EXHIBIT 7 – COST ALLOCATION

2019 Cost of Service

Lakeland Power Distribution Ltd.
EB-2018-0050

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7.1 COST ALLOCATION STUDY REQUIREMENTS

7.1.1 OVERVIEW OF COST ALLOCATION

LPDL has prepared and is filing a Cost Allocation informational filing consistent with its understanding of the Directions and Policies in the Board's reports of November 28, 2007 "*Application of Cost Allocation for Electricity Distributors*", and March 31, 2011 "*Review of Electricity Distribution Cost Allocation Policy*" (EB-2010-0219) (the "Cost Allocation Reports") and all subsequent updates.

In this application, LPDL has used the most up to date 2019 OEB-approved Cost Allocation Model[1] [2] Version 3.6 released by the OEB on July 12, 2018, and followed the instructions and guidelines issued by the OEB to enter the 2019 data into this model. The 2019 demand values were determined based on the Load Profiles section of this Exhibit. The various weighting factors used are also explained.

The main objectives of the original informational filing in 2006 were to provide information on any apparent cross-subsidization among a distributor's rate classifications and to support future rate applications. This information is updated to reflect new parameters and inputs and then used to adjust any cross-subsidization in the proposed rates.

The previously Board Approved ratios are presented as a point of reference to the proposed 2019 ratios. As part of its last Cost of Service Rate Application ("CoS"), LPDL updated the cost allocation revenue to cost ratios with 2013 base revenue requirement information. The revenue to cost ratios from the 2013 application are presented below, utilizing both LPDL and PSP approved values. The values for LPDL are the ratios approved in its 2013 CoS EB-2012-0145 and

[1] MFR - Completed cost allocation study using the OEB-approved methodology or a comparable model must be filed reflecting future loads and costs and be supported by appropriate explanations and live Excel spreadsheets. Sheets 11 and 12 of the RRWF must also be completed. Live Excel version of 2017 cost allocation model will be filed (updated load profiles or scaled version of HONI CAIF). Model must be consistent with test year load forecast, changes to customer classes and load profiles.
[2] MFR - Explanation provided if a distributor is unable to update its load profiles and confirm that it intends to put plans in place to update its load profiles the next time a cost allocation model is filed.

for former PSP, they are the ratios approved in IRM EB-2012-0159, reflecting the movement as per CoS EB-2010-0140.

Table 1: Previously Approved Ratios (2013 COS)

Class	LPDL	LPDL	LPDL	PSP	PSP	PSP	Blended	Blended	Blended
	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013
	%	Row 25	Row 40	%	Row 25	Row 40	%	Row 25	Row 40
Residential	96.15%	3,200,858	3,329,186	101.90%	1,509,224	1,481,083	97.92%	4,710,082	4,810,269
General Service < 50 kW	100.52%	1,241,657	1,235,264	85.19%	481,295	564,967	95.71%	1,722,952	1,800,231
General Service 50 to 4999 kW	110.44%	912,573	826,341	124.40%	581,835	467,713	115.48%	1,494,408	1,294,054
Unmetered Scattered Load	181.31%	9,266	5,111	80.00%	14,004	17,505	102.89%	23,270	22,616
Sentinel Lighting	81.52%	5,062	6,210	70.00%	1,437	2,053	78.65%	6,499	8,263
Street Lighting	117.25%	222,214	189,520	70.00%	127,135	181,621	94.13%	349,349	371,141
		5,591,630	5,591,632		2,714,930	2,714,942		8,306,560	8,306,574

The Cost Allocation Study for 2019 allocates the 2019 test year costs (i.e., the 2019 forecast revenue requirement) to the various customer classes using allocators that are based on the forecast class loads (kW and kWh) by class, customer counts, etc.

7.1.2 LOAD PROFILE (DEMAND DATA SHEET I8)

On June 12, 2015, the OEB asked distributors to be mindful of material changes to load profiles and propose updates, as appropriate, in CoS rate applications. LPDL is not aware of any reason for the load profiles to have materially changed between the classes. As a result, LPDL has not updated its load profile at this time. LPDL intends to put plans in place to update its load profile prior to its next cost of service application.

LPDL proposes to use the same method as was used in its 2013 CoS application for LPDL to determine the demand data for the 2019 Cost Allocation Model. The method involves applying a scaling factor to the 2004 demand data to determine the 2019 demand data for cost allocation. The scaling factor represents by class, the percentage of 2019 weather normalized volumes compared to the 2004 weather normalized volumes. The scaling factors used to

estimate the 2019 demand data for the Cost Allocation Model are shown in Tables 2 through 4 below.

Table 2: Load Profile Scaling Factors

Classes	2004 Weather Normal Values - LPDL (kWh)	2004 Weather Normal Values - PSP (kWh)	2004 Weather Normal Values - Blended (kWh)	2019 Weather Normal Values - Blended (kWh)	%
Residential	88,474,021	38,698,151	127,172,172	103,566,100	81.44%
General Service < 50 kW	50,572,035	17,831,120	68,403,155	58,157,023	85.02%
General Service 50 to 4999 kW	94,771,207	33,907,164	128,678,371	113,634,985	88.31%
Unmetered Scattered Load	313,209	140,517	453,726	166,068	36.60%
Sentinel Lighting	44,756	16,530	61,286	42,775	69.80%
Street Lighting	1,972,318	921,749	2,894,067	1,154,724	39.90%
Total	236,147,546	91,515,231	327,662,777	276,721,675	84.45%

Classes	2004 Weather Normal Values - LPDL (kWh)	2004 Weather Normal Values - PSP (kWh)	2004 Weather Normal Values - Blended (kWh)	%	2019 Weather Normal Values - Blended (kWh)	%
Residential	88,474,021	38,698,151	127,172,172	38.81%	103,566,100	37.43%
General Service < 50 kW	50,572,035	17,831,120	68,403,155	20.88%	58,157,023	21.02%
General Service 50 to 4999 kW	94,771,207	33,907,164	128,678,371	39.27%	113,634,985	41.06%
Unmetered Scattered Load	313,209	140,517	453,726	0.14%	166,068	0.06%
Sentinel Lighting	44,756	16,530	61,286	0.02%	42,775	0.02%
Street Lighting	1,972,318	921,749	2,894,067	0.88%	1,154,724	0.42%
Total	236,147,546	91,515,231	327,662,777	100.00%	276,721,675	100.00%

Table 3: 4NCP Load Profiles from Last CoS versus 2019

Classes	4NCP - LPDL EB-2012-0145	4NCP - PSP EB-2010-0140	Blended	%	2019 4NCP	%
Residential	76,780	37,227	114,007	45.10%	102,982	44.27%
General Service < 50 kW	42,520	18,492	61,012	24.14%	59,323	25.50%
General Service 50 to 4999 kW	50,004	25,119	75,123	29.72%	69,150	29.72%
Unmetered Scattered Load	59	31	90	0.04%	92	0.04%
Sentinel Lighting	36	15	51	0.02%	39	0.02%
Street Lighting	1,671	808	2,479	0.98%	1,048	0.45%
Total	171,070	81,692	252,762	100.00%	232,634	100.00%

Table 4: I8 Demand Data for 2019 Test Year (adjusted for 2019 Load Forecast)[3]

Customer Classes		Total	1 Residential	2 GS <50	3 GS>50-Regular	7 Street Lighting	8 Sentinel	9 Unmetered Scattered Load
		CP Sanity Check	Pass	Pass	Pass	Pass	Pass	Pass
CO-INCIDENT PEAK								
1 CP								
Transformation CP	TCP1	52,768	23,385	13,026	16,127	197	7	26
Bulk Delivery CP	BCP1	52,768	23,385	13,026	16,127	197	7	26
Total Sytem CP	DCP1	52,768	23,385	13,026	16,127	197	7	26
4 CP								
Transformation CP	TCP4	198,455	90,366	48,747	58,775	459	17	91
Bulk Delivery CP	BCP4	198,455	90,366	48,747	58,775	459	17	91
Total Sytem CP	DCP4	198,455	90,366	48,747	58,775	459	17	91
12 CP								
Transformation CP	TCP12	509,118	194,991	135,147	178,278	459	17	227
Bulk Delivery CP	BCP12	509,118	194,991	135,147	178,278	459	17	227
Total Sytem CP	DCP12	509,118	194,991	135,147	178,278	459	17	227
NON CO_INCIDENT PEAK								
		NCP Sanity Check	Pass	Pass	Pass	Pass	Pass	Pass
1 NCP Classification NCP from Load Data Provider	DNCP1	61,902	28,221	15,858	17,526	262	10	26
Primary NCP	PNCP1	61,902	28,221	15,858	17,526	262	10	26
Line Transformer NCP	LTNCP1	52,578	28,221	15,858	8,202	262	10	26
Secondary NCP	SNCP1	59,454	28,221	15,858	15,077	262	10	26
4 NCP Classification NCP from Load Data Provider	DNCP4	232,634	102,982	59,323	69,150	1,048	39	92
Primary NCP	PNCP4	232,634	102,982	59,323	69,150	1,048	39	92
Line Transformer NCP	LTNCP4	195,844	102,982	59,323	32,360	1,048	39	92
Secondary NCP	SNCP4	222,973	102,982	59,323	59,489	1,048	39	92
12 NCP Classification NCP from Load Data Provider	DNCP12	596,971	234,711	158,611	200,160	3,145	117	227
Primary NCP	PNCP12	596,971	234,711	158,611	200,160	3,145	117	227
Line Transformer NCP	LTNCP12	490,481	234,711	158,611	93,671	3,145	117	227
Secondary NCP	SNCP12	569,007	234,711	158,611	172,197	3,145	117	227

[3] MFR - Hard copy of sheets I-6, I-8, O-1 and O-2 (first page).

7.1.3 WEIGHTING FACTORS (SHEET I5.2)

LPDL populated the information on Sheet I3, Trial Balance Data with the 2019 forecasted data, Target Net Income, PILs, Deemed interest on long term debt, and the targeted Revenue Requirement and Rate Base.

On Sheet I4, Break-out of Assets, LPDL updated the allocation of the accounts based on 2019 values.

On Sheet I5.1, Miscellaneous data, LPDL updated the deemed equity component of rate base, kilometer of roads in the service area, working capital allowance and the proportion of pole rental revenue from secondary poles.

As instructed by the Board, in Sheet I5.2, Weighting Factors, LPDL has used LDC specific factors rather than continue to use OEB approved default factors. The utility has applied service and billing & collecting weightings for each customer classification.

These weightings are based on a review of time and costs incurred in servicing its customer classes; they are discussed further below:[4]

Table 5: Weighting Factors

		1	2	3	7	8	9
		Residential	**GS <50**	**GS > 50 to 2999 kW**	**Street Light**	**Sentinel**	**Unmetered Scattered Load**
Insert Weighting Factor for Services Account 1855		1.0	2.6	6.1	0.0	0.0	0.0
Insert Weighting Factor for Billing and Collecting		1.0	1.0	1.2	1.2	0.6	0.6

[4] MFR - Description of weighting factors, and rationale for use of default values (if applicable).

Proposed Services Weighting Factors

Residential: the Services weighting factor was set to "1", per the Cost Allocation instruction sheet.

General Service less than 50 kW: The proposed Services weighting factor of 2.6 reflects that these customers require greater capacity than residential customers as well increased levels of planning and engineering and larger size of conductor, which are more costly and require more material.

General Service greater than 50 kW (GS 50-2,999 kW and GS 3,000-4,999 kW): The proposed Services weighting factor of 6.1 reflects that these customers require greater capacity than residential customers as well increased levels of planning, engineering as well as larger size of conductor, which is more costly and requires more material.

Street Lighting, Sentinel and USL: A Services weighting factor of 0.0 is proposed for all three customer classes as the utility does not service these classes.

Proposed Billing and Collecting Weighting Factors

Residential: The Billing and Collecting weighting factor is set at 1, per the Cost Allocation instruction sheet.

General Service less than 50 kW: The proposed Billing and Collecting weighting factor is also 1. LPDL doesn't experience a significant difference between time required to bill this class when compared to the residential class.

General Service greater than 50 kW and Street Lighting: The proposed Billing and Collecting weighting factor for both classes is 1.2. All customers within this classification are mandated to be moved to MIST meters no later than 2020. LPDL has done this, with the result being meters settled through a 3rd Party vendor with a retail meter account. This allows the customer access to their daily data so they can track their consumption.

Sentinel Lights and USL: The proposed Billing and Collecting weighting factor for both classes, is 0.6. These classes do not give rise to Collecting costs. The customers in these classes require manual intervention if connections are added or removed and thus have a higher allocation when compared to the residential class.

7.1.4 REVENUE, CUSTOMER DATA, METER CAPITAL & READING, DIRECT ALLOCATION (SHEETS I6.1, I6.2 I7.1, I7.2, I9)

In Sheet I6.1 Revenue has been populated with the 2019 Test Year forecast data as well as existing rates.

Sheet I6.2 has been updated with the required Bad Debt and Late Payment revenue data as well as number of customer/connections.

LPDL updated the capital cost meter information on Sheet I7.1 and the meter reading information on I7.2 to reflect its completed deployment of smart meters.

No Direct Allocations were entered on Sheet I9.

7.1.5 CUSTOMER CLASSES

Embedded Distributor Class[5]

LPDL is not a host to any distributor.

Unmetered Scattered Loads (including Street Lights)[6]

LPDL communicates with USL customers to assist them in understanding the regulatory requirements in which LPDL operates. Since LPDL's largest customers in this category are the municipal shareholders, LPDL communicates with them frequently about load and potential rate

[5] MFR - Host Distributor - evidence of consultation with embedded Dx.
[6] MFR - Unmetered Loads (including Street Lighting) - Confirmation of communication with unmetered load customers when proposing changes to the level of the rates and charges or the introduction of new rates and charges.

impacts . LPDL will also communicate the rate increase forecasted for this rate application and the impacts to its customers.

MicroFIT[7]

LPDL has requested an increase in the MircoFIT rate from the current $5.40 per month to $10.00 per month to cover the cost of the settlement process.

Standby Rates[8]

LPDL is not seeking approval on a final basis, or changes to standby charges.

New or Eliminated Customer Classes[9]

LPDL is not proposing to include any new or eliminate any existing customer classes.

7.1.6 SUMMARY OF DATA AND OUTPUTS

The Customer Data tab of the Cost Allocation model updated for the 2019 Test Year are provided in Tables 6 and 7, at the next page.

[7] MFR - microFIT - if the applicant believes that it has unique circumstances which would justify a certain rate, appropriate documentation must be provided.
[8] MFR - Standby Rates - if seeking approval on final basis, provide evidence that affected customers have been advised. If seeking changes to standby charges, provide rationale and evidence that affected customer have been advised.
[9] MFR - New customer class or eliminated customer class - rationale and restatement of revenue requirement from previous CoS.

Table 6: Sheet I6-2 of the Cost Allocation Model

			1	2	3	7	8	9
	ID	Total	Residential	GS <50	GS>50-Regular	Street Lighting	Sentinel	Unmetered Scattered Load
Billing Data								
Bad Debt 3 Year Historical Average	BDHA	$57,369	$53,478	$3,891	$0	$0	$0	$0
Late Payment 3 Year Historical Average	LPHA	$101,502	$55,887	$23,560	$21,564	$456	$3	$32
Number of Bills	CNB	197,232	134,496	25,776	1,632	34,188	528	612
Number of Devices	CDEV					2,849		51
Number of Connections (Unmetered)	CCON	2,944				2,849	44	51
Total Number of Customers	CCA	16,436	11,208	2,148	136	2,849	44	51
Bulk Customer Base	CCB	-						
Primary Customer Base	CCP	13,606	11,208	2,148	136	114		
Line Transformer Customer Base	CCLT	13,682	11,208	2,148	117	114	44	51
Secondary Customer Base	CCS	16,417	11,208	2,148	117	2,849	44	51
Weighted - Services	CWCS	17,464	11,208	5,542	714	-	-	-
Weighted Meter -Capital	CWMC	4,041,679	2,868,791	903,788	269,100	-	-	-
Weighted Meter Reading	CWMR	13,343	11,169	2,144	30	-	-	-
Weighted Bills	CWNB	203,940	134,496	25,776	1,958	41,026	317	367

Bad Debt Data

		Total	**Residential**	GS<50				
Historic Year:	2015	64,860	61,224	3,636				
Historic Year:	2016	63,012	60,456	2,556				
Historic Year:	2017	44,236	38,754	5,482				
Three-year average		**57,369**	**53,478**	**3,891**	-	-	-	-

Street Lighting Adjustment Factors

NCP Test Results	4 NCP

	Primary Asset Data		**Line Transformer Asset Data**	
Class	**Customers/ Devices**	**4 NCP**	**Customers/ Devices**	**4 NCP**
Residential	11,208	102,982	11,208	102,982
Street Light	2,849	1,048	2,849	1,048

Street Lighting Adjustment Factors	
Primary	24.9664
Line Transformer	24.9664

Table 7: Sheet I6-1 of the Cost Allocation Model

Total kWhs from Load Forecast	276,721,676
Total kWs from Load Forecast	279,523
Deficiency/sufficiency (RRWF 8. cell F51)	344,498
Miscellaneous Revenue (RRWF 5. cell F48)	682,214

			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**	276,721,676	103,566,100	58,157,023	113,634,985	1,154,724	42,775	166,068
Forecast kW	**CDEM**	279,523			276,220	3,183	119	
Forecast kW, included in CDEM, of customers receiving line transformer allowance		129,265			129,265			
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**	276,721,676	103,566,100	58,157,023	113,634,985	1,154,724	42,775	166,068
Existing Monthly Charge			$31.61	$43.03	$284.85	$4.46	$6.28	$16.83
Existing Distribution kWh Rate			$0.0048	$0.0108				$0.0520
Existing Distribution kW Rate					$3.1967	$20.4675	$21.9542	
Existing TOA Rate					$0.60			
Additional Charges								
Distribution Revenue from Rates		$8,080,834	$4,752,554	$1,737,887	$1,347,877	$217,642	$5,939	$18,935
Transformer Ownership Allowance		$77,559	$0	$0	$77,559	$0	$0	$0
Net Class Revenue	**CREV**	$8,003,275	$4,752,554	$1,737,887	$1,270,318	$217,642	$5,939	$18,935

The revenue to cost ratios calculated on Sheet O1 and O2 of the Cost Allocation Model, updated for the 2019 Test Year, are provided in Tables 8 and 9.

Table 8: Sheet O-1 of the Cost Allocation Model

	Total	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
Distribution Revenue at Existing Rates	$8,003,275	$4,752,554	$1,737,887	$1,270,318	$217,642	$5,939	$18,935
Miscellaneous Revenue (mi)	$682,214	$397,962	$147,192	$110,326	$25,058	$759	$917
	Miscellaneous Revenue Input equals Output						
Total Revenue at Existing Rates	$8,685,489	$5,150,516	$1,885,078	$1,380,643	$242,700	$6,698	$19,853
Factor required to recover deficiency (1 + D)	0.9570						
Distribution Revenue at Status Quo Rates	$7,658,777	$4,547,982	$1,663,080	$1,215,637	$208,274	$5,683	$18,120
Miscellaneous Revenue (mi)	$682,214	$397,962	$147,192	$110,326	$25,058	$759	$917
Total Revenue at Status Quo Rates	$8,340,991	$4,945,944	$1,810,272	$1,325,963	$233,332	$6,442	$19,038
Expenses							
Distribution Costs (di)	$1,729,194	$1,014,871	$463,873	$225,015	$23,064	$1,082	$1,289
Customer Related Costs (cu)	$1,085,774	$746,160	$147,632	$15,732	$173,360	$1,339	$1,552
General and Administration (ad)	$2,313,578	$1,436,492	$505,995	$213,484	$153,274	$1,991	$2,343
Depreciation and Amortization (dep)	$1,337,806	$772,107	$315,760	$225,977	$21,721	$1,008	$1,233
PILs (INPUT)	$241,379	$134,315	$57,666	$44,577	$4,369	$204	$248
Interest	$551,073	$306,645	$131,653	$101,770	$9,974	$465	$567
Total Expenses	$7,258,805	$4,410,589	$1,622,578	$826,555	$385,762	$6,088	$7,232
Direct Allocation	$0	$0	$0	$0	$0	$0	$0
Allocated Net Income (NI)	$1,082,187	$602,183	$258,537	$199,854	$19,587	$913	$1,113
Revenue Requirement (includes NI)	$8,340,991	$5,012,772	$1,881,115	$1,026,409	$405,349	$7,001	$8,345
	Revenue Requirement Input equals Output						
Rate Base Calculation							
Net Assets							
Distribution Plant - Gross	$53,848,380	$30,201,361	$12,889,476	$9,648,176	$1,005,484	$46,994	$56,889
General Plant - Gross	$6,592,167	$3,681,926	$1,570,650	$1,199,515	$127,113	$5,860	$7,104
Accumulated Depreciation	($24,212,645)	($13,637,902)	($5,823,610)	($4,275,391)	($430,750)	($20,351)	($24,641)
Capital Contribution	($9,036,436)	($5,109,754)	($2,141,936)	($1,557,127)	($206,886)	($9,464)	($11,269)
Total Net Plant	$27,191,466	$15,135,631	$6,494,580	$5,015,173	$494,962	$23,038	$28,082
Directly Allocated Net Fixed Assets	$0	$0	$0	$0	$0	$0	$0
Cost of Power (COP)	$33,128,401	$12,441,569	$6,957,855	$13,566,189	$137,855	$5,107	$19,826
OM&A Expenses	$5,128,546	$3,197,522	$1,117,500	$454,230	$349,698	$4,412	$5,184
Directly Allocated Expenses	$0	$0	$0	$0	$0	$0	$0
Subtotal	***$38,256,947***	***$15,639,092***	***$8,075,354***	***$14,020,419***	***$487,554***	***$9,518***	***$25,010***
Working Capital	$2,869,271	$1,172,932	$605,652	$1,051,531	$36,567	$714	$1,876
Total Rate Base	$30,060,737	$16,308,563	$7,100,231	$6,066,704	$531,528	$23,752	$29,958
	Rate Base Input equals Output						
Equity Component of Rate Base	$12,024,295	$6,523,425	$2,840,092	$2,426,682	$212,611	$9,501	$11,983
Net Income on Allocated Assets	$1,082,187	$535,355	$187,693	$499,408	($152,430)	$354	$11,806
Net Income on Direct Allocation Assets	$0	$0	$0	$0	$0	$0	$0
Net Income	$1,082,187	$535,355	$187,693	$499,408	($152,430)	$354	$11,806
RATIOS ANALYSIS							
REVENUE TO EXPENSES STATUS QUO%	100.00%	98.67%	96.23%	129.18%	57.56%	92.02%	228.13%
EXISTING REVENUE MINUS ALLOCATED COSTS	$344,498	$137,744	$3,963	$354,234	($162,649)	($303)	$11,508
	Deficiency Input equals Output						
STATUS QUO REVENUE MINUS ALLOCATED COSTS	($0)	($66,827)	($70,844)	$299,554	($172,017)	($559)	$10,693
RETURN ON EQUITY COMPONENT OF RATE BASE	9.00%	8.21%	6.61%	20.58%	-71.69%	3.73%	98.52%

Table 9: Sheet O-2 of the Cost Allocation Model

Summary	Residential	GS <50	GS>50-Regular	Street Light	Sentinel	Unmetered Scattered Load
Customer Unit Cost per month - Avoided Cost	$5.52	$6.79	$12.69	$3.34	$1.67	$1.63
Customer Unit Cost per month - Directly Related	$8.77	$10.49	$20.83	$5.97	$3.06	$3.02
Customer Unit Cost per month - Minimum System with PLCC Adjustment	$25.85	$38.08	$67.54	$11.51	$13.21	$9.49
Existing Approved Fixed Charge	$31.61	$43.03	$284.85	$4.46	$6.28	$16.83

7.2 CLASS REVENUE REQUIREMENTS

7.2.1 CLASS REVENUE ANALYSIS[10]

Table 10 below shows the results of the Cost Allocation updated 2019 study. These results are used to compare, analyze the allocation under each option and help the utility determine its 2019 proposed ratios.

[10] MFR - To support a proposal to rebalance rates, the distributor must provide information on the revenue by class that would apply if all rates were changed by a uniform percentage. Ratios must be compared with the ratios that will result from the rates being proposed by the distributor.

Table 10: Results of the Cost Allocation Study

Cost Allocation Results	REVENUE ALLOCATION (sheet O1)							CUSTOMER UNIT COST PER MONTH (sheet O2)				
Customer Class Name	**Service Rev Req (row40)**		**Misc. Revenue (mi) (row19)**		**Base Rev Req**		**Rev2Cost Expenses %**	**Avoided Costs (Minimum Charge)**	**Directly Related**	**Minimum System with PLCC * adjustment**	**Maximum Charge**	**Maximum Charge or Existing Rate**
Residential	5,012,772	60.10%	397,962	58.33%	4,614,810	60.26%	98.67%	$5.52	$8.77	$25.85	$25.85	$31.61
General Service < 50 kW	1,881,115	22.55%	147,192	21.58%	1,733,924	22.64%	96.23%	$6.79	$10.49	$38.08	$38.08	$43.03
General Service 50 to 4999 kW	1,026,409	12.31%	110,326	16.17%	916,083	11.96%	129.18%	$12.69	$20.83	$67.54	$67.54	$284.85
Unmetered Scattered Load	8,345	0.10%	917	0.13%	7,428	0.10%	228.13%	$1.63	$3.02	$9.49	$9.49	$16.84
Sentinel Lighting	7,001	0.08%	759	0.11%	6,242	0.08%	92.02%	$1.67	$3.06	$13.21	$13.21	$13.21
Street Lighting	405,349	4.86%	25,058	3.67%	380,291	4.97%	57.56%	$3.34	$5.97	$11.51	$11.51	$11.51
TOTAL	**8,340,991**	**100.00%**	**682,214**	**100.00%**	**7,658,777**	**100.00%**						

Table 11 below shows the allocation percentage and base revenue requirement allocation under existing rates, cost allocation results and proposed 2019 proposed allocation.

Table 11: Base Revenue Requirement Under 3 Scenarios

Customer Class Name	Proposed Base Revenue Requirement %					
	Cost Allocation Results		Existing Rates		Proposed Allocation	
Residential	60.26%	4,614,810	59.38%	4,547,981	58.91%	4,511,969
General Service < 50 kW	22.64%	1,733,924	21.71%	1,663,080	21.71%	1,663,080
General Service 50 to 4999 kW	11.96%	916,083	15.87%	1,215,637	14.64%	1,121,322
Unmetered Scattered Load	0.10%	7,428	0.24%	18,122	0.12%	9,096
Sentinel Lighting	0.08%	6,242	0.07%	5,678	0.07%	5,678
Street Lighting	4.97%	380,291	2.72%	208,279	4.54%	347,632
TOTAL	**100.00%**	**7,658,777**	**100.00%**	**7,658,777**	**100.00%**	**7,658,777**

Table 12 below shows the revenue offset allocation which resulted from the Cost Allocation Study (Sheet O1).

Table 12: Revenue Offset Allocation as per Cost Allocation Study

Customer Class Name	Revenue Offsets	
	%	$
Residential	58.33%	397,962
General Service < 50 kW	21.58%	147,192
General Service 50 to 4999 kW	16.17%	110,326
Unmetered Scattered Load	0.13%	917
Sentinel Lighting	0.11%	759
Street Lighting	3.67%	25,058
TOTAL	**100.00%**	**682,214**

Table 13 shows the allocation of the service revenue requirement under the same 3 scenarios.

Table 13: Service Revenue Requirement Under 3 Scenarios

Customer Class Name	Service Revenue Requirement $		
	Existing Rates	Cost Allocation	Rate Application
Residential	4,945,943	5,012,772	4,909,931
General Service < 50 kW	1,810,272	1,881,115	1,810,272
General Service 50 to 4999 kW	1,325,962	1,026,409	1,231,647
Unmetered Scattered Load	19,040	8,345	10,014
Sentinel Lighting	6,437	7,001	6,437
Street Lighting	233,337	405,349	372,690
TOTAL	**8,340,991**	**8,340,991**	**8,340,991**

7.3 REVENUE-TO-COST RATIOS

7.3.1 COST ALLOCATION RESULTS AND ANALYSIS[11]

The following tables 15, 16 & 17, show the methodology followed to achieve the revenue to cost ratios.

Table 14: Allocated Costs

A) Allocated Costs

Classes	Costs Allocated from Previous Study - LPDL	Costs Allocated from Previous Study - PSP	Costs Allocated from Previous Study	%	Costs Allocated in Test Year Study (Column 7A)	%
Residential	$3,329,186	$1,363,109	$4,692,295	58.46%	$5,012,772	60.10%
General Service < 50 kW	$1,235,264	$432,537	$1,667,801	20.78%	$1,881,115	22.55%
General Service 50 to 4999 kW	$826,341	$575,163	$1,401,504	17.46%	$1,026,409	12.31%
Unmetered Scattered Load	$5,111	$13,018	$18,129	0.23%	$8,345	0.10%
Sentinel Lighting	$6,210	$1,234	$7,444	0.09%	$7,001	0.08%
Street Lighting	$189,520	$49,724	$239,244	2.98%	$405,349	4.86%
Total	$5,591,631	$2,434,786	$8,026,417	100.00%	$8,340,991	100.00%

[11] MFR - If R:C ratios outside deadband based on model - distributors must include cost allocation proposal to bring them within the OEB-approved ranges. In making any such adjustments, distributors should address potential mitigation measures if the impact of the adjustments on the rates of any particular class or classes is significant.

Table 15: Calculated Class Revenues

B) Calculated Class Revenues

(from CA - O1 row 18)

Classes (same as previous		Column 7B Load Forecast	Column 7C L.F. X current	Column 7D LF X proposed	Column 7E Miscellaneous
Residential		$4,752,554	$4,547,981	$4,511,969	$397,962
General Service < 50 kW		$1,737,887	$1,663,080	$1,663,080	$147,192
General Service 50 to 4999 kW		$1,270,318	$1,215,637	$1,121,322	$110,326
Unmetered Scattered Load		$18,935	$18,122	$9,096	$917
Sentinel Lighting		$5,939	$5,678	$5,678	$759
Street Lighting		$217,642	$208,279	$347,632	$25,058
Total		$8,003,275	$7,658,777	$7,658,777	$682,214

Table 16: Calculated Class Revenues – Determination of Blended Revenue/Cost Ratios

Class	LPDL	LPDL	LPDL	PSP	PSP	PSP	Blended	Blended	Blended
	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013	Most Recent Year: 2013
	%	Row 25	Row 40	%	Row 25	Row 40	%	Row 25	Row 40
Residential	96.15%	3,200,858	3,329,186	101.90%	1,509,224	1,481,083	97.92%	4,710,082	4,810,269
General Service < 50 kW	100.52%	1,241,657	1,235,264	85.19%	481,295	564,967	95.71%	1,722,952	1,800,231
General Service 50 to 4999 kW	110.44%	912,573	826,341	124.40%	581,835	467,713	115.48%	1,494,408	1,294,054
Unmetered Scattered Load	181.31%	9,266	5,111	80.00%	14,004	17,505	102.89%	23,270	22,616
Sentinel Lighting	81.52%	5,062	6,210	70.00%	1,437	2,053	78.65%	6,499	8,263
Street Lighting	117.25%	222,214	189,520	70.00%	127,135	181,621	94.13%	349,349	371,141

Table 17: Calculated Class Revenues – Rebalancing and Proposed Ratios

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

Class	Previously Approved Ratios	Status Quo Ratios/Current rates	Proposed Ratios	Policy Range
	Most Recent Year:	(7C + 7E) / (7A)	(7D + 7E) / (7A)	
	2013			
	%	%	%	%
Residential	97.92%	98.67	97.95	85 - 115
General Service < 50 kW	95.71%	96.23	96.23	80 - 120
General Service 50 to 4999 kW	115.48%	129.18	120.00	80 - 120
Unmetered Scattered Load	102.89%	228.15	120.00	80 - 120
Sentinel Lighting	78.65%	91.94	91.94	80 - 120
Street Lighting	94.13%	57.56	91.94	80 - 120

Table 18 below shows the utility's proposed Revenue to Cost reallocation based on an analysis of the proposed results from the Cost Allocation Study vs the Board imposed floor and ceiling ranges.

Table 18: Proposed Allocation

Customer Class Name	Calculated R/C Ratio	Proposed R/C Ratio	Variance
Residential	0.99	0.98	0.01
General Service < 50 kW	0.96	0.96	-0.00
General Service 50 to 4999 kW	1.29	1.20	0.09
Unmetered Scattered Load	2.28	1.20	1.08
Sentinel Lighting	0.92	0.92	0.00
Street Lighting	0.58	0.92	-0.34

The proposed Revenue to Cost ratio is adjusted by changing the allocation percentage for each class. LPDL reviews and assesses the bill impacts for each class before adjusting the Revenue to Cost ratios.

The three classes that fell outside of the board ranges are GS 50 to 4999kW (1.29), USL (2.28) and Street Lighting (0.58). Consequently, the classes were readjusted to bring them back into the range which adjusted Residential slightly downward to maintain revenue neutrality. Where possible, all classes were adjusted to move towards unity.

APPENDICES

Appendix A	Cost Allocation Model – O1 Revenue to Cost
Appendix B	Cost Allocation Model – O2 Fixed Charge|Floor|Ceiling

Ontario Energy Board

2019 Cost Allocation Model

EB-2018-0050

Sheet O1 Revenue to Cost Summary Worksheet - MM Run 1

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

Class Revenue, Cost Analysis, and Return on Rate Base

Rate Base Assets		Total	1 Residential	2 GS <50	3 GS>50-Regular	7 Street Light	8 Sentinel	9 Unmetered Scattered Load
crev	Distribution Revenue at Existing Rates	$8,003,275	$4,752,554	$1,737,887	$1,270,318	$217,642	$5,939	$18,935
mi	Miscellaneous Revenue (mi)	$682,214	$397,962	$147,192	$110,326	$25,058	$759	$917
		Miscellaneous Revenue Input equals Output						
	Total Revenue at Existing Rates	$8,685,489	$5,150,516	$1,885,078	$1,380,643	$242,700	$6,698	$19,853
	Factor required to recover deficiency (1 + D)	0.9570						
	Distribution Revenue at Status Quo Rates	$7,658,777	$4,547,982	$1,663,080	$1,215,637	$208,274	$5,683	$18,120
	Miscellaneous Revenue (mi)	$682,214	$397,962	$147,192	$110,326	$25,058	$759	$917
	Total Revenue at Status Quo Rates	$8,340,991	$4,945,944	$1,810,272	$1,325,963	$233,332	$6,442	$19,038
	Expenses							
di	Distribution Costs (di)	$1,729,194	$1,014,871	$463,873	$225,015	$23,064	$1,082	$1,289
cu	Customer Related Costs (cu)	$1,085,774	$746,160	$147,632	$15,732	$173,360	$1,339	$1,552
ad	General and Administration (ad)	$2,313,578	$1,436,492	$505,995	$213,484	$153,274	$1,991	$2,343
dep	Depreciation and Amortization (dep)	$1,337,806	$772,107	$315,760	$225,977	$21,721	$1,008	$1,233
INPUT	PILs (INPUT)	$241,379	$134,315	$57,666	$44,577	$4,369	$204	$248
INT	Interest	$551,073	$306,645	$131,653	$101,770	$9,974	$465	$567
	Total Expenses	$7,258,805	$4,410,589	$1,622,578	$826,555	$385,762	$6,088	$7,232
	Direct Allocation	$0	$0	$0	$0	$0	$0	$0
NI	Allocated Net Income (NI)	$1,082,187	$602,183	$258,537	$199,854	$19,587	$913	$1,113
	Revenue Requirement (includes NI)	$8,340,991	$5,012,772	$1,881,115	$1,026,409	$405,349	$7,001	$8,345
		Revenue Requirement Input equals Output						
	Rate Base Calculation							
	Net Assets							
dp	Distribution Plant - Gross	$53,848,380	$30,201,361	$12,889,476	$9,648,176	$1,005,484	$46,994	$56,889
gp	General Plant - Gross	$6,592,167	$3,681,926	$1,570,650	$1,199,515	$127,113	$5,860	$7,104
accum dep	Accumulated Depreciation	($24,212,645)	($13,637,902)	($5,823,610)	($4,275,391)	($430,750)	($20,351)	($24,641)
co	Capital Contribution	($9,036,436)	($5,109,754)	($2,141,936)	($1,557,127)	($206,886)	($9,464)	($11,269)
	Total Net Plant	$27,191,466	$15,135,631	$6,494,580	$5,015,173	$494,962	$23,038	$28,082
	Directly Allocated Net Fixed Assets	$0	$0	$0	$0	$0	$0	$0
COP	Cost of Power (COP)	$33,128,401	$12,441,569	$6,957,855	$13,566,189	$137,855	$5,107	$19,826
	OM&A Expenses	$5,128,546	$3,197,522	$1,117,500	$454,230	$349,698	$4,412	$5,184
	Directly Allocated Expenses	$0	$0	$0	$0	$0	$0	$0
	Subtotal	***$38,256,947***	***$15,639,092***	***$8,075,354***	***$14,020,419***	***$487,554***	***$9,518***	***$25,010***
	Working Capital	$2,869,271	$1,172,932	$605,652	$1,051,531	$36,567	$714	$1,876
	Total Rate Base	$30,060,737	$16,308,563	$7,100,231	$6,066,704	$531,528	$23,752	$29,958
		Rate Base Input equals Output						
	Equity Component of Rate Base	$12,024,295	$6,523,425	$2,840,092	$2,426,682	$212,611	$9,501	$11,983
	Net Income on Allocated Assets	$1,082,187	$535,355	$187,693	$499,408	($152,430)	$354	$11,806
	Net Income on Direct Allocation Assets	$0	$0	$0	$0	$0	$0	$0
	Net Income	$1,082,187	$535,355	$187,693	$499,408	($152,430)	$354	$11,806

Ontario Energy Board

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Sheet O1 Revenue to Cost Summary Worksheet - MM Run 1

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

Class Revenue, Cost Analysis, and Return on Rate Base

Rate Base Assets	Total	1 Residential	2 GS <50	3 GS>50-Regular	7 Street Light	8 Sentinel	9 Unmetered Scattered Load
RATIOS ANALYSIS							
REVENUE TO EXPENSES STATUS QUO%	**100.00%**	**98.67%**	**96.23%**	**129.18%**	**57.56%**	**92.02%**	**228.13%**
EXISTING REVENUE MINUS ALLOCATED COSTS	**$344,498**	$137,744	$3,963	$354,234	($162,649)	($303)	$11,508
	Deficiency Input equals Output						
STATUS QUO REVENUE MINUS ALLOCATED COSTS	**($0)**	($66,827)	($70,844)	$299,554	($172,017)	($559)	$10,693
RETURN ON EQUITY COMPONENT OF RATE BASE	9.00%	8.21%	6.61%	20.58%	-71.69%	3.73%	98.52%

Ontario Energy Board

2019 Cost Allocation Model

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Sheet O2 Monthly Fixed Charge Min. & Max. Worksheet - MM Run 1

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	$5.52	$6.79	$12.69	$3.34	$1.67	$1.63
Customer Unit Cost per month - Directly Related	$8.77	$10.49	$20.83	$5.97	$3.06	$3.02
Customer Unit Cost per month - Minimum System with PLCC Adjustment	$25.85	$38.08	$67.54	$11.51	$13.21	$9.49
Existing Approved Fixed Charge	$31.61	$43.03	$284.85	$4.46	$6.28	$16.83