

BRYCE FREEMAN
ADMINISTRATOR

DENISE PARRISH
DEPUTY ADMINISTRATOR



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September 10, 2019

Senator Cale Case
787 S. 4th
Lander, Wyoming 82520

Dear Senator Case:

Provided herewith is the Office of Consumer Advocate's response to your request for data regarding demand and energy costs and the manner in which those costs are collected through the various rate elements of rate design. The most complete information I was able to find in my research came from the 2015 rate case filing of Rocky Mountain Power. This data is indicative of what is generally seen in the industry and is based on the extensive study provided by Rocky Mountain Power as part of its request to increase its rates.

As shown on the attached spreadsheets, the requested demand and customer charges sought would have recovered about 84% of the fixed charges on a total Wyoming basis – that is, for the sum of all of the rate classes. However, only about 33% of the residential class' fixed charges were proposed to be recovered by the \$20 customer charge (since there are no additional demand charges for this class). The remaining fixed costs for the residential class would be recovered through the kWh usage charge. This causes the usage based kWh rate to then be approximately 1.5 times more than would otherwise be necessary, in order to recover the fixed costs that are not otherwise reflected in a demand charge or a fixed monthly customer rate.

A similar picture is shown for the small commercial class. Approximately 36% of the fixed costs are recovered through the customer charge, with no demand based per kW rates being in place for this class. This results in small commercial class energy revenues that are about 225% of the small commercial class' energy related costs.

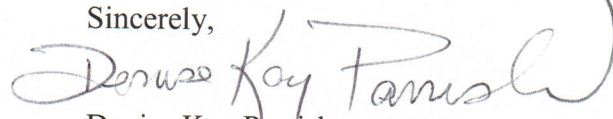
A summary derived from the numbers on page 3 of the attached spreadsheets is shown below:

Demand and Energy Costs and Proposed Rate Recovery (2015 General Rate Filing)

	Demand And Delivery Costs (Fixed)	Demand or Monthly Customer Charge Revenue	Fixed Charges Revenues As % of Fixed Costs	Energy Costs	Usage (kWh) based Revenues	Usage Based Revenues as % of Energy Costs
Residential	\$84,337,624	\$27,515,360	33%	\$36,693,456	\$93,243,096	254%
Small General Service	\$19,874,259	\$7,107,988	36%	\$10,294,787	\$23,081,971	221%
General Service	\$72,667,208	\$69,224,333	95%	\$47,952,025	\$48,793,531	102%
Large General Service	\$73,936,737	\$80,182,421	108%	\$71,685,820	\$64,247,311	90%
Large General - Transmission	\$101,751,321	\$112,857,508	111%	\$120,888,506	\$109,261,887	90%
Irrigation	\$1,237,611	\$883,552	71%	\$870,375	\$1,235,229	142%
Lighting	\$1,940,998	\$2,129,184	110%	\$586,618	\$419,686	72%
Traffic Signals	\$11,162	\$3,384	30%	\$17,391	\$25,402	146%
TOTAL	\$355,756,920	\$299,903,730	84%	\$288,988,978	\$340,308,113	118%

While I had hoped to provide you information for additional utilities, it was difficult to find the same level of detail in the cost of service and rate development workpapers as was available for Rocky Mountain Power. If this does not meet your needs, please let me know and I will continue to work on providing you additional data to the best of my ability.

Sincerely,



Denise Kay Parrish
Deputy Administrator
Wyoming Office of Consumer Advocate

Attachments

Cc: Mr. Chris Petrie, Wyoming Public Service Commission
Mr. Bryce Freeman, Wyoming Office of Consumer Advocate

COST OF SERVICE RESULTS

Generation Costs

	TOTAL WYOMING	Residential	Sm. Gen'l Service	General Service	Lg. Gen'l Service	Lg. Gen'l - Transm.	Irrigation	Lighting	Traffic Signals
Non-Net Power Cost									
Generation Demand	\$166,432,673	\$26,145,511	\$7,258,875	\$33,328,789	\$38,010,074	\$61,165,797	\$502,530	\$19,023	\$2,072
Net Power Cost	\$24,484,471	\$3,817,022	\$1,058,340	\$4,836,365	\$5,615,582	\$9,076,327	\$73,898	\$6,546	\$390
Non-Net Power Cost									
Generation Energy	\$45,289,020	\$5,419,709	\$1,532,139	\$7,209,463	\$11,412,259	\$19,467,914	\$136,148	\$108,240	\$3,147
Net Power Cost									
Generation Energy	\$217,920,399	\$27,854,892	\$7,818,346	\$36,300,339	\$53,845,788	\$90,999,961	\$655,651	\$432,584	\$12,837
<u>Transmission Costs</u>									
Non-Net Power Cost									
Transmission Demand	\$60,653,528	\$9,533,908	\$2,594,537	\$12,084,951	\$14,281,612	\$21,952,785	\$185,998	\$18,643	\$1,094
Net Power Cost									
Transmission Demand	\$17,682,005	\$2,756,548	\$764,303	\$3,492,689	\$4,055,417	\$6,554,672	\$53,368	\$4,727	\$282
Non-Net Power Cost									
Transmission Energy	\$18,835,962	\$2,531,314	\$695,186	\$3,285,585	\$4,712,084	\$7,521,098	\$57,685	\$32,011	\$998
Net Power Cost									
Transmission Energy	\$6,943,600	\$887,541	\$249,116	\$1,156,638	\$1,715,689	\$2,899,533	\$20,891	\$13,783	\$409
<u>Distribution, Retail, and Misc. Costs</u>									
Distribution - Substation	\$14,088,254	\$5,421,914	\$1,029,408	\$4,284,141	\$3,187,548	\$62,650	\$59,446	\$42,113	\$1,033
Distribution - Poles & Conductors	\$43,330,436	\$19,764,666	\$3,820,510	\$10,524,550	\$7,373,983	\$193,340	\$149,319	\$1,501,339	\$2,727
Distribution - Transformer	\$9,726,651	\$5,812,377	\$941,848	\$2,430,726	\$281,762	\$53,613	\$155,430	\$49,788	\$1,106
Distribution - Meter	\$3,080,307	\$1,300,261	\$326,624	\$324,144	\$70,924	\$1,008,405	\$21,716	\$27,957	\$277
Distribution - Service	\$4,834,931	\$3,368,826	\$937,095	\$405,404	(\$28,719)	\$27,319	(\$5,610)	\$129,760	\$855
Retail	\$7,632,365	\$5,768,469	\$973,696	\$199,622	\$204,268	\$329,377	\$28,255	\$127,496	\$1,181
Miscellaneous	\$3,811,305	\$648,122	\$169,023	\$755,827	\$884,286	\$1,327,036	\$13,261	\$13,606	\$145

SUMMARY -- DEMAND COSTS									
	TOTAL WYOMING	Residential	\$m. Gen'l Service	General Service	Lg. Gen'l Service	Lg. Gen'l -Transm.	Irrigation	Lighting	Traffic Signals
Non-Net Power Costs									
Generation Demand	\$166,432,673	\$26,145,511	\$7,258,875	\$33,328,789	\$38,010,074	\$61,165,797	\$502,530	\$19,023	\$2,072
Non-Net Power Costs									
Transmission Demand	\$60,653,528	\$9,533,908	\$2,594,537	\$12,084,951	\$14,281,612	\$21,952,785	\$185,998	\$18,643	\$1,094
Net Power Costs									
Generation Demand	\$24,484,471	\$3,817,022	\$1,058,340	\$4,836,365	\$5,615,582	\$9,076,327	\$73,898	\$6,546	\$390
Net Power Costs									
Transmission Demand	\$17,682,005	\$2,756,548	\$764,303	\$3,492,689	\$4,055,417	\$6,554,672	\$53,368	\$4,727	\$282
Distribution Substation	\$14,088,254	\$5,421,914	\$1,029,408	\$4,284,141	\$3,187,548	\$62,650	\$59,446	\$42,113	\$1,033
Distribution Poles and Conductors	\$43,330,436	\$19,764,666	\$3,820,510	\$10,524,550	\$7,373,983	\$193,340	\$149,319	\$1501,339	\$2,727
Distribution Transformer	\$9,726,651	\$5,812,377	\$941,848	\$2,430,726	\$281,762	\$53,613	\$155,430	\$49,788	\$1,106
TOTAL DEMAND COSTS	\$336,398,018	\$73,251,946	\$17,467,821	\$70,982,211	\$72,805,978	\$99,059,184	\$1,179,989	\$1,642,179	\$8,704
DEMAND RELATED PER KWH RATE REVENUE	\$62,517,900	\$61,008,443	\$1,501,540	\$0	\$0	\$0	\$0	\$7,362	\$555
DEMAND RELATED PER KW RATE REVENUE	\$257,424,862	\$0	\$0	\$67,470,496	\$79,263,661	\$109,950,906	\$736,967	\$498	\$2,334
LIGHTING LUMENS CHARGES	\$2,091,312	\$0	\$0	\$0	\$0	\$0	\$0	\$2,091,312	\$0
SUMMARY -- ENERGY COSTS									
Non-Net Power Costs									
Generation Energy	\$45,289,020	\$5,419,709	\$1,532,139	\$7,209,463	\$11,412,259	\$19,467,914	\$136,148	\$108,240	\$3,147
Non-Net Power Costs									
Transmission Energy	\$18,835,962	\$2,531,314	\$695,186	\$3,285,585	\$4,712,084	\$7,521,098	\$57,685	\$32,011	\$998
Net Power Costs									
Generation Energy	\$217,920,399	\$27,854,892	\$7,818,346	\$36,300,339	\$53,845,788	\$90,999,961	\$655,651	\$432,584	\$12,837
Net Power Costs									
Transmission Energy	\$6,943,600	\$887,541	\$249,116	\$1,156,638	\$1,715,689	\$2,899,533	\$20,891	\$13,783	\$409
TOTAL ENERGY COSTS	\$288,988,981	\$36,693,456	\$10,294,787	\$47,952,025	\$71,685,820	\$120,888,506	\$870,375	\$586,618	\$17,391
ENERGY RELATED PER KWH RATE REVENUE	\$277,790,213	\$32,234,653	\$21,580,431	\$48,793,531	\$64,247,311	\$109,261,887	\$1,235,229	\$412,324	\$24,847
SUMMARY -- CUSTOMER (OR DELIVERY) COSTS - Subjective as to what to include in this category									
Distribution - Meter	\$3,080,307	\$1,300,261	\$326,624	\$324,144	\$70,924	\$1,008,405	\$21,716	\$27,957	\$277
Distribution - Service	\$4,834,931	\$3,368,826	\$937,095	\$405,404	(\$28,719)	\$27,319	(\$5,610)	\$129,760	\$855
Retail	\$7,632,365	\$5,768,469	\$973,696	\$199,622	\$204,268	\$329,377	\$28,255	\$127,496	\$1,181
Miscellaneous	\$3,811,305	\$648,122	\$169,023	\$755,827	\$884,286	\$1,327,036	\$13,261	\$13,606	\$145
TOTAL CUSTOMER DELIVERY COSTS	\$19,358,908	\$11,085,678	\$2,406,438	\$1,684,997	\$1,130,759	\$2,692,137	\$57,622	\$298,819	\$2,458
REVENUE FROM CUSTOMER CHARGES	\$40,387,556	\$27,515,360	\$7,107,988	\$1,753,837	\$918,760	\$2,906,602	\$146,585	\$37,374	\$1,050
TOTAL COSTS									
Revenue Credit	\$644,745,898	\$121,031,080	\$30,169,046	\$120,619,233	\$145,622,557	\$222,639,827	\$2,107,986	\$2,527,616	\$28,553
TOTAL COSTS LESS REVENUE CREDIT	(\$4,533,957)	(\$828,894)	(\$210,837)	(\$849,699)	(\$1,027,974)	(\$1,585,159)	(\$15,071)	(\$16,130)	(\$193)
TOTAL REVENUES	\$640,211,941	\$120,202,186	\$29,958,209	\$119,769,534	\$144,594,583	\$221,054,668	\$2,092,915	\$2,511,486	\$28,360
	\$640,211,843	\$120,758,456	\$30,189,959	\$118,017,864	\$144,429,732	\$222,119,395	\$2,118,781	\$2,548,870	\$28,786

	TOTAL WYOMING	Residential	Sm. Gen'l Service	General Service	Lg. Gen'l Service	Lg. Gen'l - Transm.	Irrigation	Lighting	Traffic Signals
SUMMARY - DEMAND VERSUS ENERGY									
Total Demand Costs									
Portion Collected by Per KW Demand Rate (or Lumens Charge for Lighting)	\$336,398,012 \$259,516,174 77.15%	\$73,251,946 \$0 0.00%	\$17,467,821 \$0 0.00%	\$70,982,211 \$67,470,496 95.05%	\$72,805,978 \$79,263,661 108.87%	\$99,059,184 \$109,950,906 111.00%	\$1,179,989 \$736,967 62.46%	\$1,642,179 \$2,091,810 127.38%	\$8,704 \$2,334 26.82%
Portion Collected by Per KWH Usage Rate	\$62,517,900 18.58%	\$61,008,443 83.29%	\$1,501,540 8.60%	\$0 0.00%	\$0 0.00%	\$0 0.00%	\$0 0.00%	\$7,362 0.45%	\$555 6.38%
Total Energy Costs	\$288,988,978	\$36,693,456	\$10,294,787	\$47,952,025	\$71,685,820	\$120,888,506	\$870,375	\$586,618	\$17,391
Portion Collected by Per KWH Usage Rate	\$277,790,213 96.12%	\$32,234,653 87.85%	\$21,580,431 209.62%	\$48,793,531 101.75%	\$64,247,311 89.62%	\$109,261,887 90.38%	\$1,235,229 141.92%	\$412,324 70.29%	\$24,847 142.87%
Total Delivery Costs	\$19,358,908	\$11,085,678	\$2,406,438	\$1,684,997	\$1,130,759	\$2,692,137	\$57,622	\$298,819	\$2,458
Portion Collected from Customer Charges	\$40,387,556 208.63%	\$27,515,360 248.21%	\$7,107,988 295.37%	\$1,753,837 104.09%	\$918,760 81.25%	\$2,906,602 107.97%	\$146,585 254.39%	\$37,374 12.51%	\$1,050 42.72%
DEMAND AND DELIVERY COSTS (FIXED)									
Recovery on Fixed Basis (Customer or Demand Charge)	\$355,756,920 \$299,903,730 84.30%	\$84,337,624 \$27,515,360 32.63%	\$19,874,259 \$7,107,988 35.76%	\$72,667,208 \$69,224,333 95.26%	\$73,936,737 \$80,182,421 108.45%	\$101,751,321 \$112,857,508 110.92%	\$1,237,611 \$883,552 71.39%	\$1,940,998 \$2,129,184 109.70%	\$11,162 \$3,384 30.32%
Energy Costs	\$288,988,978	\$36,693,456	\$10,294,787	\$47,952,025	\$71,685,820	\$120,888,506	\$870,375	\$586,618	\$17,391
Usage Based Revenues	\$340,308,113 117.76%	\$93,243,096 254.11%	\$23,081,971 224.21%	\$48,793,531 101.75%	\$64,247,311 89.62%	\$109,261,887 90.38%	\$1,235,229 141.92%	\$419,686 71.54%	\$25,402 146.06%