

Application No. 18-04-____
Exhibit PAC/1201
Witness: Robert M. Meredith

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

PACIFICORP

Exhibit Accompanying Direct Testimony of

Robert M. Meredith

Functionalized Class Revenue Requirement – December 2019

April 2018

**PacifiCorp
State of California
12 Months Ended December 2019 Revenue Requirement**

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Table 1
PacifiCorp
State of California
Required Rate Increase
Based on 12 Months Ended December 2019 Results of Operations

<u>Line No.</u>	<u>Description</u>	<u>FERC</u>				<u>Total</u>
		<u>Production</u>	<u>Transmission</u>	<u>State Transmission</u>	<u>Distribution</u>	
		(A)	(B)	(C)	(D)	(E)
1	12/2019 Normalized Revenue	\$26,916,436	\$3,646,087	\$4,300,038	\$42,923,061	\$77,785,623
2	12/2019 Revenue Requirement	\$31,053,249	\$4,299,557	\$3,824,540	\$39,668,798	\$78,846,143
3	Increase \$	\$4,136,813	\$653,470	(\$475,498)	(\$3,254,264)	\$1,060,521
4	Increase %	15.37%	17.92%	-11.06%	-7.58%	1.36%

Sources:

Line 1: Table 3, Line 12

Line 2:

Column A: Table 2, Line 72

Column B: Table 3, Line 12

Column C: Table 2, Line 72 less Table 1, Column B, Line 2

Column D: Table 2, Line 72

Table 2
12 Months Ended December 2019 - Revised Protocol
Beginning / Ending Average
Results Of Operations Summary

		CALIFORNIA				
<u>Description of Account Summary:</u>		<u>Normalized</u>	<u>Generation</u>	<u>Transmission</u>	<u>Distribution</u>	
Operating Revenues						
1	General Business Revenues	77,785,622	30,678,000	7,917,168	39,190,454	
2	Special Sales	-	-	-	-	
3	Other Operating Revenues	3,420,035	390,754	1,745,367	1,283,915	
4	Total Operating Revenues	<u>81,205,657</u>	<u>31,068,753</u>	<u>9,662,535</u>	<u>40,474,369</u>	
Operating Expenses:						
7	Operation & Maintenance Expenses	27,266,812	7,794,716	1,470,436	18,001,660	
8	Depreciation Expense	21,986,116	11,903,744	2,070,650	8,011,721	
9	Amortization Expense	1,417,397	1,150,991	28,528	237,878	
10	Taxes Other Than Income	4,802,057	1,746,189	867,269	2,188,600	
11	Income Taxes - Federal	3,265,999	520,147	542,352	2,203,500	
12	Income Taxes - State	739,658	117,799	122,828	499,032	
13	Income Taxes Deferred	(507,877)	6,812	210,016	(724,705)	
14	Investment Tax Credit Adj	-	-	-	-	
15	Misc Revenues & Expense	(60,809)	(60,840)	3	27	
16	Total Operating Expenses	<u>58,909,353</u>	<u>23,179,558</u>	<u>5,312,082</u>	<u>30,417,713</u>	
17						
18	Operating Revenue for Return	<u>22,296,303</u>	<u>7,889,195</u>	<u>4,350,452</u>	<u>10,056,656</u>	
19						
20	Rate Base:					
21	Electric Plant In Service	630,330,265	208,085,420	114,263,971	307,980,874	
22	Plant Held For Future Use	882,150	141,027	57,805	683,318	
23	Misc Deferred Debits	14,674,173	8,136,216	1,458,765	5,079,191	
24	Electric Plant Acquisition Adj	257,411	257,411	-	-	
25	Pensions	-	-	-	-	
26	Prepayments	447,258	160,834	85,488	200,937	
27	Fuel Stock	(78,578)	(78,578)	-	-	
28	Materials & Supplies	3,387,190	2,894,045	28,188	464,957	
29	Cash Working Capital	436,217	140,771	136,745	158,702	
30	Weatherization Loans	20,971	-	-	20,971	
31	Miscellaneous Rate Base	-	-	-	-	
32	Total Rate Base Additions	<u>650,357,058</u>	<u>219,737,146</u>	<u>116,030,962</u>	<u>314,588,950</u>	
33						
34	Rate Base Deductions:					
36	Accum Provision For Depreciation	(241,922,298)	(61,655,388)	(32,513,431)	(147,753,479)	
37	Accum Provision For Amortization	(13,266,924)	(4,585,361)	(1,838,508)	(6,843,054)	
38	Accum Deferred Income Taxes	(96,684,465)	(46,759,381)	(23,653,848)	(26,271,236)	
39	Unamortized ITC	(4,062)	(1,356)	(719)	(1,987)	
40	Customer Advance For Construction	(500,901)	-	(394,904)	(105,997)	
41	Customer Service Deposits	-	-	-	-	
42	Misc Rate Base Deductions	(7,084,090)	(3,807,296)	(870,283)	(2,406,510)	
43	Total Rate Base Deductions	<u>(359,462,740)</u>	<u>(116,808,783)</u>	<u>(59,271,693)</u>	<u>(183,382,263)</u>	
44						
45	Total Rate Base	<u>290,894,318</u>	<u>102,928,363</u>	<u>56,759,269</u>	<u>131,206,686</u>	
46						
47	Return on Rate Base	7.6647%	7.6647%	7.6647%	7.6647%	
48						
49	Return on Equity	10.0816%	10.0816%	10.0816%	10.0816%	
50						
51	Total Rate Base	290,894,318	102,928,363	56,759,269	131,206,686	
52						
53	Return On RateBase (\$\$)	22,296,303	7,889,195	4,350,452	10,056,656	
54	Operating & Maintenance Expense	27,266,812	7,794,716	1,470,436	18,001,660	
55	Bad Debt to Produce ROR					
56	Depreciation Expense	21,986,116	11,903,744	2,070,650	8,011,721	
57	Amortization Expense	1,417,397	1,150,991	28,528	237,878	
58	Taxes Other Than Income	4,802,057	1,746,189	867,269	2,188,600	
59	Federal Income Taxes	3,265,999	520,147	542,352	2,203,500	
60	FIT Adj to Produce Target ROR					
61	State Income Taxes	739,658	117,799	122,828	499,032	
62	SIT Adj to Produce Target ROR					
63	Deferred Income Taxes	(507,877)	6,812	210,016	(724,705)	
64	Investment Tax Credit	0	0	0	0	
65	Misc Revenue & Expenses	(60,809)	(60,840)	3	27	
66	Revenue Credits	(3,420,035)	(390,754)	(1,745,367)	(1,283,915)	
67						
68	Total Revenue Requirements	77,785,622	30,678,000	7,917,168	39,190,454	
69	Operating Revenues					
70			<u>Generation</u>	<u>FERC Transmission</u>	<u>State Transmission</u>	
71						
72						
73	Net to Gross factor	73.89%				
74	Rate Increase needed @ target ROR	7.934%	1,060,522	375,249	653,470	
75	Revenue Requirement @ target ROR	7.934%	78,846,143	31,053,249	4,299,557	

Table 2 Results of Operations

Table 3
PACIFICORP
State of California
12 Months Ended December 2019
Functionalized Revenues

Line No.	Class / Schedule	Average Customer (A)	kWh (B)	Generation Revenues (Excludes ECAG) (C)	FERC Transmission Revenues (D)	State Transmission Revenues (Excludes ECAG) (E)	Distribution Revenues (F)	Total Annual Revenue (G)	Percent Change (H)
12 Months Ended December, 2019- Normalized Present Revenues									
1	D Residential Service	35,838	368,139,171	\$12,417,756	\$1,682,377	\$1,969,523	\$24,596,724	\$40,666,380	
2	DM-9 Multi-Family - Master Metered	7	166,767	\$5,557	\$762	\$892	\$10,051	\$17,262	
3	DS-8 Multi-Family - Submetered	16	1,243,740	\$41,117	\$5,684	\$6,654	\$55,414	\$108,869	
3	A-25 Small General Service - < 20 kW	7,131	51,917,789	\$2,408,916	\$237,257	\$383,661	\$4,246,375	\$7,276,209	
4	A-32 Small General Service - 20 kW & Over	1,125	67,115,094	\$2,873,809	\$500,598	\$400,478	\$3,674,747	\$7,449,633	
5	A-36 Large General Service - 100 kW & Over	191	80,107,394	\$2,820,690	\$284,581	\$427,853	\$3,234,783	\$6,767,907	
6	AT-48 Large General Service - 500 kW & Over	19	81,372,934	\$2,864,167	\$303,048	\$505,775	\$1,388,370	\$5,061,360	
7	PA-20 Agricultural Pumping Service	2,026	94,292,504	\$3,274,465	\$609,924	\$572,066	\$5,213,788	\$9,670,243	
8	Total Lighting	999	3,104,619	\$153,305	\$14,169	\$24,056	\$416,038	\$607,568	
9	Total Sales less AGA	47,351	747,460,012	\$26,859,782	\$3,638,400	\$4,290,959	\$42,836,290	\$77,625,430	
10	Employee Discount			(\$10,637)	(\$1,671)	(\$20,545)		(\$34,281)	
11	AGA			\$67,291	\$9,115	\$10,750	\$107,317	\$194,473	
12	Total Sales to Consumers			\$26,916,436	\$3,646,087	\$4,300,038	\$42,923,061	\$77,785,623	

12 Months Ended December, 2019- Functional Class Revenue Requirements

13	D Residential Service	\$14,935,269	\$1,984,656.35	\$1,801,503	\$26,493,856	\$45,215,285	11.19%
14	DM-9 Multi-Family - Master Metered	\$6,340	\$898.91	\$765	\$11,246	\$19,249	11.51%
15	DS-8 Multi-Family - Submetered	\$39,984	\$6,705.27	\$4,823	\$70,927	\$122,439	12.46%
15	A-25 Small General Service - < 20 kW	\$2,082,600	\$279,885.91	\$249,863	\$4,432,684	\$7,045,033	-3.18%
16	A-32 Small General Service - 20 kW & Over	\$2,648,982	\$590,542.43	\$310,197	\$3,289,057	\$6,838,778	-8.20%
17	A-36 Large General Service - 100 kW & Over	\$3,141,227	\$335,712.80	\$367,284	\$1,849,226	\$5,693,449	-15.88%
18	AT-48 Large General Service - 500 kW & Over	\$3,087,935	\$357,497.84	\$353,914	\$993,033	\$4,792,379	-5.31%
19	PA-20 Agricultural Pumping Service	\$4,992,968	\$719,511.46	\$726,036	\$2,244,134	\$8,682,650	-10.21%
20	Total Lighting	\$62,219	\$16,714.80	\$782	\$197,934	\$277,650	-54.30%
21	Total Sales less AGA	\$30,997,523	\$4,292,126	\$3,815,167	\$39,582,097	\$78,686,912	1.37%
22	Employee Discount	(\$11,565)	(\$1,684)	(\$1,377)	(\$20,616)	(\$35,242)	2.80%
23	AGA	\$67,291	\$9,115	\$10,750	\$107,317	\$194,473	0.00%
24	Total Sales to Consumers	\$31,053,249	\$4,299,557	\$3,824,540	\$39,668,798	\$78,846,143	1.36%

Source:
Lines 1 - 12: 12/2019 Normalized Revenue from Pricing.
Lines 13 - 24:
Column C, E, F & G: Line 21 allocated according to Table 6
Column D: Lines 1-12
Line 24: Table 1, Line 2

Table 4
PACIFICORP
State of California
12 Months Ended December, 2019 Functionalized Revenue (Cents per kWh)

Line No.	Class / Schedule	Generation Revenues (A)	FERC		Total Annual Revenue (F)		
			Transmission Revenues (B)	State Transmission Revenues (C)		Distribution Revenues (D)	
12 Months Ended December, 2019 Normalized Present Revenues							
1	Residential Service	D	3.373	0.457	0.535	6.681	11.046
2	Multi-Family - Master Metered	DM-9	3.332	0.457	0.535	6.027	10.351
3	Multi-Family - Submetered	DS-8	3.306	0.457	0.535	4.455	8.753
3	Small General Service - < 20 kW	A-25	4.640	0.457	0.739	8.179	14.015
4	Small General Service - 20 kW & Over	A-32	4.282	0.746	0.597	5.475	11.100
5	Large General Service - 100 kW & Over	A-36	3.521	0.355	0.534	4.038	8.449
6	Large General Service - 500 kW & Over	AT-48	3.520	0.372	0.622	1.706	6.220
7	Agricultural Pumping Service	PA-20	3.473	0.647	0.607	5.529	10.256
8	Total Lighting		4.938	0.456	0.775	13.401	19.570
9							
10	Total Sales to Consumers		3.601	0.488	0.575	5.743	10.407

12 Months Ended December, 2019 Functional Class Revenue Requirements @ 10.6% ROE

11	Residential Service	D	4.057	0.539	0.489	7.197	12.282
12	Multi-Family - Master Metered	DM-9	3.802	0.539	0.459	6.744	11.543
13	Multi-Family - Submetered	DS-8	3.215	0.539	0.388	5.703	9.844
13	Small General Service - < 20 kW	A-25	4.011	0.539	0.481	8.538	13.570
14	Small General Service - 20 kW & Over	A-32	3.947	0.880	0.462	4.901	10.190
15	Large General Service - 100 kW & Over	A-36	3.921	0.419	0.458	2.308	7.107
16	Large General Service - 500 kW & Over	AT-48	3.795	0.439	0.435	1.220	5.889
17	Agricultural Pumping Service	PA-20	5.295	0.763	0.770	2.380	9.208
18	Total Lighting		2.004	0.538	0.025	6.375	8.943
19							
20	Total Sales to Consumers		4.155	0.575	0.512	5.307	10.549

Source:
Lines 1 - 10: Table 3, Lines 1-12
Lines 11 - 20: Table 3, Lines 13-24

Table 5
PacifiCorp
California Marginal Cost Study
Total Marginal Cost By Load Class
12 Months Ended December 2019 Dollars
(Dollars in 000's)

Line	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)	(N)	(O)	
	Residential	Schedule A-25	Schedule A-32	Schedule A-36	Schedule A-48	Sch PA-20	Schedule A-51	Schedule A-53	Schedule A-55	Irrigation	Schedule A-57	Schedule A-59	Schedule A-61	Schedule A-63	Schedule A-65	
	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	(pr)	(sec)	(sec)	(sec)	(sec)	(sec)	(sec)	
Description	Total	0-20 kW	20-100 kW	101-100 kW	101-100 kW	20-100 kW	101-100 kW	101-100 kW	5-4 MW	5-4 MW	5-4 MW	5-4 MW	5-4 MW	5-4 MW	5-4 MW	
Demand Related Marginal Cost																
1	Generation	\$18,743	\$1,218	\$1,257	\$267	\$771	\$1,024	\$1,200	\$525	\$3,627						
2	Transmission	\$1,348	\$68	\$90	\$19	\$55	\$74	\$86	\$38	\$261						
3	Distribution	\$21,164	\$2,323	\$1,507	\$320	\$366	\$527	\$239	\$99	\$1,099						
4	Poles	\$21,084	\$2,157	\$1,527	\$324	\$510	\$734	\$511	\$211	\$952						
5	Conductor	\$2,006	\$1,600	\$1,157	\$33	\$86	\$124	\$127	\$53	\$47						
6	Substations	\$44,254	\$30,062	\$3,191	\$677	\$962	\$1,385	\$878	\$363	\$2,098						
7	Subtotal: Pole, Cond, Subs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0						
8	Transformers	\$44,254	\$30,062	\$3,191	\$677	\$962	\$1,385	\$878	\$363	\$2,098						
9	Distribution subtotal	\$64,345	\$5,945	\$4,538	\$963	\$1,768	\$2,483	\$2,164	\$926	\$5,986						
10	Total Demand Related															
11	(Lines 1 + 2 + 13)															
12																
13																
14																
15																
16																
17	Energy Related Marginal Cost	\$17,486	\$1,216	\$1,297	\$275	\$775	\$1,102	\$1,313	\$571	\$2,209	\$27	\$27	\$21	\$4	\$1	
18	Generation Energy Related	\$70	\$5	\$5	\$1	\$3	\$4	\$5	\$2	\$9	\$0	\$0	\$0	\$0	\$0	
19	Transmission Energy Related	\$17,556	\$1,221	\$1,302	\$276	\$778	\$1,106	\$1,318	\$573	\$2,217	\$27	\$27	\$21	\$4	\$1	
20	Total Energy															
21	Customer Related Marginal Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
22	Poles	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
23	Conductor	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
24	Transformers	\$3,747	\$1,972	\$316	\$45	\$52	\$42	\$39	\$0	\$756	\$0	\$0	\$0	\$0	\$0	
25	Service Drops	\$1,445	\$978	\$66	\$23	\$10	\$8	\$49	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
26	Meters	\$1,408	\$1,011	\$46	\$19	\$6	\$15	\$5	\$0	\$60	\$0	\$0	\$0	\$0	\$0	
27	Billing	\$2,135	\$1,734	\$243	\$40	\$3	\$2	\$2	\$0	\$105	\$0	\$0	\$0	\$0	\$0	
28	Commitment & Billing Rel.	\$9,002	\$1,325	\$468	\$89	\$73	\$68	\$95	\$0	\$922	\$170	\$15	\$75	\$5	\$1	
29																
30																
31	Total Revenue @ Full MC	\$36,229	\$17,510	\$2,554	\$542	\$1,546	\$2,126	\$2,513	\$1,096	\$5,836	\$27	\$27	\$21	\$4	\$1	
32	Generation	\$1,418	\$672	\$95	\$20	\$58	\$78	\$91	\$40	\$270	\$0	\$0	\$0	\$0	\$0	
33	Transmission	\$53,256	\$35,757	\$3,659	\$766	\$1,035	\$1,453	\$973	\$363	\$3,019	\$170	\$15	\$75	\$5	\$1	
34	Distribution	\$90,903	\$53,939	\$6,308	\$1,329	\$2,639	\$3,657	\$3,578	\$1,499	\$9,125	\$190	\$42	\$97	\$9	\$2	
35	Total	100.00%	59.34%	6.94%	1.46%	2.90%	4.02%	3.94%	1.65%	10.04%	0.21%	0.05%	0.11%	0.01%	0.00%	
36	Percent of Total Marginal Cost	100.00%	48.33%	7.05%	1.50%	4.27%	5.87%	6.94%	3.02%	16.11%	0.05%	0.07%	0.06%	0.01%	0.00%	
37	Percent of Total Generation MC	100.00%	47.37%	6.55%	1.42%	4.10%	5.53%	6.44%	2.84%	19.03%	0.01%	0.01%	0.01%	0.00%	0.00%	
38	Percent of Total Transmission MC	100.00%	67.14%	6.87%	1.44%	1.94%	2.73%	1.83%	0.68%	5.67%	0.32%	0.03%	0.14%	0.01%	0.00%	
39	Percent of Total Distribution MC	100.00%	66.63%	6.87%	1.44%	2.00%	2.80%	1.95%	0.74%	6.02%	0.31%	0.03%	0.14%	0.01%	0.00%	
40	Percent of Total T & D															
41																

Table 5 Marginal Cost Summary

Table 6
PACIFICORP
State of California
12 Months Ended December, 2019 Revenue Requirement Allocation Factors
Based on Class % of Long Run Marginal Costs

<u>Class / Schedule</u>	<u>All GTD</u>	<u>Generation</u>	<u>Transmission</u>	<u>Distribution</u>	<u>Percent of</u>
	<u>Marginal Costs</u>	<u>Marginal Costs</u>	<u>Marginal Costs</u>	<u>Marginal Costs</u>	<u>Revenue</u>
	(A)	(B)	(C)	(D)	(E)
Residential					
Residential Service	59.15%	48.18%	47.22%	66.93%	52.39%
Multi-Family - Master Metered	0.03%	0.02%	0.02%	0.03%	0.02%
Multi-Family - Submetered	0.16%	0.13%	0.13%	0.18%	0.14%
Total Residential	59.34%	48.33%	47.37%	67.14%	52.55%
Commercial & Industrial					
Small General Service - < 20 kW	9.34%	6.72%	6.55%	11.20%	9.37%
Small General Service - 20 kW & Over	8.40%	8.55%	8.13%	8.31%	9.60%
Large General Service - 100 kW & Over	6.93%	10.13%	9.63%	4.67%	8.72%
Large General Service - 500 kW & Over	5.58%	9.96%	9.28%	2.51%	6.52%
Agricultural Pumping Service	10.04%	16.11%	19.03%	5.67%	12.46%
Total Commercial & Industrial	40.29%	51.47%	52.61%	32.36%	46.67%
Total Lighting	0.37%	0.20%	0.02%	0.50%	0.78%
Total Sales to Consumers	100.00%	100.00%	100.00%	100.00%	100.00%

Source:
Columns A - D: Table 5, Lines 37-41