## COST ALLOCATION <br> TABLE OF CONTENTS

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## COST ALLOCATION

## Overview

The Board's requirements for Exhibit 7 - Cost Allocation are contained in section 2.10 of the Filing Requirements. OPUCN's filing follows the Board's Review of Electricity Distribution Cost Allocation Policy (EB-2010-0219) (the "Cost Allocation Review") dated March 31, 2011.

In its previous 2012 Cost of Service Application, OPUCN's 2012 Cost Allocation Model ("2012 OPUCN Model") used the structure of the Board's 2006 Cost Allocation Model ("2006 Board CA Model") for the 2012 cost allocation study. The 2006 Board CA model was used for OPUCN's 2006 Cost Allocation Information Filing ("CAIF"). The 2012 OPUCN Model was prepared in accordance with the September 29, 2006 Board report entitled Cost Allocation: Board Directions on Cost Allocation Methodology for Electricity Distributors (the "Directions"), the subsequent (November 15, 2006) Cost Allocation Informational Filing Guidelines for Electricity Distributors (the "Guidelines"), and the Cost Allocation Review: User Instruction for the Cost Allocation Model for Electricity Distributors (the "Instructions").

For purposes of its 2015-2019 Custom IR Application, which is comprised of five test years, OPUCN has prepared a cost allocation model for each of the five test years using the Board's v 3.1 Cost Allocation Model ("Board 3.1 CA Model") and complied with the internal documentation contained in the that model. The Board 3.1 CA Models have been used to determine the proportion of OPUCN's total revenue requirement that is recoverable from each rate class in each year. The revenue-to-cost ratios for each class for each test year have been determined using the total revenues over costs in each respective test year.

In preparation for this Application, OPUCN engaged Bruce Bacon at Borden Ladner Gervais LLP to undertake a review of OPUCN's 2015 to 2019 CA Models.

## Load and Customer Information

The OPUCN 2015-2019 CA Models have been prepared using the following load and load profile information:

Annual Loads (kW and kWh, as appropriate) and customer counts: The 2015-2019 load forecast and customer counts by class provided in Exhibit 3 were also used for the 2015-2019 CA Models.

Hourly load profile: The hourly load profiles prepared by Hydro One for the 2006 CAIF were used for all classes. The hourly load profiles provided by Hydro One were considered appropriate for use in the 2015-2019 CA Models.

## Costs and Revenues

In preparing the 2015 - 2019 CA Models, OPUCN has provided financial information for the forecast years at the level of detail embedded within the Board's 3.1 CA Model.

## Load Profiles

The OPUCN hourly load shapes derived by Hydro One for the 2006 CAIF were used without any revision for all rate classes.

## Demand Allocators

The demand allocators for the 2015-2019 CA models were derived using the same methodology Hydro One used for the 2006 CAIF, but updated for the forecast 20152019 hourly load profiles resulting from the preceding step.

## Weighting Factors

OPUCN does not separately identify service costs into USA account 1855 - these costs are allocated to other USA accounts as appropriate, primarily USA accounts 1835 (Overhead Conductors and Devices) and 1845 (Underground Conductors and Devices). As there are no costs in USA account 1855 to allocate, OPUCN has used a weighting factor of 1.0 for each customer class in its Cost Allocation model.

OPUCN splits billing \& collection costs between amounts readily calculable by class (e.g. mailing costs) and those not readily calculable by class. Costs not readily
calculable by class are allocated using actual collection activity as measured by collection charges billed and by estimated incremental bill preparation costs by class. The resulting weighting factors are as follows:

| Residential | GS<50 kW | GS 50 to <br> $999 \mathrm{~kW}(11$ <br> \& 14) | GS 1,000 to <br> $4,999 \mathrm{~kW}$ <br> $(12)$ | Large Use <br> $(13)$ | Street <br> Lighting | USL | Sentinel <br> Lights |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1.0 | 1.5 | 7.0 | 7.0 | 15.0 | 3.5 | 1.0 | 0.1 |

The Meter Reading weighting factors have been updated to incorporate the costs per meter type.

## CLASS REVENUE REQUIREMENTS AND REVENUE TO COST RATIOS

The results of a cost allocation study are typically presented in the form of revenue-tocost ratios. This is shown by rate classification and is the ratio of distribution revenue collected by rate classification compared to the costs allocated to the classification. A ratio lower than the Board's floor for that rate class indicates the rate classification is under-contributing and is being subsidized by other classes of customers. A ratio greater than the Board's ceiling indicates the rate classification is over-contributing and is subsidizing other classes of customers.

In its Cost Allocation Review, the Board established appropriate ranges of revenue-tocost ratios as summarized in Table C of OEB Appendix 2P. In addition, Table C -Revenue-to-Cost Ratios provides: OPUCN's revenue-to-cost ratios from its last Cost of Service Application (EB-2011-0073); and the proposed 2015 to 2019 ratios.

Tables 7-2, 7-5, 7-8, 7-11, and 7-14 provide information on calculated class revenues. The resulting 2015 proposed base revenue amounts are used in Exhibit 8 to design the proposed distribution charges in this Application.

As required in the Chapter 2 Filing Requirements, copies of input sheets I-6, I-8, output O-1 and O-2 are included as Appendices 7-1 - 7-5. In addition, a live excel version of the 2015-2019 CA models have been filed with this Application.

## Host Distributor

OPUCN is not a host distributor to any distributor within its service territory.
Table 7-1: Chapter 2 Filing Requirement Appendix 2P (A) - Allocated Costs - 2015

| Classes | $\begin{array}{c}\text { Costs Allocated } \\ \text { from Previous } \\ \text { Study }\end{array}$ | $\%$ |  |  | $\begin{array}{c}\text { Costs Allocated } \\ \text { in Test Year } \\ \text { Study }\end{array}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| (Column 7A) |  |  |  |  |  |$)$

Table 7-2: Chapter 2 Filing Requirement Appendix 2P (B) - Calculated Class
Revenues-2015

| Classes (same as previous table) | Column 7B |  | Column 7C |  | Column 7D |  | Column 7E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Load Forecast <br> (LF) X current <br> approved rates |  | L.F. X current approved rates $X(1+d)$ |  | LF X proposed rates |  | Miscellaneous Revenue |  |
| Residential | \$ | 11,056,940 | \$ | 12,748,950 | \$ | 12,989,758 | \$ | 971,951 |
| GS Less Than 50 KW | \$ | 2,737,884 | \$ | 3,156,855 | \$ | 2,891,879 | \$ | 133,442 |
| GS 50 To 999 KW | \$ | 3,628,963 | \$ | 4,184,292 | \$ | 4,184,292 | \$ | 148,940 |
| GS Intermediate 1,000 To 4,999 KW | \$ | 462,750 | \$ | 533,563 | \$ | 440,184 | \$ | 15,868 |
| Large Use | \$ | 247,755 | \$ | 285,668 | \$ | 274,056 | \$ | 5,269 |
| Street Lighting | \$ | 518,700 | \$ | 598,075 | \$ | 723,008 | \$ | 56,736 |
| Sentinel Lighting | \$ | 1,777 | \$ | 2,049 | \$ | 1,855 | \$ | 115 |
| Unmetered Scattered Load | \$ | 48,406 | \$ | 55,813 | \$ | 60,232 | \$ | 3,999 |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | 18,703,174 | \$ | 21,565,264 | \$ | 21,565,264 | \$ | 1,336,319 |

Table 7-3: Chapter 2 Filing Requirement Appendix 2P (C) - Rebalancing Revenue-to-Cost (R/C) Ratios - 2015

| Class | Previously Approved Ratios | Status Quo Ratios | Proposed Ratios | Policy Range |
| :---: | :---: | :---: | :---: | :---: |
|  | Most Recent Year: 2012 | (7C + 7E) / (7A) | (7D + 7E) / (7A) |  |
|  | \% | \% | \% | \% |
| Residential | 94.2 | 93.8 | 95.5 | 85-115 |
| GS Less Than 50 KW | 120.0 | 130.5 | 120.0 | 80-120 |
| GS 50 To 999 KW | 108.2 | 101.9 | 101.9 | 80-120 |
| GS Intermediate 1,000 To 4,999 KW | 120.0 | 144.6 | 120.0 | 80-120 |
| Large Use | 115.0 | 119.8 | 115.0 | 85-115 |
| Street Lighting | 87.3 | 80.2 | 95.5 | 70-120 |
| Sentinel Lighting | 120.0 | 131.8 | 120.0 | 70-120 |
| Unmetered Scattered Load | 90.2 | 88.9 | 95.5 | 80-120 |

Table 7-4: Chapter 2 Filing Requirement Appendix 2P (A) - Allocated Costs - 2016

| Classes | $\begin{array}{c}\text { Costs Allocated } \\ \text { from Previous } \\ \text { Study }\end{array}$ | $\%$ |  |  | $\begin{array}{c}\text { Costs Allocated } \\ \text { in Test Year } \\ \text { Study }\end{array}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| (Column 7A) |  |  |  |  |  |$]$

Table 7-5: Chapter 2 Flimg Requirement Appendix 2P (B) - Calculated Class Revenues-2016

| Classes (same as previous table) | Column 7B |  | Column 7C |  | Column 7D |  | Column 7E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Load Forecast (LF) $X$ current approved rates |  | L.F. X current approved rates$X(1+d)$ |  | LF X proposed rates |  | Miscellaneous Revenue |  |
| Residential | \$ | 13,210,721 | \$ | 14,214,673 | \$ | 14,059,352 | \$ | 1,088,658 |
| GS Less Than 50 KW | \$ | 2,957,570 | \$ | 3,182,331 | \$ | 3,167,698 | \$ | 151,656 |
| GS 50 To 999 KW | \$ | 4,376,364 | \$ | 4,708,946 | \$ | 4,708,946 | \$ | 176,769 |
| GS Intermediate 1,000 To 4,999 KW | \$ | 425,151 | \$ | 457,461 | \$ | 453,208 | \$ | 17,246 |
| Large Use | \$ | 278,994 | \$ | 300,197 | \$ | 300,197 | \$ | 6,675 |
| Street Lighting | \$ | 574,316 | \$ | 617,961 | \$ | 791,950 | \$ | 61,989 |
| Sentinel Lighting | \$ | 1,792 | \$ | 1,928 | \$ | 1,891 | \$ | 120 |
| Unmetered Scattered Load | \$ | 59,625 | \$ | 64,157 | \$ | 64,411 | \$ | 3,826 |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | 21,884,533 | \$ | 23,547,653 | \$ | 23,547,653 | \$ | 1,506,940 |

Table 7-6: Chapter 2 Filing Requirement Appendix 2P (C) - Rebalancing Revenue-to-Cost (R/C) Ratios - 2016

| Class | $\begin{array}{c}\text { Previously } \\ \text { Approved Ratios } \\ \text { Most Recent } \\ \text { Year: } \\ \mathbf{2 0 1 2}\end{array}$ | $\begin{array}{c}\text { Status Quo } \\ \text { Ratios }\end{array}$ | $\begin{array}{c}\text { (7C + 7E) / (7A) }\end{array}$ | (7D + 7E) / (7A) |
| :--- | :---: | :---: | :---: | :---: |$]$

Table 7-7: Chapter 2 Filing Requirement Appendix 2P (A) - Allocated Costs - 2017

| Classes | $\begin{array}{c}\text { Costs Allocated } \\ \text { from Previous } \\ \text { Study }\end{array}$ | $\%$ |  |  | $\begin{array}{c}\text { Costs Allocated } \\ \text { in Test Year } \\ \text { Study }\end{array}$ |
| :--- | ---: | ---: | ---: | ---: | ---: |
| (Column 7A) |  |  |  |  |  |$)$

Table 7-8 Chapter 2 Filing Requirement Appendix 2P (B) - Calculated Class
Revenues - 2017

| Classes (same as previous table) | Column 7B |  | Column 7C |  | Column 7D |  | Column 7E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Load Forecast (LF) X current approved rates |  | L.F. X current approved rates X (1 + d) |  | LF X proposed rates |  | Miscellaneous Revenue |  |
| Residential | \$ | 14,230,728 | \$ | 14,492,492 | \$ | 14,497,267 | \$ | 1,170,145 |
| GS Less Than 50 KW | \$ | 3,213,031 | \$ | 3,272,133 | \$ | 3,272,133 | \$ | 164,194 |
| GS 50 To 999 KW | \$ | 4,888,159 | \$ | 4,978,073 | \$ | 4,978,073 | \$ | 198,796 |
| GS Intermediate 1,000 To 4,999 KW | \$ | 432,896 | \$ | 440,859 | \$ | 441,992 | \$ | 17,775 |
| Large Use | \$ | 305,206 | \$ | 310,820 | \$ | 310,820 | \$ | 7,823 |
| Street Lighting | \$ | 815,042 | \$ | 830,034 | \$ | 824,173 | \$ | 67,706 |
| Sentinel Lighting | \$ | 1,825 | \$ | 1,859 | \$ | 1,822 | \$ | 121 |
| Unmetered Scattered Load | \$ | 63,796 | \$ | 64,970 | \$ | 64,959 | \$ | 4,631 |
| Total | \$ | 23,950,683 | \$ | 24,391,239 | \$ | 24,391,239 | \$ | 1,631,192 |

Table 7-9: Chapter 2 Filing Requirement Appendix 2P (C) - Rebalancing Revenue-to-Cost (R/C) Ratios - 2017

| Class | Previously Approved Ratios | Status Quo Ratios | Proposed Ratios | Policy Range |
| :---: | :---: | :---: | :---: | :---: |
|  | Most Recent Year: 2012 | (7C + 7E) / (7A) | (7D + 7E) / (7A) |  |
|  | \% | \% | \% | \% |
| Residential | 94.2 | 96.5 | 96.6 | 85-115 |
| GS Less Than 50 KW | 120.0 | 119.3 | 119.3 | 80-120 |
| GS 50 To 999 KW | 108.2 | 99.1 | 99.1 | 80-120 |
| GS Intermediate 1,000 To 4,999 KW | 120.0 | 119.7 | 120.0 | 80-120 |
| Large Use | 115.0 | 102.6 | 102.6 | 85-115 |
| Street Lighting | 87.3 | 97.2 | 96.6 | 70-120 |
| Sentinel Lighting | 120.0 | 122.2 | 120.0 | 70-120 |
| Unmetered Scattered Load | 90.2 | 96.6 | 96.6 | 80-120 |

Table 7-10: Chapter 2 Filing Requirement Appendix 2P (A) - Allocated Costs 2018

| Classes | Costs Allocated from Previous Study |  | \% | Costs Allocated in Test Year Study (Column 7A) |  | \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residential | \$ | 16,224,635 | 62.35\% | - | 16,689,371 | 61.68\% |
| GS Less Than 50 KW | \$ | 2,880,920 | 11.07\% | \$ | 3,000,053 | 11.09\% |
| GS 50 To 999 KW | \$ | 5,225,884 | 20.08\% | \$ | 5,626,356 | 20.79\% |
| GS Intermediate 1,000 To 4,999 KW | \$ | 383,139 | 1.47\% |  | 371,585 | 1.37\% |
| Large Use | \$ | 310,567 | 1.19\% | \$ | 337,580 | 1.25\% |
| Street Lighting | \$ | 923,600 | 3.55\% | \$ | 958,233 | 3.54\% |
| Sentinel Lighting | \$ | 1,620 | 0.01\% | \$ | 1,571 | 0.01\% |
| Unmetered Scattered Load | \$ | 72,065 | 0.28\% | \$ | 72,872 | 0.27\% |
|  |  |  | 0.00\% |  |  | 0.00\% |
| Total | \$ | 26,022,430 | 100.00\% | \$ | 27,057,622 | 100.00\% |

## Table 7-11: Chapter 2 Filing Requirement Appendix 2P (B) - Calculated Class Revenues - 2018

| Classes (same as previous table) | Column 7B |  | Column 7C |  | Column 7D |  | Column 7E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Load Forecast (LF) X current approved rates |  | L.F. X current approved rates X (1 + d) |  | LF X proposed rates |  | Miscellaneous Revenue |  |
| Residential | \$ | 14,695,973 | \$ | 15,139,326 | \$ | 15,147,908 | \$ | 1,046,222 |
| GS Less Than 50 KW | \$ | 3,327,817 | \$ | 3,428,212 | \$ | 3,428,212 | \$ | 145,865 |
| GS 50 To 999 KW | \$ | 5,174,182 | \$ | 5,330,278 | \$ | 5,330,278 | \$ | 171,773 |
| GS Intermediate 1,000 To 4,999 KW | \$ | 427,127 | \$ | 440,013 | \$ | 430,807 | \$ | 15,095 |
| Large Use | \$ | 315,890 | \$ | 325,420 | \$ | 325,420 | \$ | 6,140 |
| Street Lighting | \$ | 848,542 | \$ | 874,141 | \$ | 874,141 | \$ | 63,164 |
| Sentinel Lighting | \$ | 1,758 | \$ | 1,811 | \$ | 1,782 | \$ | 104 |
| Unmetered Scattered Load | \$ | 64,107 | \$ | 66,041 | \$ | 66,695 | \$ | 4,015 |
|  |  |  |  |  |  |  |  |  |
| Total | \$ | 24,855,397 | \$ | 25,605,243 | \$ | 25,605,243 | \$ | 1,452,379 |

Table 7-12: Chapter 2 Filing Requirement Appendix 2P (C) - Rebalancing Revenue-to-Cost (R/C) Ratios - 2018

| Class | Previously Approved Ratios | Status Quo Ratios | Proposed Ratios | Policy Range |
| :---: | :---: | :---: | :---: | :---: |
|  | Most Recent Year: 2012 | (7C + 7E) / (7A) | (7D + 7E) / (7A) |  |
|  | \% | \% | \% | \% |
| Residential | 94.2 | 97.0 | 97.0 | 85-115 |
| GS Less Than 50 KW | 120.0 | 119.1 | 119.1 | 80-120 |
| GS 50 To 999 KW | 108.2 | 97.8 | 97.8 | 80-120 |
| GS Intermediate 1,000 To 4,999 KW | 120.0 | 122.5 | 120.0 | 80-120 |
| Large Use | 115.0 | 98.2 | 98.2 | 85-115 |
| Street Lighting | 87.3 | 97.8 | 97.8 | 70-120 |
| Sentinel Lighting | 120.0 | 121.9 | 120.0 | 70-120 |
| Unmetered Scattered Load | 90.2 | 96.1 | 97.0 | 80-120 |

Table 7-13: Chapter 2 Filing Requirement Appendix 2P (A) - Allocated Costs 2019

| Classes | $\begin{array}{c}\text { Costs Allocated } \\ \text { from Previous } \\ \text { Study }\end{array}$ | $\%$ | $\begin{array}{c}\text { Costs Allocated } \\ \text { in Test Year } \\ \text { Study }\end{array}$ |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| (Column 7A) |  |  |  |  |$)$

Table 7-14: Chapter 2 Filing Requirement Appendix 2P (B) - Calculated Class Revenues - 2019

| Classes (same as previous table) | Column 7B |  | Column 7C |  | Column 7D |  | Column 7E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Load Forecast (LF) X current approved rates |  | L.F. X current approved rates$X(1+d)$ |  | LF X proposed rates |  | Miscellaneous Revenue |  |
| Residential | \$ | 15,353,560 | \$ | 15,415,529 | \$ | 15,429,706 | \$ | 1,095,517 |
| GS Less Than 50 KW | \$ | 3,485,264 | \$ | 3,499,331 | \$ | 3,499,331 | \$ | 152,120 |
| GS 50 To 999 KW | \$ | 5,534,959 | \$ | 5,557,299 | \$ | 5,557,299 | \$ | 179,622 |
| GS Intermediate 1,000 To 4,999 KW | \$ | 417,113 | \$ | 418,797 | \$ | 404,346 | \$ | 14,886 |
| Large Use | \$ | 330,677 | \$ | 332,012 | \$ | 332,012 | \$ | 6,422 |
| Street Lighting | \$ | 899,251 | \$ | 902,881 | \$ | 902,881 | \$ | 64,878 |
| Sentinel Lighting | \$ | 1,718 | \$ | 1,725 | \$ | 1,699 | \$ | 101 |
| Unmetered Scattered Load | \$ | 66,004 | \$ | 66,270 | \$ | 66,569 | \$ | 4,085 |
| Total | \$ | 26,088,546 | \$ | 26,193,843 | \$ | 26,193,843 | \$ | 1,517,631 |

Table 7-15: Chapter 2 Filing Requirement Appendix 2P (C) - Rebalancing Revenue-to-Cost (R/C) Ratios - 2019

| Class | Previously <br> Approved Ratios | Status Quo <br> Ratios | Proposed Ratios |
| :--- | :---: | :---: | :---: | :---: | Policy Range

Table 7-16: proposed Revenue-to-Cost (R/C) Ratios - 2015 to 2019

| Class | Approved | Proposed Revenue-to-Cost Ratios |  |  |  |  | Policy |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2012 | 2015 | 2016 | 2017 | 2018 | 2019 | Range |
|  | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |
| Residential | 94.2 | 95.5 | 95.7 | 96.6 | 97.0 | 97.4 | $85-115$ |
| GS Less Than 50 KW | 120.0 | 120.0 | 120.0 | 119.3 | 119.1 | 118.9 | $80-120$ |
| GS 50 To 999 KW | 108.2 | 101.9 | 101.2 | 99.1 | 97.8 | 97.0 | $80-120$ |
| GS Intermediate 1,000 To 4,999 KW | 120.0 | 120.0 | 120.0 | 120.0 | 120.0 | 120.0 | $80-120$ |
| Large Use | 115.0 | 115.0 | 109.6 | 102.6 | 98.2 | 95.3 | $85-115$ |
| Street Lighting | 87.3 | 95.5 | 95.7 | 96.6 | 97.8 | 99.4 | $70-120$ |
| Sentinel Lighting | 120.0 | 120.0 | 120.0 | 120.0 | 120.0 | 120.0 | $70-120$ |
| Unmetered Scattered Load | 90.2 | 95.5 | 95.7 | 96.6 | 97.0 | 97.4 | $80-120$ |

## APPENDIX 7-1: 2015 UPDATED COST ALLOCATION STUDY



## 2015 Cost Allocation Model

EB-2014-0101
Sheet I6.1 Revenue Worksheet - 31 May 2014 Submission

\section*{| Total kWhs from Load Forecast | $1,107,580,970$ |
| :--- | :--- |}


| Total kWs from Load Forecast | $1,193,061$ |
| :---: | ---: |


| Deficiency/sufficiency (RRWF 8. <br> cell F51) | $\$(2,862,090)$ |
| :---: | ---: |


| Miscellaneous Revenue (RRWF 5. <br> cell F48) | $\$ 1,336,319$ |
| :---: | ---: |




EB-2014-0101
Sheet 16.2 Customer Data Worksheet - 31 May 2014 Submission

| Billing Data |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ID | Total | Residential | GS < 50 kW | $\begin{aligned} & \text { GS } 50 \text { to } 999 \\ & \text { kW (I \& I4) } \end{aligned}$ | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
|  |  |  |  |  |  |  |  |  |  |  |
| Bad Debt 3 Year Historical Average | BDHA | \$402,103 | \$357,872 | \$34,581 | \$9,650 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Late Payment 3 Year Historical Average | LPHA | \$290,256 | \$228,034 | \$35,182 | \$18,942 | \$6,809 | \$0 | \$755 | \$535 | \$0 |
| Number of Bills | CNB | 679,086 | 620,186 | 48,500 | 6,180 | 136 | 12 | 12 | 3,547 | 513 |
| Number of Devices |  |  |  |  |  |  |  |  |  |  |
| Number of Connections (Unmetered) | CCON | 13,276 |  |  |  |  |  | 12,958 | 296 | 22 |
| Total Number of Customers | CCA | 56,251 | 51,682 | 4,042 | 515 | 11 | 1 |  |  |  |
| Bulk Customer Base | CCB | - |  |  |  |  |  |  |  |  |
| Primary Customer Base | CCP | 56,251 | 51,682 | 4,042 | 515 | 11 | 1 | - |  |  |
| Line Transformer Customer Base | CCLT | 56,231 | 51,682 | 4,040 | 508 | 2 | - |  |  |  |
| Secondary Customer Base | CCS | 56,225 | 51,682 | 4,035 | 506 | 2 |  |  |  |  |
| Weighted - Services | CWCS | 69,501 | 51,682 | 4,035 | 506 | 2 | - | 12,958 | 296 | 22 |
| Weighted Meter -Capital | CWMC | 16,268,252 | 12,973,046 | 2,767,906 | 515,000 | 11,300 | 1,000 | - | - | - |
| Weighted Meter Reading | CWMR | 56,778 | 51,682 | 4,042 | 1,030 | 23 | 2 | - | - | - |
| Weighted Bills | CWNB | 740,966 | 620,186 | 72,750 | 43,260 | 949 | 180 | 42 | 3,547 | 51 |

Bad Debt Data

| Historic Year: | 2011 |
| :--- | :--- |
| Historic Year: | 2012 |
| Historic Year: | 2013 |

Historic Year:
Three-year average



EB-2014-0101


## EB-2014-010

Sheet O1 Revenueto Cost Summary Worksheet - 31 May 2014 Submission



EB-2014-0101
Sheet O2 Monthly Fixed Charge Min. \& Max. Worksheet - 31 May 2014 Submission
Output sheet showing minimum and maximum level for
Monthly Fixed Charge

## Summary

Customer Unit Cost per month - Avoided Cost
Customer Unit Cost per month - Directly Related
Customer Unit Cost per month - Minimum System with PLCC Adjustment

Existing Approved Fixed Charge

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residential | GS $<\mathbf{5 0} \mathbf{~ k W}$ | GS 50 to 999 <br> kW ( $\mathbf{I C ~ \& ~ 1 4 ) ~}$ | GS 1,000 to <br> $\mathbf{4 , 9 9 9} \mathbf{~ k W ~ ( I 2 ) ~}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
| $\$ 4.12$ | $\$ 7.64$ | $\$ 19.03$ | $-\$ 28.21$ | $\$ 36.93$ | $\$ 0.00$ | $\$ 1.81$ | $\$ 0.38$ |
| $\$ 7.93$ | $\$ 13.22$ | $\$ 41.03$ | $-\$ 6.15$ | $\$ 80.46$ | $\$ 0.00$ | $\$ 4.36$ | $\$ 0.87$ |
| $\$ 13.67$ | $\$ 19.63$ | $\$ 52.44$ | $-\$ 1.86$ | $\$ 88.62$ | $\$ 5.34$ | $\$ 8.58$ | $\$ 6.26$ |
| $\$ 8.47$ | $\$ 8.38$ | $\$ 43.13$ | $\$ 1,221.57$ | $\$ 8,270.63$ | $\$ 1.17$ | $\$ 3.34$ | $\$ 4.34$ |

## APPENDIX 7-2: 2016 UPDATED COST ALLOCATION STUDY



## 2016 Cost Allocation Model

EB-2014-0101
Sheet I6.1 Revenue Worksheet - 31 May 2014 Submission

| Total kWhs from Load Forecast | 1,124,788,537 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total kWs from Load Forecast | 1,222,934 |  |  |  |  |  |  |  |  |  |
| Deficiency/sufficiency (RRWF 8. cell F51) | \$(1,663, 120) |  |  |  |  |  |  |  |  |  |
| Miscellaneous Revenue (RRWF 5. cell F48) | \$1,506,940 |  |  |  |  |  |  |  |  |  |
|  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|  | ID | Total | Residential | GS $<50 \mathrm{~kW}$ |  | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
| Billing Data |  |  |  |  |  |  |  |  |  |  |
| Forecast kWh | CEN | 1,124,788,537 | 486,758,735 | 139,823,685 | 383,057,156 | 61,520,302 | 46,339,336 | 4,602,545 | 2,654,071 | 32,705 |
| Forecast kW | CDEM | 1,222,934 |  |  | 969,530 | 135,628 | 105,270 | 12,410 |  | 96 |
| Forecast kW, included in CDEM, of customers receiving line transformer allowance |  | 358,283 |  |  | 126,087 | 126,925 | 105,271 |  |  |  |
| 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 | 1,124,788,537 | 486,758,735 | 139,823,685 | 383,057,156 | 61,520,302 | 46,339,336 | 4,602,545 | 2,654,071 | 32,705 |
| Existing Monthly Charge |  |  | \$10.47 | \$16.10 | \$49.73 | \$1,162.00 | \$9,148.62 | \$1.63 | \$4.16 | \$4.53 |
| Existing Distribution kWh Rate |  |  | \$0.0134 | \$0.0154 |  |  |  |  | \$0.0169 |  |
| Existing Distribution kW Rate |  |  |  |  | \$4.2654 | \$2.4933 | \$2.2074 | \$25.2423 |  | \$6.4846 |
| Existing TOA Rate |  |  |  |  | \$0.60 | \$0.60 | \$0.60 |  |  |  |
| Additional Charges |  |  |  |  |  |  |  |  |  |  |
| Distribution Revenue from Rates |  | \$22,099,503 | \$13,210,721 | \$2,957,570 | \$4,452,016 | \$501,306 | \$342,157 | \$574,316 | \$59,625 | \$1,792 |
| Transformer Ownership Allowance |  | \$214,970 | \$0 | \$0 | \$75,652 | \$76,155 | \$63,162 | \$0 | \$0 | \$0 |
| Net Class Revenue | CREV | \$21,884,533 | \$13,210,721 | \$2,957,570 | \$4,376,364 | \$425,151 | \$278,994 | \$574,316 | \$59,625 | \$1,792 |
|  |  |  |  |  |  |  |  |  |  |  |



EB-2014-0101
Sheet 16.2 Customer Data Worksheet - 31 May 2014 Submission

| Billing Data |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ID | Total | Residential | GS < 50 kW | $\begin{aligned} & \text { GS } 50 \text { to } 999 \\ & \text { kW (I \& I4) } \end{aligned}$ | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
|  |  |  |  |  |  |  |  |  |  |  |
| Bad Debt 3 Year Historical Average | BDHA | \$459,641 | \$409,081 | \$39,529 | \$11,031 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Late Payment 3 Year Historical Average | LPHA | \$298,514 | \$235,568 | \$36,344 | \$19,568 | \$7,034 | \$0 |  |  |  |
| Number of Bills | CNB | 699,324 | 638,792 | 49,956 | 6,366 | 140 | 12 | 12 | 3,551 | 495 |
| Number of Devices |  |  |  |  |  |  |  |  |  |  |
| Number of Connections (Unmetered) | CCON | 13,664 |  |  |  |  |  | 13,347 | 296 | 22 |
| Total Number of Customers | CCA | 57,939 | 53,233 | 4,163 | 531 | 12 | 1 |  |  |  |
| Bulk Customer Base | CCB | - |  |  |  |  |  |  |  |  |
| Primary Customer Base | CCP | 57,939 | 53,233 | 4,163 | 531 | 12 | 1 | - |  |  |
| Line Transformer Customer Base | CCLT | 57,918 | 53,233 | 4,161 | 523 | 2 | - |  |  |  |
| Secondary Customer Base | CCS | 57,912 | 53,233 | 4,157 | 521 | 2 |  |  |  |  |
| Weighted - Services | CWCS | 71,576 | 53,233 | 4,157 | 521 | 2 | - | 13,347 | 296 | 22 |
| Weighted Meter -Capital | CWMC | 16,774,892 | 13,360,670 | 2,871,022 | 530,500 | 11,700 | 1,000 | - | - |  |
| Weighted Meter Reading | CWMR | 58,482 | 53,233 | 4,163 | 1,061 | 23 | 2 | - | - | - |
| Weighted Bills | CWNB | 763,093 | 638,792 | 74,933 | 44,562 | 983 | 180 | 42 | 3,551 | 50 |

Bad Debt Data

| Historic Year: | 2011 |
| :--- | :--- |
| Historic Year: | 2012 |
| Historic Year: | 2013 |

Historic Year:
Three-year average


## (1) $\frac{1}{2} 2016$ Cost Allocation Model

EB-2O14-0101
Sheet If Demand Data Worksheet - 31 May 2014 Submission


## 2016 Cost Allocation Model

## EB-2014-0101

Sheet Oi Revenueto Cost Summary Worksheet - 31 May 2014 Submission
$\frac{\text { Instructions: }}{\text { Please see th }}$

| Rate BaseAssetscrevmi | Distribution Revenue at Existing Rates Miscellaneous Revenue (mi) |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Total | Residential | as < 50 kw | GS 50 to 999 kW (11 \& 14) | GS 1,000 to $4,999 \mathrm{~kW}$ (12) | Large Use (13) | Street Lighting | ust | Sentinel Lights |
|  |  |  |  |  |  | ${ }_{\text {\$ }}^{\$ 425,151}$ \$17,246 | ¢ $\begin{gathered}\$ 278,994 \\ \$ 6,675 \\ \$ 850\end{gathered}$ | \$5774,316 \$61,989 | ${ }_{\substack{\text { \$59,625 } \\ \$ 3,826}}^{\text {S }}$ | \$1,792 |
|  | Total Revenue at Existing Rates | \$23,391,473 | \$14,299,379 | \$3,109,226 | \$4,553,133 | \$442,397 | \$285,670 | \$636,305 | \$63,452 | \$1,9 |
|  | Factor required to recover deficiency ( $(1+\mathrm{D})$ Distribution Revenue at Status Ouo Rates | ${ }_{\$ 23,547,653}$ | \$14,214,673 | ${ }^{\$ 3,182,331}$ | \$4,708,946 | \$457,461 | ${ }_{\text {\$300, } 197}$ | ${ }^{\text {¢617,961 }}$ | 64,157 | \$1,928 |
|  | - | (\$3,506,940 | \$ | ( |  |  |  | ${ }_{\text {\$611.989 }}$ | ${ }_{\text {\$ }}^{\$ 3,826}$ | \$1900 |
|  | Total Revenue at Status Quo Rates | \$25,054,593 | \$15,303,331 | \$3,333,987 | \$4,885,716 | \$474,707 | \$306,872 | \$679,950 | \$67,983 | \$2,048 |
|  | Expenses ${ }_{\text {E }}^{\text {Distribution Costs (di) }}$ | \$2,770,719 |  |  |  |  |  |  |  |  |
|  | Customer Related Costs (cu) | \$ | \$2,412,649 | (\$820, | ( |  | ${ }_{\text {¢ }}^{\$ 4.13}$ | \$155,5190 |  | ¢ |
|  | General and Administration (ad) |  |  | \$778,061 |  | ${ }_{\text {\$ }}^{\$ 855,916}$ | \$60,974 |  | (\$20,672 | \$\$458 |
|  | PILs (INPUT) | \$398,815 | \$ ${ }^{\text {\$219,957 }}$ | \$ $\$ 46,437$ | \$ \$99, 148 | ${ }^{\$ 8,242}$ | \$55,903 | \$17,941 | \$1, 158 | ${ }_{\$ 29}$ |
|  | ${ }_{\text {T }}^{\text {Total }}$ Itext Expenses | \$ \$2,996,107 | $\begin{array}{r}\text { \$1,652,429 } \\ \hline \mathbf{\$ 1 3 , 5 0 9 , 4 0 9}\end{array}$ | \$ 9 \$348,859 | $\begin{array}{r}\text { \$744,850 } \\ \hline \mathbf{\$ 3 , 7 8 2 , 9 4 9}\end{array}$ | \$661,917 | \$ 544,345 | \$134,786 | \$58,703 | $\begin{array}{r}\text { \$218 } \\ \hline 81,369 \\ \hline\end{array}$ |
| N1 | Direct Allocation | so | so | so | so |  | so |  | so |  |
|  | Allocated Net income (N1) | 4,198,129 | \$2,315,374 | \$488,820 | \$1,043,680 | \$86,758 | \$62, 136 | \$188,861 | \$12,195 | \$306 |
|  | Revenue Requirement (includes NI) | \$25,054,593 Revenue Re | \$15,824,782 | \$2,766, 128 Output | ,826,62 | 92,046 | \$279,956 | \$892,091 | 1,286 | 1,675 |
| $\begin{aligned} & \mathrm{dp} \\ & \text { accum } \\ & \text { ap } \\ & \text { co } \end{aligned}$ | Rate Base Calculation |  |  |  |  |  |  |  |  |  |
|  | Net Assets ${ }_{\text {Distribution Plant - Gross }}$ | \$197,332,296 | \$109,794,345 | \$22,822,896 |  |  |  |  |  |  |
|  | General Plant-Gross | ( $\begin{gathered}\text { \$18, } 107,557 \\ (\$ 87,830,372)\end{gathered}$ | $\$ 9,973,676$ $(\$ 49,509,165)$ | $\$ 2,087,127$ $(\$ 10,247,987)$ | $\begin{gathered} \$ 4,504,382 \\ (\$ 21,108,479) \end{gathered}$ | $\begin{array}{r} \$ 369,725 \\ (\$ 1,461,455) \end{array}$ | $\$ 263,699$ $(\$ 973,739)$ | $\begin{gathered} \$ 853,977 \\ (\$ 4,265,800) \end{gathered}$ | (\$53,589 |  |
|  | Capital Contribution | (\$32,312,158) |  | \$(\$3.571, ${ }^{\text {( }}$ | (\$88,07.558) | \$ $\$ 1.9687,4888$ |  | (\$1, | (\$102,755) | (\$2,915) |
|  | Directly Allocated | so |  | so |  | so |  | so | so | so |
| cop | Cost of Power (COP) <br> OM\&A Expenses | \$122,428,838 \$12,614,203 | $\$ 53,150,558$ \$8,801,595 | \$15,183,311 <br> \$1,280,598 | $\begin{array}{r} \$ 41,513,392 \\ \$ 1,876,473 \end{array}$ | $\$ 6,666,572$ $\$ 149,212$ | $\begin{array}{r} \$ 5,021,496 \\ \$ 106,557 \end{array}$ | $\$ 599,953$ \$361,910 | $\begin{gathered} \$ 289,848 \\ \$ 37,041 \\ \hline \end{gathered}$ | $\begin{gathered} \$ 3,707 \\ \$ 817 \\ \$ 0 \end{gathered}$ |
|  |  | \$135,043,041 | \$61,952,153 | \$16,463,910 | \$43,389,865 | \$6,815,785 | \$5,128,053 | \$961,862 | \$326,889 | \$4,524 |
|  | working Capital | \$17,555,595 | \$8,053,780 | \$2,140,308 | \$5,640,682 | \$886,052 | \$666,647 | \$125,042 | \$42,496 | \$588 |
|  | Total Rate Base | \$112,852,918 | \$60,609,311 | \$13,231,060 | \$29,332,866 | \$2,854,311 | \$2,076,026 | \$4,422,227 | \$319,566 | \$7,55 |
|  | Equity Component of Rate BaseNet Income on Allocated AssetsNet Income on Direct Allocation | Rate Base Input equals Output |  |  |  |  |  |  |  |  |
|  |  | \$45, 141,167 | \$24,243,725 | \$5,292,424 | \$11,733,146 | \$1,141,724 | \$830,410 | \$1,768,891 | \$127,826 | \$3,021 |
|  |  | 12 | 793,922 | \$1,056,679 | 1,102,76 | \$169,419 | \$89,052 | (\$23,279) | \$8,892 | \$678 |
|  |  | so | so | so | so | so | so | so | so | so |
|  | Net Income <br> ratios analysis <br> revenue to expenses status quo\% <br> existing revenue minus allocated costs <br> status quo revenue minus allocated costs return on equity component of rate base | \$4,198,129 | \$1,793,922 | \$1,056,679 | \$1,102,766 | \$169,419 | \$89,052 | (\$23,279) | \$8, | 5678 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  | 100.00\% | 96.70\% | 120.53\% | 101.22\% | 121.08\% | 109.61\% | 76.22\% | 5.37\% | 122.22\% |
|  |  | (\$1,663,120) | (\$1,525,403) | \$343,098 | (\$273. | \$50,352 | \$5,714 | (\$255,786) | \$7,83 | \$236 |
|  |  |  | (\$521,452) | \$567,859 | \$59,086 | \$82,661 | \$26,916 | (\$212, 140) | (\$3, зо3) | \$372 |
|  |  | 9.30\% | 7.40\% | 19.97\% | 9.40\% | 14.84\% | 10.72\% | -1.32\% | 6.96\% | 22.46\% |



EB-2014-0101
Sheet O2 Monthly Fixed Charge Min. \& Max. Worksheet - 31 May 2014 Submission
Output sheet showing minimum and maximum level for
Monthly Fixed Charge

## Summary

Customer Unit Cost per month - Avoided Cost
Customer Unit Cost per month - Directly Related
Customer Unit Cost per month - Minimum System with PLCC Adjustment

Existing Approved Fixed Charge

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residential | GS < 50 kW | GS 50 to 999 kW ( $11 \& 14$ ) | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW} \text { (I2) } \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
| \$4.15 | \$7.79 | \$19.14 | -\$28.17 | \$36.97 | \$0.00 | \$1.95 | \$0.37 |
| \$7.91 | \$13.38 | \$40.76 | -\$6.46 | \$79.61 | \$0.00 | \$4.42 | \$0.85 |
| \$13.71 | \$19.84 | \$52.10 | -\$2.21 | \$87.70 | \$5.56 | \$8.75 | \$6.46 |
| \$10.47 | \$16.10 | \$49.73 | \$1,162.00 | \$9,148.62 | \$1.63 | \$4.16 | \$4.53 |

## APPENDIX 7-3: 2017 UPDATED COST ALLOCATION STUDY



## 2017 Cost Allocation Model

EB-2014-0101
Sheet I6.1 Revenue Worksheet - 31 May 2014 Submission

| Total kWhs from Load Forecast | 1,135,912,494 |
| :---: | :---: |
| Total kWs from Load Forecast | 1,251,649 |
| Deficiency/sufficiency (RRWF 8. cell F51) | \$(440,556) |
| Miscellaneous Revenue (RRWF 5. cell F48) | \$1,631,192 |


| Billing Data |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ID | Total | Residential | GS < 50 kW | GS 50 to 999 kW (11 \& 14) | $\begin{gathered} \text { GS } \mathbf{1 , 0 0 0} \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | ust | Sentinel Lights |
|  |  |  |  |  |  |  |  |  |  |  |
| Forecast kWh | CEN | 1,135,912,494 | 485,640,571 | 141,342,094 | 397,878,346 | 56,063,419 | 47,612,969 | 4,729,452 | 2,614,011 | 31,633 |
| Forecast kW <br> Forecast kW, included in CDEM, of customers receiving line transformer allowance | CDEM | 1,251,649 |  |  | 1,007,043 | 123,598 | 108,164 | 12,752 |  | 93 |
|  |  | 354,796 |  |  | 130,965 | 115,667 | 108,164 |  |  |  |
| 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 | 1,135,912,494 | 485,640,571 | 141,342,094 | 397,878,346 | 56,063,419 | 47,612,969 | 4,729,452 | 2,614,011 | 31,633 |
|  |  |  |  |  |  |  |  |  |  |  |
| Existing Monthly Charge |  |  | \$11.00 | \$17.12 | \$53.51 | \$1,238.69 | \$9,843.87 | \$2.25 | \$4.49 | \$4.78 |
| Existing Distribution kWh Rate |  |  | \$0.0144 | \$0.0165 |  |  |  |  | \$0.0183 |  |
| Existing Distribution kW Rate |  |  |  |  | \$4.5836 | \$2.6208 | \$2.3296 | \$34.8077 |  | \$6.8427 |
| Existing TOA Rate |  |  |  |  | \$0. 60 | \$0.60 | \$0.60 |  |  |  |
| Distribution Revenue from Rates |  |  |  |  | \$4.966.738 | 5502 296 |  |  |  |  |
|  |  | \$212,878 | \$14,230,728 | \$3,213,031 | \$478,579 | \$69,400 | \$370,104 $\$ 64,899$ | \$815,042 | \$63,796 | \$1,825 |
|  | CREV | \$23,950,683 | \$14,230,728 | \$3,213,031 | \$4,888,159 | \$432,896 | \$305,206 | \$815,042 | \$63,796 | \$1,825 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |



EB-2014-0101
Sheet 16.2 Customer Data Worksheet - 31 May 2014 Submission

| Billing Data |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ID | Total | Residential | GS < 50 kW | $\begin{aligned} & \text { GS } 50 \text { to } 999 \\ & \text { kW (I \& I4) } \end{aligned}$ | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
|  |  |  |  |  |  |  |  |  |  |  |
| Bad Debt 3 Year Historical Average | BDHA | \$459,641 | \$409,081 | \$39,529 | \$11,031 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Late Payment 3 Year Historical Average | LPHA | \$309,754 | \$243,352 | \$37,545 | \$20,215 | \$7,266 | \$0 | \$806 | \$571 | \$0 |
| Number of Bills | CNB | 720,165 | 657,955 | 51,454 | 6,557 | 144 | 12 | 12 | 3,555 | 477 |
| Number of Devices |  |  |  |  |  |  |  |  |  |  |
| Number of Connections (Unmetered) | CCON | 14,064 |  |  |  |  |  | 13,747 | 296 | 21 |
| Total Number of Customers | CCA | 59,677 | 54,830 | 4,288 | 546 | 12 | 1 |  |  |  |
| Bulk Customer Base | CCB | - |  |  |  |  |  |  |  |  |
| Primary Customer Base | CCP | 59,677 | 54,830 | 4,288 | 546 | 12 | 1 | - |  |  |
| Line Transformer Customer Base | CCLT | 59,656 | 54,830 | 4,286 | 539 | 2 | - |  |  |  |
| Secondary Customer Base | CCS | 59,649 | 54,830 | 4,281 | 537 | 2 |  |  |  |  |
| Weighted - Services | CWCS | 73,713 | 54,830 | 4,281 | 537 | 2 | - | 13,747 | 296 | 21 |
| Weighted Meter -Capital | CWMC | 17,296,428 | 13,759,894 | 2,977,134 | 546,400 | 12,000 | 1,000 | - | - | - |
| Weighted Meter Reading | CWMR | 60,236 | 54,830 | 4,288 | 1,093 | 24 | 2 | - | - | - |
| Weighted Bills | CWNB | 785,865 | 657,955 | 77,180 | 45,898 | 1,008 | 180 | 42 | 3,555 | 48 |

Bad Debt Data

| Historic Year: | 2011 |
| :--- | :--- |
| Historic Year: | 2012 |
| Historic Year: | 2013 |

Historic Year: 2013
Three-year average



EB-2014-0101
Sheet If Demand Data Worksheet - 31 May 2014 Submission




EB-2014-0101
Sheet O2 Monthly Fixed Charge Min. \& Max. Worksheet - 31 May 2014 Submission
Output sheet showing minimum and maximum level for
Monthly Fixed Charge

## Summary

Customer Unit Cost per month - Avoided Cost
Customer Unit Cost per month - Directly Related
Customer Unit Cost per month - Minimum System with PLCC Adjustment

Existing Approved Fixed Charge

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residential | GS < 50 kW | GS 50 to 999 kW ( $11 \& 14$ ) | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW} \text { (I2) } \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
| \$4.13 | \$7.77 | \$19.03 | -\$28.41 | \$36.76 | \$0.00 | \$1.79 | \$0.37 |
| \$7.74 | \$13.13 | \$39.92 | -\$7.39 | \$78.22 | \$0.00 | \$4.18 | \$0.84 |
| \$13.47 | \$19.50 | \$51.07 | -\$3.22 | \$86.19 | \$5.59 | \$8.48 | \$6.47 |
| \$11.00 | \$17.12 | \$53.51 | \$1,238.69 | \$9,843.87 | \$2.25 | \$4.49 | \$4.78 |

## APPENDIX 7-4: 2018 UPDATED COST ALLOCATION STUDY



EB-2014-0101
Sheet 16.1 Revenue Worksheet - 31 May 2014 Submission

| Total kWhs from Load Forecast | 1,149,884,488 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total kWs from Load Forecast | 1,285,320 |  |  |  |  |  |  |  |  |  |
| Deficiency/sufficiency cell F51) (RRWF 8 . | \$(749,846) |  |  |  |  |  |  |  |  |  |
| Miscellaneous Revenue (RRWF 5. <br> cell F48) | \$1,452,379 |  |  |  |  |  |  |  |  |  |
|  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|  | ID | Total | Residential | GS < 50 kW | $\begin{array}{\|c\|} \text { GS } 50 \text { to } 999 \mathrm{~kW} \\ (11 \& \text { \& } 14) \end{array}$ | $\begin{aligned} & \text { GS } 1,000 \text { to } \\ & 4,999 \mathrm{~kW}(12) \end{aligned}$ | Large Use (13) | Street Lighting | usL | Sentinel Lights |
| Billing Data |  |  |  |  |  |  |  |  |  |  |
| Forecast kwh | CEN | 1,149,884,488 | 485,086,336 | 143,067,915 | 413,841,565 | 51,546,101 | 48,880,609 | 4,858,993 | 2,572,397 | 30,570 |
| Forecast kW | CDEM | 1,285,320 |  |  | 1,047,447 | 113,639 | 111,043 | 13,101 |  | 90 |
| Forecast kW, included in CDEM, of customers receiving line transformer allowance |  | 353,610 |  |  | 136,219 | 106,347 | 111,044 |  |  |  |
| 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 | 1,149,884,488 | 485,086,336 | 143,067,915 | 413,841,565 | 51,546,101 | 48,880,609 | 4,858,993 | 2,572,397 | 30,570 |
| Existing Monthly Charge |  |  | \$11.02 | \$17.17 | \$54.49 | \$1,264.72 | \$10,024.94 | \$2.28 | \$4.57 | \$4.77 |
| Existing Distribution kWh Rate |  |  | \$0.0149 | \$0.0169 |  |  |  |  | \$0.0186 |  |
| Existing Distribution kW Rate |  |  |  |  | \$4.6665 | \$2.6641 | \$2.3614 | \$35.1977 |  | \$6.8321 |
| Existing TOA Rate |  |  |  |  | \$0.60 | \$0.60 | \$0.60 |  |  |  |
| Additional Charges |  |  |  |  |  |  |  |  |  |  |
| Distribution Revenue from Rates |  | \$25,067,563 | \$14,695,973 | \$3,327,817 | \$5,255,913 | \$490,936 | \$382,517 | \$848,542 | \$64,107 | \$1,758 |
| Transformer Ownership Allowance |  | \$212,166 | \$0 | \$0 | \$81,732 | \$63,808 | \$66,626 | \$0 | \$0 | \$0 |
| Net Class Revenue | CREV | \$24,855,397 | \$14,695,973 | \$3,327,817 | \$5,174,182 | \$427,127 | \$315,890 | \$848,542 | \$64,107 | \$1,758 |
|  |  |  |  |  |  |  |  |  |  |  |



EB-2014-0101
Sheet 16.2 Customer Data Worksheet - 31 May 2014 Submission

| Billing Data |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ID | Total | Residential | GS < 50 kW | $\begin{aligned} & \text { GS } 50 \text { to } 999 \\ & \text { kW (I \& I4) } \end{aligned}$ | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
|  |  |  |  |  |  |  |  |  |  |  |
| Bad Debt 3 Year Historical Average | BDHA | \$459,641 | \$409,081 | \$39,529 | \$11,031 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Late Payment 3 Year Historical Average | LPHA | \$319,989 | \$251,393 | \$38,786 | \$20,882 | \$7,506 | \$0 | \$832 | \$590 | \$0 |
| Number of Bills | CNB | 741,636 | 677,694 | 52,998 | 6,754 | 149 | 12 | 12 | 3,558 | 460 |
| Number of Devices |  |  |  |  |  |  |  |  |  |  |
| Number of Connections (Unmetered) | CCON | 14,476 |  |  |  |  |  | 14,160 | 297 | 20 |
| Total Number of Customers | CCA | 61,467 | 56,474 | 4,416 | 563 | 12 | 1 |  |  |  |
| Bulk Customer Base | CCB | - |  |  |  |  |  |  |  |  |
| Primary Customer Base | CCP | 61,467 | 56,474 | 4,416 | 563 | 12 | 1 | - |  |  |
| Line Transformer Customer Base | CCLT | 61,446 | 56,474 | 4,414 | 555 | 2 | - |  |  |  |
| Secondary Customer Base | CCS | 61,439 | 56,474 | 4,410 | 553 | 2 |  |  |  |  |
| Weighted - Services | CWCS | 75,915 | 56,474 | 4,410 | 553 | 2 | - | 14,160 | 297 | 20 |
| Weighted Meter -Capital | CWMC | 17,833,820 | 14,171,122 | 3,086,498 | 562,800 | 12,400 | 1,000 | - | - |  |
| Weighted Meter Reading | CWMR | 62,043 | 56,474 | 4,416 | 1,126 | 25 | 2 | - | - | - |
| Weighted Bills | CWNB | 809,333 | 677,694 | 79,496 | 47,275 | 1,042 | 180 | 42 | 3,558 | 46 |

Bad Debt Data

| Historic Year: | 2011 |
| :--- | :--- |
| Historic Year: | 2012 |
| Historic Year: | 2013 |

Historic Year:
Three-year average



EB-2014-O101
Sheet If Demand Data Worksheet - 31 May 2014 Submission




EB-2O14-O1O1
Sheet O1 Revenueto Cost Summary Worksheet - 31 May 2014 Submission
$\frac{\text { Instructions: }}{\text { Please see the first tab in this workbook for detailed instructions }}$

|  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rate Base |  | Total | Residential | as $<50 \mathrm{kw}$ |  | GS 1,000 to 4,999 kW (12) | Large Use (13) | Street Lighting | sL | Sentinel Lights |
| $\underset{\substack{\text { Assets } \\ \text { crever } \\ \text { mi }}}{\text { cesem }}$ | Distribution Revenue at Existing Rates Miscellaneous Revenue (mi) | $\$ 24,855,397$ $\$ 1,452,379$ |  |  | Utput $\begin{array}{r}\text { \$5, } 174,182 \\ \$ 171,773 \\ \hline\end{array}$ | \$ ${ }_{\text {\$427, }}^{\text {\$15,095 }}$ | ¢\$315,890 <br> $\$ 6,140$ <br> S |  | ( ${ }_{\substack{\text { \$64,107 } \\ \$ 4,015}}$ | $\begin{array}{r}\text { \$1,758 } \\ \$ 104 \\ \hline 104 \\ \hline\end{array}$ |
|  | Total Revenue at Existing Rates | \$26,307,776 | \$15,742,195 | \$3,473,682 | \$5,345,955 | \$442,223 | \$322,030 | \$911,707 | \$68,122 | \$1,862 |
|  | Factor required to recover deticiency ( $(+\mathrm{D}$ ) | \$25,605,243 | \$15, 139,326 | \$3,428,212 | \$5,330,278 | ${ }^{\$ 440,013}$ | ${ }_{\$ 325,420}$ | ${ }_{\$ 874,141}$ | ¢66,041 | \$1,811 |
|  |  |  |  | \$ 8145,865 | - ${ }^{\text {\$171, } 7 \text { \% }}$ | ${ }_{\text {\$15,095 }}^{\text {\$455, } 108}$ | ¢ 56.140 | ¢663,164 | ${ }_{\text {\$4,015 }}$ | \$1044 |
|  | Total Revenue at Status Quo Rates | \$27,057,622 | \$16,185,548 | \$3,574,077 | \$5,502,052 | \$455,108 | \$331,560 | \$937,306 | \$70,056 | 1,915 |
| $\begin{gathered} \text { di } \\ \text { cud } \\ \text { aud } \\ \text { diput } \\ \text { INT } \end{gathered}$ | ${ }_{\text {Expenses }}^{\text {Eistribution Costs (di) }}$ | \$2,922,319 | \$1,560,739 | \$319,528 |  |  |  |  |  |  |
|  | Customer Relateo (costs (cu) General and Administration (ad) |  |  |  |  | ( ${ }_{\text {\$2, }}$ | (\%4099 | \$212.690 | (\$7, 7 , 509 <br> $\$ 20.145$ | ¢ 9 |
|  | Operreciation and Amortization (dep) | ¢ |  | (\$650,499 |  |  |  | \$\$195.491 | ( | ( |
|  |  | ( $\begin{array}{r}\text { \$622,498 } \\ \$ 3,393,088 \\ \hline\end{array}$ | ( |  |  | ( |  | ( $\begin{array}{r}\text { \$27,471 } \\ \text { \$149,736 }\end{array}$ | ( |  |
|  | Total Expenses | \$22,328,463 | \$14,170,999 | \$2,450,240 | \$4,353,604 | \$284,956 | \$258,061 | ${ }_{\text {\$749, } 537}$ | \$59,791 | \$1,275 |
| N | Direct Allocation | so | so | so | so | so | so | so | so | so |
|  | Allocated Net income (N1) | 4,729,159 | \$2,518,373 | \$549,813 | \$1,272,752 | \$86,629 | \$79,519 | \$208,696 | \$13,081 | \$297 |
|  | Revenue Requirement (includes NI) | \$27,057,622 Revenue Rea | ${ }_{\text {\% }}^{\text {\$16,689,371 }}$ | \$3,000,053 <br> Output | \$5,626,356 | \$371,585 | \$337,580 | \$958,233 | \$72,872 | \$1,571 |
| $\underset{\substack{\mathrm{dp} \\ \text { accum } \\ \mathrm{aco}}}{\substack{\text { and }}}$ | Rate Base Calculation |  |  |  |  |  |  |  |  |  |
|  | Net Assets <br> Distribution Plant - Gross | \$216,095,244 | \$117,185,333 |  |  |  |  |  |  |  |
|  | General Plant-Gioss |  |  | $\begin{gathered} \$ 2,324,623 \\ (\$ 11,169,189) \end{gathered}$ |  |  |  |  | (\$56,549 |  |
|  | (total Net Plant | \$109,178,252 | \$58,141,763 | \$ $\$ 12,689,330$ | \$ $\$ 89,379,7477$ | \$1,998,385 | \$ $\$ 1,8373,5929$ | - ${ }_{\text {S41,807,762 }}$ | (\$987,024) | - |
|  | Directly Allocated Net Fixed Assets | so | so | so | so | so | so | so | so | so |
| cop | Cost of Power (COP) <br> OM\&A Expenses | \$124,964,741 <br> \$13,109,806 | $\$ 52,871,731$ <br> $\$ 9,055,282$ <br> $\$ 9,02$ | $\$ 15,516,208$ $\$ 1,332,888$ | $\$ 44,805,414$ \$2,058,275 | \$5,580,322 <br> \$131,393 | $\$ 5,291,748$ $\$ 117,952$ | $\$ 615,525$ $\$ 376,840$ | $\underset{\substack{\$ 280,358 \\ \$ 36,430}}{ }$ | $\$ 3,436$ $\$ 745$ $\$ 0$ |
|  | Subtotal | \$138,074,547 | \$61,927,013 | \$16,849,095 | \$46,863,689 | \$5,711,715 | \$5,409,700 | \$992,365 | \$316,788 | \$4,181 |
|  | Working capital | \$17,949,691 | \$8,050,512 | \$2,190,382 | \$6,092,280 | \$742,523 | \$703,261 | \$129,007 | \$41,182 | \$544 |
|  | Total Rate Base | \$127,127,943 | \$66,192,275 | \$14,879,713 | \$35,472,056 | \$2,740,908 | \$2,537,256 | \$4,954,997 | \$343,333 | \$7,405 |
|  | Equity Component of Rate BaseNet Income on Allocated AssetsNet Income on Direct Allocation Assets | Rate Base input equals Output |  |  |  |  |  |  |  |  |
|  |  | \$50,851,177 | \$26,476,910 | \$5,951,885 | \$14,188,82 | \$1,096,363 | \$1,014,902 | \$1,981,999 | \$137,333 | \$2,9 |
|  |  | \$4,729,159 | 549 | \$1,123,837 | 148,448 | \$170,152 | \$73,499 | \$187,769 | \$10,265 | \$641 |
|  |  | so | so | so |  |  | o | so | so | so |
|  | Net Income <br> RATIOS ANALYSIS <br> REVENUE TO EXPENSES STATUS QUO\% <br> EXISTING REVENUE MINUS ALLOCATED COSTS <br> STATUS QUO REVENUE MINUS ALLOCATED COSTS RETURN ON EQUITY COMPONENT OF RATE BASE | 4,729,159 | \$2,014,549 | \$1,123,837 | \$1, 148,448 | \$170,152 | \$73,49 | \$187,769 | \$10,265 | \$641 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  | . 00 |  | 119.13\% | 97.79\% | \% | 98.22\% | .82\% | 96.14\% | 121.89\% |
|  |  | (\$749, 846) | (\$947, 176) | \$473,629 | (\$280,401) | \$70,638 | ) | .527) | (\$4,750) | 291 |
|  |  | $\begin{array}{r} \text { Dicic } \\ \$ 0 \\ 9.30 \% \end{array}$ | cy input equals | utput |  |  |  |  |  |  |
|  |  |  | (\$503,823) ${ }_{\text {7.61\% }}$ | $\$ 574,024$ $18.88 \%$ | (\$124,304) $8.09 \%$ | \$83,523 <br> $15.52 \%$ | $\begin{array}{r}\text { (\$6,020) } \\ 7.24 \% \\ \hline\end{array}$ | $(\$ 20,927)$ $9.47 \%$ |  | \$344 $21.63 \%$ |



EB-2014-0101
Sheet O2 Monthly Fixed Charge Min. \& Max. Worksheet - 31 May 2014 Submission
Output sheet showing minimum and maximum level for
Monthly Fixed Charge

## Summary

Customer Unit Cost per month - Avoided Cost
Customer Unit Cost per month - Directly Related
Customer Unit Cost per month - Minimum System with PLCC Adjustment

Existing Approved Fixed Charge

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residential | GS < 50 kW | GS 50 to 999 kW (11 \& 14) | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
| \$4.10 | \$7.74 | \$18.90 | -\$28.50 | \$36.56 | \$0.00 | \$1.77 | \$0.37 |
| \$7.68 | \$13.04 | \$39.78 | -\$7.49 | \$78.16 | \$0.00 | \$4.18 | \$0.84 |
| \$13.38 | \$19.39 | \$50.88 | -\$3.35 | \$86.13 | \$5.63 | \$8.45 | \$6.51 |
| \$11.02 | \$17.17 | \$54.49 | \$1,264.72 | \$10,024.94 | \$2.28 | \$4.57 | \$4.77 |

## APPENDIX 7-5: 2019 UPDATED COST ALLOCATION STUDY



## 2019 Cost Allocation Model

EB-2014-0101
Sheet I6.1 Revenue Worksheet - 31 May 2014 Submission



EB-2014-0101
Sheet 16.2 Customer Data Worksheet - 31 May 2014 Submission

| Billing Data |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ID | Total | Residential | GS < 50 kW | $\begin{aligned} & \text { GS } 50 \text { to } 999 \\ & \text { kW (I \& I4) } \end{aligned}$ | $\begin{gathered} \text { GS } 1,000 \text { to } \\ 4,999 \mathrm{~kW}(12) \end{gathered}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
|  |  |  |  |  |  |  |  |  |  |  |
| Bad Debt 3 Year Historical Average | BDHA | \$459,641 | \$409,081 | \$39,529 | \$11,031 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Late Payment 3 Year Historical Average | LPHA | \$330,562 | \$259,699 | \$40,067 | \$21,572 | \$7,754 | \$0 | \$860 | \$609 | \$0 |
| Number of Bills | CNB | 763,751 | 698,025 | 54,588 | 6,955 | 154 | 12 | 12 | 3,562 | 444 |
| Number of Devices |  |  |  |  |  |  |  |  |  |  |
| Number of Connections (Unmetered) | CCON | 14,901 |  |  |  |  |  | 14,585 | 297 | 19 |
| Total Number of Customers | CCA | 63,311 | 58,169 | 4,549 | 580 | 13 | 1 |  |  |  |
| Bulk Customer Base | CCB | - |  |  |  |  |  |  |  |  |
| Primary Customer Base | CCP | 63,311 | 58,169 | 4,549 | 580 | 13 | 1 | - |  |  |
| Line Transformer Customer Base | CCLT | 63,289 | 58,169 | 4,547 | 572 | 2 | - |  |  |  |
| Secondary Customer Base | CCS | 63,282 | 58,169 | 4,542 | 569 | 2 |  |  |  |  |
| Weighted - Services | CWCS | 78,182 | 58,169 | 4,542 | 569 | 2 | - | 14,585 | 297 | 19 |
| Weighted Meter -Capital | CWMC | 18,387,202 | 14,594,688 | 3,199,115 | 579,600 | 12,800 | 1,000 | - | - |  |
| Weighted Meter Reading | CWMR | 63,905 | 58,169 | 4,549 | 1,159 | 26 | 2 | - | - | - |
| Weighted Bills | CWNB | 833,496 | 698,025 | 81,881 | 48,686 | 1,075 | 180 | 42 | 3,562 | 44 |

Bad Debt Data

| Historic Year: | 2011 |
| :--- | :--- |
| Historic Year: | 2012 |
| Historic Year: | 2013 |

Historic Year:
Three-year average




EB-2014-0101
Sheet Ol Revenueto Cost Summary Worksheet - 31 May 2014 Submission
$\frac{\text { Instructions: }}{\text { Ple }}$, first tab in this workbook for detailed instructions

| $\underset{\substack{\text { Rate Base } \\ \text { Assess } \\ \text { crev } \\ \text { mi }}}{\text { mis }}$ | Distribution Revenue at Existing Rates Miscellaneous Revenue (mi) | Total | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Residential | as < $\mathbf{5 0} \mathrm{kw}$ | GS 50 to 999 kW <br> $(11 \& 14)$ | GS 1,000 to $4,999 \mathrm{~kW}$ (12) | Large Use (13) | Street Lighting | usL | Sentinel Lights |
|  |  |  |  |  | $\begin{array}{\|r} \$ 5,534,959 \\ \\ \hline \$ 179,622 \\ \hline \end{array}$ | $\underset{\substack{\text { \$417, } 113 \\ \$ 14,886}}{ }$ | $\underset{\substack{\$ 330,677 \\ \$ 6,422}}{\substack{\text { che }}}$ | $\underset{\substack{\text { \$899,251 } \\ \$ 64,878}}{ }$ | $\underset{\substack{\text { \$66,004 } \\ \$ 4,085}}{\text { cose }}$ | \$1,718 |
|  |  | \$27,606,177 | \$16,449,077 |  |  | \$431,999 | \$337,099 | \$964,129 | \$70,089 | \$1,819 |
|  | Total Revenue at Existing Rates <br> Factor required to recover deficiency (1 + D) <br> Distribution Revenue at Status Quo Rates Miscellaneous Revenue (mi) <br> Total Revenue at Status Quo Rates | \$26, 193,843 | ${ }_{\text {\$15,415,522 }}$ | \$3,499, 31 | \$5,557,299 | ${ }^{\$ 418,797}$ | ${ }_{\text {\$332,012 }}$ | \$902,881 | \$66,270 | \$1,725 |
|  |  |  | ${ }_{\text {¢ }}^{\text {\$1,095.517 }}$ | \$ ${ }_{\text {\$3,652, } 6120}$ | \% $\begin{array}{r}\text { \$179,622 } \\ \$ 5736,921\end{array}$ | ${ }_{\text {¢ }}^{\text {\$414,886 }}$ | $\underset{\text { \$338,432 }}{\text { ¢ }}$ | ${ }_{\text {¢ }}^{\$ 964.878}$ | \$94.085 | $\underset{\text { s1, }{ }_{\text {\$101 }}}{ }$ |
| $\begin{gathered} \text { di } \\ \text { du } \\ \text { aup } \\ \text { diep } \\ \text { INTT } \\ \text { INT } \end{gathered}$ | Expenses <br> Distribution Costs (di) <br> General and (cu) <br> Depreciation and Amortization (dep) <br> PILs (INPUT) <br> Total Expenses |  |  |  |  |  |  |  |  | $\$ 208$ <br> $\$ 994$ <br> $\$ 3900$ <br> $\$ 296$ <br> $\$ \$ 38$ <br> $\$ 210$ <br> 1.208 |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| N1 | Direct Allocation | \$0\$4,955,089 | so | so | $\begin{array}{r} \$ 0 \\ \$ 1,380,993 \\ \$ 5,915,712 \end{array}$ | $\begin{array}{r} \$ 0 \\ \$ 83,950 \\ \$ 349,360 \end{array}$ | $\begin{array}{r} \$ 0 \\ \$ 86,467 \\ \$ 355,273 \end{array}$ | $\begin{array}{r} \$ 0 \\ \$ 219,602 \\ \$ 973,632 \end{array}$ | $\begin{array}{r} \text { \$0 } \\ \$ 13,391 \\ \$ 72,565 \end{array}$ | $\mathbf{\$ 0}$$\$ 292$$\$ 1,500$ |
|  | Allocated Net income (Ni) |  | \$2,595,663 | \$574,732 |  |  |  |  |  |  |
|  | Revenue Requirement (includes Ni) |  |  |  |  |  |  |  |  |  |
| $\begin{gathered} \text { dp } \\ \text { accum } \\ \text { co } \\ \text { cop } \end{gathered}$ | Rate Base Calculation | \$224,776,069 \$21,052,793 $(\$ 98,399,089)$$(\$ 32,312,158)$ | $\begin{gathered} \$ 120,354,401 \\ \$ 11,045,987 \\ (\$ 53,992,182) \\ (\$ 17,102,058) \end{gathered}$ | $\$ 26,199,864$ <br> $(\$ 1,424,720$ <br> $(\$ 1,647,510)$ <br> ( $\$ 3,577,875$ ) | $\begin{array}{r} \$ 60,482,823 \\ \$ 5,845,701 \\ (\$ 25,458,976) \\ (\$ 8,789,959) \end{array}$ |  |  |  |  | $\$ 14,002$ <br> $\$ 1,291$ <br> $\$ \$ 6.101$ <br> 10 <br> $(\$ 2,393)$ |
|  |  |  |  |  |  |  |  |  |  |  |
|  | General Plant - Gross |  |  |  |  |  |  |  |  |  |
|  | Total Net PlantDirectly Allocated Net Fixed Assets |  |  |  |  |  |  |  |  |  |
|  |  | $\left.\begin{array}{r} \$ 0 \\ \$ 125,921,985 \\ \$ 13,183,490 \\ \$ 0 \end{array} \right\rvert\,$ | so | so | so | \$o | so | so | so | so |
| cop | Cost of Power (COP) OM\&A Expenses Directly Allocated Expenses |  | $\begin{array}{r} \$ 52,370,256 \\ \$ 9,136,284 \\ \$ 0 \end{array}$ | \$15,654,657 <br> $\$ 1,336,663$ $\$ 0$ | $\begin{gathered} \$ 46,532,595 \\ \$ 2,071,524 \\ \$ \end{gathered}$ | $\begin{array}{r} \$ 5,119,380 \\ \$ 118,176 \\ \$ 0 \end{array}$ | $\begin{array}{r} \$ 5,427,684 \\ \$ 118,142 \\ \$ 0 \end{array}$ | $\begin{array}{r} \$ 540,116 \\ \$ 366,481 \\ \$ 0 \end{array}$ | $\begin{gathered} \$ 273,507 \\ \$ 35,527 \\ \$ 0 \end{gathered}$ |  |
|  |  | $\begin{array}{r} \$ 139,105,474 \\ \$ 18,083,712 \end{array}$ | $\begin{array}{r} \$ 61,506,540 \\ \$ 7,995,850 \end{array}$ | \$16,991,319 \$2,208,871 | $\$ 48,604,418$ <br> \$6,318,574 | \$5,237,557 \$680,882 | $\$ 5,545,826$ \$720,957 | \$906,597 \$117,858 | $\begin{gathered} \$ 309,329 \\ \$ 40,213 \end{gathered}$ | $\begin{array}{r}\text { \$3,888 } \\ \$ 505 \\ \$ 7,304 \\ \hline\end{array}$ |
|  | Subtotal <br> Working Capital <br> Total Rate Base |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | \$38,398,163 | \$2,629,845 | \$2,727,994 | \$5,226,506 | \$351,446 |  |
|  | Equity Component of Rate Base <br> Net Income on Allocated Assets <br> Net Income on Direct Allocation Assets <br> Net Income <br> batios analysis <br> REVENUE TO EXPENSES STATUS QUO\% <br> EXISTING REVENUE MINUS ALLOCATED COSTS <br> STATUS QUO REVENUE MINUS ALLOCATED COSTS RETURN ON EQUITY COMPONENT OF RATE BASE | Rate Base input equals Output |  |  | $\begin{array}{r} \$ 15,359,265 \\ \$ 1,202,202 \\ \$ 0 \end{array}$ | $\begin{array}{r} \$ 1,051,938 \\ \$ 168,272 \\ \$ 0 \end{array}$ |  | \$2,090,602 \$213,729 \$0 | $\begin{array}{r} \$ 140,579 \\ \$ 11,181 \\ \$ 0 \end{array}$ | $\begin{array}{r} \$ 2,922 \\ \$ 618 \\ \$ 0 \end{array}$ |
|  |  | \$53,280,531 | $\left.\begin{array}{r} \$ 27,320,799 \\ \$ 2,134,476 \\ \$ 0 \end{array} \right\rvert\,$ | \$6,223,228 \$1,154,984 $\$ 0$ |  |  |  |  |  |  |
|  |  | .88 |  |  |  |  |  |  |  |  |
|  |  | so |  |  |  |  |  |  |  |  |
|  |  | \$4,955,089 | \$2,134,476 | \$1,154,984 | \$1,202,202 | \$168,272 | \$69,627 | \$213,729 |  |  |
|  |  |  |  |  | $\begin{array}{r} \mathbf{9 6 . 9 8 \%} \\ \begin{array}{r} (\$ 201,131) \\ (\$ 178,791) \\ \hline 7.83 \% \end{array} \\ \hline \end{array}$ | \$82,639 <br> \$84, 322 $16.00 \%$ |  |  |  |  |
|  |  | 100 | 97.28\% | 11 |  |  |  | $99.40 \%$$(\$ 9,503)$ | 96.95\% (\$2,476) |  |
|  |  | (\$105, 296) | (\$523, 156) | \$566, 186 |  |  |  |  |  |  |
|  |  |  | input equals |  |  |  |  |  |  |  |
|  |  |  |  | 18.56\% |  |  |  | $\begin{aligned} & (\$ 55,8 / 3) \\ & 10.22 \% \end{aligned}$ | $\begin{gathered} (\$ 2,210) \\ 7.95 \% \end{gathered}$ |  |



EB-2014-0101
Sheet O2 Monthly Fixed Charge Min. \& Max. Worksheet - 31 May 2014 Submission
Output sheet showing minimum and maximum level for
Monthly Fixed Charge

## Summary

Customer Unit Cost per month - Avoided Cost
Customer Unit Cost per month - Directly Related
Customer Unit Cost per month - Minimum System with PLCC Adjustment

Existing Approved Fixed Charge

| $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ | $\mathbf{7}$ | $\mathbf{8}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Residential | GS $<\mathbf{5 0} \mathbf{~ k W}$ | GS 50 to 999 <br> kW ( $\mathbf{I C ~ \& ~ 1 4 ) ~}$ | GS 1,000 to <br> $\mathbf{4 , 9 9 9} \mathbf{~ k W ~ ( 1 2 ) ~}$ | Large Use (13) | Street Lighting | USL | Sentinel Lights |
| $\$ 4.04$ | $\$ 7.62$ | $\$ 18.64$ | $-\$ 28.79$ | $\$ 36.25$ | $\$ 0.00$ | $\$ 1.76$ | $\$ 0.37$ |
| $\$ 7.69$ | $\$ 13.01$ | $\$ 40.10$ | $-\$ 7.17$ | $\$ 79.19$ | $\$ 0.00$ | $\$ 4.23$ | $\$ 0.85$ |
| $\$ 13.31$ | $\$ 19.29$ | $\$ 51.21$ | $-\$ 3.03$ | $\$ 87.23$ | $\$ 5.55$ | $\$ 8.42$ | $\$ 6.44$ |
| $\$ 11.18$ | $\$ 17.47$ | $\$ 56.13$ | $\$ 1,275.61$ | $\$ 10,327.38$ | $\$ 2.35$ | $\$ 4.75$ | $\$ 4.83$ |

