

Grayson Rural Electric Cooperative

Case No. 2018-00272
December 31, 2017

Depreciation Expense

Depreciation is computed on a composite basis. The ending plant balance is multiplied by rates that are within RUS approved guidelines. Depreciation rates and procedures follow RUS Bulletin 183-1. Big Sandy had a depreciation study performed as of December 31, 2007.

Depreciation on transportation equipment is charged to a clearing account. Transportation costs are then cleared to various accounts based on time used for each vehicle from the daily time sheets of employees driving the vehicles.

Items of general plant that are fully-depreciated have been removed from the calculation in order to determine the normalized depreciation cost. These amounts have been separated on the right had column of the normalized calculation.

Witness: James Adkins

Grayson Rural Electric Cooperative

Case No. 2018-00272

December 31, 2017

Depreciation Adjustment

Normalized depreciation accrual:

Distribution plant	\$ 3,303,315	
General plant	474,594	
Less charged to clearing	<u>(217,987)</u>	3,559,922

Test year depreciation accrual:

Distribution plant	3,224,205	
General plant	467,279	
Less charged to clearing	<u>(214,394)</u>	3,477,090
		<u>\$ 82,832</u>

Transportation clearing:

Normalized	\$ 217,987
Test year	<u>214,394</u>
	<u>\$ 3,593</u>

The allocation of the increase in depreciation on transportation equipment is based on actual test year transportation clearing.

<u>Account</u>	<u>Percent</u>	<u>Amount</u>
Construction and retirement WIP	32.4%	\$ 1,164
Others	0.1%	4
Distribution - operations	16.4%	589
Distribution - maintenance	41.0%	1,473
Consumer accounts	3.2%	115
Consumer service and information	3.3%	119
Sales	0.0%	-
Administrative and general	3.6%	129
		<u>129</u>
Total	100.0%	<u>\$ 3,593</u>

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Account Number	Description	Test Year Balance	Rate	Normalized Expense	Test Year Accrual	Exclude Items Fully Depreciated
Distribution plant:						
362	Station equipment	31,054	2.86%	888	888	
364	Poles, towers & fixtures	26,372,044	4.99%	1,315,965	1,159,791	
365	Overhead conductors & devices	21,682,973	4.84%	1,049,456	924,741	
366	Underground conduit	-	3.13%	-	-	
367	Underground conductor & devices	460,150	3.13%	14,403	14,033	
368	Line transformers	8,327,678	3.46%	288,138	298,542	
369	Services	7,613,763	4.02%	306,073	448,947	
370	Meters	3,682,675	6.67%	245,634	209,960	
371	Installations on customer premises	2,023,425	4.09%	82,758	167,303	
		<u>70,193,762</u>		<u>3,303,315</u>	<u>3,224,205</u>	
General plant:						
				(A)		
389	Land	232,210				
390	Structures and improvements	1,723,116	2.50%	40,209	36,915	137,167
391	Office furn and eqt	990,052	5.00%	77,975	79,034	222,644
392	Transportation	2,181,143	16.00%	217,987	214,394	801,342
393	Stores	22,403	5.00%	815	815	5,418
394	Tools, shop and garage	67,146	5.00%	3,103	3,103	17,235
395	Laboratory	210,097	5.00%	8,224	8,300	38,645
396	Power operated	43,723	14.00%	-	-	43,723
397	Communications	894,851	7.00%	89,627	89,437	-
398	Miscellaneous	349,987	5.00%	36,654	35,281	25,432
		<u>6,714,728</u>		<u>474,594</u>	<u>467,279</u>	
	Total electric plant	<u>\$ 76,908,490</u>		<u>\$ 3,777,909</u>	<u>\$ 3,691,484</u>	

Items that are fully depreciated are removed from the ending balance to compute test year depreciation.

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Changes in electric plant:		<u>Begin</u> <u>Balance</u>	<u>Additions</u>	<u>Retirements</u>	<u>Transfer</u>	<u>End</u> <u>Balance</u>
362	Station equipment	31,054	-	-		31,054
364	Poles, towers and fixtures	25,305,547	1,354,600	288,103		26,372,044
365	Overhead conductor and devices	20,798,325	1,157,670	273,022		21,682,973
366	Underground conduit	-	-			-
367	Underground conductor and devices	444,260	17,532	1,642		460,150
368	Line transformers	8,184,430	214,862	71,614		8,327,678
369	Services	7,351,781	316,415	54,433		7,613,763
370	Meters	3,319,223	412,155	48,703		3,682,675
371	Security lights	1,847,398	319,383	143,356		2,023,425
	Subtotal distribution plant	67,282,018	3,792,617	880,873	-	70,193,762
389	Land	232,210	-			232,210
390	Structures and improvements	1,722,616	5,500	5,000		1,723,116
391	Office furn and eqt	1,003,890	27,376	41,214		990,052
392	Transportation	2,119,215	157,663	95,735		2,181,143
393	Stores	22,403	-			22,403
394	Tools, shop and garage	67,146	-			67,146
395	Laboratory	211,080	2,192	3,175		210,097
396	Power operated	43,723	-			43,723
397	Communication	916,096	29,581	50,826		894,851
398	Miscellaneous	253,486	96,501			349,987
	Subtotal general plant	6,591,865	318,813	195,950	-	6,714,728
	Total electric plant in service	73,873,883	4,111,430	1,076,823	-	76,908,490

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Changes in reserve for depreciation:

	<u>Begin Balance</u>	<u>Accrual</u>	<u>Original Cost</u>	<u>Removal Cost</u>	<u>Prior Deprec/ Salvage</u>	<u>Net Charge</u>	<u>End Balance</u>
Distribution plant	17,831,472	3,224,205	880,873	492,872	33,957	1,339,788	19,715,889
Land							
Structures and improvements	727,176	36,915				-	764,091
Office furn and eqt	545,624	79,034	41,214		11,619	29,595	595,063
Transportation	1,384,447	214,394	95,735		379	95,356	1,503,485
Stores	12,689	815	-			-	13,504
Tools, shop and garage	35,587	3,103	-			-	38,690
Laboratory	117,641	8,300	3,175		1,047	2,128	123,813
Power operated	43,723		-			-	43,723
Communication	470,333	89,437	50,826		15,132	35,694	524,076
Miscellaneous	116,539	35,281	-			-	151,820
Subtotal general plant	3,453,759	467,279	190,950	-	28,177	162,773	3,758,265
Retirement WIP	805,947			(659,720)		(659,720)	146,227
Total accumulated depreciation	20,479,284	3,691,484	1,071,823	1,152,592	62,134	2,162,281	23,327,927

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Depreciation Guideline Curve
December 31, 2017

<u>Year Ended</u>	<u>Distribution Plant in Service</u>	<u>Accumulated Deprec for Distribution</u>	<u>Reserve Ratio</u>	<u>Ratio of Current Distribution Plant to Distribution Plant 10 Years Prior</u>
2017	70,193,762	19,715,889	28.09%	1.45
2016	67,282,018	17,831,472	26.50%	1.45
2015	65,160,340	16,615,790	25.50%	1.47
2014	62,668,711	14,942,545	23.84%	1.47
2013	60,727,744	13,586,069	22.37%	1.50
2007	48,409,428	6,198,876	12.81%	
2006	46,394,887	5,590,267	12.05%	
2005	44,262,045	5,069,767	11.45%	
2004	42,495,016	4,829,766	11.37%	
2003	40,429,086	4,605,714	11.39%	