

Licking Valley Rural Electric  
Case No. 2016-00174  
Computation of Rate of Return  
October 31, 2015

	<u>Actual Test Year</u>	<u>Adjusted Test Year</u>
Net margins	\$ 599,912	\$ 533,695
Non-cash patronage dividends	(1,394,546)	-
Interest on long-term debt	<u>430,627</u>	<u>533,695</u>
Total	<u>\$ (364,007)</u>	<u>\$ 1,067,390</u>
<b>Net rate base</b>	<u>\$ 44,790,484</u>	<u>\$ 36,300,796</u>
Rate of return	<u>-0.81%</u>	<u>2.94%</u>
<b>Equity Capitalization</b>	<u>\$ 43,036,534</u>	<u>\$ 42,863,578</u>
Rate of return	<u>-0.85%</u>	<u>2.49%</u>

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Case No. 2016-00174  
Determination of Rate Base  
October 31, 2015

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	<u>Actual</u> <u>Test Year</u>	<u>Adjusted</u> <u>Test Year</u>
Gross rate base:		
Total electric plant	\$ 68,782,735	\$ 68,782,735
Material and supplies (13 months average for test year)	518,267	518,267
Prepayments (13 months average for test year)	125,769	125,769
Working capital: 12.5% of operating expense less cost of power	<u>887,743</u>	<u>901,563</u>
	70,314,514	70,328,334
Deductions from rate base:		
Accumulated depreciation	25,241,298	33,744,806
Consumer advances	<u>282,732</u>	<u>282,732</u>
Net rate base	<u>\$ 44,790,484</u>	<u>\$ 36,300,796</u>

	<u>Material</u>	<u>Prepayments</u>
October 2014	438,287	33,369
November	472,800	14,743
December	457,502	244,153
January	512,614	227,232
February	578,307	206,574
March	613,290	185,917
April	659,822	165,259
May	661,930	144,602
June	646,281	123,944
July	494,563	103,287
August	475,616	82,630
September	370,971	61,972
October	355,489	41,315
Average	518,267	125,769

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Witness: Jim Adkins

Test Year	Calendar Year					
	1st	2nd	3rd	4th	5th	
2015	2014	2013	2012	2011	2010	
Net margins	\$599,912	\$1,323,349	\$2,392,305	\$1,466,274	\$2,086,245	\$2,125,788
Interest on long-term debt	430,627	482,034	508,943	543,200	582,861	631,698
<b>Total</b>	<b>1,030,539</b>	<b>1,805,383</b>	<b>2,901,248</b>	<b>2,009,474</b>	<b>2,669,106</b>	<b>2,757,486</b>
Net rate base	44,790,484	43,701,256	42,835,533	41,857,203	41,343,309	40,170,944

**Rate of return**

2.30%      4.13%      6.77%      4.80%      6.46%      6.86%

Return excluding G & T  
patronage dividends:

Test Year	Calendar Year					
	1st	2nd	3rd	4th	5th	
2015	2014	2013	2012	2011	2010	
Net margins	\$599,912	\$1,323,349	\$2,392,305	\$1,466,274	\$2,086,245	\$2,125,788
G & T patronage dividends	1,394,546	1,394,546	1,649,431	1,272,091	1,420,511	793,799
Interest on long-term debt	430,627	482,034	508,943	543,200	582,861	631,698
<b>Total</b>	<b>(364,007)</b>	<b>410,837</b>	<b>1,251,817</b>	<b>737,383</b>	<b>1,248,595</b>	<b>1,963,687</b>
Net rate base	44,790,484	43,701,256	42,835,533	41,857,203	41,343,309	40,170,944

**Rate of return, excluding G & T**

-0.81%      0.94%      2.92%      1.76%      3.02%      4.89%

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October 31, 2015

	Calendar Year					
Test Year 2015	1st 2014	2nd 2013	3rd 2012	4th 2011	5th 2010	
<b>Gross rate base:</b>						
Total electric plant	\$68,782,735	\$66,856,977	\$64,584,820	\$62,183,720	\$60,536,072	\$58,140,565
Material and supplies (13 mo. ave te	518,267	457,502	386,676	538,490	452,570	439,857
Prepayments (13 mo. ave test year)	125,769	244,153	223,511	221,911	214,747	230,032
Working capital:						
12.5% of operating expense						
less cost of power	887,743	860,806	770,441	719,502	688,319	689,997
	70,314,514	68,419,438	65,965,448	63,663,623	61,891,708	59,500,451
<b>Deductions from rate base:</b>						
Accumulated depreciation	25,241,298	24,423,220	22,807,812	21,489,222	20,213,836	19,012,829
Consumer advances	282,732	294,962	322,103	317,198	334,563	316,678
<b>Net rate base</b>	<u>\$44,790,484</u>	<u>\$43,701,256</u>	<u>\$42,835,533</u>	<u>\$41,857,203</u>	<u>\$41,343,309</u>	<u>\$40,170,944</u>

**Licking Valley Rural Electric**  
**Case No. 2016-00174**  
**TIER and DSC Calculations**  
**October 31, 2015**

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	<u>Actual</u> <u>Test Year</u>	<u>Adjusted</u> <u>Test Year</u>
<b>TIER:</b>		
Margins, excluding G&T capital credits	(\$794,634)	\$533,695
Interest on long term debt	430,627	533,695
TIER	(0.85)	2.00
<b>DSC:</b>		
Margins, excluding G&T capital credits	(\$794,634)	\$533,695
Depreciation expense	2,189,646	2,227,561
Interest on long term debt	430,627	533,695
Principal payment on long term debt	1,274,310	1,274,310
DSC	1.07	1.82

Licking Valley Rural Electric  
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TIER and DSC Calculations  
October 31, 2015

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Test Year	Calendar Year				
	1st	2nd	3rd	4th	5th
2015	2014	2013	2012	2011	2010

**TIER calculations:**

Margins, excluding G&T capital credits	(794,634)	(71,197)	742,874	194,183	665,734	1,331,989
Interest on long term debt	430,627	482,034	508,943	543,200	582,861	631,698
<b>TIER</b> , excluding G&T capital cr	(0.85)	0.85	2.46	1.36	2.14	3.11
Margins, including G&T capital credits	599,912	1,323,349	2,392,305	1,466,274	2,086,245	2,125,788
Interest on long term debt	430,627	482,034	508,943	543,200	582,861	631,698
<b>TIER</b>	2.39	3.75	5.70	3.70	4.58	4.37

**DSC calculations:**

$$\text{DSC} = ((\text{Margins} + \text{depreciation} + \text{interest}) / (\text{interest} + \text{principal payments}))$$

Margins, excluding G&T capital credits	(794,634)	(71,197)	742,874	194,183	665,734	1,331,989
Depreciation expense	2,189,646	2,130,224	2,055,949	1,978,327	1,917,883	1,858,364
Interest on long term debt	430,627	482,034	508,943	543,200	582,861	631,698
Principal payment on long term debt	1,274,310	1,212,689	1,105,523	1,185,814	1,177,923	1,199,190
<b>DSC</b> , excluding G&T capital cred	<u>1.07</u>	<u>1.50</u>	<u>2.05</u>	<u>1.57</u>	<u>1.80</u>	<u>2.09</u>
Margins, including G&T capital credits	599,912	1,323,349	2,392,305	1,466,274	2,086,245	2,125,788
Depreciation expense	2,189,646	2,130,224	2,055,949	1,978,327	1,917,883	1,858,364
Interest on long term debt	430,627	482,034	508,943	543,200	582,861	631,698
Principal payment on long term debt	1,274,310	1,212,689	1,105,523	1,185,814	1,177,923	1,199,190
<b>DSC</b>	<u>1.89</u>	<u>2.32</u>	<u>3.07</u>	<u>2.31</u>	<u>2.61</u>	<u>2.52</u>

