,968
3 Distribution	21,299	24,056	21,415	21,461	23,753
4 Customer Accounting	11,166	12,363	13,021	12,312	11,983
5 Customer Service and Information	1,383	1,454	1,406	1,449	1,551
6 Sales	0	0	0	0	59
7 Administrative and General	46,210	49,942	48,989	47,166	51,109
8 Total Operating & Maintenance Expense	317,008	313,407	300,010	297,049	295,415
9 Deduct Power Supply Expenses	(186,117)	(175,095)	(159,612)	(157,982)	(148,565)
10 Deduct DSM Tariff Rider Expense	0	0	0	0	0
11 Deduct Res X Credit Expenses	0	0	0	0	0
CS2/Colstrip 2012 Deferral/Amortization	1,000	1,000	1,100	0	0
Remove Wind Storm		(2,303)	0	0	0
12 Adjusted Operating Expenses	131,891	137,009	141,498	139,067	146,850
		3.88%	3.28%	-1.72%	5.60%
Depreciation/Amortization	2014	2015	2016	2017	2018
13 Production/Transmission	23,715	24,947	26,676	27,841	28,724
14 Distribution	23,794	25,379	27,819	29,786	32,066
15 Administrative and General	16,947	21,503	23,877	25,247	27,999
16 Total Depreciation/Amortization	64,456	71,829	78,372	82,874	88,789
		11.44%	9.11%	5.74%	7.14%
Exclude Adder Schedule excise taxes (DSM Tariff Rider and Residential Exchange Credit) from Taxes Other Than Income Tax					
20 Production/Transmission	12,828	14,133	14,654	14,743	16,795
21 Distribution	25,821	27,448	27,287	27,300	28,420
22 Administrative and General	0	0	0	0	0
23 Total Taxes Other Than Income Tax	38,649	41,581	41,941	42,043	45,215
24 Deduct DSM Tariff Rider Excise Tax	0	0	0	0	0
25 Deduct Res X Credit Excise Tax	0	0	0	0	0
26 Adjusted Taxes Other Than Income Tax	38,649	41,581	41,941	42,043	45,215
		7.59%	0.87%	0.24%	7.54%
27 Net Plant After Deferred Income Taxes	1,214,504	1,271,626	1,375,685	1,448,047	1,530,452

ANNUAL GROWTH RATES		AS FILED BY AVISTA	
Electric Revenue Growth Rate Analysis			
5-Year Compound Growth Rate 2014 to 2018			
Adjusted Operating Expenses	2014-2018	2.72%	2.42%
Total Depreciation/Amortization		8.34%	30 bps Efficiency Adj
Adjusted Taxes Other than Income		4.00%	
Net Plant After Deferred Income Taxes		5.95%	Rate Year 2
	Portion	2014-2018	04.2021-03.2022
Depreciation	21.94%	1.83%	Includes 30 bps Eff Adjustment 1.83%
O&M	35.55%	0.97%	0.86%
Taxes OTI	10.05%	0.40%	0.40%
Net plant after ADFIT	32.46%	1.93%	1.93%
Revenues		-0.88%	-0.88%
Total K Factor %		4.25%	4.14%

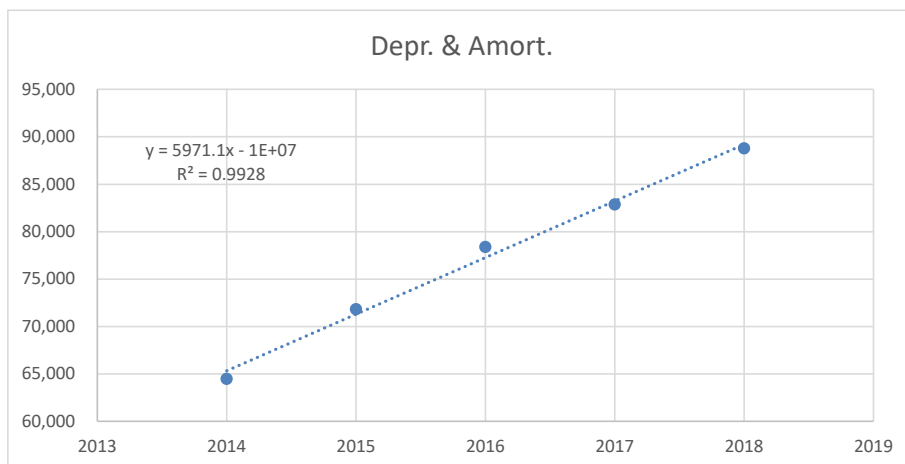
ELECTRIC COST AND REVENUE TREND CALCULATIONS 2014-2018

ANNUAL GROWTH RATE ANALYSIS				
Line No.	STAFF'S ANALYSIS			
		2014-2018		
1	Adjusted Operating Expenses		2.18%	
2	Total Depreciation/Amortization		6.73%	
3	Adjusted Taxes Other than Income		3.01%	
4	Net Plant After Deferred Income Taxes		5.28%	
				Including Net Plant Esc
		Portion	2014-2018	Portion 2014-2018
5	Depreciation	21.94%	1.48%	21.94% 1.48%
6	O&M	35.55%	0.77%	35.55% 0.77%
7	Taxes OTI	10.05%	0.30%	10.05% 0.30%
8	Net plant After ADFIT	32.46%	0%	32.46% 1.71%
9	Revenues		-0.88%	-0.88%
10	Total K Factor %		1.67%	3.38%

	2014	2015	2016	2017	2018
Adj Operating Expense	131,891	137,009	141,498	139,067	146,850
Per year	3,198				
Percent	2.18%				

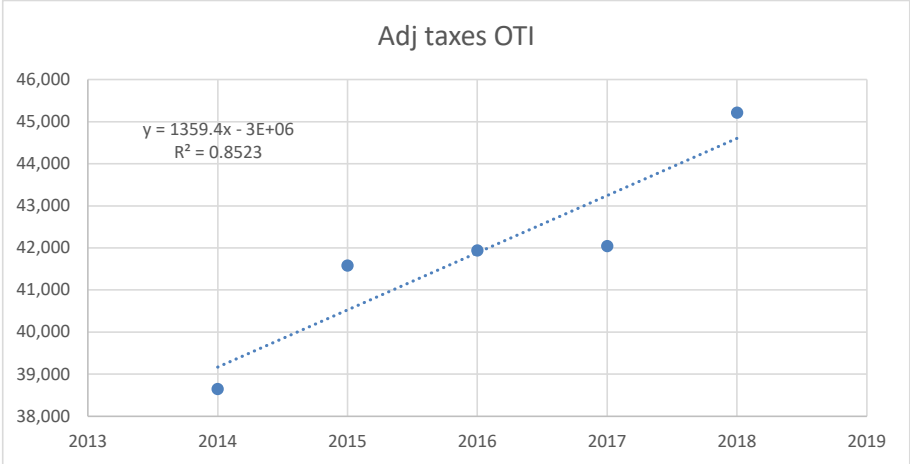


	2014	2015	2016	2017	2018
Depr. & Amort.	64,456	71,829	78,372	82,874	88,789
Per Year	5,971				
Percent	6.73%				

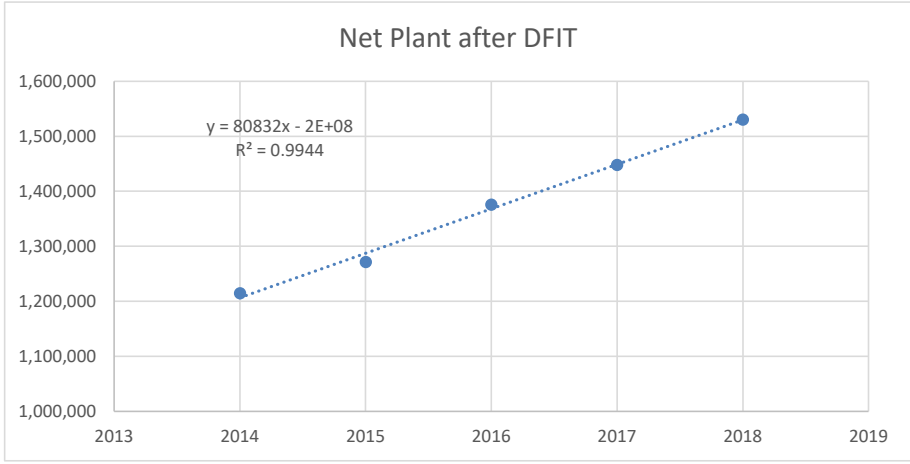


ELECTRIC COST AND REVENUE TREND CALCULATIONS 2014-2018

	2014	2015	2016	2017	2018
Adj taxes OTI	38,649	41,581	41,941	42,043	45,215
Per Year	1,359				
Percent	3.01%				



	2014	2015	2016	2017	2018
Net Plant after DFIT	1,214,504	1,271,626	1,375,685	1,448,047	1,530,452
Per year	80,832				
Percent	5.28%				



Decoupled Revenue Comparison

12 ME December 2018 Test Year
Electric Service

UE-19___ Proposed Decoupling Base at Present Rates

	TOTAL	RESIDENTIAL SCHEDULE 1	GENERAL SVC. SCH. 11,12	LG. GEN. SVC. SCH. 21,22	PUMPING SCH. 30, 31, 32	EX LG GEN SVC SCHEDULE 25	ST & AREA LTG SCH. 41-48
Revenue at Present Rates	\$502,300,000	\$ 216,075,000	\$ 75,061,000	\$ 125,677,000	\$ 12,039,000	\$ 66,744,000	\$ 6,704,000
Usage	5,637,842,826	2,374,703,689	619,305,952	1,365,904,624	145,822,517	1,113,564,012	18,542,032
Customer Bills	3,027,008	2,587,975	386,800	22,787	29,446		
Fixed Charge per Bill		\$9.00	\$20.00	\$500.00	\$20.00		
Decoupled Power Cost Revenue	\$0.01895 \$106,837,122	\$45,000,635	\$11,735,848	\$25,883,893	\$2,763,337	\$21,102,038	\$351,372
Decoupled Fixed Charge Revenue	\$43,010,195	\$23,291,775	\$7,736,000	\$11,393,500	\$588,920		
Revenue Not Subject to Decoupling	\$51,994,590						
Decoupled Revenues from Rates	\$300,458,093	\$ 147,782,590	\$55,589,152	\$88,399,607	\$8,686,743	\$0	\$0
Allowed Annual Decoupled Revenue per Customer		\$685.24	\$4,173.05		Usage Per Customer	average \$/kWh	UE-19___ Base
Allowed Decoupled Revenues	\$300,457,554	\$147,781,999	\$152,675,555		Residential	\$ 0.062232	11,011.08
Decoupling Revenue Adjustment	(\$539)	(\$591)	\$52		Non-Residential	\$ 0.071644	58,247
					Average Customers		
Total Revenue with Decoupling	\$502,299,461				Residential		215,665
Exclude Power Cost Revenue	\$395,462,340				Non-Residential		36,586
Test Year Annual Decoupled Revenue per Customer		\$685.24	\$4,173.05				

12 ME March 2022 Forecast Customers

Electric Service

2019 Final Budget Version EREV December Mid-month_v4_12 13 18_GRC and decoupling update -1-18-19.xlsm

	TOTAL	RESIDENTIAL SCHEDULE 1,2	GENERAL SVC. SCH. 11,12	LG. GEN. SVC. SCH. 21,22	PUMPING SCH. 30, 31, 32	EX LG GEN SVC SCHEDULE 25	ST & AREA LTG SCH. 41-48
Base Rate Revenue at Present Rates	\$514,830,305	\$ 220,522,480	\$ 78,275,307	\$ 128,826,247	\$ 12,250,572	\$ 68,976,262	\$ 5,979,438
Usage	5,797,861,119	2,420,743,011	646,694,762	1,404,986,747	144,343,311	1,168,768,789	12,324,499
Customer Bills	3,109,452	2,651,340	405,284	22,864	29,965		
Fixed Charge per Bill		\$9.00	\$20.00	\$500.00	\$20.00		
Decoupled Power Cost Revenue	\$0.01895 \$109,869,468	\$45,873,080	\$12,254,866	\$26,624,499	\$2,735,306	\$22,148,169	\$233,549
Decoupled Fixed Charge Revenue	\$43,999,081	\$23,862,060	\$8,105,671	\$11,432,056	\$599,294		
Revenue Not Subject to Decoupling	\$52,573,982						
Decoupled Revenues from Rates	\$308,387,774	\$150,787,340	\$57,914,770	\$90,769,692	\$8,915,972	\$0	\$0
Allowed Annual Decoupled Revenue per Customer		\$685.24	\$4,173.05				
Allowed Decoupled Revenues	\$310,710,825	\$151,400,352	\$159,310,473				
Decoupling Revenue Adjustment	\$2,323,051	\$613,011	\$1,710,040				
Total Revenue with Decoupling	\$517,153,356						
Exclude Power Cost Revenue	\$407,283,888						

Change in Non-Power Supply Revenue	\$11,821,549
Annual Average Revenue Growth 3.25 years	\$3,637,400