EXHIBIT 7

COST ALLOCATION
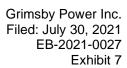
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COST ALLOCATION

1.1   OVERVIEW OF COST ALLOCATION

Grimsby Power has used the 2021 version of the cost allocation study model and submitted the revised cost allocation study to reflect 2022 Test Year costs, customer numbers and demand values. The 2022 demand values are based on the weather normalized load forecast used to design rates. Grimsby Power has developed weighting factors as outlined below based on discussions with staff experienced in the subject area.

WEIGHTING FACTORS

Weighting Factor for Services (Account 1855)

The analysis for the Services weighting factor included a review of Grimsby Power's internal policy in regard to the installation and cost recovery for Services. Grimsby Power charges customers for all new or upgraded services unless the change to the servicing falls under an internal capital project and involves correcting non-standard or outdated servicing. As per the suggested methodology on the Cost Allocation instruction sheet the Residential class was given a weighting factor of 1.0. General Service < 50 kW servicing is typically more complex than Residential servicing as it may include the creation of a unique work order, a dedicated construction crew to install and may require after hour attendance to mitigate against interruptions during normal business hours. Additional time may also be required to ensure demand data is programmed and monitored appropriately. Due to these varying considerations, the weighting factor for General Service < 50 kW was set higher at 3.14. General Service 50 to 4999 kW involves significantly more work than Residential and GS < 50 kW servicing both from a design and construction perspective, but due to the ownership rules for these services, Grimsby Power does not own the assets that would be charged against account 1855 and therefore these customer categories have been assigned a weighting factor of 0.0. For Street Lighting, Unmetered Scattered Load and Embedded

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1   Distributor classes Grimsby Power does not have assets in account 1855 associated
2   with these classes which causes the assigned weighting factor to be set at 0.0.

3   **Table 7 - 1**
4   **Weighting Factors for Services**

Rate Class	Weighting Factors for Services
Residential	1.0
General Service < 50 kW	3.14
General Service 50 to 4,999 kW	0
Street Lighting	0
Unmetered Scattered Load	0
Embedded Distributor	0

5   <u>Weighting Factor for Billing and Collection (Accounts 5305 – 5340)</u>

6   In determining the weighting factors for Billing and Collecting, an analysis of Accounts
7   5305 – 5340, was conducted. Each individual expense within these accounts was
8   allocated to each rate class with a factor of one or less.   A one represented that the
9   expense was attributable to this class and a zero indicates that the expense in not
10   related to the class.   For example, the expenses related to operating the customer
11   information system software is attributed to each class (a factor of 1) because the CIS
12   is used to bill all of the classes. In another example the wages of the Customer Account
13   Representatives are allocated fully (factor of 1) to Residential, GS<50 and USL classes
14   while none of that expense is allocated to GS>50, Street Lights or the Embedded
15   Distributor. This is because their time is spent with Residential, GS<50 and USL
16   customers and no time with GS>50, Street Light or the Embedded Distributor. These
17   factors were used to calculate the total number of customers affected by the expense
18   and then the total cost per customer was calculated. This cost was then multiplied by
19   the number of customers affected in each class to calculate the expense attributed to
20   each class for each expense line item. The sum total expense per line per class was
21   then calculated and divided by the total number of customers in the class to determine
22   the portion of expense related to each class. With the Residential factor set to one,
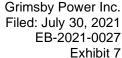23   each of the other class factors were calculated.

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1 Through this analysis, Grimsby Power was able to align the Billing and Collection

2 expenses to each rate class and thus calculate the factors shown below in Table 7 - 2.

3 **Table 7 - 2**

4 **Weighting Factors for Billing and Collection**

Rate Class	Weighting Factors for Billing and Collection
Residential	1.0
General Service < 50 kW	1.0
General Service 50 to 4,999 kW	7.4
Street Lighting	1.5
Unmetered Scattered Load	0.9
Embedded Distributor	22.3

5

6 <u>Installation Cost per Meter (Sheet I7.1)</u>

7 Installation costs included in the table below are reflective of 2020 costs including the

8 cost of the meter and the labour and truck for each meter type.

9 **Table 7 - 3**

10 **Installation Cost per Meter**

Meter Type	Installation Cost per Meter
Smart Meters	240
Interval Meter	475
Network Meter	343
Demand with IT and Interval Capability – Secondary	3,400
Demand with IT and Interval Capability – Primary	35,000
Demand with IT and Interval Capability -Special (WMP)	29,279

11

12 <u>Weighting Factor for Meter Reading (Sheet I7.2)</u>

13 Grimsby Power completed an analysis of the costs included in meter reading and

14 assigned the costs to the appropriate class based on the nature of the cost. Based on

15 this activity analysis, Grimsby Power calculated the overall cost per class by customer

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1   and assigned a weighting of 1 for the meter reading costs related to smart meters for

2   the Residential class. The weighting factors for the remaining classes were then

3   determined as a factor of the Residential class.

4   **Table 7 - 4**

5   **Weighting Factors for Meter Reading**

Meter Type	Weighting Factors for Meter Reading
Smart Meter	1.0
LDC Specific 3	885.8

6   The LDC Specific 3 meter type is the type of meter utilized for the GS>50kW

7   customer class.

8   *Unmetered Loads*

9   Grimsby Power communicates with unmetered load customers, including street

10 lighting customers, as the needs arise.

11 From a street lighting perspective, Grimsby Power has had regular communication

12 with Town of Grimsby staff on changes to rates.

13 From a USL perspective Grimsby Power has not had communication with these

14 customers other than to connect new loads. Grimsby Power has undertaken a review

15 of its Unmetered Scattered Load class and a nominal number of connections remain in

16 the class.

17 *microFIT Class*

18 Grimsby Power is not proposing to include microFIT as a separate class in the cost

19 allocation model in 2022.

20 *New Customer Class*

21 Grimsby Power is not proposing to include a new customer class.

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1 *Eliminated Customer Class*

2 Grimsby Power is not proposing to eliminate any customer class.

3 **1.2 LOAD PROFILE DATA**

4 The data used in the updated cost allocation study is consistent with Grimsby Power's
5 cost data that supports the proposed 2022 revenue requirement outlined in this
6 application. Consistent with the Guidelines, Grimsby Power's assets were broken out
7 into primary and secondary distribution functions using breakout percentages
8 consistent with the original cost allocation informational filing. The breakout of assets,
9 capital contributions, depreciation, accumulated depreciation, customer data and load
10 data by primary, line transformer and secondary categories were developed from the
11 best data available to Grimsby Power, its engineering records, and its customer and
12 financial information systems. An Excel version of the updated cost allocation study has
13 been included with the filed application material. Sheets I-6, I-8, O-1, and O-2 are
14 provided as Exhibit 7, Tab, 1 Attachment 1.

15 Capital contributions, depreciation and accumulated depreciation by USoA are
16 consistent with the information provided in the 2022 continuity statement shown in
17 Exhibit 2. The rate class customer data used in the updated cost allocation study is
18 consistent with the 2022 customer forecast outlined in Exhibit 3.

19 The load profiles for each rate class are the same as those used in the original
20 information filing but have been scaled to match the 2022 load forecast. Due to the
21 cost and effort to collect and derive new hourly load profiles, Grimsby Power has relied
22 on the profiles from the Hydro One CAIF. Grimsby Power is monitoring the OEB's
23 Proportionate Review process and intends to follow the OEB's guidance on acceptable
24 methodologies for updating cost allocation load profiles and the use of standard
25 weighting factors in its next cost of service proceeding.

26 The following Table 7 - 5 outlines the scaling factors used by rate class.

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1   **Table 7 - 5**

2   **Load Profiling Scaling Factors**

	2004 Weather Normal Values (kWh)	2022 Weather Normal Values (kWh)	Scaling Factor
Residential	86,181,393	98,116,964	1.138
General Service < 50 kW	18,082,932	22,618,334	1.251
General Service 50 to 4,999 kW	57,699,153	78,461,633	1.360
Street Lighting	1,618,360	751,790	0.465
Unmetered Scattered Load	390,158	311,198	0.798
Embedded Distributor			
Total	**163,971,997**	**200,259,920**	

3   **1.3   EMBEDDED DISTRIBUTOR ALLOCATION**

4   On October 1, 2015 the amalgamation of Grimsby Power and Niagara West

5   Transformation Corporation was completed. Previously, Niagara Peninsula Energy Inc.

6   was a customer of Niagara West Transformation Corporation. With the amalgamation,

7   the transformer station assets previously owned by Niagara West Transformation

8   Corporation became part of Grimsby Power which in turn meant Niagara Peninsula

9   Energy Inc. became a customer of Grimsby Power. The station is now referred to as

10   Niagara West MTS. The Niagara West MTS was built by two LDC partners in 2003/2004

11   to serve their load – Grimsby Power and the former Peninsula West Utilities. The former

12   Peninsula West Utilities is now part of Niagara Peninsula Energy Inc. Thus, there are

13   two wholesale customers that use the Niagara West MTS that being Niagara Peninsula

14   Energy Inc. and Grimsby Power.

15   In EB-2015-0072, Grimsby Power established an Embedded Distributor class which

16   includes Niagara Peninsula Energy Inc. as the only customer in this class. In that

17   proceeding Grimsby Power proposed to allocate the Niagara West MTS be split evenly

18   between Niagara Peninsula Energy Inc. and Grimsby Power since these two wholesale

19   customers remain embedded to the station. This was implemented by directly allocating

20   50% of MTS-related costs using the direct allocation method in sheet I9 of the cost

21   allocation model. In the Settlement Agreement approved August 18, 2016, Grimsby

22   Power agreed to reduce the share allocated to the Embedded Distributor class to 40%,

23   consistent with Niagara Peninsula Energy Inc.'s allocation of capacity (18 MW of 45

24   MW).

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1   Grimsby Power developed the NFAEXDA (Net Fixed Assets Excluding Direct Allocation)
2   allocator (tab E2 row 121) which is used in tab E4 to allocate Balance Transfer from
3   Income (L84), Interest on Long Term Debt (K208), and Income Taxes (K210). This
4   allocator is created to avoid allocating interest, net income, and PILs expenses related
5   to non-directly allocated distribution plant to the Embedded Distributor class since that
6   class does not use these assets. The allocator is calculated with the total net plant
7   allocated to the embedded distributor in cell M51 of O1 Revenue to cost|RR, which does
8   not include any directly allocated net fixed assets, divided by the total net plant in cell
9   C51 of O1 Revenue to cost|RR.

10   Grimsby Power agreed to also remove the allocation of general plant-related costs to
11   the Embedded Distributor in the 2016 Settlement. This was achieved by developing a
12   NFAECCEXDA (Net Fixed Assets Excluding Capital Contribution and Direct Allocation)
13   allocator (tab E2 row 122) which is used in tab E4 to allocate all general plant (K61-
14   K78 and K80-K81). The allocator is calculated with each class' net fixed assets excluding
15   capital contribution (tab O6 row 103) divided by the subtotal of net fixed assets
16   excluding capital contribution of each class except the Embedded Distributor.

17   Grimsby Power proposes to apply the same methodology used in the 2016 Settlement
18   Agreement in this application. The allocation includes 40% of costs related to the
19   Niagara West MTS to the Embedded Distributor class, a direct allocation of a very small
20   portion of billing & collecting associated with invoicing the Embedded Distributor and
21   an allocation of expenses that are allocated by the O&M allocator. A summary of
22   expenses directly and indirectly allocated to the Embedded Distributor class is provided
23   in Table 7 - 6.

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1   **Table 7 - 6**

2   **Embedded Distributor Allocation**

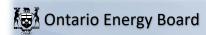| Expenses	Allocation	Direct Allocation
Distribution Costs	$0	$0
Customer Related Costs	$1,053	$0
General and Administration	$92,981	$113,629
Depreciation and Amortization	$0	$106,692
PILs	$0	$21,420
Interest	$0	$37,040
Allocated Net Income	$0	$77,177
Total Expenses	**$94,034**	**$355,958**
Revenue Requirement (includes NI)	**$449,992**	

3   In regards to Grimsby Power consulting with its Embedded Distributor there has been
4   correspondence between Niagara Peninsula Energy Inc. and Grimsby Power in regards
5   to this matter. The response from Niagara Peninsula Energy Inc., dated July 22nd, to an
6   email from Grimsby Power, dated July 14th, indicates Niagara Peninsula Energy Inc.
7   intends to request intervenor status to further review the application evidence. The
8   referenced correspondence is provided in Exhibit 7, Tab 1, Attachment 3.

9   Though Niagara Peninsula Energy Inc. does not explicitly take a position on the
10 approach, Grimsby Power submits it is the most reasonable approach as it is consistent
11 with the 2016 Settlement Agreement.

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ATTACHMENT 1

COST ALLOCATION MODEL SHEETS I-6, I-8, O-1 & O-2

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2021 Cost Allocation Model

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Sheet I6.1 Revenue Worksheet -

Total kWhs from Load Forecast	258,920,264

Total kWs from Load Forecast	416,815

Deficiency/sufficiency (RRWF 8. cell F51)	- 302,556

Miscellaneous Revenue (RRWF 5. cell F48)	527,925

			1	2	3	7	9	10
	ID	**Total**	**Residential**	**GS <50**	**GS 50 to 4,999 kW**	**Street Light**	**Unmetered Scattered Load**	**Embedded Distributor**
Billing Data								
Forecast kWh	**CEN**	258,920,264	98,116,964	22,618,334	78,461,633	751,790	311,198	58,660,344
Forecast kW	**CDEM**	416,815			223,982	2,087		190,745
Forecast kW, included in CDEM, of customers receiving line transformer allowance		53,500			53,500			
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**	196,796,771	98,116,964	22,618,334	74,998,484	751,790	311,198	

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Existing Monthly Charge			$29.38	$26.39	$219.11	$2.44	$38.85	$17,333.83
Existing Distribution kWh Rate				$0.0203			$0.0243	
Existing Distribution kW Rate					$3.2042	$6.1017		$1.4933
Existing TOA Rate					$0.60			
Additional Charges								
Distribution Revenue from Rates		$6,271,150	$3,953,255	$726,747	$970,099	$92,669	$35,534	$492,846
Transformer Ownership Allowance		$32,100	$0	$0	$32,100	$0	$0	$0
Net Class Revenue	CREV	$6,239,050	$3,953,255	$726,747	$937,999	$92,669	$35,534	$492,846

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2017 Cost Allocation Model

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Sheet I6.2 Customer Data Worksheet -

	ID	Total	1 Residential	2 GS <50	3 GS 50 to 4,999 kW	7 Street Light	9 Unmetered Scattered Load	10 Embedded Distributor
Billing Data								
Bad Debt 3 Year Historical Average	BDHA	$14,941	$13,144	$1,533	$264	$0	$0	$0
Late Payment 3 Year Historical Average	LPHA	$28,434	$19,689	$2,816	$5,903	$1	$25	$0
Number of Bills	CNB	146,604	134,556	10,140	1,152	24	720	12
Number of Devices	CDEV					2,730		
Number of Connections (Unmetered)	CCON	2,790				2,730	60	
Total Number of Customers	CCA	12,157	11,213	845	96	2		1
Bulk Customer Base	CCB	-						
Primary Customer Base	CCP	12,249	11,213	845	96	95		
Line Transformer Customer Base	CCLT	12,238	11,213	845	85	95		
Secondary Customer Base	CCS	12,152	11,213	845	94			
Weighted - Services	CWCS	13,866	11,213	2,653	-	-	-	-
Weighted Meter -Capital	CWMC	3,405,065	2,691,120	292,304	421,641	-	-	-
Weighted Meter Reading	CWMR	97,095	11,213	845	85,037	-	-	-
Weighted Bills	CWNB	154,530	134,556	10,546	8,513	36	612	268

Bad Debt Data

		Total	Residential	GS <50	GS 50 to 4,999 kW			
Historic Year:	2018	7,314	6,522		792			
Historic Year:	2019	15,210	14,550	660				
Historic Year:	2020	22,298	18,360	3,938				
Three-year average		**14,941**	**13,144**	**1,533**	**264**	**-**	**-**	**-**

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Sheet I8 Demand Data Worksheet -

This is an input sheet for demand allocators.

| CP TEST RESULTS | 4 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

			1	2	3	7	9	10
Customer Classes		Total	Residential	GS <50	GS 50 to 4,999 kW	Street Light	Unmetered Scattered Load	Embedded Distributor
		CP Sanity Check	Pass	Pass	Pass	Check 12CP	Check 12CP	Pass
CO-INCIDENT PEAK								
1 CP								
Transformation CP	TCP1	42,372	22,112	6,546	13,681	-	34	
Bulk Delivery CP	BCP1	42,372	22,112	6,546	13,681		34	
Total Sytem CP	DCP1	42,372	22,112	6,546	13,681		34	
4 CP								
Transformation CP	TCP4	156,415	83,314	24,973	47,996	-	132	
Bulk Delivery CP	BCP4	156,415	83,314	24,973	47,996		132	
Total Sytem CP	DCP4	156,415	83,314	24,973	47,996		132	
12 CP								
Transformation CP	TCP12	397,186	205,005	55,908	134,565	1,281	427	
Bulk Delivery CP	BCP12	397,186	205,005	55,908	134,565	1,281	427	
Total Sytem CP	DCP12	397,186	205,005	55,908	134,565	1,281	427	
NON CO_INCIDENT PEAK		**NCP Sanity Check**	Pass	Pass	Pass	Pass	Pass	Pass
1 NCP								
Classification NCP from								
Load Data Provider	DNCP1	45,881	23,785	7,110	14,754	184	49	
Primary NCP	PNCP1	45,881	23,785	7,110	14,754	184	49	
Line Transformer NCP	LTNCP1	44,191	23,785	7,110	13,063	184	49	
Secondary NCP	SNCP1	45,574	23,785	7,110	14,446	184	49	
4 NCP								
Classification NCP from								
Load Data Provider	DNCP4	166,566	85,285	26,260	54,135	720	167	
Primary NCP	PNCP4	166,566	85,285	26,260	54,135	720	167	
Line Transformer NCP	LTNCP4	160,364	85,285	26,260	47,932	720	167	
Secondary NCP	SNCP4	165,439	85,285	26,260	53,007	720	167	
12 NCP								
Classification NCP from								
Load Data Provider	DNCP12	419,306	211,016	58,657	147,128	2,069	435	
Primary NCP	PNCP12	419,306	211,016	58,657	147,128	2,069	435	
Line Transformer NCP	LTNCP12	402,448	211,016	58,657	130,269	2,069	435	
Secondary NCP	SNCP12	416,241	211,016	58,657	144,062	2,069	435	

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Sheet O1 Revenue to Cost Summary Worksheet -

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

Class Revenue, Cost Analysis, and Return on Rate Base

			1	2	3	7	9	10
Rate Base Assets		**Total**	**Residential**	**GS <50**	**GS 50 to 4,999 kW**	**Street Light**	**Unmetered Scattered Load**	**Embedded Distributor**
crev	Distribution Revenue at Existing Rates	$6,239,050	$3,953,255	$726,747	$937,999	$92,669	$35,534	$492,846
mi	Miscellaneous Revenue (mi)	$527,926	$360,764	$56,001	$90,887	$12,732	$1,211	$6,331
		Miscellaneous Revenue Input equals Output						
	Total Revenue at Existing Rates	$6,766,976	$4,314,019	$782,747	$1,028,887	$105,400	$36,746	$499,177
	Factor required to recover deficiency (1 + D)	1.0485						
	Distribution Revenue at Status Quo Rates	$6,541,606	$4,144,964	$761,990	$983,486	$97,163	$37,257	$516,746
	Miscellaneous Revenue (mi)	$527,926	$360,764	$56,001	$90,887	$12,732	$1,211	$6,331
	Total Revenue at Status Quo Rates	$7,069,531	$4,505,728	$817,990	$1,074,374	$109,894	$38,469	$523,077
	Expenses							
di	Distribution Costs (di)	$1,165,206	$729,545	$162,410	$245,809	$25,433	$2,010	$0
cu	Customer Related Costs (cu)	$999,485	$781,779	$67,726	$138,420	$7,935	$2,572	$1,053
ad	General and Administration (ad)	$1,772,232	$1,167,696	$180,725	$300,779	$26,522	$3,528	$92,981
dep	Depreciation and Amortization (dep)	$1,213,936	$784,453	$158,929	$245,667	$23,093	$1,794	$0
INPUT	PILs (INPUT)	$246,785	$154,722	$32,851	$52,949	$5,824	$438	$0
INT	Interest	$426,747	$267,550	$56,807	$91,561	$10,071	$757	$0
	Total Expenses	$5,824,391	$3,885,745	$659,449	$1,075,186	$98,878	$11,100	$94,034
	Direct Allocation	$355,958	$0	$0	$0	$0	$0	$355,958
NI	Allocated Net Income (NI)	$889,183	$557,475	$118,365	$190,779	$20,985	$1,578	$0
	Revenue Requirement (includes NI)	$7,069,531	$4,443,220	$777,814	$1,265,965	$119,862	$12,678	$449,992
		Revenue Requirement Input equals Output						

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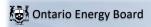
2021 Cost Allocation Model

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Sheet O1 Revenue to Cost Summary Worksheet -

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 to 4,999 kW	7 Street Light	9 Unmetered Scattered Load	10 Embedded Distributor
	Rate Base Calculation							
	Net Assets							
dp	Distribution Plant - Gross	**$36,173,723**	$22,990,379	$4,845,677	$7,508,300	$770,564	$58,803	$0
gp	General Plant - Gross	**$4,647,199**	$2,949,820	$624,578	$956,283	$108,506	$8,011	$0
accum dep	Accumulated Depreciation	**($11,125,647)**	($7,034,802)	($1,471,975)	($2,412,959)	($189,837)	($16,074)	$0
co	Capital Contribution	**($5,193,344)**	($3,543,851)	($736,663)	($794,592)	($110,990)	($7,248)	$0
	Total Net Plant	**$24,501,930**	**$15,361,546**	**$3,261,617**	**$5,257,032**	**$578,242**	**$43,492**	**$0**
	Directly Allocated Net Fixed Assets	**$1,930,152**	**$0**	**$0**	**$0**	**$0**	**$0**	**$1,930,152**
COP	Cost of Power (COP)	**$29,756,512**	$14,441,704	$3,319,510	$11,038,659	$110,178	$45,608	$800,853
	OM&A Expenses	**$3,936,923**	$2,679,019	$410,861	$685,008	$59,890	$8,110	$94,034
	Directly Allocated Expenses	**$113,629**	$0	$0	$0	$0	$0	$113,629
	Subtotal	*$33,807,065*	*$17,120,723*	*$3,730,372*	*$11,723,668*	*$170,068*	*$53,718*	*$1,008,516*
	Working Capital	**$2,535,530**	**$1,284,054**	**$279,778**	**$879,275**	**$12,755**	**$4,029**	**$75,639**
	Total Rate Base	**$28,967,612**	**$16,645,600**	**$3,541,395**	**$6,136,307**	**$590,998**	**$47,521**	**$2,005,791**
	Rate Base Input equals Output							
	Equity Component of Rate Base	**$11,587,045**	**$6,658,240**	**$1,416,558**	**$2,454,523**	**$236,399**	**$19,008**	**$802,316**
	Net Income on Allocated Assets	**$889,183**	**$619,983**	**$158,541**	**($812)**	**$11,017**	**$27,369**	**$73,085**
	Net Income on Direct Allocation Assets	**$77,177**	**$0**	**$0**	**$0**	**$0**	**$0**	**$77,177**
	Net Income	**$966,360**	**$619,983**	**$158,541**	**($812)**	**$11,017**	**$27,369**	**$150,262**
	RATIOS ANALYSIS							
	REVENUE TO EXPENSES STATUS QUO%	**100.00%**	**101.41%**	**105.17%**	**84.87%**	**91.68%**	**303.42%**	116.24%
	EXISTING REVENUE MINUS ALLOCATED COSTS	**($302,556)**	($129,201)	$4,934	($237,079)	($14,462)	$24,067	$49,185
	Deficiency Input equals Output							
	STATUS QUO REVENUE MINUS ALLOCATED COSTS	**($0)**	$62,508	$40,176	($191,592)	($9,968)	$25,790	$73,085
	RETURN ON EQUITY COMPONENT OF RATE BASE	8.34%	9.31%	11.19%	-0.03%	4.66%	143.98%	18.73%

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2021 Cost Allocation Model

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

Output sheet showing minimum and maximum level for Monthly Fixed Charge

Summary

	1	2	3	7	9	10
	Residential	**GS <50**	**GS 50 to 4,999 kW**	**Street Light**	**Unmetered Scattered Load**	**Embedded Distributor**
Customer Unit Cost per month - Avoided Cost	$6.42	$7.60	$135.25	$0.23	$3.11	$48.78
Customer Unit Cost per month - Directly Related	$10.52	$12.41	$227.84	$0.43	$5.57	$111.77
Customer Unit Cost per month - Minimum System with PLCC Adjustment	$20.84	$27.52	$241.47	$3.44	$12.87	$129.94
Existing Approved Fixed Charge	$29.38	$26.39	$219.11	$2.44	$38.85	$17,333.83

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DEMAND DATA MODEL

"Demand Data Grimsby Input to CA Model" is filed in Excel format.

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EMBEDDED DISTRIBUTOR CORRESPONDENCE

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From:	Paul Blythin
To:	Mioara Domokos; Suzanne Wilson
Cc:	Amy La Selva; Shanon Wilson
Subject:	RE: GPI - Cost of Service Application (EB-2021-0027)
Date:	Thursday, July 22, 2021 1:31:52 PM
Attachments:	image856b32.PNG
	image68a2f4.PNG

> **(This email originated from outside the Grimsby Power organization and may contain an attachment or link to a website or file. Do not click on any links or attachments without confirming the destination and/or sender.)**

Hello Mioara,

Thank you for providing NPEI with the information below regarding GPI's proposed treatment of its Embedded Distributor rate class in GPI's 2022 COS Rate Application, which we understand is to be filed with the OEB by the end of July 2021.

In order to fully evaluate the impact of GPI's proposal, NPEI will need to further review the application evidence, including the Cost Allocation Model, proposed rates and rate riders, and full bill impact. Therefore, NPEI has no comments to provide to GPI prior to the application being filed.

NPEI intends to request intervenor status in this application, and actively participate in the proceeding in accordance with any Procedural Orders issued by the OEB.

Thank you.

Regards,
Paul

Paul Blythin | Director of Regulatory Affairs, CPA, CGA
Tel: (905) 356-2681 ext 6064 | Email: paul.blythin@npei.ca

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Sent to External Source

From: Mioara Domokos [mailto:mioarad@grimsbypower.com]
Sent: Wednesday, July 14, 2021 4:51 PM
To: Suzanne Wilson <suzanne.wilson@npei.ca>
Cc: Paul Blythin <paul.blythin@npei.ca>; Amy La Selva <Amyl@grimsbypower.com>
Subject: GPI - Cost of Service Application (EB-2021-0027)

Hi Suzanne,

In advance of its 2022 Cost of Service Application (EB-2021-0027), Grimsby Power Inc. has prepared a cost allocation model which includes costs allocated to Niagara Peninsula Energy Inc. (NPEI) as the sole customer in the Embedded Distributor class. Grimsby Power intends to file a cost allocation model that follows the same methodology used in its 2016 Cost of Service application (EB-2015-0072) to allocate costs to NPEI.

Grimsby Power has allocated 40% of the costs directly associated with Niagara West MTS using the direct allocation method (tab 'I9 Direct Allocation' within the cost allocation model). The 40% share is based on NPEI's share of allocated capacity. In addition to allocated assets related to the Niagara West MTS, 40% of Load Dispatching (5010), Station Buildings and Fixtures Expenses (5012), Transformer Station Equipment – Operation Labour (5014), Transformer Station Equipment – Operation Supplies and Expenses (5015), and Maintenance of Transformer Station equipment (5112) are directly allocated to NPEI. Meter Reading Expense (5310) of $4,320 is also directly allocated to NPEI.

The rate base components related to general plant have been removed from the Embedded Distributor class. This is done by replacing the Net Fixed Assets (NFA) allocator with a Net Fixed Assets Excluding Direct Allocation (NFAEXDA) allocator and replacing the Net Fixed Assets Excluding Capital Contribution (NFA ECC) allocator with a Net Fixed Assets Excluding Capital Contribution and Direct Allocation (NFA ECCEXDA) allocator within the tabs 'E2 Allocators' and 'E4 TB Allocation Details'.

A summary of costs directly and indirectly allocated to the Embedded Distributor class from tab 'O1 Revenue to cost|RR' is provided below.

Expenses	Allocation	Direct Allocation
Distribution Costs (di)	$0	$0
Customer Related Costs (cu)	$1,053	$0

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General and Administration (ad)	$90,286	$113,629
Depreciation and Amortization (dep)	$0	$106,692
PILs (INPUT)	$0	$5,857
Interest	$0	$36,112
Allocated Net Income (NI)	$0	$76,823
Total Expenses	$91,339	$339,113
Revenue Requirement (includes NI)	$430,452	

Based on distribution revenue at status quo rates of $523,852, Embedded Distributor rates will have a lower-than-average rate increase as the Revenue-to-Expense ratio will be brought down to 120%. The Embedded Distributor class rates will continue to be designed to recover 50% of costs through monthly service charges and 50% through variable kW charges.

If you have any questions or concerns please do not hesitate to contact me.

Regards,

Mioara Domokos, B.Ec., CPA, CGA
Director of Finance
Grimsby Power
905 945-5437 x 232
mioarad@grimsbypower.com

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1 # CLASS REVENUE REQUIREMENTS

2 ## 2.1 CLASS REVENUE REQUIREMENTS

3 The allocated cost by rate class for the 2016 Cost of Service filing and the 2022 updated

4 study are provided in the following Table 7-7.

5 **Table 7-7**
6 **Allocated Cost**

Rate Class	2016 Board Approved Cost Allocation Study	%	Cost Allocated in the 2022 Study	%
Residential	$3,382,488	60.90%	$4,443,220	62.85%
General Service < 50 kW	$605,824	10.91%	$777,814	11.00%
General Service 50 to 4,999 kW	$1,025,537	18.46%	$1,265,965	17.91%
Street Lighting	$86,660	1.56%	$119,862	1.70%
Unmetered Scattered Load	$56,312	1.01%	$12,678	0.18%
Embedded Distributor	$397,618	7.16%	$449,992	6.37%
Total	**$5,554,439**	**100.00%**	**$7,069,53**	**100.00%**

7 ## 2.2 REVENUE TO COST RATIOS

8 The Board has established what it considered to be the appropriate ranges of revenue

9 to cost ratios which are summarized in Table 7-8 below. In addition, Table 7-8

10 also provides Grimsby Power's revenue to cost ratios from the 2016 Cost of Service

11 application, the updated 2022 cost allocation study and the proposed 2022 to 2026

12 ratios. Sheet 11 of the RRWF is attached as Exhibit 7, Tab 2, Attachment 1.

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1 **Table 7-8**
2 **Revenue to Cost Ratios**

Rate Class	2016 Board Approved	2022 Cost Allocation Study	2022 to 2026 Proposed Ratios	OEB Targets Min to Max	
Residential	105.93%	101.41%	101.41%	85%	115%
General Service < 50 kW	101.73%	105.17%	105.17%	80%	120%
General Service 50 to 4,999 kW	80.97%	84.87%	86.70%	80%	120%
Street Lighting	105.93%	91.68%	91.68%	80%	120%
Unmetered Scattered Load	62.28%	303.42%	120.00%	80%	120%
Embedded Distributor	100.00%	116.24%	116.24%	80%	120%

3 The 2022 cost allocation study indicates the revenue to cost ratio for Unmetered
4 Scattered Load is outside the Board's acceptable range. For 2022, it is proposed that
5 the ratio for Unmetered Scattered Load class be decreased to the maximum value of
6 the Board's acceptable range. The ratio for the General Service 50 to 4,999 kW class,
7 the class with the lowest ratio, is increased to maintain revenue neutrality. The revenue
8 to cost ratio of the General Service 50 to 4,999 kW class remains the lowest revenue
9 to cost ratio after the revenue reallocation from Unmetered Scattered Load.

10 The following Table 7-9 provides information on calculated class revenue. The resulting
11 2022 proposed base revenue will be the amount used in Exhibit 8 to design the
12 proposed distribution charges in this application.

13 **Table 7-9**
14 **Calculated Class Revenue**
15

Rate Class	2022 Base Revenue at Existing Rates	2022 Proposed Base Revenue at Status Quo Rates	2022 Proposed Base Revenue at Proposed Rates	Miscellaneous Revenue
Residential	$3,953,255	$4,144,964	$4,144,964	$360,764
General Service < 50 kW	$726,747	$761,990	$761,990	$56,001
General Service 50 to 4,999 kW	$937,999	$983,486	$1,006,741	$90,887
Street Lighting	$92,669	$97,163	$97,163	$12,732
Unmetered Scattered Load	$35,534	$37,257	$14,003	$1,211
Embedded Distributor	$492,846	$516,746	$516,746	$6,331
Total	**$6,239,050**	**$6,541,606**	**$6,541,606**	**$527,926**

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REVENUE REQUIREMENT WORKFORM SHEET 11

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Revenue Requirement Workform (RRWF) for 2021 Filers

Cost Allocation and Rate Design

This spreadsheet replaces **Appendix 2-P** and provides a summary of the results from the Cost Allocation spreadsheet, and is used in the determination of the class revenu
hence, ultimately, the determination of rates from customers in all classes to recover the revenue requirement.

Stage in Application Process: *Initial Application*

A)   *Allocated Costs*

	Name of Customer Class [3]	Costs Allocated from Previous Study [1]		%	Allocated Class Revenue Requirement [1] (7A)		%
	From Sheet 10. Load Forecast						
1	Residential	$	3,382,488	60.90%	$	4,443,220	62.85%
2	GS<50	$	605,824	10.91%	$	777,814	11.00%
3	GS>50 to 4,999	$	1,025,537	18.46%	$	1,265,965	17.91%
4	Street Lights	$	86,660	1.56%	$	119,862	1.70%
5	Unmetered Scattered Load	$	56,312	1.01%	$	12,678	0.18%
6	Embedded Distributor	$	397,618	7.16%	$	449,992	6.37%
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20							
	Total	$	5,554,439	100.00%	$	**7,069,531**	100.00%

		Service Revenue Requirement (from Sheet 9)	$	7,069,531.13

(1)   Class Allocated Revenue Requirement, from Sheet O-1, Revenue to Cost || RR, row 40, from the Cost Allocation Study in this application. This excludes costs in defe
accounts. For Embedded Distributors, Account 4750 - Low Voltage (LV) Costs are also excluded.

(2)   Host Distributors - Provide information on any embedded distributor(s) as a separate class, if applicable. If embedded distributors are billed in a General Service class
allocated costs and revenues of the embedded distributor(s) in the applicable class, and also complete Appendix 2-Q.

(3)   Customer Classes - If these differ from those in place in the previous cost allocation study, modify the customer classes to match the proposal in the current applicatio
possible.

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B) *Calculated Class Revenues*

	Name of Customer Class	Load Forecast (LF) X current approved rates (7B)		LF X current approved rates X (1+d) (7C)		LF X Proposed Rates (7D)		Miscellaneous Revenues (7E)	
1	Residential	$	3,953,255	$	4,144,963.86	$	4,144,964	$	360,764
2	GS<50	$	726,747	$	761,989.54	$	761,990	$	56,001
3	GS>50 to 4,999	$	937,999	$	983,486.47	$	1,006,741	$	90,887
4	Street Lights	$	92,669	$	97,162.78	$	97,163	$	12,732
5	Unmetered Scattered Load	$	35,534	$	37,257.31	$	14,003	$	1,211
6	Embedded Distributor	$	492,846	$	516,745.73	$	516,746	$	6,331
7									
8									
9									
10									
11									
12									
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15									
16									
17									
18									
19									
20									
	Total	$	6,239,050	$	6,541,606	$	6,541,606	$	527,926

(4) In columns 7B to 7D, LF means Load Forecast of Annual Billing Quantities (i.e., customers or connections, as applicable X 12 months, and kWh, kW or kVA as applic quantities should be net of the Transformer Ownership Allowance for applicable customer classes. Exclude revenues from rate adders and rate riders.

(5) Columns 7C and 7D - Column Total should equal the Base Revenue Requirement for each.

(6) Column 7C - The OEB-issued cost allocation model calculates "1+d" on worksheet O-1, cell C22. "d" is defined as Revenue Deficiency/Revenue at Current Rates.

(7) Column 7E - If using the OEB-issued cost allocation model, enter Miscellaneous Revenues as it appears on worksheet O-1, row 19,

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C) *Rebalancing Revenue-to-Cost Ratios*

	Name of Customer Class	Previously Approved Ratios Most Recent Year: 2016 %	Status Quo Ratios (7C + 7E) / (7A) %	Proposed Ratios (7D + 7E) / (7A) %	Policy Range %
1	Residential	105.93%	101.41%	101.41%	85 - 115
2	GS<50	101.73%	105.17%	105.17%	80 - 120
3	GS>50 to 4,999	80.97%	84.87%	86.70%	80 - 120
4	Street Lights	105.93%	91.68%	91.68%	80 - 120
5	Unmetered Scattered Load	62.28%	303.42%	120.00%	80 - 120
6	Embedded Distributor	100.00%	116.24%	116.24%	
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(8)   Previously Approved Revenue-to-Cost (R/C) Ratios - For most applicants, the most recent year would be the third year (at the latest) of the Price Cap IR period. For e applicant, rebased in 2012 with further adjustments to move within the range over two years, the Most Recent Year would be 2015. However, the ratios in 2015 would after the adjustment in 2014.

(9)   Status Quo Ratios - The OEB-issued cost allocation model provides the Status Quo Ratios on Worksheet O-1. The Status Quo means "Before Rebalancing".

(10) Ratios shown in red are outside of the allowed range. Applies to both Tables C and D.

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(D) *Proposed Revenue-to-Cost Ratios* [11]

Name of Customer Class	Proposed Revenue-to-Cost Ratio			Policy Range
	Test Year	Price Cap IR Period		
	2022	2023	2024	
1 Residential	101.41%	101.41%	101.41%	85 - 115
2 GS<50	105.17%	105.17%	105.17%	80 - 120
3 GS>50 to 4,999	86.70%	86.70%	86.70%	80 - 120
4 Street Lights	91.68%	91.68%	91.68%	80 - 120
5 Unmetered Scattered Load	120.00%	120.00%	120.00%	80 - 120
6 Embedded Distributor	116.24%	116.24%	116.24%	
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(11)   The applicant should complete Table D if it is applying for approval of a revenue-to-cost ratio in 2021 that is outside of the OEB's policy range for any customer class.
that the distributor is likely to enter into the 2022 and 2023 Price Cap IR models, as necessary. For 2022 and 2023, enter the planned revenue-to-cost ratios that will b
Change" in 2019 (in the current Revenue/Cost Ratio Adjustment Workform, Worksheet C1.1 'Decision - Cost Revenue Adjustment, column d), and enter TBD for clas
entered as 'Rebalance'.