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2.10 EXHIBIT 7: COST ALLOCATION

1

2.10.1 Cost Allocation Study Requirements

3

4 Introduction

5

6 On September 29, 2006, the Ontario Energy Board (“Board”) issued its directions on
7 Cost Allocation Methodology for Electricity Distributors (the “Directions”). On November
8 15, 2006, the Board issued the Cost Allocation Information Filing Guidelines for
9 Electricity Distributors (the “Guidelines”), the Cost Allocation Model (the “Model”) and
10 User Instructions (the “Instructions”) for the Model. Waterloo North Hydro Inc. (“WNH”)
11 prepared a Cost Allocation Information Filing consistent with WNH’s understanding of the
12 Directions, the Guidelines, the Model and the Instructions. WNH submitted this filing to
13 the OEB on February 28, 2007.

14

15 One of the main objectives of the filing was to provide information on any apparent cross-
16 subsidization among a distributor’s rate classifications. It was felt that this would give an
17 indication of cross-subsidization from one class to another and this information would be
18 useful as a tool in future rate applications.

19

20 In WNH's 2011 COS Application (*EB-2010-0144*), the Cost Allocation Model was
21 updated to reflect 2011 Test Year costs, customer numbers and demand values. The
22 2011 demand values were based on the weather normalized load forecast used to
23 design rates. The results of the 2011 Cost Allocation Model was used to move the
24 Revenue to Cost Ratios to be within the Board's acceptable range as outlined in the
25 “Report on Application of Cost Allocation for Electricity Distributors” (the “Cost Allocation
26 Report”) issued by the OEB on November 28, 2007.

1 On September 2, 2010, the Board began a proceeding, *EB-2010-0219*, with the mandate
2 to review and revise the Cost Allocation policy as needed. On March 31, 2011, the
3 Report of the Board was released in relation to *EB-2010-0219* (“March Board Report”). In
4 the letter accompanying the report, the Board indicated that a Working Group would be
5 formed to revise the original Cost Allocation Model to address the revision highlighted in
6 the March Board Report. On August 5, 2011, the Board released the new Cost Allocation
7 model and instructed 2012 Cost of Service filers to use the revised model in their
8 Applications. This model has been subsequently updated by the Board with some minor
9 revision on an annual basis. On June 26, 2014, the Board released an updated Cost
10 Allocation model to be used by 2015 Cost of Service applicants in their applications. This
11 updated version of the Cost Allocation model has been used by WNH in this application.

12

13 In Section 2.6.4 of the March Board Report, the Board stated that “default weighting
14 factors should now be utilized only in exceptional circumstances”. Distributors are
15 therefore now expected to develop their own weighting factors.

16 WNH has used 2015 version of the Cost Allocation Study Model and submitted the
17 Revised Cost Allocation Study to reflect 2016 Test Year costs, customer numbers and
18 demand values. The 2016 demand values are based on the weather normalized load
19 forecast used to design rates. WNH has developed weighting factors as outlined below
20 based on discussions with staff experienced in the subject area.

21

22 **Weighting Factors**

23

24 ***Weighting Factor for Services (Account 1855)***

25

26 The analysis for the Services weighting factor included a review of WNH’s internal policy
27 in regards to the installation and cost recovery for Services.

28 WNH has costs for Services (USoA 1855) for Residential Customers only; all other
29 classes pay for their own services via Contributed Capital USoA 1995/2440. WNH

1 records all Services Costs in USoA 1855 and applies the Contributed Capital received
 2 from the Non-Residential classes to Contributed Capital USoA 1995/2440 (attributable to
 3 USoA 1855). In the Cost Allocation model, USoA 1855 is allocated based on the
 4 Weighting Factors recorded in I5.2 which is calculated based on Gross Cost.

5
 6 In WNH's case, the Net Services Costs (USoA 1855 & the 1855 portion of 1995/2440)
 7 would all belong to Residential; however, if the gross cost weighting factors are applied
 8 (before Contributed Capital), both the asset USoA 1855 and the 1855 component of CC
 9 would be allocated on the gross cost basis, which would result in Non-Residential Rate
 10 Classes being allocated Gross Costs in excess of Contributed Capital. Thus, the model
 11 would allocate net costs to these Non-Residential rate classes, where the allocated costs
 12 should be \$0. In the same calculation Residential would be allocated Costs and
 13 Contributed Capital, however, the net amount would be incorrect as the Non-Residential
 14 rate classes would be allocated costs. As per Table 7-1, WNH applied a weighting factor
 15 of 1.0 for Residential only. This allocates all of the Services costs and Services
 16 Contributed Capital to the Residential rate class. This is consistent with WNH only
 17 incurring Service costs for the Residential rate class.

18

19

Table 7-1 - Weighting Factors for Services

Rate Class	Weighting Factors for Services
Residential	1.0
GS < 50 kW	0.0
GS > 50 kW	0
Large User	0
Unmetered Scattered Load	0
Street Lighting	0
Embedded Distributor	0

1 **Weighting Factor for Billing and Collection (Accounts 5315 – 5340, except 5335)**

2
 3 In determining the weighting factors for Billing and Collecting, an analysis of Accounts
 4 5315 – 5340, except 5335, was conducted and costs were assigned to each class based
 5 on the specific nature of the costs. WNH assigned an allocator to each internal account
 6 number that flow into the Billing and Collecting USoA accounts. These accounts were
 7 allocated based on the number of customers, number of bills or a delinquency weighting.
 8 The delinquency weighting was derived by assigning a rating system to the level of
 9 collection activity of each customer and consolidating the results by rate class. Through
 10 this analysis, WNH was able to more closely assign a total cost per class. Weighting
 11 factors were then determined relative to the Residential factor of 1 as shown in Table 7-
 12 2.

13
 14 **Table 7-2 - Weighting Factors for Billing and Collection**

Rate Class	Weighting Factors for Billing & Collecting
Residential	1.00
GS < 50 kW	1.03
GS > 50 kW	0.90
Large User	0.74
Unmetered Scattered Load	0.79
Street Lighting	0.99
Embedded Distributor	0.74

15 **Installation Cost per Meter (Sheet I7.1)**

16
 17 The installation cost for smart meters is consistent with the installation cost outlined in
 18 the Smart Meter Recovery Application approved by the Board in *EB-2012-0266*. WNH
 19 has used the approved cost per smart meter of \$122.87 for the Residential rate class and
 20 \$386.17 for the GS < 50 kW rate class in allocating meter costs as shown in Table 7-3.

1 WNH does not have any costs assigned to the Embedded Distributor rate class as it
 2 received the meter from HONI when WNH commenced as a Host Distributor in May
 3 2006, thus, WNH has \$0 meter costs for this rate class.

4
 5 For the GS > 50 kW and Large User rate classes WNH captured the cost of the meter
 6 and all associated installation costs.

7
 8 **Table 7-3 - Installation Cost per Meter**

Meter Type	Installation Cost per Meter
Smart Meters - Residential	\$ 122.87
Smart Meters - GS < 50 kW	\$ 386.17
Demand without IT (usually three-phase)	\$ 480
Demand with IT	\$ 2,400
Demand with IT and Interval Capability - Secondary	\$ 3,000
Demand with IT and Interval Capability - Primary	\$ 35,000

9 ***Weighting Factor for Meter Reading (Sheet I7.2)***

10
 11 WNH completed an analysis of the costs included in meter reading and assigned the
 12 costs to the appropriate class based on the nature of the cost. Based on this activity
 13 analysis, WNH calculated the overall cost per class by customer and assigned a
 14 weighting of 1 for the meter reading costs related to Smart Meters for the Residential
 15 class. The weighting factors for the remaining classes were then determined as a factor
 16 of the Residential class as shown in Table 7-4.

17
 18 **Table 7-4 - Weighting Factors for Meter Reading**

Read Type	Weighting Factors for Meter Reading
Smart Meter	1
GS - Walking	15.73
Interval	45.89

19

1 **Summary of Results and Proposed Changes**

2

3 The data used in the updated Cost Allocation Study is consistent with WNH's cost data
4 that supports the proposed 2016 Revenue Requirement outlined in this Application.
5 Consistent with the Guidelines, WNH's assets were broken out into primary and
6 secondary distribution functions using updated breakout. The breakout of Assets, Capital
7 Contributions, Depreciation, Accumulated Depreciation, customer data and load data by
8 primary, line transformer and secondary categories were developed from the best data
9 available to WNH, its engineering records, and its customer and financial information
10 systems. An Excel version of the updated Cost Allocation Study has been included with
11 the filed application material. In addition, Attachment 7-1 outlines Input Sheets I-6 & I-8
12 and Output Sheets O-1 & O-2.

13

14 Capital Contributions, Depreciation and Accumulated Depreciation by USoA are
15 consistent with the information provided in the 2016 continuity statement shown in Exhibit
16 2. The rate class customer data used in the updated cost allocation study is consistent
17 with the 2016 customer forecast outlined in Exhibit 3. The load profiles for each rate
18 class are the same as those used in the 2011 COS filing but have been scaled to match
19 the 2016 load forecast. In the 2011 COS WNH adjusted the load of the Large User rate
20 class to reflect the transfer of one customer from the Large User rate class to the GS >
21 50 kW rate class. The load transferred between the classes was the 2004 load data.
22 Table 7-5 outlines the scaling factors used by rate class.

23

24 WNH notes that the Embedded Distributor rate class did not have Demand allocated in
25 Sheet I8 of the Cost Allocation Model in WNH's 2011 COS. This class does not have
26 any capital costs, thus, no demand was input. In addition, the demand data used in the
27 2011 COS was for 2004, the Embedded Distributor was not a customer of WNH at that
28 time. WNH, thus, did not have load to scale in 2016. In addition, the Embedded

1 Distributor class does not have any capital costs in this Application, thus, no demand is
 2 assigned in I8 of the Cost Allocation Model.

3

4

Table 7-5 - Load Profiling Scaling Factors

Rate Class	2004 Weather Normal Values used in 2011 COS	2016 Weather Normal Values (kWh)	Scaling Factor
Residential	407,120,602	399,341,268	98.1%
GS < 50 kW	189,377,470	192,108,795	101.4%
GS > 50 kW	632,881,276	717,187,813	113.3%
Large User	68,391,760	95,063,906	139.0%
Unmetered Scattered Load	3,407,792	3,140,372	92.2%
Street Lighting	7,260,573	7,594,660	104.6%
Embedded Distributor	-	31,378,863	0.0%
Total	1,308,439,473	1,445,815,676	110.5%

5 ***Embedded Distributor Class***

6

7 WNH became a Host Distributor on May 1, 2006 and Hydro One Networks Inc. (HONI)
 8 became embedded to WNH at the Elmira Transformer Station. Prior to this date, WNH
 9 was embedded to HONI at this metering point. HONI owns and operates the Elmira TS
 10 which is located inside the service area of WNH. WNH established an Embedded
 11 Distributor Class in its 2011 COS. HONI owns the circuits that cross into WNH's service
 12 territory and resides on WNH's poles. WNH receives pole rental revenue from HONI.
 13 WNH does not have any capital costs invested in its Embedded Distributor rate class,
 14 only operating costs.

15

16 WNH notes that it has not directly allocated its Embedded Distributor rate class costs, it
 17 has maintained the same methodology it employed in its 2011 COS Cost Allocation
 18 Study. This method only uses number of bills and a meter reading factor as inputs for the
 19 Embedded Distributor class in the cost allocation model. Other input variables such as
 20 number of customers and demand units are not used in the cost allocation model for this

1 class. This outcome of this method means such items as billing, collecting and meter
2 reading costs are directly allocated to the Embedded Distributor class but the model also
3 indirectly allocates administration costs as well as some general service capital.

4

5 In connection with preparing its rate application, WNH has consulted with HONI and
6 advised HONI that it is WNH's intent to allocate cost in the same manner as all of the
7 other rate classes which is consistent with the approved 2011 COS methodology and not
8 directly allocated costs to the Embedded Distributor rate class. WNH provided HONI
9 with the necessary supporting evidence. HONI concluded that:

10 *"I have reviewed the material provided. I am fine with the proposed cost allocation*
11 *methodology given that it is based on the Board's cost allocation model, does not*
12 *involve any direct assignment of costs to the embedded rate class and is what was*
13 *previously approved in WHN's 2011 COS filing. The increase in the revenue-to-cost*
14 *ratio for the embedded class to 100% does cause me some concern given that a*
15 *similar move to 100% is not proposed for the other rate classes currently below*
16 *100%, however since the absolute increase in dollars is relatively minor I will not*
17 *make this an issue. I am also satisfied that the allocation of regulatory variance*
18 *account balances to the embedded class is consistent with Board approved*
19 *methodology.*

20

21 *I am fine with the proposed methodology and rates for the embedded rate class."*

1 ***Unmetered Loads***

2
3 WNH communicates with unmetered load customers, including Street Lighting
4 customers, to assist them in understanding the regulatory context in which distributors
5 operate and how it affects unmetered load customers. This communication takes place
6 on an on-going basis and is not driven by the rate application process, but regular
7 business practice.

8

9 ***MicroFIT Class***

10
11 WNH is not proposing to include MicroFIT as a separate class in the cost allocation
12 model in 2016. It is WNH's understanding that the Cost Allocation Model will produce a
13 calculation of unit costs which the Board will use to update the uniform MicroFIT rate at a
14 future date.

15

16 ***New Customer Class***

17
18 WNH is not proposing to include a new customer class.

19

20 ***Eliminated Customer Class***

21
22 WNH is not proposing to eliminate customer class.

2.10.2 Class Revenue Requirements

The allocated cost by rate class for the 2011 Cost of Service filing and 2016 updated study are provided in the following Table 7-6 which is consistent with Appendix 2-P.

Table 7-6 - Allocated Cost – Consistent with Appendix 2-P: Allocated Costs

Classes	Costs Allocated from Previous Study	%	Costs Allocated in Test Year Study (Column 7A)	%
Residential	\$ 14,755,783	50.63%	\$ 18,790,233	51.35%
GS < 50 kW	\$ 4,854,060	16.65%	\$ 5,407,450	14.78%
GS > 50 kW	\$ 8,504,826	29.18%	\$ 10,935,845	29.88%
Large User	\$ 641,538	2.20%	\$ 1,000,220	2.73%
Unmetered Scattered Load	\$ 112,275	0.39%	\$ 102,102	0.28%
Street Lighting	\$ 276,249	0.95%	\$ 356,764	0.97%
Embedded Distributor	\$ 883	0.00%	\$ 1,459	0.00%
Total	\$ 29,145,614	100.00%	\$ 36,594,074	100.00%

The following Table 7-7 provides information on calculated class revenue which is consistent with Appendix 2-P. The resulting 2016 Proposed Base Revenue will be the amount used in Exhibit 8 to design the proposed distribution charges in this application.

Table 7-7 - Calculated Class Revenue – Consistent with Appendix 2-P: Calculated Class Revenue

Classes	Column 7B 2016 Base Revenue at Existing Rates	Column 7C 2016 Proposed Base Revenue Allocated at Existing Rates Proportion	Column 7D 2016 Proposed Base Revenue	Column 7E Miscellaneous Revenue
Residential	\$ 16,660,584	\$ 18,874,955	\$ 18,865,237	\$ 794,253
GS < 50 kW	\$ 4,832,529	\$ 5,474,823	\$ 5,474,823	\$ 161,119
GS > 50 kW	\$ 8,692,348	\$ 9,847,654	\$ 9,847,654	\$ 195,815
Large User	\$ 663,035	\$ 751,159	\$ 834,682	\$ 15,505
Unmetered Scattered Load	\$ 170,454	\$ 193,109	\$ 118,887	\$ 3,636
Street Lighting	\$ 238,101	\$ 269,748	\$ 269,748	\$ 11,255
Embedded Distributor	\$ 900	\$ 1,019	\$ 1,436	\$ 23
Total	\$ 31,257,951	\$ 35,412,468	\$ 35,412,468	\$ 1,181,606

2.10.3 Revenue-to-Cost-Ratios

The results of a Cost Allocation Study are typically presented in the form of Revenue to Cost Ratios. The ratio is shown by rate classification and is the percentage of Distribution Revenue collected by rate classification compared to the costs allocated to the classification. The percentage identifies the rate classifications that are being subsidized and those that are over-contributing. A percentage of less than 100% means the rate classification is under-contributing and is being subsidized by other classes of customers. A percentage of greater than 100% indicates the rate classification is over-contributing and is subsidizing other classes of customers.

In the March Board Report, the Board established what it considered to be the appropriate ranges of Revenue to Cost Ratios which are summarized in Table 7-8 below. In addition, Table 7-8 provides WNH's Revenue to Cost Ratios from the 2011 COS Application and the updated proposed 2016 Cost Allocation.

Table 7-8 Revenue to Cost Ratios – Consistent with Appendix 2-P: Revenue to Cost Ratios

Classes	Costs Allocated from Previous Study	%	Costs Allocated in Test Year Study (Column 7A)	%
Residential	\$ 14,755,783	50.63%	\$ 18,790,233	51.35%
GS < 50 kW	\$ 4,854,060	16.65%	\$ 5,407,450	14.78%
GS > 50 kW	\$ 8,504,826	29.18%	\$ 10,935,845	29.88%
Large User	\$ 641,538	2.20%	\$ 1,000,220	2.73%
Unmetered Scattered Load	\$ 112,275	0.39%	\$ 102,102	0.28%
Street Lighting	\$ 276,249	0.95%	\$ 356,764	0.97%
Embedded Distributor	\$ 883	0.00%	\$ 1,459	0.00%
Total	\$ 29,145,614	100.00%	\$ 36,594,074	100.00%

1 The 2016 Cost Allocation Study indicates the Revenue to Cost Ratios for the Large User
2 and Unmetered Scattered Load are outside the Board's range. For 2016, it is proposed
3 these ratios be brought within the Board's range and the Residential and GS < 50 kW
4 rate classes be adjusted downward to maintain revenue neutrality. The Board has not
5 set a target range for the Embedded Distributor rate class. WNH is proposing to raise
6 the ratio to 100% to be consistent with the approved treatment in its 2011 COS.

APPENDIX 7-1

INPUT SHEETS I-6 & I-8
OUTPUT SHEETS O-1 & O-2

APPENDIX 7-1

INPUT SHEETS I-6 & I-8
OUTPUT SHEETS O-1 & O-2

2015 Cost Allocation Model

EB-2014-0108

Sheet 16.1 Revenue Worksheet -

Total kWhs from Load Forecast	1,445,815,676
-------------------------------	---------------

Total kWhs from Load Forecast	2,025,508
-------------------------------	-----------

Deficiency/sufficiency (RRWF 8. cell F51)	- 4,154,517
--	-------------

Miscellaneous Revenue (RRWF 5. cell F48)	1,181,606
--	-----------

Billing Data	ID	Total	1	2	3	6	7	9	10
			Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
Forecast kWh	CEN	1,445,815,676	399,341,268	192,108,795	717,187,813	95,063,906	7,594,660	3,140,372	31,378,863
Forecast kW	CDEM	2,025,508			1,759,407	173,581	21,115		71,406
Forecast kW, included in CDEM, of customers receiving line transformer allowance		1,194,336		124,353	1,069,983				
Optional - Forecast kWh, included in CEN, from customers that receive a line transformation allowance on a kWh basis. In most cases this will not be applicable and will be left blank.		-							
KWh excluding KWh from Wholesale Market Participants	CEN EWMP	1,438,992,162	399,341,268	192,108,795	710,364,299	95,063,906	7,594,660	3,140,372	31,378,863
Existing Monthly Charge			\$15.20	\$31.96	\$119.38	\$6,975.72	\$0.33	\$15.98	
Existing Distribution kWh Rate			\$0.0192	\$0.0143				\$0.0199	
Existing Distribution kW Rate					\$4.7395	\$3.3375	\$8.6832		\$0.0126
Existing TOA Rate				\$0.60	\$0.60				
Additional Charges									
Distribution Revenue from Rates		\$31,974,552	\$16,660,584	\$4,907,140	\$9,334,338	\$663,035	\$238,101	\$170,454	\$900
Transformer Ownership Allowance		\$716,602	\$0	\$74,612	\$641,990	\$0	\$0	\$0	\$0
Net Class Revenue	CREV	\$31,257,951	\$16,660,584	\$4,832,529	\$8,692,348	\$663,035	\$238,101	\$170,454	\$900

2015 Cost Allocation Model

EB-2014-0108

Sheet I6.2 Customer Data Worksheet -

			1	2	3	6	7	9	10
	ID	Total	Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
Billing Data									
Bad Debt 3 Year Historical Average	BDHA	\$303,930	\$82,546	\$27,191	\$194,193	\$0	\$0	\$0	\$0
Late Payment 3 Year Historical Average	LPHA	\$217,370	\$130,017	\$40,032	\$47,009			\$312	
Number of Bills	CNB	340,260	295,830	35,826	8,340	12	72	168	12
Number of Devices							13,828		
Number of Connections (Unmetered)	CCON	2,472					1,909	563	
Total Number of Customers AVG Per Load Forecast	CCA	55,653	49,305	5,632	695	1	6	14	
Bulk Customer Base	CCB	-							
Primary Customer Base	CCP	55,653	49,305	5,632	695	1	6	14	
Line Transformer Customer Base	CCLT	53,040	47,366	5,211	444	-	6	13	
Secondary Customer Base	CCS	53,733	47,785	5,285	649			14	
Weighted - Services	CWCS	47,785	47,785	-	-	-	-	-	-
Weighted Meter -Capital	CWMC	11,099,175	6,058,105	2,174,909	2,796,160	70,000	-	-	-
Weighted Meter Reading	CWMR	72,084	49,305	5,632	17,055	46	-	-	46
Weighted Bills	CWNB	340,453	295,830	36,901	7,500	9	71	133	9

Bad Debt Data

Historic Year:	2012	89,491	65,741	23,749	-				
Historic Year:	2013	682,323	83,722	18,911	579,690				
Historic Year:	2014	139,977	98,174	38,915	2,889				
Three-year average		303,930	82,546	27,191	194,193	-	-	-	-

2015 Cost Allocation Model

EB-2015-0108

Sheet IS Demand Data Worksheet -

CP TEST RESULTS	12 CP
NCP TEST RESULTS	4 NCP
Co-incident Peak	
1 CP	CP 1
4 CP	CP 4
12 CP	CP 12
Non-co-incident Peak	
1 NCP	NCP 1
4 NCP	NCP 4
12 NCP	NCP 12

Customer Classes	Total	1	2	3	6	7	9	10
		Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
CO-INCIDENT PEAK								
1 CP								
Transformation CP TCP1	229,910	82,012	32,896	100,163	12,643	1,812	383	
Bulk Delivery CP BCP1	-							
Total Sytem CP DCP1	229,910	82,012	32,896	100,163	12,643	1,812	383	
4 CP								
Transformation CP TCP4	953,625	271,604	172,287	446,680	58,010	3,589	1,456	
Bulk Delivery CP BCP4	-							
Total Sytem CP DCP4	953,625	271,604	172,287	446,680	58,010	3,589	1,456	
12 CP								
Transformation CP TCP12	2,677,056	757,397	477,636	1,267,376	160,625	9,737	4,285	
Bulk Delivery CP BCP12	-							
Total Sytem CP DCP12	2,677,056	757,397	477,636	1,267,376	160,625	9,737	4,285	
NON CO INCIDENT PEAK								
1 NCP								
Classification NCP from Load Data Provider DNCP1	284,395	86,451	51,310	125,823	18,604	1,821	385	
Primary NCP PNCP1	284,395	86,451	51,310	125,823	18,604	1,821	385	
Line Transformer NCP LTNCP1	265,790	86,451	51,310	125,823		1,821	385	
Secondary NCP SNCP1	265,790	86,451	51,310	125,823		1,821	385	
4 NCP								
Classification NCP from Load Data Provider DNCP4	1,092,477	335,359	193,174	485,228	69,953	7,241	1,521	
Primary NCP PNCP4	1,092,477	335,359	193,174	485,228	69,953	7,241	1,521	
Line Transformer NCP LTNCP4	1,022,523	335,359	193,174	485,228		7,241	1,521	
Secondary NCP SNCP4	1,022,523	335,359	193,174	485,228		7,241	1,521	
12 NCP								
Classification NCP from Load Data Provider DNCP12	3,009,995	902,093	516,376	1,378,614	187,426	21,103	4,383	
Primary NCP PNCP12	3,009,995	902,093	516,376	1,378,614	187,426	21,103	4,383	
Line Transformer NCP LTNCP12	2,822,569	902,093	516,376	1,378,614		21,103	4,383	
Secondary NCP SNCP12	2,822,569	902,093	516,376	1,378,614		21,103	4,383	

2015 Cost Allocation Model

EB-2015-0108

Sheet 01 Revenue to Cost Summary Worksheet -

Rate Base	Total	1 Residential	2 GS <50	3 GS>50-Regular	6 Large Use >5MW	7 Street Light	9 Unmetered Scattered Load	10 Embedded Distributor	
Assets									
crev	Distribution Revenue at Existing Rates	\$31,257,951	\$16,660,584	\$4,832,529	\$8,692,348	\$663,035	\$238,101	\$170,454	\$900
mi	Miscellaneous Revenue (mi)	\$1,181,606	\$794,253	\$161,119	\$195,815	\$15,505	\$11,255	\$3,636	\$23
	Miscellaneous Revenue Input equals Output								
	Total Revenue at Existing Rates	\$32,439,557	\$17,454,838	\$4,993,648	\$8,888,163	\$678,540	\$249,356	\$174,090	\$922
	Factor required to recover deficiency (1 + D)	1.1329							
	Distribution Revenue at Status Quo Rates	\$35,412,468	\$18,874,955	\$5,474,823	\$9,847,654	\$751,159	\$269,748	\$193,109	\$1,019
	Miscellaneous Revenue (mi)	\$1,181,606	\$794,253	\$161,119	\$195,815	\$15,505	\$11,255	\$3,636	\$23
	Total Revenue at Status Quo Rates	\$36,594,074	\$19,669,208	\$5,635,943	\$10,043,469	\$766,664	\$281,003	\$196,746	\$1,042
Expenses									
di	Distribution Costs (di)	\$7,016,908	\$3,481,042	\$1,015,791	\$2,199,795	\$212,447	\$84,285	\$23,334	\$214
cu	Customer Related Costs (cu)	\$3,298,344	\$2,618,929	\$379,877	\$294,996	\$2,781	\$516	\$960	\$286
ad	General and Administration (ad)	\$3,895,816	\$2,241,726	\$536,352	\$987,911	\$86,547	\$33,511	\$9,593	\$176
dep	Depreciation and Amortization (dep)	\$8,151,672	\$3,763,527	\$1,291,655	\$2,738,253	\$254,103	\$80,524	\$23,173	\$437
INPUT	PILs (INPUT)	\$803,815	\$377,583	\$123,344	\$266,307	\$25,097	\$8,920	\$2,544	\$20
INT	Interest	\$5,337,309	\$2,507,142	\$819,001	\$1,768,268	\$166,646	\$59,229	\$16,893	\$130
	Total Expenses	\$28,503,864	\$14,989,947	\$4,166,020	\$8,255,531	\$747,621	\$266,985	\$76,497	\$1,262
	Direct Allocation	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NI	Allocated Net Income (NI)	\$8,090,209	\$3,800,286	\$1,241,429	\$2,680,313	\$252,599	\$89,779	\$25,606	\$197
	Revenue Requirement (includes NI)	\$36,594,074	\$18,790,233	\$5,407,450	\$10,935,845	\$1,000,220	\$356,764	\$102,102	\$1,459
	Revenue Requirement Input equals Output								
	Rate Base Calculation								
	Net Assets								
dp	Distribution Plant - Gross	\$346,453,251	\$171,714,505	\$51,268,428	\$108,879,531	\$9,450,145	\$4,001,300	\$1,123,649	\$15,692
gp	General Plant - Gross	\$34,015,338	\$16,463,533	\$5,116,755	\$10,954,223	\$981,454	\$388,669	\$109,988	\$718
accum dep	Accumulated Depreciation	(\$146,617,357)	(\$74,402,741)	(\$21,291,070)	(\$44,922,677)	(\$3,840,116)	(\$1,680,272)	(\$468,771)	(\$11,711)
co	Capital Contribution	(\$39,484,351)	(\$22,339,415)	(\$5,297,276)	(\$10,603,851)	(\$545,095)	(\$549,666)	(\$149,049)	\$0
	Total Net Plant	\$194,366,880	\$91,435,882	\$29,796,837	\$64,307,226	\$6,046,389	\$2,160,030	\$615,817	\$4,699
	Directly Allocated Net Fixed Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
COP	Cost of Power (COP)	\$163,572,481	\$45,375,820	\$21,828,683	\$80,780,920	\$10,801,795	\$862,956	\$356,830	\$3,565,476
	OM&A Expenses	\$14,211,068	\$8,341,696	\$1,932,020	\$3,482,703	\$301,775	\$118,312	\$33,887	\$676
	Directly Allocated Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal	\$177,783,549	\$53,717,516	\$23,760,703	\$84,263,623	\$11,103,570	\$981,268	\$390,717	\$3,566,152
	Working Capital	\$23,111,861	\$6,983,277	\$3,088,891	\$10,954,271	\$1,443,464	\$127,565	\$50,793	\$463,600
	Total Rate Base	\$217,478,742	\$98,419,159	\$32,885,728	\$75,261,497	\$7,489,853	\$2,287,595	\$666,610	\$468,299
	Rate Base Input equals Output								
	Equity Component of Rate Base	\$86,991,497	\$39,367,664	\$13,154,291	\$30,104,599	\$2,995,941	\$915,038	\$266,644	\$187,320
	Net Income on Allocated Assets	\$8,090,090	\$4,679,261	\$1,469,922	\$1,787,938	\$19,043	\$14,017	\$120,249	(\$340)
	Net Income on Direct Allocation Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Net Income	\$8,090,090	\$4,679,261	\$1,469,922	\$1,787,938	\$19,043	\$14,017	\$120,249	(\$340)
	RATIOS ANALYSIS								
	REVENUE TO EXPENSES STATUS QUO%	100.00%	104.68%	104.23%	91.84%	76.65%	78.76%	192.69%	71.42%
	EXISTING REVENUE MINUS ALLOCATED COSTS	(\$4,154,517)	(\$1,335,395)	(\$413,802)	(\$2,047,682)	(\$321,681)	(\$107,408)	\$71,988	(\$536)
	Deficiency Input equals Output								
	STATUS QUO REVENUE MINUS ALLOCATED COSTS	(\$0)	\$878,975	\$228,493	(\$892,376)	(\$233,556)	(\$75,762)	\$94,643	(\$417)
	RETURN ON EQUITY COMPONENT OF RATE BASE	9.30%	11.89%	11.17%	5.94%	0.64%	1.53%	45.10%	-0.18%

2015 Cost Allocation Model

EB-2015-0108

Sheet 02 Monthly Fixed Charge Min. & Max. Worksheet -

Summary

	1	2	3	6	7	9	10
	Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
Customer Unit Cost per month - Avoided Cost	\$5.38	\$8.96	\$65.56	\$950.82	\$0.01	\$0.08	0
Customer Unit Cost per month - Directly Related	\$7.05	\$11.30	\$79.44	\$1,088.97	\$0.02	\$0.13	0
Customer Unit Cost per month - Minimum System with PLCC Adjustment	\$20.44	\$21.58	\$100.74	\$1,273.87	\$10.09	\$9.96	0
Existing Approved Fixed Charge	\$15.20	\$31.96	\$119.38	\$6,975.72	\$0.33	\$15.98	\$0.00

Information to be Used to Allocate PILs, ROD, ROE and A&G

Total	1	2	3	6	7	9	10	
	Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor	
General Plant - Gross Assets	\$34,015,338	\$16,463,533	\$5,116,755	\$10,954,223	\$981,454	\$388,669	\$109,988	\$718
General Plant - Accumulated Depreciation	(\$24,606,949)	(\$11,809,842)	(\$3,701,498)	(\$7,924,366)	(\$709,991)	(\$281,166)	(\$79,566)	(\$519)
General Plant - Net Fixed Assets	\$9,408,388	\$4,553,690	\$1,415,256	\$3,029,856	\$271,463	\$107,503	\$30,422	\$199
General Plant - Depreciation	\$1,303,924	\$631,104	\$196,143	\$419,913	\$37,622	\$14,899	\$4,216	\$28
Total Net Fixed Assets Excluding General Plant	\$184,958,492	\$86,882,192	\$28,381,581	\$61,277,370	\$5,774,926	\$2,052,528	\$585,395	\$4,501
Total Administration and General Expense	\$3,895,816	\$2,241,726	\$536,352	\$987,911	\$86,547	\$33,511	\$9,593	\$176
Total O&M	\$10,315,252	\$6,099,970	\$1,395,668	\$2,494,791	\$215,228	\$84,801	\$24,294	\$500

Scenario 1

Accounts included in Avoided Costs Plus General Administration Allocation

USoA Account #	Accounts	Total	1	2	3	6	7	9	10
			Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
1860	Distribution Plant								
	Meters	\$14,300,257	\$7,805,307	\$2,802,169	\$3,602,593	\$90,189	\$0	\$0	\$0
	Accumulated Amortization								
	Accum. Amortization of Electric Utility Plant - Meters only	(\$5,709,909)	(\$3,116,559)	(\$1,118,870)	(\$1,438,469)	(\$36,011)	\$0	\$0	\$0
	Meter Net Fixed Assets	\$8,590,348	\$4,688,748	\$1,683,299	\$2,164,124	\$54,177	\$0	\$0	\$0
	Misc Revenue								
4082	Retail Services Revenues	(\$29,000)	(\$17,023)	(\$3,943)	(\$7,107)	(\$616)	(\$241)	(\$69)	(\$51)
4084	Service Transaction Requests (STR) Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4090	Electric Services Incidental to Energy Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4220	Other Electric Revenues	(\$4,300)	(\$2,524)	(\$585)	(\$1,054)	(\$91)	(\$36)	(\$10)	(\$0)
4225	Late Payment Charges	(\$242,900)	(\$145,287)	(\$44,734)	(\$52,530)	\$0	\$0	(\$349)	\$0
	Sub-total	(\$276,200)	(\$164,834)	(\$49,261)	(\$60,691)	(\$707)	(\$277)	(\$428)	(\$2)
5065	Operation								
	Meter Expense	\$395,613	\$215,932	\$77,521	\$99,665	\$2,495	\$0	\$0	\$0
5070	Customer Premises - Operation Labour	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5075	Customer Premises - Materials and Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Sub-total	\$395,613	\$215,932	\$77,521	\$99,665	\$2,495	\$0	\$0	\$0
5175	Maintenance								
	Maintenance of Meters	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	Billing and Collection								
5310	Meter Reading Expense	\$347,805	\$237,898	\$27,175	\$82,290	\$221	\$0	\$0	\$221
5315	Customer Billing	\$1,730,521	\$1,503,703	\$187,567	\$38,124	\$45	\$362	\$675	\$45
5320	Collecting	\$795,611	\$691,331	\$86,234	\$17,528	\$21	\$167	\$310	\$21

5325	Collecting- Cash Over and Short	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5330	Collection Charges	(\$123,860)	(\$107,626)	(\$13,425)	(\$2,729)	(\$3)	(\$26)	(\$48)	(\$3)
Sub-total		\$2,750,077	\$2,325,306	\$287,550	\$135,213	\$284	\$503	\$936	\$284
Total Operation, Maintenance and Billing		\$3,145,690	\$2,541,238	\$365,072	\$234,878	\$2,779	\$503	\$936	\$284
Amortization Expense - Meters		\$849,280	\$463,550	\$166,418	\$213,955	\$5,356	\$0	\$0	\$0
Allocated PILs		\$35,517	\$19,362	\$6,968	\$8,962	\$225	\$0	\$0	\$0
Allocated Debt Return		\$235,832	\$128,564	\$46,267	\$59,507	\$1,493	\$0	\$0	\$0
Allocated Equity Return		\$357,470	\$194,875	\$70,132	\$90,200	\$2,263	\$0	\$0	\$0
Total		\$4,347,589	\$3,182,755	\$605,596	\$546,811	\$11,410	\$226	\$508	\$282

Scenario 2

Accounts included in Directly Related Customer Costs Plus General Administration Allocation

USoA Account #	Accounts	Total	1 Residential	2 GS <50	3 GS>50-Regular	6 Large Use >5MW	7 Street Light	9 Unmetered Scattered Load	10 Embedded Distributor
Distribution Plant									
1860	Meters	\$14,300,257	\$7,805,307	\$2,802,169	\$3,602,593	\$90,189	\$0	\$0	\$0
Accumulated Amortization									
Accum. Amortization of Electric Utility Plant - Meters only									
		(\$5,709,909)	(\$3,116,559)	(\$1,118,870)	(\$1,438,469)	(\$36,011)	\$0	\$0	\$0
Meter Net Fixed Assets		\$8,590,348	\$4,688,748	\$1,683,299	\$2,164,124	\$54,177	\$0	\$0	\$0
Allocated General Plant Net Fixed Assets		\$439,238	\$245,748	\$83,938	\$107,005	\$2,547	\$0	\$0	\$0
Meter Net Fixed Assets Including General Plant		\$9,029,586	\$4,934,496	\$1,767,237	\$2,271,129	\$56,724	\$0	\$0	\$0
Misc Revenue									
4082	Retail Services Revenues	(\$29,000)	(\$17,023)	(\$3,943)	(\$7,107)	(\$616)	(\$241)	(\$69)	(\$1)
4084	Service Transaction Requests (STR) Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4090	Electric Services Incidental to Energy Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4220	Other Electric Revenues	(\$4,300)	(\$2,524)	(\$585)	(\$1,054)	(\$91)	(\$36)	(\$10)	(\$0)
4225	Late Payment Charges	(\$242,900)	(\$145,287)	(\$44,734)	(\$52,530)	\$0	\$0	(\$349)	\$0
Sub-total		(\$276,200)	(\$164,834)	(\$49,261)	(\$60,691)	(\$707)	(\$277)	(\$428)	(\$2)
Operation									
5065	Meter Expense	\$395,613	\$215,932	\$77,521	\$99,665	\$2,495	\$0	\$0	\$0
5070	Customer Premises - Operation Labour	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5075	Customer Premises - Materials and Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total		\$395,613	\$215,932	\$77,521	\$99,665	\$2,495	\$0	\$0	\$0
Maintenance									
5175	Maintenance of Meters	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Billing and Collection									
5310	Meter Reading Expense	\$347,805	\$237,898	\$27,175	\$82,290	\$221	\$0	\$0	\$221
5315	Customer Billing	\$1,730,521	\$1,503,703	\$187,567	\$38,124	\$45	\$362	\$675	\$45
5320	Collecting	\$795,611	\$691,331	\$86,234	\$17,528	\$21	\$167	\$310	\$21
5325	Collecting- Cash Over and Short	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5330	Collection Charges	(\$123,860)	(\$107,626)	(\$13,425)	(\$2,729)	(\$3)	(\$26)	(\$48)	(\$3)
Sub-total		\$2,750,077	\$2,325,306	\$287,550	\$135,213	\$284	\$503	\$936	\$284
Total Operation, Maintenance and Billing		\$3,145,690	\$2,541,238	\$365,072	\$234,878	\$2,779	\$503	\$936	\$284
Amortization Expense - Meters		\$849,280	\$463,550	\$166,418	\$213,955	\$5,356	\$0	\$0	\$0
Amortization Expense - General Plant assigned to Meters		\$60,875	\$34,059	\$11,633	\$14,830	\$353	\$0	\$0	\$0
Admin and General		\$1,168,991	\$933,899	\$140,296	\$93,009	\$1,118	\$199	\$370	\$100
Allocated PILs		\$37,333	\$20,377	\$7,315	\$9,405	\$235	\$0	\$0	\$0
Allocated Debt Return		\$247,890	\$135,302	\$48,575	\$62,450	\$1,563	\$0	\$0	\$0
Allocated Equity Return		\$375,748	\$205,089	\$73,629	\$94,660	\$2,370	\$0	\$0	\$0
Total		\$5,609,606	\$4,168,680	\$763,677	\$662,496	\$13,068	\$424	\$878	\$383

Scenario 3

Minimum System Customer Costs Adjusted for PLCC - High Limit Fixed Customer Charge

USoA Account #	Accounts	Total	1 Residential	2 GS <50	3 GS>50-Regular	6 Large Use >5MW	7 Street Light	9 Unmetered Scattered Load	10 Embedded Distributor
Distribution Plant									
1565	Conservation and Demand Management Expenditures and Recoveries	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1830	Poles, Towers and Fixtures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1830-3	Poles, Towers and Fixtures - Subtransmission Bulk Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1830-4	Poles, Towers and Fixtures - Primary	\$22,284,795	\$18,909,758	\$2,160,019	\$266,551	\$384	\$732,159	\$215,925	\$0
1830-5	Poles, Towers and Fixtures - Secondary	\$5,923,806	\$5,037,621	\$557,159	\$68,419	\$0	\$201,254	\$59,353	\$0
1835	Overhead Conductors and Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1835-3	Overhead Conductors and Devices - Subtransmission Bulk Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1835-4	Overhead Conductors and Devices - Primary	\$12,617,764	\$10,706,801	\$1,223,014	\$150,922	\$217	\$414,552	\$122,258	\$0
1835-5	Overhead Conductors and Devices - Secondary	\$3,354,089	\$2,852,327	\$315,466	\$38,739	\$0	\$113,951	\$33,606	\$0

1840	Underground Conduit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1840-3	Underground Conduit - Bulk Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1840-4	Underground Conduit - Primary	\$3,386,492	\$2,873,607	\$328,246	\$40,506	\$58	\$111,262	\$32,813	\$0
1840-5	Underground Conduit - Secondary	\$4,310,081	\$3,665,305	\$405,381	\$49,781	\$0	\$146,430	\$43,184	\$0
1845	Underground Conductors and Devices	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1845-3	Underground Conductors and Devices - Bulk Delivery	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1845-4	Underground Conductors and Devices - Primary	\$9,377,961	\$7,957,666	\$908,986	\$112,171	\$161	\$308,109	\$90,866	\$0
1845-5	Underground Conductors and Devices - Secondary	\$8,316,305	\$7,072,209	\$782,183	\$96,052	\$0	\$282,536	\$83,324	\$0
1850	Line Transformers	\$23,814,248	\$20,326,623	\$2,236,246	\$190,538	\$0	\$819,235	\$241,606	\$0
1855	Services	\$26,931,810	\$26,931,810	\$0	\$0	\$0	\$0	\$0	\$0
1860	Meters	\$14,300,257	\$7,805,307	\$2,802,169	\$3,602,593	\$90,189	\$0	\$0	\$0
Sub-total									
		\$134,617,607	\$114,139,033	\$11,718,870	\$4,616,273	\$91,009	\$3,129,487	\$922,936	\$0
Accumulated Amortization									
	Accum. Amortization of Electric Utility Plant - Line Transformers, Services and Meters	(\$69,484,986)	(\$59,934,106)	(\$5,554,343)	(\$1,937,620)	(\$36,383)	(\$1,561,904)	(\$460,630)	\$0
	Customer Related Net Fixed Assets	\$65,132,621	\$54,204,928	\$6,164,527	\$2,678,653	\$54,626	\$1,567,583	\$462,305	\$0
	Allocated General Plant Net Fixed Assets	\$3,389,540	\$2,841,002	\$307,396	\$132,446	\$2,568	\$82,103	\$24,025	\$0
	Customer Related NFA Including General Plant	\$68,522,161	\$57,045,929	\$6,471,923	\$2,811,099	\$57,193	\$1,649,686	\$486,330	\$0
Misc Revenue									
4082	Retail Services Revenues	(\$29,000)	(\$17,023)	(\$3,943)	(\$7,107)	(\$616)	(\$241)	(\$69)	(\$1)
4084	Service Transaction Requests (STR) Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4090	Electric Services Incidental to Energy Sales	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4220	Other Electric Revenues	(\$4,300)	(\$2,524)	(\$585)	(\$1,054)	(\$91)	(\$36)	(\$10)	(\$0)
4225	Late Payment Charges	(\$242,900)	(\$145,287)	(\$44,734)	(\$52,530)	\$0	\$0	(\$349)	\$0
4235	Miscellaneous Service Revenues	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total									
		(\$276,200)	(\$164,834)	(\$49,261)	(\$60,691)	(\$707)	(\$277)	(\$428)	(\$2)
Operating and Maintenance									
5005	Operation Supervision and Engineering	\$235,195	\$207,007	\$17,513	\$2,667	\$94	\$6,088	\$1,796	\$30
5010	Load Dispatching	\$359,571	\$316,476	\$26,774	\$4,077	\$144	\$9,308	\$2,746	\$47
5020	Overhead Distribution Lines and Feeders - Operation Labour	\$267,249	\$226,878	\$25,743	\$3,174	\$4	\$8,843	\$2,608	\$0
5025	Overhead Distribution Lines & Feeders - Operation Supplies and Expenses	\$92,384	\$78,429	\$8,899	\$1,097	\$1	\$3,057	\$902	\$0
5035	Overhead Distribution Transformers- Operation	\$2,178	\$1,859	\$204	\$17	\$0	\$75	\$22	\$0
5040	Underground Distribution Lines and Feeders - Operation Labour	\$21,731	\$18,460	\$2,075	\$255	\$0	\$726	\$214	\$0
5045	Underground Distribution Lines & Feeders - Operation Supplies & Expenses	\$12,888	\$10,948	\$1,231	\$152	\$0	\$431	\$127	\$0
5055	Underground Distribution Transformers - Operation	\$8,698	\$7,424	\$817	\$70	\$0	\$299	\$88	\$0
5065	Meter Expense	\$395,613	\$215,932	\$77,521	\$99,665	\$2,495	\$0	\$0	\$0
5070	Customer Premises - Operation Labour	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5075	Customer Premises - Materials and Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5085	Miscellaneous Distribution Expense	\$824,904	\$726,038	\$61,423	\$9,353	\$330	\$21,354	\$6,301	\$107
5090	Underground Distribution Lines and Feeders - Rental Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5095	Overhead Distribution Lines and Feeders - Rental Paid	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5096	Other Rent	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5105	Maintenance Supervision and Engineering	\$230,454	\$202,834	\$17,160	\$2,613	\$92	\$5,966	\$1,760	\$30
5120	Maintenance of Poles, Towers and Fixtures	\$98,364	\$83,505	\$9,475	\$1,168	\$1	\$3,255	\$960	\$0
5125	Maintenance of Overhead Conductors and Devices	\$49,356	\$41,900	\$4,754	\$586	\$1	\$1,633	\$482	\$0
5130	Maintenance of Overhead Services	\$43,828	\$43,828	\$0	\$0	\$0	\$0	\$0	\$0
5135	Overhead Distribution Lines and Feeders - Right of Way	\$118,008	\$100,182	\$11,367	\$1,401	\$2	\$3,905	\$1,152	\$0
5145	Maintenance of Underground Conduit	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5150	Maintenance of Underground Conductors and Devices	\$867	\$736	\$83	\$10	\$0	\$29	\$9	\$0
5155	Maintenance of Underground Services	\$199,468	\$199,468	\$0	\$0	\$0	\$0	\$0	\$0
5160	Maintenance of Line Transformers	\$29,830	\$25,462	\$2,801	\$239	\$0	\$1,026	\$303	\$0
5175	Maintenance of Meters	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total									
		\$2,990,586	\$2,507,363	\$267,840	\$126,543	\$3,163	\$65,994	\$19,469	\$214
Billing and Collection									
5305	Supervision	\$60,654	\$52,704	\$6,574	\$1,336	\$2	\$13	\$24	\$2
5310	Meter Reading Expense	\$347,805	\$237,898	\$27,175	\$82,290	\$221	\$0	\$0	\$221
5315	Customer Billing	\$1,730,521	\$1,503,703	\$187,567	\$38,124	\$45	\$362	\$675	\$45
5320	Collecting	\$795,611	\$691,331	\$86,234	\$17,528	\$21	\$167	\$310	\$21
5325	Collecting - Cash Over and Short	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5330	Collection Charges	(\$123,860)	(\$107,626)	(\$13,425)	(\$2,729)	(\$3)	(\$26)	(\$48)	(\$3)
5335	Bad Debt Expense	\$92,000	\$24,987	\$8,231	\$58,782	\$0	\$0	\$0	\$0
5340	Miscellaneous Customer Accounts Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Sub-total									
		\$2,902,731	\$2,402,997	\$302,355	\$195,331	\$286	\$516	\$960	\$286
Sub Total Operating, Maintenance and Billing									
		\$5,893,317	\$4,910,360	\$570,195	\$321,874	\$3,449	\$66,510	\$20,429	\$500
Amortization Expense - Customer Related									
	Amortization Expense - General Plant assigned to Meters	\$2,581,075	\$1,964,677	\$307,332	\$239,168	\$6,609	\$48,550	\$14,330	\$409
	Admin and General	\$469,762	\$393,739	\$42,603	\$18,356	\$356	\$11,379	\$3,330	\$0
	Allocated PILs	\$2,187,043	\$1,804,547	\$219,125	\$127,459	\$1,387	\$26,283	\$8,066	\$176
	Allocated Debt Return	\$283,061	\$235,570	\$26,791	\$11,641	\$237	\$6,813	\$2,009	\$0
	Allocated Equity Return	\$1,879,519	\$1,564,180	\$177,888	\$77,297	\$1,576	\$45,235	\$13,341	\$0
		\$2,848,945	\$2,370,960	\$269,641	\$117,166	\$2,389	\$68,567	\$20,222	\$0

PLCC Adjustment for Line Transformer	\$229,705	\$196,097	\$21,533	\$1,835	\$0	\$7,909	\$2,332	\$0
PLCC Adjustment for Primary Costs	\$594,884	\$504,736	\$57,638	\$7,119	\$10	\$19,602	\$5,779	\$0
PLCC Adjustment for Secondary Costs	\$335,020	\$284,697	\$26,782	\$3,184	\$0	\$14,438	\$5,920	\$0
Total	\$14,706,913	\$12,093,670	\$1,458,361	\$840,133	\$15,286	\$231,112	\$67,268	\$1,083

Below: Grouping to avoid disclosure

Scenario 1

Accounts included in Avoided Costs Plus General Administration Allocation

Accounts	Total	Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
Distribution Plant								
CWMC	\$ 14,300,257	\$ 7,805,307	\$ 2,802,169	\$ 3,602,593	\$ 90,189	\$ -	\$ -	\$ -
Accumulated Amortization								
Accum. Amortization of Electric Utility Plant - Meters only	\$ (5,709,909)	\$ (3,116,559)	\$ (1,118,870)	\$ (1,438,469)	\$ (36,011)	\$ -	\$ -	\$ -
Meter Net Fixed Assets	\$ 8,590,348	\$ 4,688,748	\$ 1,683,299	\$ 2,164,124	\$ 54,177	\$ -	\$ -	\$ -
Misc Revenue								
CWNB	\$ (29,000)	\$ (17,023)	\$ (3,943)	\$ (7,107)	\$ (616)	\$ (241)	\$ (69)	\$ (1)
NFA	\$ (4,300)	\$ (2,524)	\$ (585)	\$ (1,054)	\$ (91)	\$ (36)	\$ (10)	\$ (0)
LPHA	\$ (242,900)	\$ (145,287)	\$ (44,734)	\$ (52,530)	\$ -	\$ -	\$ (349)	\$ -
Sub-total	\$ (276,200)	\$ (164,834)	\$ (49,261)	\$ (60,691)	\$ (707)	\$ (277)	\$ (428)	\$ (2)
Operation								
CWMC	\$ 395,613	\$ 215,932	\$ 77,521	\$ 99,665	\$ 2,495	\$ -	\$ -	\$ -
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-total	\$ 395,613	\$ 215,932	\$ 77,521	\$ 99,665	\$ 2,495	\$ -	\$ -	\$ -
Maintenance								
1860	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Billing and Collection								
CWMR	\$ 347,805	\$ 237,898	\$ 27,175	\$ 82,290	\$ 221	\$ -	\$ -	\$ 221
CWNB	\$ 2,402,272	\$ 2,087,408	\$ 260,376	\$ 52,923	\$ 63	\$ 503	\$ 936	\$ 63
Sub-total	\$ 2,750,077	\$ 2,325,306	\$ 287,550	\$ 135,213	\$ 284	\$ 503	\$ 936	\$ 284
Total Operation, Maintenance and Billing	\$ 3,145,690	\$ 2,541,238	\$ 365,072	\$ 234,878	\$ 2,779	\$ 503	\$ 936	\$ 284
Amortization Expense - Meters								
Allocated PILs	\$ 849,280	\$ 463,550	\$ 166,418	\$ 213,955	\$ 5,356	\$ -	\$ -	\$ -
Allocated Debt Return	\$ 35,517	\$ 19,362	\$ 6,968	\$ 8,962	\$ 225	\$ -	\$ -	\$ -
Allocated Equity Return	\$ 235,832	\$ 128,564	\$ 46,267	\$ 59,507	\$ 1,493	\$ -	\$ -	\$ -
Sub-total	\$ 357,470	\$ 194,875	\$ 70,132	\$ 90,200	\$ 2,263	\$ -	\$ -	\$ -
Total	\$ 4,347,589	\$ 3,182,755	\$ 605,596	\$ 546,811	\$ 11,410	\$ 226	\$ 508	\$ 282

Scenario 2

Accounts included in Directly Related Customer Costs Plus General Administration Allocation

Accounts	Total	Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
Distribution Plant								
CWMC	\$ 14,300,257	\$ 7,805,307	\$ 2,802,169	\$ 3,602,593	\$ 90,189	\$ -	\$ -	\$ -
Accumulated Amortization								
Accum. Amortization of Electric Utility Plant - Meters only	\$ (5,709,909)	\$ (3,116,559)	\$ (1,118,870)	\$ (1,438,469)	\$ (36,011)	\$ -	\$ -	\$ -
Meter Net Fixed Assets	\$ 8,590,348	\$ 4,688,748	\$ 1,683,299	\$ 2,164,124	\$ 54,177	\$ -	\$ -	\$ -
Allocated General Plant Net Fixed Assets	\$ 439,238	\$ 245,748	\$ 83,938	\$ 107,005	\$ 2,547	\$ -	\$ -	\$ -
Meter Net Fixed Assets Including General Plant	\$ 9,029,586	\$ 4,934,496	\$ 1,767,237	\$ 2,271,129	\$ 56,724	\$ -	\$ -	\$ -
Misc Revenue								
CWNB	\$ (29,000)	\$ (17,023)	\$ (3,943)	\$ (7,107)	\$ (616)	\$ (241)	\$ (69)	\$ (1)
NFA	\$ (4,300)	\$ (2,524)	\$ (585)	\$ (1,054)	\$ (91)	\$ (36)	\$ (10)	\$ (0)
LPHA	\$ (242,900)	\$ (145,287)	\$ (44,734)	\$ (52,530)	\$ -	\$ -	\$ (349)	\$ -
Sub-total	\$ (276,200)	\$ (164,834)	\$ (49,261)	\$ (60,691)	\$ (707)	\$ (277)	\$ (428)	\$ (2)
Operation								
CWMC	\$ 395,613	\$ 215,932	\$ 77,521	\$ 99,665	\$ 2,495	\$ -	\$ -	\$ -
CCA	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-total	\$ 395,613	\$ 215,932	\$ 77,521	\$ 99,665	\$ 2,495	\$ -	\$ -	\$ -
Maintenance								
1860	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Billing and Collection								
CWMR	\$ 347,805	\$ 237,898	\$ 27,175	\$ 82,290	\$ 221	\$ -	\$ -	\$ 221
CWNB	\$ 2,402,272	\$ 2,087,408	\$ 260,376	\$ 52,923	\$ 63	\$ 503	\$ 936	\$ 63
Sub-total	\$ 2,750,077	\$ 2,325,306	\$ 287,550	\$ 135,213	\$ 284	\$ 503	\$ 936	\$ 284

Total Operation, Maintenance and Billing	\$ 3,145,690	\$ 2,541,238	\$ 365,072	\$ 234,878	\$ 2,779	\$ 503	\$ 936	\$ 284
Amortization Expense - Meters	\$ 849,280	\$ 463,550	\$ 166,418	\$ 213,955	\$ 5,356	\$ -	\$ -	\$ -
Amortization Expense - General Plant assigned to Meters	\$ 60,875	\$ 34,059	\$ 11,633	\$ 14,830	\$ 353	\$ -	\$ -	\$ -
Admin and General	\$ 1,168,991	\$ 933,899	\$ 140,299	\$ 93,009	\$ 1,118	\$ 199	\$ 370	\$ 100
Allocated PILs	\$ 37,333	\$ 20,377	\$ 7,315	\$ 9,405	\$ 235	\$ -	\$ -	\$ -
Allocated Debt Return	\$ 247,890	\$ 135,302	\$ 48,575	\$ 62,450	\$ 1,563	\$ -	\$ -	\$ -
Allocated Equity Return	\$ 375,748	\$ 205,089	\$ 73,629	\$ 94,660	\$ 2,370	\$ -	\$ -	\$ -
Total	\$ 5,609,606	\$ 4,168,680	\$ 763,677	\$ 662,496	\$ 13,068	\$ 424	\$ 878	\$ 383

Scenario 3

Minimum System Customer Costs Adjusted for PLCC - High Limit Fixed Customer Charge

USoA Account #	Accounts	Total	Residential	GS <50	GS>50-Regular	Large Use >5MW	Street Light	Unmetered Scattered Load	Embedded Distributor
Distribution Plant									
CDMPP		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Poles, Towers and Fixtures		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
BCP		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PNCP		\$ 47,667,012	\$ 40,447,832	\$ 4,620,265	\$ 570,150	\$ 820	\$ 1,566,082	\$ 461,862	\$ -
SNCP		\$ 21,904,281	\$ 18,627,462	\$ 2,060,189	\$ 252,992	\$ -	\$ 744,170	\$ 219,468	\$ -
Overhead Conductors and Devices		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
LTNCP		\$ 23,814,248	\$ 20,326,623	\$ 2,236,246	\$ 190,538	\$ -	\$ 819,235	\$ 241,606	\$ -
CWCS		\$ 26,931,810	\$ 26,931,810	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CWMC		\$ 14,300,257	\$ 7,805,307	\$ 2,802,169	\$ 3,602,593	\$ 90,189	\$ -	\$ -	\$ -
Sub-total		\$ 134,617,607	\$ 114,139,033	\$ 11,718,870	\$ 4,616,273	\$ 91,009	\$ 3,129,467	\$ 922,936	\$ -
Accumulated Amortization									
Accum. Amortization of Electric Utility Plant -Line Transformers, Services and Meters		\$ (69,484,986)	\$ (59,934,106)	\$ (5,554,343)	\$ (1,937,620)	\$ (36,383)	\$ (1,561,904)	\$ (460,630)	\$ -
Customer Related Net Fixed Assets		\$ 65,132,621	\$ 54,204,928	\$ 6,164,527	\$ 2,678,653	\$ 54,626	\$ 1,567,583	\$ 462,305	\$ -
Allocated General Plant Net Fixed Assets		\$ 3,389,540	\$ 2,841,002	\$ 307,396	\$ 132,446	\$ 2,568	\$ 82,103	\$ 24,025	\$ -
Customer Related NFA Including General Plant		\$ 68,522,161	\$ 57,045,929	\$ 6,471,923	\$ 2,811,099	\$ 57,193	\$ 1,649,686	\$ 486,330	\$ -
Misc Revenue									
CWNB		\$ (29,000)	\$ (17,023)	\$ (3,943)	\$ (7,107)	\$ (616)	\$ (241)	\$ (69)	\$ (1)
NFA		\$ (4,300)	\$ (2,524)	\$ (585)	\$ (1,054)	\$ (91)	\$ (36)	\$ (10)	\$ (0)
LPHA		\$ (242,900)	\$ (145,287)	\$ (44,734)	\$ (52,530)	\$ -	\$ -	\$ (349)	\$ -
Sub-total		\$ (276,200)	\$ (164,834)	\$ (49,261)	\$ (60,691)	\$ (707)	\$ (277)	\$ (428)	\$ (2)
Operating and Maintenance									
1815-1855		\$ 1,650,125	\$ 1,452,354	\$ 122,870	\$ 18,709	\$ 659	\$ 42,716	\$ 12,604	\$ 214
1830 & 1835		\$ 477,641	\$ 405,488	\$ 46,009	\$ 5,672	\$ 6	\$ 15,805	\$ 4,661	\$ -
1850		\$ 40,706	\$ 34,745	\$ 3,822	\$ 326	\$ -	\$ 1,400	\$ 413	\$ -
1840 & 1845		\$ 34,619	\$ 29,408	\$ 3,306	\$ 407	\$ 0	\$ 1,157	\$ 341	\$ -
CWMC		\$ 395,613	\$ 215,932	\$ 77,521	\$ 99,665	\$ 2,495	\$ -	\$ -	\$ -
CCA		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
O&M		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1830		\$ 98,364	\$ 83,505	\$ 9,475	\$ 1,168	\$ 1	\$ 3,255	\$ 960	\$ -
1835		\$ 49,356	\$ 41,900	\$ 4,754	\$ 586	\$ 1	\$ 1,633	\$ 482	\$ -
1855		\$ 243,296	\$ 243,296	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1840		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
1845		\$ 867	\$ 736	\$ 83	\$ 10	\$ 0	\$ 29	\$ 9	\$ -
1860		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Sub-total		\$ 2,990,586	\$ 2,507,363	\$ 267,840	\$ 126,543	\$ 3,163	\$ 65,994	\$ 19,469	\$ 214
Billing and Collection									
CWNB		\$ 2,462,926	\$ 2,140,112	\$ 266,950	\$ 54,259	\$ 65	\$ 516	\$ 960	\$ 64
CWMR		\$ 347,805	\$ 237,898	\$ 27,175	\$ 82,290	\$ 221	\$ -	\$ -	\$ 221
BDHA		\$ 92,000	\$ 24,987	\$ 8,231	\$ 58,782	\$ -	\$ -	\$ -	\$ -
Sub-total		\$ 2,902,731	\$ 2,402,997	\$ 302,355	\$ 195,331	\$ 286	\$ 516	\$ 960	\$ 286
Sub Total Operating, Maintenance and Billing		\$ 5,893,317	\$ 4,910,360	\$ 570,195	\$ 321,874	\$ 3,449	\$ 66,510	\$ 20,429	\$ 500
Amortization Expense - Customer Related		\$ 2,581,075	\$ 1,964,677	\$ 307,332	\$ 239,168	\$ 6,609	\$ 48,550	\$ 14,330	\$ 409
Amortization Expense - General Plant assigned to Meters		\$ 469,762	\$ 393,739	\$ 42,603	\$ 18,356	\$ 356	\$ 11,379	\$ 3,330	\$ -
Admin and General		\$ 2,187,043	\$ 1,804,547	\$ 219,125	\$ 127,459	\$ 1,387	\$ 26,283	\$ 8,066	\$ 176
Allocated PILs		\$ 283,061	\$ 235,570	\$ 26,791	\$ 11,641	\$ 237	\$ 6,813	\$ 2,009	\$ -
Allocated Debt Return		\$ 1,879,519	\$ 1,564,180	\$ 177,888	\$ 77,297	\$ 1,576	\$ 45,235	\$ 13,341	\$ -
Allocated Equity Return		\$ 2,848,945	\$ 2,370,960	\$ 269,641	\$ 117,166	\$ 2,389	\$ 68,567	\$ 20,222	\$ -
PLCC Adjustment for Line Transformer		\$ 229,705	\$ 196,097	\$ 21,533	\$ 1,835	\$ -	\$ 7,909	\$ 2,332	\$ -
PLCC Adjustment for Primary Costs		\$ 594,884	\$ 504,736	\$ 57,638	\$ 7,119	\$ 10	\$ 19,602	\$ 5,779	\$ -
PLCC Adjustment for Secondary Costs		\$ 335,020	\$ 284,697	\$ 26,782	\$ 3,184	\$ -	\$ 14,438	\$ 5,920	\$ -
Total		\$ 14,706,913	\$ 12,093,670	\$ 1,458,361	\$ 840,133	\$ 15,286	\$ 231,112	\$ 67,268	\$ 1,083