File Number: EB-2014-0096

Date Filed: September 23, 2014

Exhibit 7

COST ALLOCATION

File Number: EB-2014-0096

Date Filed: September 23, 2014

Exhibit 7

Tab 1 of 1

Overview

Cost Allocation Study

Introduction:

On September 29, 2006, the OEB issued its directions on Cost Allocation Methodology for Electricity Distributors (the "Directions"). On November 15, 2006, the Board issued the Cost Allocation Information Filing Guidelines for Electricity Distributors (the "Guidelines"), the Cost Allocation Model (the "Model") and User Instructions (the "Instructions") for the Model.

NPEI is the result of the amalgamation of the former Niagara Falls Hydro Inc. and the former Peninsula West Utilities Ltd. utilities. The former Peninsula West Utilities Ltd. filed a Cost Allocation Informational Filing on March 15, 2007 (EB-2005-0405) (EB-2007-0002). The former Niagara Falls Hydro Inc. prepared its load profiles for all rates classes and received RUN1 data from Hydro One for its hourly load shapes, however NFH did not file a Cost Allocation Informational Filing in 2007 as they were preparing the merger application and considered it to be more useful, prudent and practical to file a Cost of Service Study at the time of rebasing and harmonizing rates for the new merged company. NPEI filed a Cost Allocation Study with the 2011 Cost of Service rate application. The 2011 Cost Allocation Study was based on information from the amalgamated companies. The 2015 Cost Allocation Study will be compared to the 2011 Cost Allocation Study in this rate application.

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

As noted above, 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.

As part of NPEI's 2011 COS application, the original 2006 cost of service models from both of the former utilities had been updated to reflect 2011 test year data which included forecast assets balances, loss factors, deemed capital structure and 2011 income and expenses. Rather than complete a full weather normalized study, the load profiles from the 2006 study were updated and scaled to match the 2011 load forecast. This filing followed the cost allocation policies reflected in the Board's report of November 28, 2007 *Application of Cost Allocation for Electricity Distributors* (EB-2007-0667).

In NPEI's 2011 COS application Decision and Order, the Board approved NPEI's proposed phase-in approach to adjust certain revenue to cost ratios in order to place all rate classes within the acceptable target ranges.

NPEI's approved revenue cost ratios along with the 2011 Board Targets Min to Max are shown in Table 7-1 below:

Table 7-1

Final Revenue to Cost Ratios						
Class	**2011 Cost Allocation Study**	**2011 Proposed Ratios**	**2012 Proposed Ratios**	**2013 Proposed Ratios**	**Board Targets Min to Max**	
Residential	83.4%	85.0%	85.0%	85.0%	85.0%	115.0%
GS < 50	109.1%	109.1%	109.1%	109.1%	80.0%	120.0%
General Service 50 to 4999 kW	155.2%	148.0%	147.0%	146.0%	80.0%	180.0%
Streetlight	7.4%	48.1%	58.9%	70.0%	70.0%	120.0%
Sentinel Lights	26.3%	38.7%	54.1%	70.0%	70.0%	120.0%
Unmetered Scattered Load	101.5%	101.5%	101.5%	101.5%	80.0%	120.0%

Current Cost Allocation Study Requirements

On March 31, 2011 the Board issued its Report of the Board on the Review of Electricity Distribution Cost Allocation Policy, EB-2010-0219. This report contained several revisions to the Board's policy with respect to cost allocation that were to be implemented through cost of service applications beginning with the 2012 test year. In the report, the Board noted that the default weighting factors should now be used only in exceptional circumstances and that distributors were expected to develop their own weighting factors that better reflect rate class costing.

Cost Allocation Model inputs weighting factors:

NPEI developed its own weighting factors for the 2015 cost allocation study as outlined below.

Services (Account # 1855)

NPEI records costs in this account for new services added. These services are for Residential, GS < 50 kW customers and GS > 50 kW customers. Using residential at a factor of 1.0, NPEI assigned weighting factors as follows:

Residential Service – factor set at 1 per Cost Allocation Instruction
GS< 50 kW – Factor set at 2.5. A work order for a new service for a small commercial customer usually has more parties including third parties involved, additional approvals, and additional time spent as these services are usually more complex than a residential customer.
GS > 50 kW – Factor set at 9.0. A work order for a new service for a large commercial customer is more complex, involves more resources, requires additional approvals and additional time spent.
Streetlight, unmetered loads and sentinel lights – a factor of 0.3 has been assigned as these service connections are infrequent and less complex in nature.

Billing and Collection (Accounts 5305-5340, except 5335)

Comparing a residential bill as a base of 1, NPEI reviewed the time spent in billing and customer service and collections on customers in each rate class. NPEI has found that with TOU billing now in place, there are no major differences in rate class billing costs between the residential rate class and the GS<50 kW rate class. There are additional steps in billing when billing GS>50 kW customers with respect to interval read analytics, global adjustment etc. In terms of collection costs, there are a lower number of customers in this class to collect on however, due to the higher dollar values associated with these customers these customers are first priority in monitoring outstanding balances. Also, with GS > 50 kW customers, there is usually more parties involved in the follow up process for collections, notices, and payment arrangements thereby taking more time to collect than a residential customer. NPEI reviews on a quarterly basis the load for GS<50 kW customers and GS >50 kW customers to ensure they are in the appropriate rate class. This review as well as the actual transfer of a customer from one rate class to another does not occur with the residential rate class thereby increasing the factor for the GS <50 kW and GS >50 kW rate class when compared to the residential rate class.

NPEI has assigned the following factors;
Residential Service - factor set at 1 per Cost Allocation Instruction

GS< 50 kW – Factor set at 1.5 as there is more time spent when collections are involved on a per bill basis and these customers are reviewed quarterly for appropriateness of rate class based on their load. Billing costs are similar to residential customers for those GS<50 customers on smart meters.

GS > 50 kW – Factor set at 2.0 as there is more time spent on both billing and collection on a per bill basis when issues arise. As well these customers are reviewed quarterly for appropriateness of rate class based on their load. The billing is more complex than the TOU billing for a residential customer.

Streetlight, unmetered loads and sentinel lights – a factor of 0.8 has been assigned as these customers have limited collection activity.

Table 7-2 below illustrates the changes in the Weighting factors from 2011 to 2015 for services in account 1855 and billing and collecting activities

Table 7-2

	Services - 1855		Billing and Collecting	
Customer Class	Default Weights used in 2011	NPEI Weight for 2015	Default Weights used in 2011	NPEI Weight for 2015
Residential	1.00	1.0	1.00	1.0
GS < 50 kW	2.00	2.5	2.00	1.5
GS> 50 kW	10.00	9.0	7.00	2.0
Sentinel	1.00	0.3	1.00	0.8
Streetlight	1.00	0.3	1.00	0.8
Unmetered Scattered Load	1.00	0.3	5.00	0.8

Meter Capital – Sheet 1.7.1

NPEI followed a similar approach as in the COS 2011 whereby the various types of meters installed were identified and the number of meters installed at the end of 2013 were identified from NPEI's customer information system. The cost to install each meter type is similar to 2011. For the smart meter installation costs, NPEI has used the cost as filed in NPEI's Smart Meter Disposition Application (effective March 1, 2014). The Table 7-3 below details the average meter capital cost by rate class. The GS<50 kW average meter capital costs decrease by $95 per meter or 31.57%. This is due to the smart meters installed for the customers in this rate class are replacing the more expensive three phase meters.

Table 7-3 Meter Capital

Meter Capital Costs	Weighting factor	Weighting factor	Weighted average Cost Per Meter	Weighted average Cost Per Meter	$ change	% Change
	2015	2011	2015	2011		
Residential	1	1	$ 118.55	$ 100.84	$ 17.71	17.56%
GS < 50 kW	1.74	2.99	$ 206.05	$ 301.10	$ (95.05)	-31.57%
GS> 50 kW	19.08	21.7	$ 2,261.47	$ 2,187.95	$ 73.52	3.36%

MIST meters

A letter dated May 21, 2014, from the Ontario Energy Board provided notice of amendments to the Distribution System Code (the "DSC") pursuant to section 70.2 of the Ontario Energy Board Act, 1998 (the "Act"). The amendments provide notice that a distributor is required to install an interval meter (i.e., a "MIST meter") on any installation that is forecast by the distributor to have a monthly average peak demand during a calendar year of over 50 kW.

The amendments to section 5.1.3 of the DSC include the following:

"5.1.3 For the purposes of measuring energy delivered to the customer, a distributor shall:

a) install a MIST meter on any new installation that is forecast by the distributor to have a monthly average peak demand during a calendar year of over 50 kW; and

b) have until August 21, 2020 to install a MIST meter on any existing installation that has a monthly average peak demand during a calendar year of over 50 kW." (Distribution System Code, Section 5.1.3)

The amendments to section 5.1.3 come into force on August 21, 2014.

NPEI has approximately 920 meters that meet the criteria to be replaced with a MIST meter. In the 2015 COS rate application NPEI has included one fifth (184) of these meters split equally by class on Sheet I7.1. These additional 184 meters at an approximate cost of $750 per meter installed were also recorded in NPEI's capital plan for the next five years.
The number of meters in the "Demand with IT" line on Sheet I7.1, have been reduced by 92 in each commercial rate class, GS < 50 kW and GS > 50 kW, and shown separately in the MIST meters line. The Demand with IT meter has a cost to install of $1,652 whereas the MIST meter has an approximate cost to install of $750.

Meter Reading

NPEI has completed its deployment of smart meters for the residential and most of the GS < 50 kW rates classes. In terms of meter reading, basically all smart meters are electronically read and the data is backhauled over WIFI, cellular lines or phone lines to retrieve the data. There

are now similar levels of complication associated with meter reading of residential and GS < 50 kW meters as there is with the GS > 50 kW meters.

NPEI has calculated a monthly meter reading cost of $0.32 per meter for smart meters. The following weighted costs relative to the Residential Average Cost is shown in the Table 7-4 below.

Table 7-4 Meter Reading

Meter Reading	Weighting factor 2015	Weighting factor 2011	Weighted average Cost Per Meter 2015	Weighted average Cost Per Meter 2011	$ change	% Change
Residential	1	1	$ 0.32	$ 0.62	$ (0.30)	-48.39%
GS < 50 kW	5.41	2.74	$ 1.74	$ 1.69	$ 0.05	2.96%
GS> 50 kW	50.48	33.19	$ 16.19	$ 20.48	$ (4.29)	-20.95%

The weighted average cost per meter decreased in the residential rate class by 48% from 2011 to 2015. The GS < 50 kW rate class had an increase of 2.96 % and the GS > 50 kW rate class had a decrease of 21% from 2011 to 2015 respectively. As noted above, NPEI is required to convert 920 meters from Demand with IT to MIST meters over the next 5 years. NPEI obtained an estimated cost to read these meters from its current vendor. The cost to read a MIST meter or Smart Meter with Demand is estimated at $20.00 per month per meter. These meters carried meter reading costs ranging from $1.10 per meter per month to $1.94 per meter per month in 2011. The number of meters installed and eligible to be read will increment each year by 184 meters or 92 meters per rate class. As a result, the meter reading costs will also increment each year. Table 7-5 below shows the incremental meter reading costs for the next five years. NPEI has taken the total meter reading costs of $658,800 for the next five years and included one fifth or $131,760 per year for the additional meter reading costs associated with these MIST meters. NPEI included these meter reading costs in the Smart meter with Demand line at $66,240 for each of the GS < 50 kW and GS > 50 kW rate classes. Due to the increase cost related to these MIST meters the GS < 50 kW rate class average weighted factor relative to the residential rate class has increased from 2.74 in 2011 to 5.41 in 2015. Similarly, the GS > 50 kW rate class meter reading factor relative to the residential rate class has increased from 33.19

in 2011 to 50.48 in 2015. NPEI reduced the GS – Walking meter reading costs at $1.15 per meter per month by 92 meters in both the GS < 50 kW and GS > 50 kW rate classes and included these meters in the Smart meter with Demand line on Sheet I7.2.

Table 7-5 MIST meter reading next 5 years

Meter Reading MIST meters						
cost/meter/month	*$ 20.00*	**2015**	**2016**	**2017**	**2018**	**2019**
# of meters installed and read per month						
183		$ 43,920				
366			$ 87,840			
549				$ 131,760		
732					$ 175,680	
915						$ 219,600
		$ 43,920	$ 87,840	$ 131,760	$ 175,680	$ 219,600
		$ 658,800				
		5				
		$ 131,760				

Revenue to Cost Ratios Updated

As per the Report of the Board (EB-2010-0219) dated March 31, 2011 the Board updated the revenue to cost ratios range for the GS > 50 kW rate class and the Sentinel light rate class. The table below 7-6 shows a comparison of the ranges between the 2011 Cost Allocation Study and the 2015 Cost Allocation study.

Table 7-6 Revenue to Cost Ratios Comparison

Class	**2015 Board Targets Min to Max**		**2011 Board Targets Min to Max**	
Class	85.0%	115.0%	85.0%	115.0%
Residential	80.0%	120.0%	80.0%	120.0%
GS < 50	80.0%	120.0%	80.0%	180.0%
Streetlight	70.0%	120.0%	70.0%	120.0%
Sentinel Lights	80.0%	120.0%	70.0%	120.0%
Unmetered Scattered Load	80.0%	120.0%	80.0%	120.0%

OEB Cost Allocation Model

The Cost Allocation Model used by NPEI is version 3.2 issued on June 26, 2014. NPEI has followed the policies as outlined in the March 31, 2011 report and as presented within the Cost Allocation model.

For the 2015 Cost Allocation model, NPEI followed a consistent approach with the initial 2006 and 2011 studies in terms of breaking out of assets, capital contributions, depreciation, accumulated depreciation, customer data and load data by primary, line transformer and secondary categories were developed from the best data available to NPEI, its engineering records, and its customer and financial information systems. The current model incorporates the 2015 test year customer numbers, kWh load forecast, and kW demand values. NPEI connects both individually controlled and group controlled streetlights to its secondary distribution system. Individually controlled streetlights consist of a single streetlight fixture connected directly to NPEI's 120/240V secondary distribution circuit. The streetlight fixture is controlled by a photo-eye mounted on top of the light. Group controlled streetlights consist of multiple streetlight fixtures daisy chained together. The group of streetlights is connected to NPEI's secondary distribution system through a single point of disconnect and control using a streetlight conductor. The streetlight conductor, disconnect, and control are owned by the streetlight owner. There are typically 10 to 14 streetlight fixtures supplied by a single streetlight disconnect in this scenario. The total number of streetlight service connections for the 2015 test year cost allocation study is 1,299 which is up from 1,241 in 2011. The values for the 2015 Test year reflect the adjustments NPEI made in 2013, related to fixed asset componentization and the changes related to the accounting change for capital assets depreciation lives.

The 2015 demand values are based on the weather normalized load forecast used to design rates.

Capital contributions, depreciation and accumulated depreciation by USoA are consistent with the information provided in the 2015 continuity statement shown in Exhibit 2. The rate class

customer data used in the cost allocation study is consistent with the 2015 customer forecast outlined in Exhibit 3.

In terms of load profiles, NPEI utilized the load profiles that Hydro One prepared for the 2006 Cost Allocation model and scaled the profiles to match the 2015 load forecast.

There have been no direct allocations within the model.

The excel version of the Cost Allocation Model has been filed separately. Schedules I-6.1, I-6.2, I-8, O-1 and O-2 from the model are attached.

File Number:EB-2014-0096

Exhibit: 7
Tab: 1
Schedule: 2

Date Filed:September 23, 2014

Attachment 1 of 4

OEB CA Input Sheet I-6.1 & Sheet I-6.2

Ontario Energy Board

2015 Cost Allocation Model

EB-2014-0096

Sheet I6.1 Revenue Worksheet - Public

Total kWhs from Load Forecast	1,185,817,112
Total kWs from Load Forecast	1,761,769
Deficiency/sufficiency (RRWF 8. cell F51)	- 1,003,773
Miscellaneous Revenue (RRWF 5. cell F48)	1,596,475

			1	2	3	7	8	9
	ID	**Total**	**Residential**	**GS <50**	**GS>50-Regular**	**Street Light**	**Sentinel**	**Unmetered Scattered Load**
Billing Data								
Forecast kWh	**CEN**	1,185,817,112	399,166,843	118,740,733	657,957,068	7,477,962	259,459	2,215,047
Forecast kW	**CDEM**	1,761,769			1,739,879	21,184	705	
Forecast kW, included in CDEM, of customers receiving line transformer allowance		748,780			748,780			
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**	1,185,817,112	399,166,843	118,740,733	657,957,068	7,477,962	259,459	2,215,047

	ID	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
Existing Monthly Charge			$16.06	$37.79	$179.58	$1.15	$12.87	$19.53
Existing Distribution kWh Rate			$0.0161	$0.0138	$0.0000			$0.0137
Existing Distribution kW Rate					$4.2400	$4.4657	$16.0553	
Existing TOA Rate					$0.60			
Additional Charges								
Distribution Revenue from Rates		$28,820,348	$15,497,254	$3,627,325	$9,234,664	$273,855	$58,115	$129,135
Transformer Ownership Allowance		$449,268	$0	$0	$449,268	$0	$0	$0
Net Class Revenue	CREV	$28,371,080	$15,497,254	$3,627,325	$8,785,396	$273,855	$58,115	$129,135

Ontario Energy Board

2015 Cost Allocation Model

EB-2014-0096

Sheet I6.2 Customer Data Worksheet - Public

			1	2	3	7	8	9				
	ID	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load	Total 2013 Write-off	Residential	GS <50	GS>50-Regular
Billing Data												
Bad Debt 3 Year Historical Average	BDHA	$273,604	$211,150	$26,645	$35,808	$0	$0	$0	$356,019	$274,753	$34,671	$46,595
Late Payment 3 Year Historical Average	LPHA	$381,433	$257,550	$52,736	$71,146				100%	77%	10%	13%
Number of Bills	CNB	631,656	564,799	52,625	10,344	48	3,636	204				
Number of Devices												
Number of Connections (Unmetered)	CCON	2,023				1,299	303	422				
Total Number of Customers	CCA	52,638	47,067	4,385	862	4	303	17				
Bulk Customer Base	CCB	-										
Primary Customer Base	CCP	52,314	47,067	4,385	862							
Line Transformer Customer Base	CCLT	52,205	47,067	4,377	761							
Secondary Customer Base	CCS	52,267	47,067	4,385	815							
Weighted - Services	CWCS	65,976	47,067	10,964	7,339	390	91	126				
Weighted Meter -Capital	CWMC	8,390,783	5,543,837	897,556	1,949,391	-	-	-				
Weighted Meter Reading	CWMR	478,642	179,946	94,555	204,140	-	-	-				
Weighted Bills	CWNB	667,535	564,799	78,938	20,688	38	2,909	163				

Bad Debt Data

Historic Year:	2011	330,713	330,713					
Historic Year:	2012	266,257	266,257					
Historic Year:	2013	223,842	223,842					
Three-year average		**273,604**	**273,604**	-	-	-	-	-

File Number:EB-2014-0096

Exhibit: 7
Tab: 1
Schedule: 2

Date Filed:September 23, 2014

Attachment 2 of 4

OEB CA Input Sheet I-8 Demand Data

Ontario Energy Board

2015 Cost Allocation Model

EB-2014-0096

Sheet I8 Demand Data Worksheet - Public

This is an input sheet for demand allocators.

CP TEST RESULTS	12 CP
NCP TEST RESULTS	4 NCP

Co-incident Peak	Indicator
1 CP	CP 1
4 CP	CP 4
12 CP	CP 12

Non-co-incident Peak	Indicator
1 NCP	NCP 1
4 NCP	NCP 4
12 NCP	NCP 12

Customer Classes		Total	1 Residential	2 GS <50	3 GS>50-Regular	7 Street Light	8 Sentinel	9 Unmetered Scattered Load
CO-INCIDENT PEAK								
1 CP								
Transformation CP	TCP1	224,557	99,785	27,545	97,226	-	-	-
Bulk Delivery CP	BCP1	224,557	99,785	27,545	97,226	-	-	-
Total Sytem CP	DCP1	224,557	99,785	27,545	97,226	-	-	-
4 CP								
Transformation CP	TCP4	856,644	385,484	79,865	391,295	-	-	-
Bulk Delivery CP	BCP4	856,644	385,484	79,865	391,295	-	-	-
Total Sytem CP	DCP4	856,644	385,484	79,865	391,295	-	-	-
12 CP								
Transformation CP	TCP12	2,257,537	976,709	211,121	1,056,224	10,206	370	2,908
Bulk Delivery CP	BCP12	2,257,537	976,709	211,121	1,056,224	10,206	370	2,908
Total Sytem CP	DCP12	2,257,537	976,709	211,121	1,056,224	10,206	370	2,908
NON CO_INCIDENT PEAK								
1 NCP								
Classification NCP from Load Data Provider	DNCP1	244,665	102,696	33,596	105,768	1,743	103	759
Primary NCP	PNCP1	244,665	102,696	33,596	105,768	1,743	103	759
Line Transformer NCP	LTNCP1	232,298	102,696	33,573	93,425	1,743	103	759
Secondary NCP	SNCP1	238,805	102,696	33,596	99,908	1,743	103	759
4 NCP								
Classification NCP from Load Data Provider	DNCP4	937,428	397,185	111,164	419,020	6,962	348	2,749
Primary NCP	PNCP4	937,428	397,185	111,164	419,020	6,962	348	2,749
Line Transformer NCP	LTNCP4	888,452	397,185	111,087	370,121	6,962	348	2,749
Secondary NCP	SNCP4	914,213	397,185	111,164	395,805	6,962	348	2,749
12 NCP								
Classification NCP from Load Data Provider	DNCP12	2,442,333	1,048,758	240,526	1,124,851	20,655	841	6,702
Primary NCP	PNCP12	2,442,333	1,048,758	240,526	1,124,851	20,655	841	6,702
Line Transformer NCP	LTNCP12	2,310,898	1,048,758	240,360	993,582	20,655	841	6,702
Secondary NCP	SNCP12	2,380,013	1,048,758	240,526	1,062,532	20,655	841	6,702

File Number:EB-2014-0096

Exhibit: 7
Tab: 1
Schedule: 2

Date Filed:September 23, 2014

Attachment 3 of 4

OEB CA Output Sheet O-1 Revenue to Cost Summary

Ontario Energy Board

2015 Cost Allocation Model

EB-2014-0096

Sheet O1 Revenue to Cost Summary Worksheet - Public

Instructions:
Please see the first tab in this workbook for detailed instructions

Class Revenue, Cost Analysis, and Return on Rate Base

		Total	1 Residential	2 GS <50	3 GS>50-Regular	7 Street Light	8 Sentinel	9 Unmetered Scattered Load
Rate Base Assets								
crev	Distribution Revenue at Existing Rates	$28,371,080	$15,497,254	$3,627,325	$8,785,396	$273,855	$58,115	$129,135
mi	Miscellaneous Revenue (mi)	$1,596,475	$1,256,079	$188,761	$138,540	$5,761	$5,229	$2,105
		Miscellaneous Revenue Input equals Output						
	Total Revenue at Existing Rates	$29,967,555	$16,753,333	$3,816,086	$8,923,936	$279,616	$63,344	$131,240
	Factor required to recover deficiency (1 + D)	1.0354						
	Distribution Revenue at Status Quo Rates	$29,374,853	$16,045,549	$3,755,660	$9,096,225	$283,544	$60,171	$133,704
	Miscellaneous Revenue (mi)	$1,596,475	$1,256,079	$188,761	$138,540	$5,761	$5,229	$2,105
	Total Revenue at Status Quo Rates	$30,971,328	$17,301,628	$3,944,421	$9,234,764	$289,305	$65,400	$135,809
	Expenses							
di	Distribution Costs (di)	$6,262,136	$4,131,359	$637,415	$1,347,270	$95,175	$18,848	$32,068
cu	Customer Related Costs (cu)	$6,193,820	$4,907,849	$755,684	$503,922	$2,650	$21,756	$1,959
ad	General and Administration (ad)	$4,585,624	$3,285,018	$507,134	$725,374	$39,694	$14,674	$13,730
dep	Depreciation and Amortization (dep)	$4,936,879	$3,213,669	$514,058	$1,110,630	$64,255	$12,521	$21,746
INPUT	PILs (INPUT)	$43,189	$28,054	$4,384	$9,810	$613	$119	$208
INT	Interest	$3,567,234	$2,317,187	$362,116	$810,276	$50,643	$9,868	$17,144
	Total Expenses	$25,588,882	$17,883,136	$2,780,792	$4,507,283	$253,031	$77,786	$86,855
	Direct Allocation	$0	$0	$0	$0	$0	$0	$0
NI	Allocated Net Income (NI)	$5,382,445	$3,496,303	$546,382	$1,222,590	$76,414	$14,890	$25,868
	Revenue Requirement (includes NI)	$30,971,328	$21,379,438	$3,327,173	$5,729,872	$329,445	$92,676	$112,723
		Revenue Requirement Input equals Output						
	Rate Base Calculation							
	Net Assets							
dp	Distribution Plant - Gross	$230,073,481	$151,129,162	$23,281,014	$50,402,543	$3,426,480	$673,661	$1,160,621
gp	General Plant - Gross	$40,447,076	$26,426,421	$4,136,275	$8,997,474	$578,063	$113,211	$195,632
accum dep	Accumulated Depreciation	($123,945,922)	($81,597,172)	($12,389,583)	($27,036,202)	($1,903,187)	($374,605)	($645,173)
co	Capital Contribution	($22,830,764)	($15,493,365)	($2,449,526)	($4,360,495)	($342,471)	($69,222)	($115,686)
	Total Net Plant	$123,743,871	$80,465,046	$12,578,180	$28,003,321	$1,758,884	$343,045	$595,394
	Directly Allocated Net Fixed Assets	$0	$0	$0	$0	$0	$0	$0
COP	Cost of Power (COP)	$136,943,243	$46,097,498	$13,712,689	$75,983,702	$863,587	$29,963	$255,803
	OM&A Expenses	$17,041,580	$12,324,226	$1,900,234	$2,576,567	$137,519	$55,278	$47,757
	Directly Allocated Expenses	$0	$0	$0	$0	$0	$0	$0
	Subtotal	***$153,984,823***	***$58,421,724***	***$15,612,922***	***$78,560,269***	***$1,001,106***	***$85,241***	***$303,561***
	Working Capital	$20,018,027	$7,594,824	$2,029,680	$10,212,835	$130,144	$11,081	$39,463
	Total Rate Base	$143,761,898	$88,059,870	$14,607,860	$38,216,156	$1,889,028	$354,126	$634,857
		Rate Base Input equals Output						
	Equity Component of Rate Base	$57,504,759	$35,223,948	$5,843,144	$15,286,462	$755,611	$141,651	$253,943
	Net Income on Allocated Assets	$5,382,445	($581,507)	$1,163,629	$4,727,482	$36,274	($12,386)	$48,953
	Net Income on Direct Allocation Assets	$0	$0	$0	$0	$0	$0	$0
	Net Income	$5,382,445	($581,507)	$1,163,629	$4,727,482	$36,274	($12,386)	$48,953
	RATIOS ANALYSIS							
	REVENUE TO EXPENSES STATUS QUO%	100.00%	80.93%	118.55%	161.17%	87.82%	70.57%	120.48%
	EXISTING REVENUE MINUS ALLOCATED COSTS	($1,003,773)	($4,626,105)	$488,913	$3,194,063	($49,829)	($29,332)	$18,516
		Deficiency Input equals Output						
	STATUS QUO REVENUE MINUS ALLOCATED COSTS	($0)	($4,077,810)	$617,248	$3,504,892	($40,140)	($27,276)	$23,085
	RETURN ON EQUITY COMPONENT OF RATE BASE	9.36%	-1.65%	19.91%	30.93%	4.80%	-8.74%	19.28%

File Number:EB-2014-0096

Exhibit: 7
Tab: 1
Schedule: 2

Date Filed:September 23, 2014

Attachment 4 of 4

OEB CA Output Sheet O-2 Monthly Fixed charge Min & Max

Ontario Energy Board

2015 Cost Allocation Model

EB-2014-0096

Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet - Public

Output sheet showing minimum and maximum level for Monthly Fixed Charge

Summary

	1	2	3	7	8	9
	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
Customer Unit Cost per month - Avoided Cost	$6.92	$11.71	$55.28	$0.13	$4.33	$0.29
Customer Unit Cost per month - Directly Related	$9.43	$16.03	$75.37	$0.20	$5.91	$0.42
Customer Unit Cost per month - Minimum System with PLCC Adjustment	$28.59	$38.26	$110.61	$16.53	$24.43	$16.81
Existing Approved Fixed Charge	$16.06	$37.79	$179.58	$1.15	$12.87	$19.53

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

	Total	1 Residential	2 GS <50	3 GS>50-Regular	7 Street Light	8 Sentinel	9 Unmetered Scattered Load
General Plant - Gross Assets	$40,447,076	$26,426,421	$4,136,275	$8,997,474	$578,063	$113,211	$195,632
General Plant - Accumulated Depreciation	($18,214,023)	($11,900,278)	($1,862,637)	($4,051,719)	($260,312)	($50,981)	($88,096)
General Plant - Net Fixed Assets	$22,233,053	$14,526,143	$2,273,638	$4,945,755	$317,751	$62,230	$107,535
General Plant - Depreciation	$1,252,067	$818,048	$128,041	$278,523	$17,894	$3,505	$6,056
Total Net Fixed Assets Excluding General Plant	$101,510,818	$65,938,903	$10,304,542	$23,057,566	$1,441,133	$280,815	$487,859
Total Administration and General Expense	$4,585,624	$3,285,018	$507,134	$725,374	$39,694	$14,674	$13,730
Total O&M	$12,455,956	$9,039,208	$1,393,099	$1,851,193	$97,825	$40,604	$34,027

Scenario 1

Accounts included in Avoided Costs Plus General Administration Allocation

			1	2	3	7	8	9	
USoA Account #	Accounts	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load	
	Distribution Plant								
1860	Meters	$9,427,764	$6,228,976	$1,008,481	$2,190,307	$0	$0	$0	CWMC
	Accumulated Amortization								
	Accum. Amortization of Electric Utility Plant - Meters only	($3,197,417)	($2,112,551)	($342,025)	($742,841)	$0	$0	$0	
	Meter Net Fixed Assets	**$6,230,347**	**$4,116,424**	**$666,455**	**$1,447,467**	**$0**	**$0**	**$0**	
	Misc Revenue								
4082	Retail Services Revenues	($44,424)	($32,127)	($4,954)	($6,717)	($358)	($144)	($124)	CWNB
4084	Service Transaction Requests (STR) Revenues	($1,047)	($757)	($117)	($158)	($8)	($3)	($3)	CWNB
4090	Electric Services Incidental to Energy Sales	($21,060)	($15,230)	($2,348)	($3,184)	($170)	($68)	($59)	CWNB
4220	Other Electric Revenues	$0	$0	$0	$0	$0	$0	$0	NFA
4225	Late Payment Charges	($361,000)	($243,754)	($49,911)	($67,335)	$0	$0	$0	LPHA
	Sub-total	*($427,531)*	*($291,868)*	*($57,330)*	*($77,394)*	*($537)*	*($216)*	*($186)*	
	Operation								
5065	Meter Expense	$479,640	$316,901	$51,307	$111,433	$0	$0	$0	CWMC
5070	Customer Premises - Operation Labour	$99,134	$85,870	$8,001	$1,573	$2,370	$552	$769	CCA
5075	Customer Premises - Materials and Expenses	$0	$0	$0	$0	$0	$0	$0	CCA
	Sub-total	*$578,775*	*$402,771*	*$59,308*	*$113,005*	*$2,370*	*$552*	*$769*	
	Maintenance								
5175	Maintenance of Meters	$5,163	$3,411	$552	$1,199	$0	$0	$0	1860
	Billing and Collection								
5310	Meter Reading Expense	$478,850	$180,025	$94,596	$204,229	$0	$0	$0	CWMR
5315	Customer Billing	$3,083,889	$2,609,267	$364,678	$95,575	$177	$13,438	$754	CWNB
5320	Collecting	$446,182	$377,513	$52,762	$13,828	$26	$1,944	$109	CWNB
5325	Collecting- Cash Over and Short	$0	$0	$0	$0	$0	$0	$0	CWNB
5330	Collection Charges	$0	$0	$0	$0	$0	$0	$0	CWNB
	Sub-total	$4,008,920	$3,166,804	$512,036	$313,632	$203	$15,382	$863	
	Total Operation, Maintenance and Billing	$4,592,858	$3,572,987	$571,896	$427,836	$2,573	$15,934	$1,632	
	Amortization Expense - Meters	$498,342	$329,257	$53,307	$115,777	$0	$0	$0	
	Allocated PILs	$2,175	$1,435	$232	$507	$0	$0	$0	
	Allocated Debt Return	$179,612	$118,542	$19,187	$41,882	$0	$0	$0	
	Allocated Equity Return	$271,008	$178,864	$28,950	$63,195	$0	$0	$0	
	Total	**$5,116,463**	**$3,909,217**	**$616,243**	**$571,804**	**$2,036**	**$15,719**	**$1,446**	

Scenario 2

Accounts included in Directly Related Customer Costs Plus General Administration Allocation

			1	2	3	7	8	9	
USoA Account #	Accounts	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load	
	Distribution Plant								
1860	Meters	$9,427,764	$6,228,976	$1,008,481	$2,190,307	$0	$0	$0	CWMC

	Accumulated Amortization								
	Accum. Amortization of Electric Utility Plant - Meters only	($3,197,417)	($2,112,551)	($342,025)	($742,841)	$0	$0	$0	
	Meter Net Fixed Assets	$6,230,347	$4,116,424	$666,455	$1,447,467	$0	$0	$0	
	Allocated General Plant Net Fixed Assets	$1,364,361	$906,836	$147,050	$310,476	$0	$0	$0	
	Meter Net Fixed Assets Including General Plant	$7,594,708	$5,023,260	$813,505	$1,757,942	$0	$0	$0	
	Misc Revenue								
4082	Retail Services Revenues	($44,424)	($32,127)	($4,954)	($6,717)	($358)	($144)	($124)	CWNB
4084	Service Transaction Requests (STR) Revenues	($1,047)	($757)	($117)	($158)	($8)	($3)	($3)	CWNB
4090	Electric Services Incidental to Energy Sales	($21,060)	($15,230)	($2,348)	($3,184)	($170)	($68)	($59)	CWNB
4220	Other Electric Revenues	$0	$0	$0	$0	$0	$0	$0	NFA
4225	Late Payment Charges	($361,000)	($243,754)	($49,911)	($67,335)	$0	$0	$0	LPHA
	Sub-total	*($427,531)*	*($291,868)*	*($57,330)*	*($77,394)*	*($537)*	*($216)*	*($186)*	
	Operation								
5065	Meter Expense	$479,640	$316,901	$51,307	$111,433	$0	$0	$0	CWMC
5070	Customer Premises - Operation Labour	$99,134	$85,870	$8,001	$1,573	$2,370	$552	$769	CCA
5075	Customer Premises - Materials and Expenses	$0	$0	$0	$0	$0	$0	$0	CCA
	Sub-total	*$578,775*	*$402,771*	*$59,308*	*$113,005*	*$2,370*	*$552*	*$769*	
	Maintenance								
5175	Maintenance of Meters	$5,163	$3,411	$552	$1,199	$0	$0	$0	1860
	Billing and Collection								
5310	Meter Reading Expense	$478,850	$180,025	$94,596	$204,229	$0	$0	$0	CWMR
5315	Customer Billing	$3,083,889	$2,609,267	$364,678	$95,575	$177	$13,438	$754	CWNB
5320	Collecting	$446,182	$377,513	$52,762	$13,828	$26	$1,944	$109	CWNB
5325	Collecting- Cash Over and Short	$0	$0	$0	$0	$0	$0	$0	CWNB
5330	Collection Charges	$0	$0	$0	$0	$0	$0	$0	CWNB
	Sub-total	*$4,008,920*	*$3,166,804*	*$512,036*	*$313,632*	*$203*	*$15,382*	*$863*	
	Total Operation, Maintenance and Billing	$4,592,858	$3,572,987	$571,896	$427,836	$2,573	$15,934	$1,632	
	Amortization Expense - Meters	$498,342	$329,257	$53,307	$115,777	$0	$0	$0	
	Amortization Expense - General Plant assigned to Meters	*$76,835*	*$51,069*	*$8,281*	*$17,485*	*$0*	*$0*	*$0*	
	Admin and General	$1,681,784	$1,298,490	$208,189	$167,644	$1,044	$5,758	$659	
	Allocated PILs	$2,651	$1,751	$284	$616	$0	$0	$0	
	Allocated Debt Return	$218,943	$144,657	$23,420	$50,866	$0	$0	$0	
	Allocated Equity Return	$330,354	$218,267	$35,338	$76,750	$0	$0	$0	
	Total	**$6,974,236**	**$5,324,610**	**$843,385**	**$779,580**	**$3,080**	**$21,477**	**$2,104**	

Scenario 3

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

			1	2	3	7	8	9
USoA Account #	**Accounts**	**Total**	**Residential**	**GS <50**	**GS>50-Regular**	**Street Light**	**Sentinel**	**Unmetered Scattered Load**
	Distribution Plant							

1565	Conservation and Demand Management Expenditures and Recoveries	$0	$0	$0	$0	$0	$0	$0	CDMPP
1830	Poles, Towers and Fixtures	$0	$0	$0	$0	$0	$0	$0	#N/A
1830-3	Poles, Towers and Fixtures - Subtransmission Bulk Delivery	$0	$0	$0	$0	$0	$0	$0	BCP
1830-4	Poles, Towers and Fixtures - Primary	$21,785,155	$18,870,057	$1,758,217	$345,788	$520,771	$121,322	$169,000	PNCP
1830-5	Poles, Towers and Fixtures - Secondary	$6,183,975	$5,361,127	$499,523	$92,888	$147,955	$34,469	$48,014	SNCP
1835	Overhead Conductors and Devices	$0	$0	$0	$0	$0	$0	$0	#N/A
1835-3	Overhead Conductors and Devices - Subtransmission Bulk Delivery	$0	$0	$0	$0	$0	$0	$0	BCP
1835-4	Overhead Conductors and Devices - Primary	$15,135,800	$13,110,460	$1,221,567	$240,245	$361,819	$84,292	$117,417	PNCP
1835-5	Overhead Conductors and Devices - Secondary	$2,668,929	$2,313,798	$215,588	$40,089	$63,856	$14,876	$20,722	SNCP
1840	Underground Conduit	$0	$0	$0	$0	$0	$0	$0	#N/A
1840-3	Underground Conduit - Bulk Delivery	$0	$0	$0	$0	$0	$0	$0	BCP
1840-4	Underground Conduit - Primary	$3,344,160	$2,896,674	$269,897	$53,081	$79,942	$18,624	$25,943	PNCP
1840-5	Underground Conduit - Secondary	$3,452,913	$2,993,464	$278,916	$51,865	$82,613	$19,246	$26,809	SNCP
1845	Underground Conductors and Devices	$0	$0	$0	$0	$0	$0	$0	#N/A
1845-3	Underground Conductors and Devices - Bulk Delivery	$0	$0	$0	$0	$0	$0	$0	BCP
1845-4	Underground Conductors and Devices - Primary	$32,886,155	$28,485,618	$2,654,146	$521,991	$786,139	$183,144	$255,117	PNCP
1845-5	Underground Conductors and Devices - Secondary	$9,481,991	$8,220,305	$765,927	$142,426	$226,862	$52,851	$73,621	SNCP
1850	Line Transformers	$23,968,982	$20,803,394	$1,934,819	$336,574	$574,127	$133,752	$186,315	LTNCP
1855	Services	$7,001,289	$4,994,615	$1,163,433	$778,836	$41,352	$9,634	$13,419	CWCS
1860	Meters	$9,427,764	$6,228,976	$1,008,481	$2,190,307	$0	$0	$0	CWMC 0
	Sub-total	*$135,337,112*	*$114,278,487*	*$11,770,513*	*$4,794,090*	*$2,885,435*	*$672,210*	*$936,377*	
	Accumulated Amortization								
	Accum. Amortization of Electric Utility Plant -Line Transformers, Services and Meters	($76,401,591)	($64,991,432)	($6,567,135)	($2,219,630)	($1,684,379)	($392,404)	($546,612)	
	Customer Related Net Fixed Assets	$58,935,521	$49,287,054	$5,203,379	$2,574,460	$1,201,057	$279,806	$389,765	
	Allocated General Plant Net Fixed Assets	$12,970,835	$10,857,791	$1,148,096	$552,211	$264,817	$62,007	$85,913	
	Customer Related NFA Including General Plant	$71,906,356	$60,144,845	$6,351,475	$3,126,672	$1,465,874	$341,813	$475,678	
	Misc Revenue								
4082	Retail Services Revenues	($44,424)	($32,127)	($4,954)	($6,717)	($358)	($144)	($124)	CWNB
4084	Service Transaction Requests (STR) Revenues	($1,047)	($757)	($117)	($158)	($8)	($3)	($3)	CWNB
4090	Electric Services Incidental to Energy Sales	($21,060)	($15,230)	($2,348)	($3,184)	($170)	($68)	($59)	CWNB
4220	Other Electric Revenues	$0	$0	$0	$0	$0	$0	$0	NFA
4225	Late Payment Charges	($361,000)	($243,754)	($49,911)	($67,335)	$0	$0	$0	LPHA
4235	Miscellaneous Service Revenues	($803,285)	($679,656)	($94,990)	($24,895)	($46)	($3,500)	($196)	CWNB
	Sub-total	*($1,230,816)*	*($971,524)*	*($152,320)*	*($102,289)*	*($583)*	*($3,716)*	*($383)*	
	Operating and Maintenance								
5005	Operation Supervision and Engineering	$470,808	$404,025	$40,242	$9,736	$10,789	$2,514	$3,501	1815-1855
5010	Load Dispatching	$27,600	$23,685	$2,359	$571	$633	$147	$205	1815-1855
5020	Overhead Distribution Lines and Feeders - Operation Labour	$136,999	$118,687	$11,059	$2,152	$3,275	$763	$1,063	1830 & 1835
5025	Overhead Distribution Lines & Feeders - Operation Supplies and Expenses	$9,560	$8,282	$772	$150	$229	$53	$74	1830 & 1835
5035	Overhead Distribution Transformers- Operation	$0	$0	$0	$0	$0	$0	$0	1850
5040	Underground Distribution Lines and Feeders - Operation Labour	$54,087	$46,860	$4,366	$846	$1,293	$301	$420	1840 & 1845

5045	Underground Distribution Lines & Feeders - Operation Supplies & Expenses	$158,895	$137,665	$12,827	$2,486	$3,799	$885	$1,233	1840 & 1845
5055	Underground Distribution Transformers - Operation	$191	$166	$15	$3	$5	$1	$1	1850
5065	Meter Expense	$479,640	$316,901	$51,307	$111,433	$0	$0	$0	CWMC
5070	Customer Premises - Operation Labour	$99,134	$85,870	$8,001	$1,573	$2,370	$552	$769	CCA
5075	Customer Premises - Materials and Expenses	$0	$0	$0	$0	$0	$0	$0	CCA
5085	Miscellaneous Distribution Expense	$1,203,610	$1,032,881	$102,878	$24,890	$27,583	$6,426	$8,951	1815-1855
5090	Underground Distribution Lines and Feeders - Rental Paid	$0	$0	$0	$0	$0	$0	$0	1840 & 1845
5095	Overhead Distribution Lines and Feeders - Rental Paid	$0	$0	$0	$0	$0	$0	$0	1830 & 1835
5096	Other Rent	$0	$0	$0	$0	$0	$0	$0	O&M
5105	Maintenance Supervision and Engineering	$327,860	$281,354	$28,024	$6,780	$7,513	$1,750	$2,438	1815-1855
5120	Maintenance of Poles, Towers and Fixtures	$131,444	$113,877	$10,611	$2,062	$3,143	$732	$1,020	1830
5125	Maintenance of Overhead Conductors and Devices	$465,503	$403,266	$37,574	$7,329	$11,129	$2,593	$3,612	1835
5130	Maintenance of Overhead Services	$177,896	$126,909	$29,562	$19,790	$1,051	$245	$341	1855
5135	Overhead Distribution Lines and Feeders - Right of Way	$158,540	$137,348	$12,797	$2,490	$3,791	$883	$1,230	1830 & 1835
5145	Maintenance of Underground Conduit	$18,906	$16,383	$1,527	$292	$452	$105	$147	1840
5150	Maintenance of Underground Conductors and Devices	$130,567	$113,118	$10,540	$2,048	$3,122	$727	$1,013	1845
5155	Maintenance of Underground Services	$90,440	$64,519	$15,029	$10,061	$534	$124	$173	1855
5160	Maintenance of Line Transformers	$94,048	$81,627	$7,592	$1,321	$2,253	$525	$731	1850
5175	Maintenance of Meters	$5,163	$3,411	$552	$1,199	$0	$0	$0	1860
	Sub-total	*$4,240,894*	*$3,516,836*	*$387,632*	*$207,212*	*$82,963*	*$19,328*	*$26,923*	
	Billing and Collection								
5305	Supervision	$1,089,144	$921,520	$128,794	$33,754	$63	$4,746	$266	CWNB
5310	Meter Reading Expense	$478,850	$180,025	$94,596	$204,229	$0	$0	$0	CWMR
5315	Customer Billing	$3,083,889	$2,609,267	$364,678	$95,575	$177	$13,438	$754	CWNB
5320	Collecting	$446,182	$377,513	$52,762	$13,828	$26	$1,944	$109	CWNB
5325	Collecting- Cash Over and Short	$0	$0	$0	$0	$0	$0	$0	CWNB
5330	Collection Charges	$0	$0	$0	$0	$0	$0	$0	CWNB
5335	Bad Debt Expense	$265,000	$204,510	$25,807	$34,682	$0	$0	$0	BDHA
5340	Miscellaneous Customer Accounts Expenses	$246,819	$208,832	$29,187	$7,649	$14	$1,076	$60	CWNB
	Sub-total	*$5,609,882*	*$4,501,667*	*$695,824*	*$389,718*	*$280*	*$21,204*	*$1,190*	
	Sub Total Operating, Maintenance and Biling	*$9,850,776*	*$8,018,503*	*$1,083,456*	*$596,929*	*$83,243*	*$40,532*	*$28,113*	
	Amortization Expense - Customer Related	$2,298,768	$1,851,326	$220,076	$167,327	$38,548	$8,981	$12,510	
	Amortization Expense - General Plant assigned to Meters	$730,460	$611,463	$64,656	$31,098	$14,913	$3,492	$4,838	
	Admin and General	$3,602,158	$2,914,075	$394,414	$233,902	$33,777	$14,647	$11,344	
	Allocated PILs	$25,075	$20,970	$2,214	$1,095	$511	$119	$166	
	Allocated Debt Return	$2,071,078	$1,732,017	$182,854	$90,470	$42,207	$9,833	$13,697	
	Allocated Equity Return	$3,124,960	$2,613,366	$275,901	$136,507	$63,684	$14,836	$20,667	
	PLCC Adjustment for Line Transformer	$133,115	$116,174	$10,806	$1,879	$3,213	$0	$1,043	
	PLCC Adjustment for Primary Costs	$437,852	$381,285	$35,533	$7,008	$10,590	$0	$3,436	
	PLCC Adjustment for Secondary Costs	$165,578	$146,022	$11,220	$2,032	$4,864	$0	$1,440	
	Total	$19,735,914	**$16,146,714**	**$2,013,691**	**$1,144,119**	**$257,634**	**$88,723**	**$85,033**	

Below: Grouping to avoid disclosure

Scenario 1

Accounts included in Avoided Costs Plus General Administration Allocation

Accounts	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
Distribution Plant							
CWMC	$ 9,427,764	$ 6,228,976	$ 1,008,481	$ 2,190,307	$ -	$ -	$ -
Accumulated Amortization							
Accum. Amortization of Electric Utility Plant - Meters only	$ (3,197,417)	$ (2,112,551)	$ (342,025)	$ (742,841)	$ -	$ -	$ -
Meter Net Fixed Assets	$ 6,230,347	$ 4,116,424	$ 666,455	$ 1,447,467	$ -	$ -	$ -
Misc Revenue							
CWNB	$ (66,531)	$ (48,114)	$ (7,419)	$ (10,059)	$ (537)	$ (216)	$ (186)
NFA	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LPHA	$ (361,000)	$ (243,754)	$ (49,911)	$ (67,335)	$ -	$ -	$ -
Sub-total	$ (427,531)	$ (291,868)	$ (57,330)	$ (77,394)	$ (537)	$ (216)	$ (186)
Operation							
CWMC	$ 479,640	$ 316,901	$ 51,307	$ 111,433	$ -	$ -	$ -
CCA	$ 99,134	$ 85,870	$ 8,001	$ 1,573	$ 2,370	$ 552	$ 769
Sub-total	$ 578,775	$ 402,771	$ 59,308	$ 113,005	$ 2,370	$ 552	$ 769
Maintenance							
1860	$ 5,163	$ 3,411	$ 552	$ 1,199	$ -	$ -	$ -
Billing and Collection							
CWMR	$ 478,850	$ 180,025	$ 94,596	$ 204,229	$ -	$ -	$ -
CWNB	$ 3,530,071	$ 2,986,780	$ 417,440	$ 109,403	$ 203	$ 15,382	$ 863
Sub-total	$ 4,008,920	$ 3,166,804	$ 512,036	$ 313,632	$ 203	$ 15,382	$ 863
Total Operation, Maintenance and Billing	$ 4,592,858	$ 3,572,987	$ 571,896	$ 427,836	$ 2,573	$ 15,934	$ 1,632
Amortization Expense - Meters	$ 498,342	$ 329,257	$ 53,307	$ 115,777	$ -	$ -	$ -
Allocated PILs	$ 2,175	$ 1,435	$ 232	$ 507	$ -	$ -	$ -
Allocated Debt Return	$ 179,612	$ 118,542	$ 19,187	$ 41,882	$ -	$ -	$ -
Allocated Equity Return	$ 271,008	$ 178,864	$ 28,950	$ 63,195	$ -	$ -	$ -
Total	**$ 5,116,463**	**$ 3,909,217**	**$ 616,243**	**$ 571,804**	**$ 2,036**	**$ 15,719**	**$ 1,446**

Scenario 2

Accounts included in Directly Related Customer Costs Plus General Administration Allocation

Accounts	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
Distribution Plant							
CWMC	$ 9,427,764	$ 6,228,976	$ 1,008,481	$ 2,190,307	$ -	$ -	$ -
Accumulated Amortization							
Accum. Amortization of Electric Utility Plant - Meters only	$ (3,197,417)	$ (2,112,551)	$ (342,025)	$ (742,841)	$ -	$ -	$ -
Meter Net Fixed Assets	$ 6,230,347	$ 4,116,424	$ 666,455	$ 1,447,467	$ -	$ -	$ -
Allocated General Plant Net Fixed Assets	$ 1,364,361	$ 906,836	$ 147,050	$ 310,476	$ -	$ -	$ -
Meter Net Fixed Assets Including General Plant	$ 7,594,708	$ 5,023,260	$ 813,505	$ 1,757,942	$ -	$ -	$ -
Misc Revenue							
CWNB	$ (66,531)	$ (48,114)	$ (7,419)	$ (10,059)	$ (537)	$ (216)	$ (186)
NFA	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LPHA	$ (361,000)	$ (243,754)	$ (49,911)	$ (67,335)	$ -	$ -	$ -
Sub-total	*$ (427,531)*	*$ (291,868)*	*$ (57,330)*	*$ (77,394)*	*$ (537)*	*$ (216)*	*$ (186)*
Operation							
CWMC	$ 479,640	$ 316,901	$ 51,307	$ 111,433	$ -	$ -	$ -
CCA	$ 99,134	$ 85,870	$ 8,001	$ 1,573	$ 2,370	$ 552	$ 769
Sub-total	*$ 578,775*	*$ 402,771*	*$ 59,308*	*$ 113,005*	*$ 2,370*	*$ 552*	*$ 769*
Maintenance							
1860	$ 5,163	$ 3,411	$ 552	$ 1,199	$ -	$ -	$ -
Billing and Collection							
CWMR	$ 478,850	$ 180,025	$ 94,596	$ 204,229	$ -	$ -	$ -
CWNB	$ 3,530,071	$ 2,986,780	$ 417,440	$ 109,403	$ 203	$ 15,382	$ 863
Sub-total	*$ 4,008,920*	*$ 3,166,804*	*$ 512,036*	*$ 313,632*	*$ 203*	*$ 15,382*	*$ 863*
Total Operation, Maintenance and Billing	$ 4,592,858	$ 3,572,987	$ 571,896	$ 427,836	$ 2,573	$ 15,934	$ 1,632
Amortization Expense - Meters	$ 498,342	$ 329,257	$ 53,307	$ 115,777	$ -	$ -	$ -
Amortization Expense - General Plant assigned to Meters	$ 76,835	$ 51,069	$ 8,281	$ 17,485	$ -	$ -	$ -
Admin and General	$ 1,681,784	$ 1,298,490	$ 208,189	$ 167,644	$ 1,044	$ 5,758	$ 659
Allocated PILs	$ 2,651	$ 1,751	$ 284	$ 616	$ -	$ -	$ -
Allocated Debt Return	$ 218,943	$ 144,657	$ 23,420	$ 50,866	$ -	$ -	$ -
Allocated Equity Return	$ 330,354	$ 218,267	$ 35,338	$ 76,750	$ -	$ -	$ -
Total	**$ 6,974,236**	**$ 5,324,610**	**$ 843,385**	**$ 779,580**	**$ 3,080**	**$ 21,477**	**$ 2,104**

Scenario 3

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

USoA Account #	Accounts	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
	Distribution Plant							
	CDMPP	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Poles, Towers and Fixtures	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	BCP	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	PNCP	$ 73,151,270	$ 63,362,809	$ 5,903,827	$ 1,161,105	$ 1,748,671	$ 407,382	$ 567,476

SNCP	$ 21,787,808	$ 18,888,692	$ 1,759,953	$ 327,268	$ 521,285	$ 121,442	$ 169,167
Overhead Conductors and Devices	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LTNCP	$ 23,968,982	$ 20,803,394	$ 1,934,819	$ 336,574	$ 574,127	$ 133,752	$ 186,315
CWCS	$ 7,001,289	$ 4,994,615	$ 1,163,433	$ 778,836	$ 41,352	$ 9,634	$ 13,419
CWMC	$ 9,427,764	$ 6,228,976	$ 1,008,481	$ 2,190,307	$ -	$ -	$ -
Sub-total	*$ 135,337,112*	*$ 114,278,487*	*$ 11,770,513*	*$ 4,794,090*	*$ 2,885,435*	*$ 672,210*	*$ 936,377*
Accumulated Amortization							
Accum. Amortization of Electric Utility Plant -Line Transformers, Services and Meters	$ (76,401,591)	$ (64,991,432)	$ (6,567,135)	$ (2,219,630)	$ (1,684,379)	$ (392,404)	$ (546,612)
Customer Related Net Fixed Assets	$ 58,935,521	$ 49,287,054	$ 5,203,379	$ 2,574,460	$ 1,201,057	$ 279,806	$ 389,765
Allocated General Plant Net Fixed Assets	$ 12,970,835	$ 10,857,791	$ 1,148,096	$ 552,211	$ 264,817	$ 62,007	$ 85,913
Customer Related NFA Including General Plant	$ 71,906,356	$ 60,144,845	$ 6,351,475	$ 3,126,672	$ 1,465,874	$ 341,813	$ 475,678
Misc Revenue							
CWNB	$ (869,816)	$ (727,771)	$ (102,409)	$ (34,954)	$ (583)	$ (3,716)	$ (383)
NFA	$ -	$ -	$ -	$ -	$ -	$ -	$ -
LPHA	$ (361,000)	$ (243,754)	$ (49,911)	$ (67,335)	$ -	$ -	$ -
Sub-total	*$ (1,230,816)*	*$ (971,524)*	*$ (152,320)*	*$ (102,289)*	*$ (583)*	*$ (3,716)*	*$ (383)*
Operating and Maintenance							
1815-1855	$ 2,029,878	$ 1,741,946	$ 173,503	$ 41,978	$ 46,518	$ 10,837	$ 15,096
1830 & 1835	$ 305,099	$ 264,317	$ 24,628	$ 4,792	$ 7,295	$ 1,699	$ 2,367
1850	$ 94,240	$ 81,793	$ 7,607	$ 1,323	$ 2,257	$ 526	$ 733
1840 & 1845	$ 212,982	$ 184,525	$ 17,193	$ 3,333	$ 5,092	$ 1,186	$ 1,653
CWMC	$ 479,640	$ 316,901	$ 51,307	$ 111,433	$ -	$ -	$ -
CCA	$ 99,134	$ 85,870	$ 8,001	$ 1,573	$ 2,370	$ 552	$ 769
O&M	$ -	$ -	$ -	$ -	$ -	$ -	$ -
1830	$ 131,444	$ 113,877	$ 10,611	$ 2,062	$ 3,143	$ 732	$ 1,020
1835	$ 465,503	$ 403,266	$ 37,574	$ 7,329	$ 11,129	$ 2,593	$ 3,612
1855	$ 268,337	$ 191,427	$ 44,591	$ 29,850	$ 1,585	$ 369	$ 514
1840	$ 18,906	$ 16,383	$ 1,527	$ 292	$ 452	$ 105	$ 147
1845	$ 130,567	$ 113,118	$ 10,540	$ 2,048	$ 3,122	$ 727	$ 1,013
1860	$ 5,163	$ 3,411	$ 552	$ 1,199	$ -	$ -	$ -
Sub-total	*$ 4,240,894*	*$ 3,516,836*	*$ 387,632*	*$ 207,212*	*$ 82,963*	*$ 19,328*	*$ 26,923*
Billing and Collection							
CWNB	$ 4,866,033	$ 4,117,133	$ 575,421	$ 150,806	$ 280	$ 21,204	$ 1,190
CWMR	$ 478,850	$ 180,025	$ 94,596	$ 204,229	$ -	$ -	$ -
BDHA	$ 265,000	$ 204,510	$ 25,807	$ 34,682	$ -	$ -	$ -
Sub-total	*$ 5,609,882*	*$ 4,501,667*	*$ 695,824*	*$ 389,718*	*$ 280*	*$ 21,204*	*$ 1,190*
Sub Total Operating, Maintenance and Biling	*$ 9,850,776*	*$ 8,018,503*	*$ 1,083,456*	*$ 596,929*	*$ 83,243*	*$ 40,532*	*$ 28,113*
Amortization Expense - Customer Related	$ 2,298,768	$ 1,851,326	$ 220,076	$ 167,327	$ 38,548	$ 8,981	$ 12,510
Amortization Expense - General Plant assigned to Meters	$ 730,460	$ 611,463	$ 64,656	$ 31,098	$ 14,913	$ 3,492	$ 4,838
Admin and General	$ 3,602,158	$ 2,914,075	$ 394,414	$ 233,902	$ 33,777	$ 14,647	$ 11,344
Allocated PILs	$ 25,075	$ 20,970	$ 2,214	$ 1,095	$ 511	$ 119	$ 166
Allocated Debt Return	$ 2,071,078	$ 1,732,017	$ 182,854	$ 90,470	$ 42,207	$ 9,833	$ 13,697
Allocated Equity Return	$ 3,124,960	$ 2,613,366	$ 275,901	$ 136,507	$ 63,684	$ 14,836	$ 20,667
PLCC Adjustment for Line Transformer	$ 133,115	$ 116,174	$ 10,806	$ 1,879	$ 3,213	$ -	$ 1,043
PLCC Adjustment for Primary Costs	$ 437,852	$ 381,285	$ 35,533	$ 7,008	$ 10,590	$ -	$ 3,436
PLCC Adjustment for Secondary Costs	$ 165,578	$ 146,022	$ 11,220	$ 2,032	$ 4,864	$ -	$ 1,440
Total	**$ 19,735,914**	**$ 16,146,714**	**$ 2,013,691**	**$ 1,144,119**	**$ 257,634**	**$ 88,723**	**$ 85,033**

Class Revenue Requirements

Based on the various inputs into the Cost Allocation model, the model generates the revenue requirements for each rate class. Table A of the OEB Chapter 2 Appendix 2-P provides the Service Revenue requirement for both the current 2015 Test year and the 2011 Board Approved cost allocation study.

As per Table A of Appendix 2-P the Residential rate class allocated costs increased from 66.12% to 69.03%. The GS<50 kW rate class allocated costs decreased from 11.33% to 10.74% and the GS>50 kW rate class also had allocated costs decrease from 20.46% to 18.5%.

Table B on Appendix 2-P illustrates the Calculated Class Revenues. Column 7 B is the 2015 base revenue calculated using the 2015 load forecast at the current approved rates and calculated using the existing revenue to cost ratios. Column 7C is the 2015 base revenue including the 2015 calculated revenue deficiency using the 2015 load forecast at the current approved rates and calculated using the existing revenue to cost ratios. Column 7D is the 2015 base revenue including the 2015 calculated revenue deficiency using the 2015 load forecast at the proposed rates and calculated using the updated revenue to cost ratios from the 2015 Cost Allocation study.

Tables A and B from Appendix 2P Cost Allocation are attached.

File Number:EB-2014-0096

Exhibit: 7
Tab: 1
Schedule: 3

Date Filed:September 23, 2014

Attachment 1 of 1

OEB Appendix 2-P Tables A & B

File Number:	EB-2014-0096
Exhibit:	7
Tab:	4
Schedule:	1
Page:	1
Date:	29-Aug-14

Appendix 2-P
Cost Allocation

Please complete the following four tables.

A) Allocated Costs

Classes	Costs Allocated from Previous Study	%	Costs Allocated in Test Year Study (Column 7A)	%
Residential	$ 21,014,764	66.12%	$ 21,379,438	69.03%
GS < 50 kW	$ 3,602,085	11.33%	$ 3,327,173	10.74%
GS > 50 kW	$ 6,500,897	20.46%	$ 5,729,872	18.50%
Street Lighting	$ 376,122	1.18%	$ 329,445	1.06%
Sentinel Lighting	$ 145,569	0.46%	$ 92,676	0.30%
Unmetered Scattered Load (USL)	$ 141,174	0.44%	$ 112,723	0.36%
Total	$ 31,780,610	100.00%	$ 30,971,328	100.00%

Notes

1 Customer Classification - If proposed rate classes differ from those in place in the previous Cost Allocation study, modify the rate classes to match the current application as closely as possible.

2 Host Distributors - Provide information on embedded distributor(s) as a separate class, if applicable. If embedded distributor(s) are billed as customers in a General Service class, include the allocated cost and revenue of the embedded distributor(s) in the applicable class. Also complete Appendix 2-Q.

3 Class Revenue Requirements - If using the Board-issued model, in column 7A enter the results from Worksheet O-1, Revenue Requirement (row 40 in the 2013 model). This excludes costs in deferral and variance accounts. Note to Embedded Distributor(s), it also does not include Account 4750 - Low Voltage (LV) Costs.

B) Calculated Class Revenues

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	Difference in Base Dx Revenue 7(D)-7(B)
Residential	$ 15,497,254	$ 16,045,549	$ 17,344,032	$ 1,256,079	$ 1,846,778
GS < 50 kW	$ 3,627,325	$ 3,755,660	$ 3,755,660	$ 188,761	$ 128,335
GS > 50 kW	$ 8,785,396	$ 9,096,225	$ 7,789,542	$ 138,540	-$ 995,854
Street Lighting	$ 273,855	$ 283,544	$ 283,544	$ 5,761	$ 9,689
Sentinel Lighting	$ 58,115	$ 60,171	$ 68,911	$ 5,229	$ 10,797
Unmetered Scattered Load (USL)	$ 129,135	$ 133,704	$ 133,163	$ 2,105	$ 4,028
Total	$ 28,371,080	$ 29,374,853	$ 29,374,853	$ 1,596,475	$ 1,003,773

Notes:

1 Columns 7B to 7D - LF means Load Forecast of Annual Billing Quantities (i.e. customers or connections X 12, (kWh or kW, as applicable). Revenue Quantities should be net of Transfomrer Ownership Allowance. Exclude revenue from rate adders and rate

2 Columns 7C and 7D - Column total in each column should equal the Base Revenue Requirement

3 Columns 7C - The Board cost allocation model calculates "1+d" in worksheet O-1, cell C21. "d" is defined as Revenue Deficiency/ Revenue at Current Rates.

4 Columns 7E - If using the Board-issued Cost Allocation model, enter Miscellaneous Revenue as it appears in Worksheet O-1, row 19.

Revenue-to-Cost Ratios

Previous Revenue to Cost Ratios

NPEI's Revenue-to-Cost ratios from the 2011 COS approved rate application (EB-2010-0138) were implemented over a three year period, as noted in Table 7-1. A phased in approach was followed from the 2011 COS rate application through to 2013. The final 2013 revenue to cost ratios have been entered in Table C Rebalancing Revenue to Cost (R/C) Ratios in the OEB's Appendix 2-P Tables C and D as the most recent revenue to cost ratios in effect for the 2014 year.

Current Revenue to Cost Ratios

The results of the revenue to cost ratios from the current 2015 Cost Allocation study are per Table 7-7

Table 7-7 Revenue to Cost Ratio Current 2015 CA Study

Cost Allocation Based Calculations

Class	Revenue Cost Ratio	Check Revenue Cost Ratios from 2015 Cost Allocation Model	Proposed Revenue to Cost Ratio	Proposed Service Revenue	Miscellaneous Revenue	Proposed Base Revenue	Board Target Low	Board Target High	Final 2011
Residential	81.1%	81.1%	85.000%	18,137,338	1,255,371	16,881,967	85%	115%	85.0%
GS < 50 kW	118.2%	118.19%	118.19%	3,944,596	188,936	3,755,660	80%	120%	109.1%
GS >50	160.3%	160.28%	145.63%	8,391,162	139,088	8,252,074	80%	120%	145.8294%
Sentinel Lights	70.9%	70.86%	80.00%	73,833	5,223	68,610	80%	120%	70.0%
Street Lighting	87.9%	87.92%	87.92%	289,299	5,755	283,544	70%	120%	70.0%
USL	120.6%	120.63%	120.00%	135,100	2,102	132,998	80%	120%	101.5%
TOTAL	100.0%	**100.0%**		**30,971,328**	**1,596,475**	**29,374,853**			

NPEI's revenue to cost ratios for four of its six rate classes has resulted in being outside the Board's ranges set in the Report of the Board on Cost Allocation released in relation to EB-2010-0219, dated March 31, 2011. These are highlighted in purple in Table 7-7 above.

In comparing the 2015 Cost Allocation study's revenue-to-cost ratios to the Final 2011 revenue-to-cost ratios, the residential rate class is below the 85% ratio which is the ratio that current distribution revenues are allocated at.

The GS > 50 kW and Sentinel lighting rate classes are no longer within the updated ranges set by the Board as per report EB-2010-0219, dated March 31, 2011, whereas both of these rate classes were within the Board's acceptable range for revenue-to-cost ratio in 2011. The Unmetered Scattered Load rate class is also not within the range set by the Board however, this rate class was within the acceptable revenue-to-cost ratio range in 2011.

The GS < 50 kW rate class and Street Light rate class are both within the range noted above in Table 7-7.

The results of allocated costs by rate class for 2015 are compared to 2011 in Table 7-8 below;

Table 7-8 Allocated Costs for 2015 compared to 2011

2015 Expenses	Total	% of Total	Residential	Residential % of Total	GS<50	GS<50 % of Total	GS>50	GS>50 % of Total	Streetlight	Sentinel	USL
Distribution Costs (di)	$6,262,136	20.22%	$4,131,359	19.32%	$637,415	19.16%	$1,347,270	23.51%	$95,175	$18,848	$32,068
Customer Related Costs (cu)	$6,193,820	20.00%	$4,907,849	22.96%	$755,684	22.71%	$503,922	8.79%	$2,650	$21,756	$1,959
General and Administration (ad)	$4,585,624	14.81%	$3,285,018	15.37%	$507,134	15.24%	$725,374	12.66%	$39,694	$14,674	$13,730
Depreciation and Amortization (dep)	$4,936,879	15.94%	$3,213,668	15.03%	$514,058	15.45%	$1,110,630	19.38%	$64,225	$12,521	$21,746
PILs (INPUT)	$43,189	0.14%	$28,054	0.13%	$4,384	0.13%	$9,810	0.17%	$613	$119	$208
Interest	$3,567,234	11.52%	$2,317,187	10.84%	$362,116	10.88%	$810,276	14.14%	$50,643	$9,868	$17,144
Total Expenses	$25,588,882	82.62%	$17,841,742	83.45%	$2,791,009	83.89%	$4,539,365	79.22%	$252,649	$77,401	$86,716
Allocated Net Income (NI)	$5,382,446	17.38%	$3,496,303	16.35%	$546,382	16.42%	$1,222,590	21.34%	$76,414	$14,890	$25,868
Revenue Requirement (includes NI)	$30,971,328	100.00%	$21,379,438	100.00%	$3,327,173	100.00%	$5,729,872	100.00%	$329,445	$92,676	$112,723
% of Total Revenue Requirement			69.03%		10.74%		18.50%		1.06%	0.30%	0.36%

2011 Expenses	Total	% of Total	Residential	Residential % of Total	GS<50	GS<50 % of Total	GS>50	GS>50 % of Total	Streetlight	Sentinel	USL
Distribution Costs (di)	$5,542,681	17.44%	$3,678,775	17.51%	$549,446	15.25%	$1,161,004	17.86%	$87,142	$33,749	$32,565
Customer Related Costs (cu)	$4,795,505	15.09%	$3,368,731	16.03%	$767,008	21.29%	$653,154	10.05%	$2,416	$2,843	$1,353
General and Administration (ad)	$3,738,847	11.76%	$2,532,192	12.05%	$465,691	12.93%	$679,145	10.45%	$34,715	$13,989	$13,115
Depreciation and Amortization (dep)	$7,127,272	22.43%	$4,662,619	22.19%	$727,320	20.19%	$1,551,954	23.87%	$105,584	$40,251	$39,545
PILs (INPUT)	$1,597,070	5.03%	$1,022,671	4.87%	$164,991	4.58%	$370,813	5.70%	$22,087	$8,266	$8,244
Interest	$3,569,353	11.23%	$2,285,605	10.88%	$368,744	10.24%	$828,743	12.75%	$49,362	$18,473	$18,425
Total Expenses	$26,370,729	82.98%	$17,550,592	83.52%	$3,043,199	84.48%	$5,244,814	80.68%	$301,306	$117,570	$113,248
Allocated Net Income (NI)	$5,409,881	17.02%	$3,464,172	16.48%	$558,886	15.52%	$1,256,083	19.32%	$74,816	$27,999	$27,926
Revenue Requirement (includes NI)	$31,780,610	100.00%	$21,014,764	100.00%	$3,602,085	100.00%	$6,500,897	100.00%	$376,122	$145,569	$141,174
% of Total Revenue Requirement			66.12%		11.33%		20.46%		1.18%	0.46%	0.44%

Total Allocated Expenses difference	Total	% of Total	Residential	Residential % of Total	GS<50	GS<50 % of Total	GS>50	GS>50 % of Total	Streetlight	Sentinel	USL
Distribution Costs (di)	$719,455	2.78	$452,584	1.82	$87,969	3.90	$186,266	5.65	$8,033	($14,901)	($497)
Customer Related Costs (cu)	$1,398,315	4.91	$1,539,118	6.93	($11,324)	1.42	($149,232)	- 1.25	$234	$18,913	$606
General and Administration (ad)	$846,777	3.04	$752,826	3.32	$41,443	2.31	$46,229	2.21	$4,979	$685	$615
Depreciation and Amortization (dep)	($2,190,394)	- 6.49	($1,448,950)	- 7.16	($213,262)	- 4.74	($441,324)	- 4.49	($41,359)	($27,730)	($17,799)
PILs (INPUT)	($1,553,882)	- 4.89	($994,616)	- 4.74	($160,607)	- 4.45	($361,003)	- 5.53	($21,474)	($8,147)	($8,036)
Interest	($2,119)	0.29	$31,581	- 0.04	($6,628)	0.65	($18,467)	1.39	$1,281	($8,605)	($1,281)
Total Expenses	($781,847)	- 0.36	$291,150	- 0.06	($252,190)	- 0.60	($705,449)	- 1.46	($48,657)	($40,168)	($26,532)
Allocated Net Income (NI)	($27,435)	0.36	$32,131	- 0.13	($12,504)	0.91	($33,493)	2.02	$1,598	($13,109)	($2,058)
Revenue Requirement (includes NI)	($809,282)	-	$364,674	-	($274,912)	-	($771,025)	-	($46,677)	($52,893)	($28,451)

The third section of Table 7-8 illustrates the overall differences in allocated expenses by cost category and by rate class between 2011 and the current 2015 cost allocation study.

NPEI reviewed and compared the allocators from Sheet E2 from the Cost Allocation Models from 2011 to 2015 respectively. The "Demand Allocators" and "Demand Allocators – Composite" are similar between 2011 and 2015 for each of the rate classes. The "Customer Allocators" and "Customer Allocators – Composite" are very different for the CWNB-Weighted Bills, and the O&M composite allocator for the residential, GS < 50 kW and GS > 50 kW rate classes from 2011 to 2015.

Table 7-9 below illustrates the cost category by rate class and compares the Customer Allocators and Customer Allocator-Composite from 2011 to 2015. The last column of this table highlights the Residential rate class's change in dollars allocated from 2011 to 2015 by cost category.

Table 7-9

Distribution Costs (di)	Residential	GS<50	GS>50	2015 $ change from 2011 Residential Class
% of total allocation 2015	19.32%	19.16%	23.51%	
% of toal allocation 2011	17.51%	15.25%	17.86%	
	1.82	3.90	5.65	$452,584
Customer Related costs include				
5065, 5070, 5175, 5305-5340				
CWNB factor 2015	84.61%	11.83%	3.10%	
CWNB factor 2011	76.15%	14.13%	9.64%	
	8.46	(2.30)	(6.54)	$1,539,118
General and Administration				
O&M factor 2015	72.32%	11.25%	15.06%	
O&M factor 2011	68.17%	12.73%	17.55%	
	4.15	(1.48)	(2.49)	$752,826
PILS				
NFA factor 2015	64.96%	10.15%	22.71%	
NFA factor 2011	64.03%	10.33%	23.22%	
	0.93	(0.18)	(0.51)	($994,616)
Depreciation and Amortization (dep)				
% of total allocation 2015	15.03%	15.45%	19.38%	
% of toal allocation 2011	22.19%	20.19%	23.87%	
	(7.16)	(4.74)	(4.49)	($1,448,950)
				$300,962
Interest and Net Income allocation				$63,713
				$364,675

The residential rate class was allocated a larger percentage of the Customer related costs that utilized the CWNB weighted bills factor. The CWNB weighted bills factor increased from 76.15% in 2011 to 84.61% for the residential rate class and decreased from 9.64% to 3.10% for the GS > 50 kW rate class. The factor increased in the residential rate class due to the weighted factor for Billing and collecting activities that were updated by NPEI in 2015 as per Table 7-2. The GS > 50 kW rate class had a factor of 7.0 in 2011 and this was updated to a factor of 2.0 in 2015. The impact shifts the dollars back to the base rate class which is the residential rate class when the factor decreases. The customer related costs increased from 2011 to 2015 by $1.4M. This increase is mainly attributable to two smart meter coordinator FTE's and the smart meter reading costs which were recorded in the regulatory asset account 1556 in 2011 are now included in NPEI's 2015 base revenue requirement. These costs along with other operating expenses related to the implementation of smart meters have been recovered through the smart meter rate riders. Also, an additional FTE for a systems analyst has been included in the 2015 revenue requirement. Water billing activities recovered direct labour related to half of a billing supervisor and half of a customer service supervisor. NPEI currently has two billing supervisors who each have over 30 years of service and one customer service supervisor. It is anticipated that both billing supervisors will retire within the next five years. It is through attrition that NPEI intends to account for the direct labour costs no longer being recovered by water billing activities. As such the equivalent of one FTE is also included in NPEI's 2015 revenue requirement. PILS costs allocated decreased by $994,616 which is mainly due to the accounting policy change related to capital asset depreciation lives. PILS is allocated based on the NFA (Net Fixed Asset) factor. The NFA factor for 2015 is similar to the 2011 factor for the residential, GS < 50 kW and GS > 50 kW rate classes. Depreciation expenses allocated decreased by $1,448,950 which is mainly due to the above noted accounting policy change related to capital assets. The residential rate class was allocated 15% of this decrease compared to 22.19% of depreciation expenses allocated in 2011. Distribution expense variances are explained further in Exhibit 4.

NPEI reviewed the Revenue offsets allocated to each rate class and compared the 2015 Cost Allocation study results to the 2011 cost allocation study. Table 7-10 illustrates this comparison of factors from 2011 to 2015 for the revenue offsets.

Table 7-10 Revenue Offsets

	Residential	GS<50	GS>50	2015 Total $ Revenue Change from 2011
Accounts 4082 and 4084				
OM&A factor 2015	72.08%	11.21%	15.31%	
CWNB factor 2011	76.15%	14.13%	9.64%	
pts change	-4.07	-2.92	5.67	(39,000)
4080-Microfit charges				
OM&A factor 2015	72.08%	11.21%	15.31%	21,000
was not segregated in 2011				
pts change	72.08	11.21	15.31	
4086 SSS Admin				
Customer count in 2015	86.62%	8.07%	1.59%	
CWNB	76.15%	14.13%	9.64%	
pts change	10.47	-6.06	-8.05	15,000
Late Payment 4225				
Average 3 yr factor 2015	67.52%	13.83%	18.65%	
Average 3 yr factor 2011	52.68%	15.23%	31.94%	
pts change	14.84	-1.4	-13.29	(158,000)
4235 accounts				
CWNB factor 2015	84.61%	11.83%	3.10%	
CWNB factor 2011	76.15%	14.13%	9.64%	
pts change	8.46	-2.3	-6.54	(154,000)
Accounts 4215,4390 and 4405				
OM&A factor 2015	72.08%	11.21%	15.31%	
NFA factor 2011	64.03%	10.33%	23.22%	
pts change	8.05	0.88	-7.91	(51,000)
				(366,000)

The significant decreases in revenue offsets come from the Late Payment and Specific Service Charge accounts. Foregone water billing activities account for $175,000 of the $366,000 decrease. Revenue offset variances are explained in further detail in Exhibit 3. Late payment revenue is allocated based on the most recent 3 year average of late payment charges by rate class. There has been a shift in late payment charge revenue offsets from the GS> 50 kW rate

class to the residential rate class The late payment allocator for the GS < 50 kW rate class is relatively unchanged from 2011 to 2015.

Proposed Revenue to Cost Ratios

Based on the actual 2015 revenue-to-cost ratios outlined in Table 7-7, NPEI proposes the following;

GS < 50 kW rate class proposed revenue-to-cost ratio for 2015 of 118.55% as calculated by the 2015 cost allocation model as this revenue-to-cost ratio is within the Board's range.

Sentinel Light rate class proposed revenue-to-cost ratio for 2015 of 80%. The 2015 cost allocation model calculated a 70.57% revenue-to-cost ratio. NPEI proposes to move this ratio to the minimum ratio of 80% as set by the Board for this rate class for 2015.

Street Light rate class proposed revenue-to-cost ratio for 2015 of 87.82% as calculated by the 2015 cost allocation model as this revenue-to-cost ratio is within the Board's range.

Unmetered Scatter Load (USL) rate class proposed revenue-to-cost ratio for 2015 of 120%. The 2015 cost allocation model calculated a 120.48% revenue-to-cost ratio. NPEI proposes to move this ratio to the maximum ratio of 120% as set by the Board for this rate class for 2015.

The 2015 cost allocation study calculated a revenue-to-cost ratio of 161.17% for the GS > 50 kW rate class. This ratio is outside the Board's updated ranges applicable to 2015 COS rate applications. Due to the GS<50 kW rate class, and USL rate classes being very close or at the maximum ratios as noted above and due to the immaterial impact from moving the Sentinel or Street light rate classes to be closer to their maximum ratio's NPEI proposes to increase the Residential rate class revenue-to-cost ratio.

In order to achieve the maximum ratio of 120% for the GS > 50 kW rate class, the residential rate class would have to increase to 91.92%. Table 7-11 below shows the revenue-to-cost ratios required by rate class in order to achieve the 120% for the GS > 50 kW rate class.

Table 7-11

Class	Revenue Requirement - 2015 Cost Allocation Model	2015 Base Revenue Allocated based on Proportion of Revenue at Existing Rates	Miscellaneous Revenue Allocated from 2015 Cost Allocation Model	Total Service Revenue Cost Allocation Model	Revenue Cost Ratio	Check Revenue Cost Ratios from 2015 Cost Allocation Model	Current Revenue to Cost Ratio	Current Service Revenue	Miscellaneous Revenue	Current Base Revenue
Residential	21,379,438	16,045,549	1,256,079	17,301,628	80.9%	80.9%	85.000%	18,172,523	1,256,079	16,916,443
GS < 50 kW	3,327,173	3,755,660	188,761	3,944,421	118.6%	118.55%	118.55%	3,944,421	188,761	3,755,660
GS >50	5,729,872	9,096,225	138,540	9,234,764	161.2%	161.17%	145.83%	8,355,670	138,540	8,217,131
Sentinel Lights	92,676	60,171	5,229	65,400	70.6%	70.57%	80.00%	74,141	5,229	68,911
Street Lighting	329,445	283,544	5,761	289,305	87.8%	87.82%	87.82%	289,305	5,761	283,544
USL	112,723	133,704	2,105	135,809	120.5%	120.48%	120.00%	135,268	2,105	133,163
TOTAL	**30,971,328**	**29,374,853**	**1,596,475**	**30,971,328**	100.0%	**100.0%**		**30,971,328**	**1,596,475**	**29,374,853**

In order to minimize the bill impacts for the residential rate class, the Board is allowing a phased-in approach. As per Appendix 2P-Table D, NPEI proposes to phase in the revenue-to-cost ratio adjustments over three years beginning in 2015. Table 7-12 through to Table 7-14 outlines the revenue-to-cost adjustments with the impact on base revenue by rate class using a three year phased-in approach.

Table 7-12 – 2015 year

Cost Allocation Based Calculations

Class	Revenue Requirement - 2015 Cost Allocation Model	2015 Base Revenue Allocated based on Proportion of Revenue at Existing Rates	Miscellaneous Revenue Allocated from 2015 Cost Allocation Model	Total Service Revenue Cost Allocation Model	Revenue Cost Ratio	Check Revenue Cost Ratios from 2015 Cost Allocation Model	Proposed Revenue to Cost Ratio	Proposed Service Revenue	Miscellaneous Revenue	Proposed Base Revenue
Residential	21,379,438	16,045,549	1,256,079	17,301,628	80.9%	80.9%	87.000%	18,600,111	1,256,079	17,344,032
GS < 50 kW	3,327,173	3,755,660	188,761	3,944,421	118.6%	118.55%	118.55%	3,944,421	188,761	3,755,660
GS >50	5,729,872	9,096,225	138,540	9,234,764	161.2%	161.17%	138.3640%	7,928,081	138,540	7,789,542
Sentinel Lights	92,676	60,171	5,229	65,400	70.6%	70.57%	80.00%	74,141	5,229	68,911
Street Lighting	329,445	283,544	5,761	289,305	87.8%	87.82%	87.82%	289,305	5,761	283,544
USL	112,723	133,704	2,105	135,809	120.5%	120.48%	120.00%	135,268	2,105	133,163
TOTAL	**30,971,328**	**29,374,853**	**1,596,475**	**30,971,328**	100.0%	**100.0%**		**30,971,328**	**1,596,475**	**29,374,853**

Table 7-13 - 2016 year

Cost Allocation Based Calculations

Class	Revenue Requirement - 2015 Cost Allocation Model	2015 Base Revenue Allocated based on Proportion of Revenue at Existing Rates	Miscellaneous Revenue Allocated from 2015 Cost Allocation Model	Total Service Revenue Cost Allocation Model	Revenue Cost Ratio	Check Revenue Cost Ratios from 2015 Cost Allocation Model	Proposed Revenue to Cost Ratio	Proposed Service Revenue	Miscellaneous Revenue	Proposed Base Revenue
Residential	21,379,438	16,045,549	1,256,079	17,301,628	80.9%	80.9%	89.000%	19,027,700	1,256,079	17,771,621
GS < 50 kW	3,327,173	3,755,660	188,761	3,944,421	118.6%	118.55%	118.55%	3,944,421	188,761	3,755,660
GS >50	5,729,872	9,096,225	138,540	9,234,764	161.2%	161.17%	130.9016%	7,500,493	138,540	7,361,953
Sentinel Lights	92,676	60,171	5,229	65,400	70.6%	70.57%	80.00%	74,141	5,229	68,911
Street Lighting	329,445	283,544	5,761	289,305	87.8%	87.82%	87.82%	289,305	5,761	283,544
USL	112,723	133,704	2,105	135,809	120.5%	120.48%	120.00%	135,268	2,105	133,163
TOTAL	**30,971,328**	**29,374,853**	**1,596,475**	**30,971,328**	100.0%	**100.0%**		**30,971,328**	**1,596,475**	**29,374,853**

Table 7-14 – 2017 year

Class	Revenue Requirement - 2015 Cost Allocation Model	2015 Base Revenue Allocated based on Proportion of Revenue at Existing Rates	Miscellaneous Revenue Allocated from 2015 Cost Allocation Model	Total Service Revenue Cost Allocation Model	Revenue Cost Ratio	Check Revenue Cost Ratios from 2015 Cost Allocation Model	Proposed Revenue to Cost Ratio	Proposed Service Revenue
Residential	21,379,438	16,045,549	1,256,079	17,301,628	80.9%	80.9%	91.921%	19,652,194
GS < 50 kW	3,327,173	3,755,660	188,761	3,944,421	118.6%	118.55%	118.55%	3,944,421
GS >50	5,729,872	9,096,225	138,540	9,234,764	161.2%	161.17%	120.0027%	6,875,999
Sentinel Lights	92,676	60,171	5,229	65,400	70.6%	70.57%	80.00%	74,141
Street Lighting	329,445	283,544	5,761	289,305	87.8%	87.82%	87.82%	289,305
USL	112,723	133,704	2,105	135,809	120.5%	120.48%	120.00%	135,268
TOTAL	**30,971,328**	**29,374,853**	**1,596,475**	**30,971,328**	100.0%	**100.0%**		**30,971,328**

Cost of Servicing an Embedded Distributor

NPEI is not a host distributor and therefore does not have any embedded distributors within its service territory. NPEI is not required to complete Appendix 2-Q – Cost of Servicing Embedded Distributor(s).

File Number:EB-2014-0096

Exhibit: 7
Tab: 1
Schedule: 4

Date Filed:September 23, 2014

Attachment 1 of 1

OEB Appendix 2-P Tables C & D

File Number:	EB-2014-0096
Exhibit:	7
Tab:	4
Schedule:	1
Page:	1
Date:	29-Aug-14

Appendix 2-P
Cost Allocation

C) Rebalancing Revenue-to-Cost (R/C) Ratios

Class	Previously Approved Ratios Most Recent Year: 2014	Status Quo Ratios (7C + 7E) / (7A)	Proposed Ratios (7D + 7E) / (7A)	Policy Range
	%	%	%	%
Residential	85.00%	80.93	87.00	85 - 115
GS < 50 kW	109.09%	118.55	118.55	80 - 120
GS > 50 kW	145.83%	161.17	138.36	80 - 120
Street Lighting	70.00%	87.82	87.82	70 - 120
Sentinel Lighting	70.00%	70.57	80.00	80 - 120
Unmetered Scattered Load (USL)	101.51%	120.48	120.00	80 - 120

Notes

1 Previously Approved Revenue-to-Cost Ratios - For most applicants, Most Recent Year would be the third year of the IRM 3 period, e.g. if the applicant rebased in 2009 with further adjustments over 2 years, the Most recent year is 2011. For applicants whose most recent rebasing year is 2006, the applicant should enter the ratios from their Informational Filing.

2 Status Quo Ratios - The Board's updated Cost Allocation Model yields the Status Quo Ratios in Worksheet O-1. Status Quo means "Before Rebalancing".

D) Proposed Revenue-to-Cost Ratios

Class	Proposed Revenue-to-Cost Ratios			Policy Range
	2015	2016	2017	
	%	%	%	%
Residential	87.00%	89.00%	91.92%	85 - 115
GS < 50 kW	118.55	118.55%	118.55%	80 - 120
GS > 50 kW	138.36%	130.90%	120.00%	80 - 120
Street Lighting	87.82	87.82%	87.82%	70 - 120
Sentinel Lighting	80.00	80.00%	80.00%	80 - 120
Unmetered Scattered Load (USL)	120.00	120.00%	120.00%	80 - 120

Note

1 The applicant should complete Table D if it is applying for approval of a revenue to cost ratio in 2015 that is outside the Board's policy range for any customer class. Table (d) will show the information that the distributor would likely enter in the IRM model) in 2016. In 2015 Table (d), enter the planned ratios for the classes that will be 'Change' and 'No Change' in 2015 (in the current Revenue Cost Ratio Adjustment Workform, Worksheet C1.1 'Decision – Cost Revenue Adjustment', column d), and enter TBD for class(es) that will be entered as 'Rebalance'.