



EXHIBIT 7

COST ALLOCATION

2025 Cost of Service

Centre Wellington Hydro Ltd.

EB-2024-0012

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7.2 COST ALLOCATION STUDY REQUIREMENTS

7.2.1 OVERVIEW OF COST ALLOCATION

CWH has prepared and is submitting a cost allocation informational filing in accordance with 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"), as well as any subsequent updates.

The primary goals of the initial informational file in 2006 were to offer information on any apparent cross-subsidization between a distributor's rate classes and to support future rate submissions. This data is updated to reflect new parameters and inputs, which are then utilized to alter any cross-subsidization in the proposed rates.

As previously stated in this application, CWH integrated the GS 50-2,999kW and GS 3,000-4,999kW classes. The process of determining the per-class cost allocation was helpful in making the decision. The utility populated the model with the previously indicated classes and compared each component and input to the cost allocation to conclude that there was little difference in cost between classes.

The Previously Board Approved ratios are presented as a point of reference to the proposed 2025 ratios. As part of its last Cost of Service Rate Application, CWH updated the cost allocation revenue to cost ratios with 2018 base revenue requirement information. The revenue to cost ratios from the 2018 application are presented below.

Table 1: Previously Approved Ratios (2018 COS)

Customer Class Name	2018 Approved Revenue to Cost Ratio
Residential	1.0230
General Service < 50 kW	0.9584
General Service 50 to 2,999 kW	1.0024
General Service 3,000-4,999 kW	0.9573
Unmetered Scattered Load	0.8289
Sentinel Lighting	0.8016
Street Lighting	0.8244

The Cost Allocation Study for 2025 allocates the 2025 test year costs (i.e., the 2025 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.

CWH has used the most up to date (2025) OEB-approved Cost Allocation Model and followed the instructions and guidelines issued by the OEB to enter the 2025 data into this model.

Additional relevant details include the fact that CWH is not a host to any distributor.

MicroFIT

CWH is proposing to keep its MicroFit costs at \$10.00 per month to cover the cost of the settlement process, this was established in CWH's 2018's CoS, EB-2017-0032.

Standby Rates

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

New or Eliminated Customer Classes

CWH is not proposing to add any new customer classes, however CWH is proposing to merge the current GS50-2,999kW and GS 3,000-4,999 kW classes as mentioned above.

CWH intends to combine the GS 50-2,999kW and GS 3,000-4,999kW classes into a single GS 50-4,999kW class. While completing the Cost Allocation model and considering the weighting criteria for various components within the model, it was concluded that there are no substantial cost allocation differences or overall burdens as a result of CWH's administration, billing, and operations between a customer with a monthly demand larger than 3,000kW and a client with a lower monthly demand.

In compliance with the requirements, the table below shows a simple restatement of the 2018 Board Approved Allocation of the Revenue Requirement which reflects the combining of the GS>50 classes.

The first table shows the Board Approved with the two distinct classes. The second table shows the combining of the two classes in question while the third table shows the 2025 proposed allocation with the combined GS 50-4999 class.

Table 2: Previously Approved Allocation with GS 50-4999 comparison

2018 Revenue Requirement as approved											
	Proposed Base Revenue Requirement %						Revenue Offsets		Service Revenue Requirement \$		
Customer Class Name	Cost Allocation Results		Existing Rates		Proposed Allocation		%	\$	Existing Rates	Cost Allocation	Rate Application
Residential	56.35%	\$2,065,727	57.79%	\$2,118,275	57.77%	\$2,117,551	63.10%	\$184,502	\$2,302,777	\$2,250,229	\$2,302,052
General Service < 50 kW	18.38%	\$673,893	17.58%	\$644,242	17.56%	\$643,857	16.71%	\$48,848	\$693,090	\$722,741	\$692,705
General Service 50 to 2999 kW	19.29%	\$707,004	19.31%	\$707,657	19.34%	\$708,819	14.36%	\$41,976	\$749,633	\$748,980	\$750,795
General Service 3000-4999 kW	3.51%	\$128,492	3.36%	\$123,034	3.35%	\$122,742	2.15%	\$6,283	\$129,317	\$134,775	\$129,026
Unmetered Scattered Load	0.27%	\$9,951	0.22%	\$8,120	0.22%	\$8,118	0.26%	\$764	\$8,885	\$10,715	\$8,882
Sentinel Lighting	0.13%	\$4,587	0.09%	\$3,322	0.10%	\$3,587	0.16%	\$455	\$3,777	\$5,042	\$4,042
Street Lighting	2.07%	\$75,984	1.66%	\$60,987	1.66%	\$60,964	3.27%	\$9,571	\$70,558	\$85,554	\$70,534
TOTAL	100.00%	\$3,665,637	100.00%	\$3,665,637	100.00%	\$3,665,637	100.00%	\$292,400	\$3,958,037	\$3,958,037	\$3,958,037

2018 Revenue Requirement restated (combined GS >50 classes)											
	Proposed Base Revenue Requirement %						Revenue Offsets		Service Revenue Requirement \$		
Customer Class Name	Cost Allocation Results		Existing Rates		Proposed Allocation		%	\$	Existing Rates	Cost Allocation	Rate Application
Residential	56.35%	\$2,065,727	57.79%	\$2,118,275	57.77%	\$2,117,551	63.10%	\$184,502	\$2,302,777	\$2,250,229	\$2,302,052
General Service < 50 kW	18.38%	\$673,893	17.58%	\$644,242	17.56%	\$643,857	16.71%	\$48,848	\$693,090	\$722,741	\$692,705
General Service 50-4999 kW	22.79%	\$835,496	22.66%	\$830,691	22.69%	\$831,561	16.50%	\$48,259	\$878,950	\$883,755	\$879,820
Unmetered Scattered Load	0.27%	\$9,951	0.22%	\$8,120	0.22%	\$8,118	0.26%	\$764	\$8,885	\$10,715	\$8,882
Sentinel Lighting	0.13%	\$4,587	0.09%	\$3,322	0.10%	\$3,587	0.16%	\$455	\$3,777	\$5,042	\$4,042
Street Lighting	2.07%	\$75,984	1.66%	\$60,987	1.66%	\$60,964	3.27%	\$9,571	\$70,558	\$85,554	\$70,534
TOTAL	100.00%	\$3,665,637	100.00%	\$3,665,637	100.00%	\$3,665,637	100.00%	\$292,400	\$3,958,037	\$3,958,037	\$3,958,037

2025 Proposed Revenue Requirement Allocation (combined GS>50 Classes)													
Customer Class Name	Cost Allocation Results		Existing Rates		Proposed Allocation			%	\$		Existing Rates	Cost Allocation	Rate Application
Residential	55.76%	\$2,691,483	59.01%	\$2,848,446	57.74%	\$2,787,238		70.13%	\$249,304		\$3,097,750	\$2,940,786	\$3,036,541
General Service < 50 kW	18.70%	\$902,603	17.62%	\$850,451	17.55%	\$847,013		14.32%	\$50,911		\$901,362	\$953,514	\$897,924
General Service 50 to 4999 kW	21.81%	\$1,052,948	21.46%	\$1,035,863	21.77%	\$1,050,753		11.99%	\$42,610		\$1,078,472	\$1,095,558	\$1,093,363
Unmetered Scattered Load	0.40%	\$19,218	0.20%	\$9,747	0.31%	\$15,159		0.30%	\$1,050		\$10,797	\$20,268	\$16,209
Sentinel Lighting	0.08%	\$4,037	0.08%	\$3,790	0.08%	\$3,784		0.11%	\$397		\$4,187	\$4,434	\$4,182
Street Lighting	3.25%	\$156,983	1.64%	\$78,975	2.55%	\$123,324		3.15%	\$11,211		\$90,186	\$168,194	\$134,535
	100.00%	\$4,827,272	100.00%	\$4,827,272	100.00%	\$4,827,272	0	100.00%	\$355,482	0	\$5,182,754	\$5,182,754	\$5,182,754

1 **7.2.2 INPUTS TO THE COST ALLOCATION MODEL**

2 **Trial Balance (I3 TB Data)**

3 CWH populated the information on Sheet I3, Trial Balance Data with the 2025 forecasted data,
4 Target Net Income, PILs, Deemed interest on long term debt, and the targeted Revenue
5 Requirement and Rate Base.

6 **Breakout of Assets (I4 BO Assets)**

7 On Sheet I4, Break-out of Assets, CWH updated the allocation of the accounts based on 2025
8 values.

9 **Miscellaneous Data (I5.1)**

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

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

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

18 **Table 3: Weighting Factors**

	Residential	GS <50	GS 50 to 4,999 kW	Street Light	Sentinel	Unmetered Scattered Load
Insert Weighting Factor for Services Account 1855	1.0	4.0	15.0	1.0	1.0	1.0
Insert Weighting Factor for Billing and Collecting	1.0	1.0	3.0	1.0	1.0	1.0

19

1 **Proposed Services Weighting Factors (I5.2)**

2 **Residential:** the Services weighting factor was set to “1”, per the Cost Allocation instruction
3 sheet.

4 **General Service less than 50 kW:** The proposed Services weighting factor of 4.0 reflects
5 that these customers require greater capacity than do residential customers as well as
6 increased levels of planning, engineering, and distribution equipment needs, which is more
7 costly overall.

8 **General Service greater than 50 kW (GS 50-4,999 kW):** The proposed Services weighting
9 factor of 15.0 reflects that these customers require greater capacity than do residential
10 customers as well as increased levels of planning, engineering, and larger distribution material
11 and equipment such as conductor and transformer sizes which are more costly.

12 **Street Lighting and Sentinel and USL Load:** A Services weighting factor of 1.0 is proposed
13 for all three customer classes as the costs are similar to a residential service.

14

15 **Proposed Billing and Collecting Weighting Factors (I5.2)**

16 **Residential:** The Billing and Collecting-weighting factor is set at 1, per Cost Allocation
17 instruction sheet.

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

21 **General Service greater than 50 kW (GS 50-4,999 kW):** The proposed Billing and Collecting-
22 weighting factor is 3. All customers within this classification have interval meters, the result
23 being meters settled through a 3rd Party vendor with a retail/interval meter account. This allows
24 the customer access to their daily data so they can track their consumption and respond
25 quickly to higher consumptions. This service has a monthly fee and therefore the
26 billing/collection allocation is higher.

27 **Street Lighting, Sentinel Lights and USL:** the proposed weighting factor is 1. These classes
28 do not give rise to Collecting costs. The customers in these classes require manual
29 intervention if connections are added or removed, however the net affect between Billing and
30 Collecting has this weighting factor to be set at 1.

1 **Revenue (I6.1)**

2 On Sheet I6.1 Revenue has been populated with the 2025 Test Year forecast data as well as
 3 existing rates.

4 **Table 4: Sheet I6-1 of the Cost Allocation Model**

5 The revenue to cost ratios calculated on Sheet O1 and O2 of the Cost Allocation model updated
 6 for the 2025 Test Year are provided at the next page.

Total kWhs from Load Forecast	139,321,298
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Total kW from Load Forecast	191,145
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Deficiency/sufficiency (RRWF 8. cell F51)	- 139,216
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Miscellaneous Revenue (RRWF 5. cell F48)	355,482
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		1	2	3	7	8	9	
ID	Total	Residential	GS <50	GS 50 to 4,999 kW	Street Light	Sentinel	Unmetered Scattered Load	
Billing Data								
Forecast kWh	CEN	139,321,298	46,859,680	23,066,635	68,250,201	544,453	33,332	566,996
Forecast kW	CDEM	191,145			189,552	1,501	92	
Forecast kW, included in CDEM, of customers receiving line transformer allowance		93,768			93,768			
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	139,287,965	46,859,680	23,066,635	68,250,201	544,453		566,996
Existing Monthly Charge			\$33.79	\$24.38	\$198.93	\$2.55	\$6.75	\$9.15
Existing Distribution kWh Rate				\$0.0254				\$0.0142
Existing Distribution kW Rate					\$4.8997	\$12.3517	\$17.8733	
Existing TOA Rate					\$0.60			
Additional Charges								
Distribution Revenue from Rates		\$4,744,317	\$2,754,994	\$822,549	\$1,077,236	\$76,384	\$3,675	\$9,479
Transformer Ownership Allowance		\$56,261	\$0	\$0	\$56,261	\$0	\$0	\$0
Net Class Revenue	CREV	\$4,688,056	\$2,754,994	\$822,549	\$1,020,975	\$76,384	\$3,675	\$9,479

7

1 **Customer Data (I6.2)**

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

4 **Table 5: Sheet I6-2 of the Cost Allocation Model**

	ID	Total	Residential	GS <50	GS > 50 to 4999 kW	Street Light	Sentinel	Unmetered Scattered Load
Billing Data								
Bad Debt 3 Year Historical Average	BDHA	\$8,244	\$7,220	\$234	\$790	\$0	\$0	\$0
Late Payment 3 Year Historical Average	LPHA	\$8,351	\$4,659	\$1,530	\$2,162			
Number of Bills	CNB	92,274	81,533	9,706.99	746.44	24.00	108.00	156.00
Number of Devices	CDEV					1,890	25	
Number of Connections (Unmetered)	CCON	1,915				1,890	25	
Total Number of Customers	CCA	7,690	6,794	809	62	2	9	13
Bulk Customer Base	CCB	-						
Primary Customer Base	CCP	7,762	6,794	809	62	76	8	13
Line Transformer Customer Base	CCLT	7,747	6,794	809	47	76	8	13
Secondary Customer Base	CCS	7,672	6,794	809	47	1	8	13
Weighted - Services	CWCS	12,663	6,794	3,236	705	1,890	25	13
Weighted Meter -Capital	CWMC	596,057	10,581	455,806	129,670	-	-	-
Weighted Meter Reading	CWMR	7,678	6,794	809	75	-	-	-
Weighted Bills	CWNB	93,767	81,533	9,707	2,239	24	108	156

5 **Meter Capital and Meter Reading (I7.1 & I7.2)**

6 CWH updated the capital cost meter information on Sheet I7.1 and the meter reading information
 7 on I7.2 to reflect its most recent reading costs.

1 **Demand Data (I8)**

2 In CWH’s most previous Cost of Service application, EB-2017-0032, CWH relied on load profiles
3 produced by Hydro One Networks Inc., (HONI) which were based on sample data from 2004.
4 Within the previous CoS, the coincident peak and non-coincident peak values populated in
5 worksheet I8 of the OEB’s Cost Allocation model were scaled from CWH’s initial cost allocation
6 informational filing, using the ratio of the Test Year load forecast to the base year load for each
7 rate class.

8 The table below shows the demand profile used in the 2018 Cost of Service application.

9 **Table 6: Load Profiles from 2018 CoS**

Customer Classes		Total	1	2	3	5	7	8	9
			Residential	GS <50	GS > 50 to 2999 kW	GS > 3000 to 4999 kW	Streetlight	Sentinel	Unmetered Scattered Load
CO-INCIDENT PEAK									
1 CP									
Transformation CP	TCP1	22,885	9,527	4,227	8,154	750	133	15	79
Bulk Delivery CP	BCP1	22,885	9,527	4,227	8,154	750	133	15	79
Total System CP	DCP1	22,885	9,527	4,227	8,154	750	133	15	79
4 CP									
Transformation CP	TCP4	93,934	35,682	14,966	35,228	7,377	388	28	264
Bulk Delivery CP	BCP4	93,934	35,682	14,966	35,228	7,377	388	28	264
Total System CP	DCP4	93,934	35,682	14,966	35,228	7,377	388	28	264
12 CP									
Transformation CP	TCP12	261,447	94,314	40,919	104,903	19,679	812	55	764
Bulk Delivery CP	BCP12	268,417	94,314	40,919	104,503	27,049	812	55	764
Total System CP	DCP12	268,417	94,314	40,919	104,503	27,049	812	55	764
NON CO_INCIDENT PEAK									
1 NCP									
Classification NCP from Load Data Provider	DNCP1	26,043	9,266	4,447	9,266	2,844	128	15	77
Primary NCP	PNCP1	26,043	9,266	4,447	9,266	2,844	128	15	77
Line Transformer NCP	LTNCP1	17,862	9,266	4,447	3,929	-	128	15	77
Secondary NCP	SNCP1	17,862	9,266	4,447	3,929	-	128	15	77
4 NCP									
Classification NCP from Load Data Provider	DNCP4	107,559	38,023	18,122	39,999	10,548	529	49	290
Primary NCP	PNCP4	107,559	38,023	18,122	39,999	10,548	529	49	290
Line Transformer NCP	LTNCP4	73,971	38,023	18,122	16,959	-	529	49	290
Secondary NCP	SNCP4	73,971	38,023	18,122	16,959	-	529	49	290
12 NCP									
Classification NCP from Load Data Provider	DNCP12	297,449	102,031	47,815	114,943	30,213	1,571	111	764
Primary NCP	PNCP12	297,449	102,031	47,815	114,943	30,213	1,571	111	764
Line Transformer NCP	LTNCP12	201,027	102,031	47,815	48,734	-	1,571	111	764
Secondary NCP	SNCP12	201,027	102,031	47,815	48,734	-	1,571	111	764

1 In CWH's 2025 CoS application (EB-2024-0012), CWH used the "USF Demand Profile Working
2 Group" methodology to determine the Coincident Peak (CP) and Non-Coincident Peak (NCP)
3 Demand for the Applicant's rate classes to input into worksheet "I8 Demand Data" of the OEB's
4 Cost allocation model.

5 A CWH customized version of the "USF Demand Profile Methodology Paper" that describes the
6 methodology and data addition, CWH has filed excel copies of supporting information and CWH's
7 Load Profile Detailed Process is listed as Appendix A.

8 CWH notes that it compiled hourly consumption data for all of its metered rate classes for 2023
9 by adhering to the USF methodology. Since residuals of Covid-19 would have been present in
10 2022 and earlier years, CWH opted to use 2023 when calculating profiles for 2025 and beyond.
11 CWH believes that 2023 is a more representative year to use.

12 CWH collected actual hourly demand data for the years 2023. With this data, CWH created a
13 separate model for 2023 to determine the Non Coincident Peak (NCP) and Coincident Peak for
14 year 2025. The CP and NCP Demand Data input into worksheet "I8 Demand Data" of the Cost
15 Allocation model is based on weather-normalized data and scaled to CWH's 2025 Test Year Load
16 Forecast using Wholesale kWh purchases.

17 **Summary of Process Used to Determine NCP and CP**

18 Below is a summary of the process the "USF Demand Profile Working Group" developed:

- 19 **1. Collect hourly data by rate class for 2023.**
- 20 **2. Validate the data (e.g. compare the aggregated annual data against RRR filings).**
- 21 **3. Weather Normalize the data by:**
 - 22 a. An adjustment to remove the estimated weather-sensitive portion of the load for
23 each hour, based on HDD and CDD components of the load forecast presented
24 in Exhibit 3; and,
 - 25 b. An adjustment to add an estimate of "weather-normal" load, based on 10-year
26 average HDD and CDD values.
 - 27 c. Scaling to Test Year Load Forecast – As CWH's load forecast is by wholesale
28 predicted kWh purchases, the ratio of weather normalized data in base year
29 (2023) was applied to the Test Year Load Forecast (2025). In essence, this takes
30 the daily demand weather normalized profile (or shape) for each rate class in
31 base year and apply it to the Test Year predicted Load Forecast for each rate
32 class.
 - 33 d. Once the data had been scaled to the Test Year Load Forecast, it was possible
34 to calculate the required NCP and CP values.
 - 35 e. CWH performed this process for the hourly demand data collected for the year
36 2023.
 - 37 f. CWH entered the estimated 2025 NCP and CP values for input into Tab I8 of the
38 OEB's Cost Allocation Model.

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1 **4. 2025 Demand - NCP and CP Values**

2 The tables below illustrate the NCP and CP values as derived using the process summarized
3 above for 2025 demand data:

4 **Table 7: Non Co-incident Peak Values for 2025 Demand Data**

	Residential	General Service <50kW	General Service 50-2999kW & GS>3000 combined	Street Lights	Sentinel Lights	USL
Jan	9,284	3,964	11,661	124	6	103
Feb	8,644	4,032	12,001	125	7	112
Mar	7,872	3,689	12,058	125	6	101
Apr	7,374	3,635	12,213	125	8	135
May	9,803	4,463	12,297	125	8	132
Jun	11,041	4,583	11,905	125	8	137
Jul	11,490	4,797	12,072	125	10	172
Aug	9,802	4,587	12,550	125	10	173
Sep	12,817	5,050	12,982	125	11	180
Oct	7,965	4,288	12,710	125	7	123
Nov	8,827	3,868	11,551	125	7	127
Dec	9,363	3,916	11,586	126	7	122
1NCP	12,817	5,050	12,982	126	11	180
4NCP	45,151	19,018	50,540	502	39	662
12NCP	114,283	50,872	145,586	1,501	95	1,618

5

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Table 8: CP Values for 2025 Demand Data

	Residential	General Service <50kW	GS 50 - 4,999kW	Street Lighting	Sentinel Lighting	USL
Jan	8,046	3,513	10,052	124	6	103
Feb	7,922	3,589	10,256	125	7	112
Mar	7,145	3,063	10,070	125	6	101
Apr	5,110	3,497	11,183	0	0	0
May	8,672	4,253	11,278	0	0	0
Jun	9,055	4,359	11,269	0	0	0
Jul	9,872	4,750	10,444	0	0	0
Aug	8,466	3,921	11,254	0	0	0
Sep	10,926	4,666	12,182	0	0	0
Oct	7,013	4,036	12,158	0	0	0
Nov	8,235	3,196	10,328	31	2	32
Dec	8,346	3,553	10,453	31	2	30
1CP	10,926	4,666	12,182	0	0	0
4CP	38,525	18,028	45,174	0	0	0
12CP	98,810	46,397	130,929	437	22	379

2

1 **Table 9: I8 Demand Data for 2025 Test Year (adjusted for 2025 Load Forecast)**

Customer Classes	Total	1	2	3	7	8	9
		Residential	Residential	GS <50	GS 50 to 4,999 kW	Street Light	Sentinel
CO-INCIDENT PEAK		Pass	Pass	Pass	Pass	Pass	Pass
1 CP							
Transformation CP TCP1	27,775	10,926	4,666	12,182	-	-	-
Bulk Delivery CP BCP1	27,775	10,926	4,666	12,182	-	-	-
Total System CP DCP1	27,775	10,926	4,666	12,182	-	-	-
4 CP							
Transformation CP TCP4	101,727	38,525	18,028	45,174	-	-	-
Bulk Delivery CP BCP4	101,727	38,525	18,028	45,174	-	-	-
Total System CP DCP4	101,727	38,525	18,028	45,174	-	-	-
12 CP							
Transformation CP TCP12	276,973	98,810	46,397	130,929	437	22	379
Bulk Delivery CP BCP12	277,142	98,979	46,397	130,929	437	22	379
Total System CP DCP12	277,142	98,979	46,397	130,929	437	22	379
NON CO_INCIDENT PEAK							
	NCP Sanity Check	Pass	Pass	Pass	Pass	Pass	Pass
1 NCP							
Classification NCP from Load Data Provider DNCP1	31,165	12,817	5,050	12,982	126	11	180
Primary NCP PNCP1	31,165	12,817	5,050	12,982	126	11	180
Line Transformer NCP LTNCP1	23,577	12,817	5,050	5,394	126	11	180
Secondary NCP SNCP1	23,577	12,817	5,050	5,394	126	11	180
4 NCP							
Classification NCP from Load Data Provider DNCP4	115,911	45,151	19,018	50,540	502	39	662
Primary NCP PNCP4	115,911	45,151	19,018	50,540	502	39	662
Line Transformer NCP LTNCP4	86,371	45,151	19,018	20,999	502	39	662
Secondary NCP SNCP4	86,371	45,151	19,018	20,999	502	39	662
12 NCP							
Classification NCP from Load Data Provider DNCP12	313,954	114,283	50,872	145,586	1,501	95	1,618
Primary NCP PNCP12	313,954	114,283	50,872	145,586	1,501	95	1,618
Line Transformer NCP LTNCP12	228,859	114,283	50,872	60,491	1,501	95	1,618
Secondary NCP SNCP12	228,859	114,283	50,872	60,491	1,501	95	1,618

2
3 The Customer Data tab of the Cost Allocation model updated for the 2025 Test Year are provided
4 below.

1

Table 10: Customer Data Tab

		1	2	3	7	8	9
ID	Total	Residential	GS <50	GS 50 to 4,999 kW	Street Light	Sentinel	Unmetered Scattered Load
Billing Data							
Bad Debt 3 Year Historical Average	BDHA	\$8,244	\$7,220	\$234	\$790	\$0	\$0
Late Payment 3 Year Historical Average	LPHA	\$8,351	\$4,659	\$1,530	\$2,162		
Number of Bills	CNB	92,274	81,533	9,706.99	746.44	24.00	108.00
Number of Devices	CDEV					1,890	25
Number of Connections (Unmetered)	CCON	1,915				1,890	25
Total Number of Customers	CCA	7,690	6,794	809	62	2	9
Bulk Customer Base	CCB	-					
Primary Customer Base	CCP	7,762	6,794	809	62	76	8
Line Transformer Customer Base	CCLT	7,747	6,794	809	47	76	8
Secondary Customer Base	CCS	7,672	6,794	809	47	1	8
Weighted - Services	CWCS	12,663	6,794	3,236	705	1,890	25
Weighted Meter -Capital	CWMC	596,057	10,581	455,806	129,670	-	-
Weighted Meter Reading	CWMR	7,678	6,794	809	75	-	-
Weighted Bills	CWNB	93,767	81,533	9,707	2,239	24	108

Bad Debt Data

Historic Year:	2021	6,923	6,748	175			
Historic Year:	2022	8,877	8,594	283			
Historic Year:	2023	8,934	6,318	246	2,369		
Three-year average		8,244	7,220	234	790		

Street Lighting Adjustment Factors

NCP Test Results	4 NCP			
Class	Primary Asset Data		Line Transformer Asset Data	
	Customers/ Devices	4 NCP	Customers/ Devices	4 NCP
Residential	6,794	45,151	6,794	45,151
Street Light	1,890	502	1,890	502
Street Lighting Adjustment Factors				
Primary		25.0105		
Line Transformer		25.0105		

1

Table 11: Sheet O-1 of the Cost Allocation Model

	Total	1	2	3	7	8	9
		Residential	GS <50	GS 50 to 4,999 kW	Street Light	Sentinel	Unmetered Scattered Load
Distribution Revenue at Existing Rates	\$4,688,056	\$2,754,994	\$822,549	\$1,020,975	\$76,384	\$3,675	\$9,479
Miscellaneous Revenue (mi)	\$355,482	\$249,304	\$50,911	\$42,610	\$11,211	\$397	\$1,050
Miscellaneous Revenue Input equals Output							
Total Revenue at Existing Rates	\$5,043,538	\$3,004,297	\$873,460	\$1,063,585	\$87,595	\$4,072	\$10,529
Factor required to recover deficiency (1 + D)	1.0297						
Distribution Revenue at Status Quo Rates	\$4,827,272	\$2,836,806	\$846,975	\$1,051,294	\$78,652	\$3,784	\$9,760
Miscellaneous Revenue (mi)	\$355,482	\$249,304	\$50,911	\$42,610	\$11,211	\$397	\$1,050
Total Revenue at Status Quo Rates	\$5,182,755	\$3,086,110	\$897,886	\$1,093,904	\$89,863	\$4,182	\$10,810
Expenses							
Distribution Costs (di)	\$879,449	\$435,547	\$173,196	\$214,498	\$51,294	\$901	\$4,013
Customer Related Costs (cu)	\$789,785	\$624,067	\$131,700	\$32,243	\$148	\$665	\$961
General and Administration (ad)	\$1,474,819	\$932,877	\$268,991	\$221,524	\$45,596	\$1,380	\$4,450
Depreciation and Amortization (dep)	\$722,029	\$296,617	\$184,690	\$216,138	\$20,706	\$452	\$3,426
PILs (INPUT)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest	\$570,193	\$282,213	\$84,419	\$178,053	\$21,847	\$448	\$3,212
Total Expenses	\$4,436,275	\$2,571,322	\$842,996	\$862,457	\$139,592	\$3,847	\$16,062
Direct Allocation	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Allocated Net Income (NI)	\$746,479	\$369,465	\$110,518	\$233,102	\$28,602	\$587	\$4,205
Revenue Requirement (includes NI)	\$5,182,755	\$2,940,787	\$953,514	\$1,095,558	\$168,194	\$4,434	\$20,268
Revenue Requirement Input equals Output							
Rate Base Calculation							
Net Assets							
Distribution Plant - Gross	\$32,137,482	\$14,937,527	\$6,936,853	\$8,782,683	\$1,296,848	\$26,356	\$157,215
General Plant - Gross	\$4,871,108	\$2,252,841	\$943,669	\$1,470,185	\$175,355	\$3,595	\$25,462
Accumulated Depreciation	(\$15,228,686)	(\$7,008,088)	(\$3,729,762)	(\$3,735,953)	(\$673,300)	(\$13,605)	(\$67,978)
Capital Contribution	(\$2,978,703)	(\$942,739)	(\$1,274,318)	(\$667,151)	(\$83,232)	(\$1,658)	(\$9,606)
Total Net Plant	\$18,801,201	\$9,239,542	\$2,876,442	\$5,849,764	\$715,671	\$14,688	\$105,093
Directly Allocated Net Fixed Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Cost of Power (COP)	\$16,343,031	\$5,519,285	\$2,704,084	\$7,988,855	\$63,730	\$709	\$66,368
OM&A Expenses	\$3,144,053	\$1,992,492	\$573,887	\$468,265	\$97,039	\$2,946	\$9,424
Directly Allocated Expenses	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal	\$19,487,083	\$7,511,777	\$3,277,971	\$8,457,120	\$160,768	\$3,655	\$75,792
Working Capital	\$1,461,531	\$563,383	\$245,848	\$634,284	\$12,058	\$274	\$5,684
Total Rate Base	\$20,262,732	\$9,802,925	\$3,122,290	\$6,484,048	\$727,728	\$14,962	\$110,778
Rate Base Input equals Output							
Equity Component of Rate Base	\$8,105,093	\$3,921,170	\$1,248,916	\$2,593,619	\$291,091	\$5,985	\$44,311
Net Income on Allocated Assets	\$746,479	\$514,788	\$54,890	\$231,447	(\$49,729)	\$335	(\$5,252)
Net Income on Direct Allocation Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Net Income	\$746,479	\$514,788	\$54,890	\$231,447	(\$49,729)	\$335	(\$5,252)
RATIOS ANALYSIS							
REVENUE TO EXPENSES STATUS QUO%	100.00%	104.94%	94.17%	99.85%	53.43%	94.31%	53.34%
EXISTING REVENUE MINUS ALLOCATED COSTS	(\$139,216)	\$63,511	(\$80,054)	(\$31,973)	(\$80,599)	(\$362)	(\$9,739)
Deficiency Input equals Output							
STATUS QUO REVENUE MINUS ALLOCATED COSTS	\$0	\$145,323	(\$55,628)	(\$1,654)	(\$78,331)	(\$252)	(\$9,458)
RETURN ON EQUITY COMPONENT OF RATE BASE	9.21%	13.13%	4.40%	8.92%	-17.08%	5.59%	-11.85%

1

Table 12: Sheet O-2 of the Cost Allocation Model

Summary	Residential	GS <50	GS 50 to 4,999 kW	Street Light	Sentinel	Unmetered Scattered Load
Customer Unit Cost per month - Avoided Cost	\$6.49	\$13.82	\$39.54	-\$0.01	\$1.85	\$5.00
Customer Unit Cost per month - Directly Related						
Customer Unit Cost per month - Minimum System with PLCC Adjustment	\$12.33	\$23.12	\$69.92	-\$0.01	\$3.51	\$9.66
Existing Approved Fixed Charge	\$23.00	\$47.29	\$139.34	\$7.05	\$14.79	\$20.58

2

1 7.3 CLASS REVENUE REQUIREMENTS

2 7.3.1 CLASS REVENUE ANALYSIS

3 Table 12 below shows the results of the cost allocation updated 2025 study. These results are
4 used to compare, analyze the allocation under each option and help the utility determine its 2025
5 proposed ratios.

1

Table 13: Results of the Cost Allocation Study

Cost Allocation Results	REVENUE ALLOCATION (sheet O1)							CUSTOMER UNIT COST PER MONTH (sheet O2)			Maximum Charge	Maximum Charge or Existing Rate
	Customer Class Name	Service Rev Req (row40)		Misc. Revenue (mi) (row19)		Base Rev Req		Rev2Cost Expenses %	Avoided Costs (Minimum Charge)	Directly Related		
Residential	2,940,787	56.74%	249,304	70.13%	2,691,483	55.76%	104.94%	\$6.49	\$12.33	\$23.00	\$23.00	\$33.79
General Service < 50 kW	953,514	18.40%	50,911	14.32%	902,603	18.70%	94.17%	\$13.82	\$23.12	\$47.29	\$47.29	\$47.29
General Service 50 to 4999 kW	1,095,558	21.14%	42,610	11.99%	1,052,948	21.81%	99.85%	\$39.54	\$69.92	\$139.34	\$139.34	\$198.93
Unmetered Scattered Load												
Sentinel Lighting	20,268	0.39%	1,050	0.30%	19,218	0.40%	53.34%	\$5.00	\$9.66	\$20.58	\$20.58	\$20.58
Street Lighting	4,434	0.09%	397	0.11%	4,037	0.08%	94.31%	\$1.85	\$3.51	\$14.79	\$14.79	\$14.79
TOTAL	168,194	3.25%	11,211	3.15%	156,983	3.25%	53.43%	(\$0.01)	(\$0.01)	\$7.05	\$7.05	\$7.05

2

1 Table 14 below shows the allocation percentage and base revenue requirement allocation under
 2 existing rates, cost allocation results and proposed 2025 proposed allocation.

3 **Table 14: Base Revenue Requirement Under 3 Scenarios**

Customer Class Name	Proposed Base Revenue Requirement %					
	Cost Allocation Results		Existing Rates		Proposed Allocation	
Residential	55.76%	2,691,483	59.01%	2,848,446	57.98%	2,798,685
General Service < 50 kW	18.70%	902,603	17.62%	850,451	17.62%	850,451
General Service 50 to 4999 kW	21.81%	1,052,948	21.46%	1,035,863	21.46%	1,035,863
Unmetered Scattered Load						
Sentinel Lighting	0.40%	19,218	0.20%	9,747	0.31%	15,159
Street Lighting	0.08%	4,037	0.08%	3,790	0.08%	3,790
TOTAL	3.25%	156,983	1.64%	78,975	2.55%	123,324

4
 5 Table 15 below shows the revenue offset allocation which resulted from Cost Allocation Study
 6 (Sheet O1).

7 **Table 15: Revenue Offset Allocation as per Cost Allocation Study**

Customer Class Name	Revenue Offsets	
	%	\$
Residential	70.13%	249,304
General Service < 50 kW	14.32%	50,911
General Service 50 to 4999 kW	11.99%	42,610
Unmetered Scattered Load	0.30%	1,050
Sentinel Lighting	0.11%	397
Street Lighting	3.15%	11,211
	100.00%	355,482

8

1 Table 16 shows the allocation of the service revenue requirement under the same 3 scenarios.

2 **Table 16: Service Revenue Requirement Under 3 Scenarios**

Customer Class Name	Service Revenue Requirement \$		
	Existing Rates	Cost Allocation	Rate Application
Residential	3,097,750	2,940,786	3,047,989
General Service < 50 kW	901,362	953,514	901,362
General Service 50 to 4999 kW	1,078,472	1,095,558	1,078,472
Unmetered Scattered Load	10,797	20,268	16,209
Sentinel Lighting	4,187	4,434	4,187
Street Lighting	90,186	168,194	134,535
TOTAL	5,182,754	5,182,754	5,182,754

3

7.4 REVENUE-TO-COST RATIOS

7.4.1 COST ALLOCATION RESULTS AND ANALYSIS

Table 17 below shows Appendix 2-P of the Board Appendices. The Appendix provides information on previously approved ratios and proposed ratios. The section following Appendix 2-P addresses the method and logic used to update the ratios from the Cost Allocation study to the proposed ratios.

Table 17: Cost Allocation Appendix 2-P Cost Allocation

A) Allocated Costs

Classes	Costs Allocated from Previous Study	Costs Allocated in Test Year Study (Column 7A)
Residential	\$2,092,149	\$2,940,786.85
General Service < 50 kW	\$643,586	\$953,514.09
General Service 50 to 4999 kW	\$771,687	\$1,095,558.16
Unmetered Scattered Load	\$192,417	\$20,267.74
Sentinel Lighting	\$8,063	\$4,434.03
Street Lighting	\$3,439	\$168,193.67
Total	\$65,841	\$5,182,754.54

B) Calculated Class Revenues

(from CA - O1 row 18)

Classes (same as previous table)	Column 7B	Column 7C	Column 7D	Column 7E
	Load Forecast (LF) X current approved rates	L.F. X current approved rates X (1 + d)	LF X proposed rates	Miscellaneous Revenue
Residential	\$2,754,993.68	\$2,836,805.91	\$2,798,685.17	\$249,303.68
General Service < 50 kW	\$822,548.99	\$846,975.38	\$850,450.74	\$50,910.76
General Service 50 to 4999 kW	\$1,020,975.33	\$1,051,294.19	\$1,035,862.57	\$42,609.70
Unmetered Scattered Load	\$9,478.75	\$9,760.23	\$15,158.91	\$1,049.96
Sentinel Lighting	\$3,675.13	\$3,784.27	\$3,789.87	\$397.32
Street Lighting	\$76,384.14	\$78,652.45	\$123,324.33	\$11,210.70
Total	\$4,688,056.03	\$4,827,272.42	\$4,827,271.59	\$355,482.11

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

Class	Previously Approved Ratios	Status Quo Ratios	Proposed Ratios	Policy Range
	Most Recent Year: 2018	(7C + 7E) / (7A)	(7D + 7E) / (7A)	
	%	%	%	%
Residential	102.30	104.94	103.26	
General Service < 50 kW	95.84	94.17	94.17	
General Service 50 to 4999 kW	100.24	99.85	99.80	
Unmetered Scattered Load	95.73	53.34	79.97	
Sentinel Lighting	82.89	94.31	94.43	
Street Lighting	80.16	53.43	79.99	

1

D) Proposed Revenue-to-Cost Ratios					
Class	Proposed Revenue-to-Cost Ratios			Policy Range	
	2025	2026	2027		
	%	%	%	%	
Residential	103.26	103.26	103.26		
General Service < 50 kW	94.17	94.17	94.17		
General Service 50 to 4999 kW	99.80	99.80	99.80		
Unmetered Scattered Load	79.97	79.97	79.97		
Sentinel Lighting	94.31	94.31	94.31		
Street Lighting	79.99	79.99	79.99		

2

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

4 **Table 18: Proposed Allocation**

Customer Class Name	Calculated R/C Ratio	Proposed R/C Ratio	Variance
Residential	1.0494	1.0326	0.0169
General Service < 50 kW	0.9417	0.9417	0.0000
General Service 50 to 4999 kW	0.9985	0.9980	0.0005
Unmetered Scattered Load *	0.5334	0.7997	-0.2664
Sentinel Lighting	0.9431	0.9431	0.0000
Street Lighting *	0.5343	0.7999	-0.2656

5 * Ratios fell outside of the floor to ceiling range.

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

9 CWH proposes to reduce the ratio for the Residential class at to 103.26% from 104.94% to absorb
 10 the shortfall created by the USL and Street Light class being brought up to the floor of .80. Both
 11 the General Service <50kW at 94.17% and GS 50-4999kW at 99.85% stayed the same.

12 At a ratio 94.31%, the calculated ratio for the Sentinel class fell within the range therefore, the
 13 utility proposes to leave it as is. Both Street Lighting and USL ratios fell slightly below the floor of
 14 80 range therefore CWH proposes to bring them back up to the floor of 80%) Bill Impacts are
 15 discussed in detail at Exhibit 8.

1 APPENDICES

2

Appendix A	CWH's Load Profile Detailed Process
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3

Centre Wellington Hydro Ltd.

Exhibit 7

Appendix A

CWH's Load Profile Detailed Process

CWH Demand Profile detailed process:

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1. **Aggregated Hourly Consumption Data**
 - 1.1 Data Sources
 - 1.2 Methodology:
 - 1.3 Hourly Data Compilation by Customer Class
 - 1.4 Assumptions Applied
 - 1.5 Data Comparison
2. **Weather Normalization**
 - 2.1 Remove Actual Weather-Sensitive Load
 - 2.2 Add Weather-Normal Load
 - 2.3 HDD and CDD Outliers – Check / Validation
 - 2.4 Estimating the Weather-normal (WN) Load for Each Hour
3. **Scaling to Test Year Load Forecast (Wholesale Purchases)**
4. **Determine NCP and CP Values**

1. Aggregated Hourly Consumption Data

To update load profiles, CWH consolidated hourly consumption data based on rate class based on 2023 data. CWH opted to prioritize the year 2023 over an average of earlier years, as they considered that 2023 accurately represents a year of normalcy after the pandemic. The aggregated quantities were examined to ensure their reasonability.

1.1 Data Sources:

The following sources were used to collect the data:

Rate Class	Data Source:
Residential	Operational Data Store (ODS) provider - Savage Data Systems
General Service <50 kW	Operational Data Store (ODS) provider - Savage Data Systems
General Service 50-4,999 kW	Wholesale Retail Settlement provider – Utilismart Corporation
Streetlights	Wholesale Retail Settlement provider – Utilismart Corporation
Sentinel Lighting	CWH’s monthly billed data
Unmetered Scattered Load	CWH’s monthly billed data

1.2 Methodology:

The following methodology and assumptions were applied.

Rate Class	Methodology
Residential	<ul style="list-style-type: none"> ○ Savage Data Systems ODS stores data for each registered Smart Meter. Data is also stored in the MDMR. Each meter has a unique Meter ID and is assigned a Unique Service Delivery Point I.D. number (USPID). Data is stored by Unique Service Delivery Point (USDP) and service type within both systems.
GS<50 kW	<ul style="list-style-type: none"> ○ Data is sent from CWH's data collector to both the ODS and MDMR for processing. Data is validated within the ODS and any discrepancies are resubmitted to the MDMR for processing for billing purposes. ○ Using THE "USDP" & "Service Type", CWH extracted raw hourly kWh data for the period of January 1st, 2023 to December 31st, 2023 in excel format from Savage Data Systems. Then, using "Service Type", the raw hourly kWh data was sorted into Residential & GS<50. CWH then summarized the Residential service type and GS<50 service type data into date and hour order to get the Residential profile and GS<50 profile. ○ The sorted Residential kWh Totals and GS<50 kWh Totals were then balanced to a statistic report from CWH's billing system (NorthStar) for validation.
GS 50-4,999 kW	<ul style="list-style-type: none"> ○ Rate class has hourly demand metering stored by our Wholesale Retail Settlement Data Provider, Utilismart. The interval hourly demand data by meter was obtained and downloaded from Utilismart for the year 2023 for each GS 50-4,999 kW customer. ○ The data was validated against the billing system, NorthStar, and summarized to result in an hourly demand profile for the GS 50-4,999 kW rate class.

Streetlights	<ul style="list-style-type: none"> ○ CWH bills Streetlights using a streetlight profile that is stored in Utilismart, who provides hourly consumption and demand data based on the profile for billing purposes. The profile is calculated using the number of connections, kW per connection, number of days per month, and number of daylight hours per day per month. ○ CWH provides Utilismart with an updated Streetlight profile as connections or kW change throughout the year. ○ Utilismart is using this streetlight profile to determine the hourly demand for 2023.
Sentinel Lighting	<ul style="list-style-type: none"> ○ CWH bills Sentinel Lighting customers using a sentinel lighting profile provided by the customer which includes, number of connections, kW per connection, number of hours of operation per month and number of days per month. ○ CWH used the same profile to create an hourly demand profile.
USL	<ul style="list-style-type: none"> ○ CWH bills Unmetered Scattered Load based on number of connections, kW per connection, and operation hours per day per month. This results in the sentinel lighting profile. ○ kW and number of connections are provided by the customer upon connection. ○ CWH used the sentinel lighting profile to create an hourly demand profile.
Weather normalization	<ul style="list-style-type: none"> ○ The weather normalization process to determine CWH's weather sensitive load uses daily heating degree days (HDD) and cooling degree days (CDD) as measured at Environment Canada's weather station at the Fergus Shand Dam, Ontario, which is the closest station to CWH's service territory.

The above methodology was used to produce the hourly demand data for 2023 (January 1st to December 31st).

1.3 Hourly Data Compilation by Customer Class:

The hourly data used in the demand profile is the same as is used for billing customers. The Demand Profile Data used is calculated based upon the metered usage and energization status:

- a) Customers who closed their account during the year were included up to the point they were responsible for the usage of the premises. The demand profile data is based on meters at properties, not accounts. For example:
 - If customer A sold the property with a move-out date of May 31st, 2023, they are still responsible for payment of the hydro account up to this date.
 - Customer B purchases the property and moves in on June 1st, 2023. This person is required to sign a hydro agreement form and is responsible for the electricity account from this date.
 - In this example, the meter has not been disconnected or removed and it is still the same meter, which usage continues to flow uninterrupted.
 - In the demand profile data set, the data is assigned to a USPID (a Unique Supply Point I.D. attached to a specific meter at the property – the meter has a unique ID known by the LDC). In this example, in the demand profile data set, the metered data would be continuous (i.e. every day and every hour) as there is no break in supply (i.e. the meter was not disconnected).
 - If customer A sold the property and moved out on May 31st, 2023, and the new owner, customer B, took possession on June 1st but did not move in until August 1st, customer B could arrange for a supply disconnection to avoid minimum usage and delivery fees for the months of June and July when the property was vacant. If the property is disconnected, then there would be zero (nil) metered data during the disconnection period. These zero data would continue until the meter was physically reconnected and there was usage at the property. In CWH's past practice, there has never been an instance where CWH has had this occur.
 - In rare instances, a break in metered data may be seen if a customer has been disconnected for non-payment. In this case, metered data will start flowing once the meter is reconnected upon payment.
 - Otherwise, all active service data has been included, including zero consumption.
- b) For all new builds, data has been included from the date and time of energization.

- c) In summary, if the property is an existing property with a meter, then the metered data has been included in the demand profile data set, including zero usage unless the meter was disconnected or removed.
- d) Customer Reclassification: When customer reclassification occurs because a customer's demand data has fallen outside the upper or lower limits for a customer' class, as determined by the DSC and the current CWH Rate Order, the following methodology explains how CWH uses USF's Demand Profile model to handle the data:

Assumptions:

- i. Every October each year, CWH reviews a GS<50 kW and GS 50-4,999kW customer's monthly kW demand data for the period October last year to September current year.

Criteria for moving from GS<50kW to GS 50-4,999kW:
 - 6 months out of 12 with over 55kW demand
 - 5 of those months must be consecutive
 - The average demand must be over 55 kW
- ii. Where reclassification is required, CWH writes to the customer by December 1st advising reclassification will occur as of January 1.
- iii. CWH will schedule to change the meter at the customer's premises from a Smart Meter to an interval meter if required.

Assuming the meter change happens on or before December 31st, 2023, CWH will bill the customer as a GS<50 kW account up to December 31st 2023. From January 1st 2024 onwards CWH will bill the customer as a GS 50-4,999 kW customer.

Settlement:

- iv. Up to December 31st 2023, the meter will be registered with the MDM/R and the LDC's Operational Data Store (ODS) until midnight, December 31st, 2023. After this day, the meter is "unregistered" from MDM/R as this database does not handle non-Residential or non-GS<50 kW accounts.
- v. The above meter will be registered with Utilismart, CWH's third-party settlement provider effective from Hour 1 on January 1st, 2024.

USF Demand Profile – data sources:

- vi. When CWH acquires the hourly demand data from its’ ODS provider for each GS<50 kW meter for the year 2023. This data extract will include the metered demand data for the re-classified customer from GS<50kW to GS 50-4,999kW for the period of Hour 1 of January 1st 2023 to midnight, December 31, 2023.
- vii. When CWH acquires the hourly demand data from Utilismart for all GS50-4,999kW customers for 2023. In this data extract, there will be zero hourly demand data for the above reclassified customer because the customer was not a GS 50-4,999 kW for the period Hour 1 January 1 2023 to midnight, December 31, 2023.
- viii. There is no cutover time because CWH reclassification occurs effective January1st each year, if any.

In summary, the data in the demand profile data set will be attributed to the customer’s rate class at that specific point in time. Using the example the above, the demand profile for the re-classified customer would appears as:

Figure 1: kW Hourly – Customer ‘X’; Meter “CWH123”

Re-classified customer	December 31 st , 2023, Hour Ending 10	December 31 st , 2023, Hour Ending 11	December 31 st , 2023, Hour Ending 12	January 1 st , 2024, Hour Ending 1	January 1 st , 2024, Hour Ending 2	January 1 st , 2024, Hour Ending 3
GS<50 kW	14 kW	15 kW	16 kW	-	-	-
GS 50-4,999 kW	-	-	-	15 kW	16 kW	17 kW

1.4 Assumptions Applied:

Residential and General Service <50 kW:

- Metered usage:
 - The demand profile is based on metered usage (no loss applied).
- 15-minute interval data:
 - Smart Meters are configured to record metered kW demand every 15 minutes (i.e. a 15-minute interval meter). To create an hourly demand, the average of the four 15-minute interval reads was used, e.g.:

Figure 2: Average kW Demand Over the Hourly Interval Period

Time	12:15	12:30	12:45	1:00	Average Demand
15-minute kW recorded	6	7	10	8	7.75 kW/h

a) General Service 50-4,999 kW:

- Metered usage:

The demand profile is based on metered usage (no loss applied).
- Multipliers:

Any meter multipliers were also applied to the hourly demand profile. For instance, if the meter has a multiplier of 30, for billing, all meter data must be multiplied by 30 to show the true demand and usage of the customer. The demand profile data used reflects the application of the meter multiplier being used.
- Customer switching:

CWH follows the requirement of section 2.5 of the Distribution System Code (DSC) “*Frequency and Notice of Customer Reclassification and Notice of kVA Billing*”. The utility reviews each non-residential customer’s rate class account to determine if a customer’s demand has fallen outside the upper or lower limits applicable to the customer’s current rate classification. This review is performed by CWH annually each October in preparation to switch effective January 1st.

Also, as per the DSC, CWH will review a non-residential customer’s rate classification upon being requested to do so by the customer at any time.

The above assumptions were used to produce the hourly demand data for 2023 (January 1st to December 31st). No measures have been taken to address the potential difference in line losses between rate classes. Metered data is the data captured at the customer’s premises and does not include line losses. It is not practical to capture the line losses between rate classes due to the wholesale meter point being setup at an LDC level.

1.5 Data Comparison:

The tables below illustrate the variances between the aggregated load profile versus the annual RRR filings¹ for each rate class for years 2023:

Figure 3: Year: 2023 – Annual kWh

Rate Class	Demand Profile	RRR Filings	Reconciled item to RRR	RRR Filings after reconciliation	Variance
Residential	49,303,682	49,125,070		49,125,070	0.36%
General Service <50 kW	25,012,718	25,014,670		25,014,670	0.00%
General Service 50-4,999 kW	66,838,627	66,838,928		66,838,928	0.00%
Streetlights	534,848	394,873	139,961*	534,834	0.00%
Sentinel Lighting	35,150	35,153		35,153	0.00%
Unmetered Scattered Load	644,042	644,042		644,042	0.00%

** It is a cancel and rebilling for the year 2021 and 2022 in year 2023. In CWH's view regarding demand profile, it should use the actual demand data for the projection purpose. Therefore, the adjustment related to previous years are excluded.*

The "Demand Profile" data, sourced from the ODS and Utilismart, as illustrated in the above tables have not been weather normalized at this stage.

For the Residential and GS<50 kW rate classes, the variances probably relate to VEE² data adjustments to meet MDM/R requirements. VEE data adjustments are validation, estimating or editing of interval metered data. The ODS validates interval data to ensure its completeness (i.e. no missing intervals) and tolerance parameters (i.e. no exceptionally high or low usage for the interval period when compared to the same period last week, month or year). Through their routine validation checks, ODS may adjust the interval data to fill-in missing interval periods. Once validation checks have been performed and data is complete, the data is sent to the MDM/R. The MDM/R will then perform their own checks for conformity and completeness.

If the MDM/R validation checks are passed, the LDC can use the data for billing; if the validation checks identify issues, then the data for those specific meters require re-work by the LDC and/or ODS. During the journey of this data-cycle from the meter, to the ODS and MDMR, one could expect some data anomalies or inconsistencies; however, the tables above illustrate there are minimal variances between the annual kWh and annual RRR filings data.

For CWH, Utilismart collects and stores kW demand data and kWh consumption usage data for rate classes GS 50-4,999 kW and Streetlights. For rate classes GS 50-4,999 kW, each customer's meter downloads data daily using a telephone line or a cellular device to transmit data from the meter to Utilismart. The data is typically transmitted after midnight and contains the data for the previous day. If the data does not get transmitted or is incomplete, then Utilismart will attempt to retrieve the data the following day. This process is repeated each day until there is complete data for that day. Upon the rare occasion there is a missing interval period, Utilismart and CWH can manually enter data to get a complete interval dataset for the day.

The above tables illustrate the variances between "Annual kWh" compared to "RRR filings" for the year 2023. For all rate classes, the variances are below a fraction of 1% and, in CWH's opinion, there are no data gaps or abnormalities that need addressing.

The IESO Meter Data Management/Repository (MDM/R) has not been considered as a data source. MDM/R collects data and validates for Smart Meter metered customers only, i.e. rate classes Residential and GS<50 kW, typically with hourly data interval periods. For larger and more intensive electricity consuming customers, (e.g. manufacturing plants), interval metered data may be as frequent as a 5-minute period to measure peak demand periods with precision. Also, LDCs use a combination of kW demand and kWh consumption to bill rate classes GS 50-4,999. MDM/R does not hold kW demand data.

2. Weather Normalization

Two adjustments were made to the aggregated hourly consumption data by rate class to weather-normalize the data:

1. An adjustment to remove the estimated weather-sensitive portion of the load for each hour, based on Heating Degree Day (HDD) and Cooling Degree Day (CDD) components of the load forecast presented in Exhibit 3; and,
2. An adjustment to add an estimate of “weather-normal” load, based on 10-year average HDD and CDD values.

Each of the above adjustments is described in more detail below:

2.1 Remove Actual Weather-Sensitive Load

CWH’s load forecast, presented in Exhibit 3 of this rate application, provides monthly Wholesale Predicted kWh Purchases for each month in 2023, based on actual historical HDD and CDD data, using the following formula:

$$\text{Predicted kWh} = \text{Intercept Coefficient} + \text{HDD Coefficient} * \text{HDD} + \text{CDD Coefficient} * \text{CDD} + \text{Days in Month Coefficient} * \# \text{ Days in Month} + \text{Spring/Fall coefficient} * \text{Spring/Fall} + \text{Covid Coefficient} * \text{Covid} + \text{Customers Coefficient} * \text{Customers}$$

The amount of weather-sensitive consumption for each month was estimated using the following formulas:

$$\text{HDD Load} = \text{Predicted kWh} - \text{Predicted kWh}_{\text{HDD}=0}$$
$$\text{HDD\%} = \text{HDD Load} / \text{Predicted kWh}$$
$$\text{CDD Load} = \text{Predicted kWh} - \text{Predicted kWh}_{\text{CDD}=0}$$
$$\text{CDD\%} = \text{CDD Load} / \text{Predicted kWh}$$

The above calculations were completed for each month of 2023.

The tables below illustrate the Wholesale Predicted kWh Purchases for 2023 from CWH's load forecast and the effect of weather-sensitive consumption by removing HDD and CDD:

Figure 4: 2023 Weather Sensitive Load (kWh)

	Predicted Purchases with HDD	Predicted Purchases without HDD	% Var		Predicted Purchases with CDD	Predicted Purchases without CDD	% Var
Jan-23	12,868,445	12,614,041	2%	Jan-23	12,868,445	13,074,137	-2%
Feb-23	12,040,772	11,898,715	1%	Feb-23	12,040,772	12,050,206	0%
Mar-23	12,593,642	11,793,311	6%	Mar-23	12,593,642	12,293,873	2%
Apr-23	11,458,567	11,554,139	-1%	Apr-23	11,458,567	11,527,470	-1%
May-23	11,360,262	11,768,400	-4%	May-23	11,360,262	11,598,804	-2%
Jun-23	11,438,972	12,261,938	-7%	Jun-23	11,438,972	11,761,679	-3%
Jul-23	12,237,327	12,409,384	-1%	Jul-23	12,237,327	12,038,118	2%
Aug-23	11,377,514	12,538,674	-10%	Aug-23	11,377,514	12,073,122	-6%
Sep-23	11,056,285	11,490,219	-4%	Sep-23	11,056,285	11,101,841	0%
Oct-23	11,559,993	11,773,691	-2%	Oct-23	11,559,993	11,714,310	-1%
Nov-23	11,981,055	11,555,928	4%	Nov-23	11,981,055	11,787,513	2%
Dec-23	12,500,558	12,615,514	-1%	Dec-23	12,500,558	12,893,905	-3%
Total	142,473,391	144,273,955		Total	142,473,391	143,914,978	

The percentages above are calculated using “Predicted Purchases”, not the “Actual Total Purchase” as the denominator. The “Predicted kWh Total Purchases” are derived from CWH's Load Forecast, which has been weather normalized. The reason for using the “Predicted kWh”, “Predicted kWh HDD=0”, and “Predicted kWh CDD=0” is to make the three figures comparable by normalizing the weather in them. It could be a risk of using isolated instances of unseasonal weather temperatures if the “Actual” total purchases were used.

For example, in Ontario in September 2018, the province experienced a “late summer” with several days registering higher temperatures than July and August. Air-conditioning in residential properties in September 2018 increased energy demand above normal seasonal levels typically seen in July and August. By using the predicted total purchases, the data is normalized thus removing these isolated instances.

The resulting HDD% and CDD% values for each month were used to estimate the weather-

sensitive (WNS) load for each hour by:

HDD Weather AdjMonth N, Day, N, Hour N = Actual Load Month N, Day N, Hour N * HDD%
Month N

HDD Weather10yr AdjMonth N, Day, N, Hour N = HDD Weather AdjMonth N, Day N, Hour
N*HDD 10yr Avg vs Actual% Month N

CDD Weather Adj Month N, Day, N, Hour N = Actual LoadMonth N, Day N, Hour N * CDD%
Month N

CDD Weather10yr Adj Month N, Day, N, Hour N = CDD Weather AdjMonth N, Day N, Hour N
* CDD 10yr Avg vs Actual%Month N

WNS Load Month N, Day N, Hour N = (Actual Load - HDD Adj +HDD yr Adj - CDD Adj + CDD
10 yr Adj) Month N, Day N, Hour N

2.2 Add Weather-Normal Load

For 2023, the daily HDD values for the 10-year HDD data 2014-2023 period were sorted from highest to lowest by each month. Once sorted, averages of each ranked day were considered to be weather-normal values for HDD.

The table below illustrates the methodology applied:

Figure 5: 10 Year HDD Weather-Normal Adjustment

Lookup-Ref Date	10-Yr Avg HDD 10 Yr Avg to 2024		January 2014- Sorted					January 2015-Sorted					January 2023-Sorted				
	(C)	(D)	Date/Time	Year	Month	Day	Heat Deg Days (°C)	Date/Time	Year	Month	Day	Heat Deg Days (°C)	Date/Time	Year	Month	Day	Heat Deg Days (°C)
2023-1-31	34.60	1.22	2014-01-07	2014	1	7	39.80	2015-01-13	2015	1	13	35.80	2023-01-31	2023	1	31	28.30
2023-1-30	33.65	1.27	2014-01-22	2014	1	22	39.80	2015-01-07	2015	1	7	34.80	2023-01-30	2023	1	30	26.50
2023-1-14	32.37	1.25	2014-01-21	2014	1	21	38.50	2015-01-08	2015	1	8	33.00	2023-01-14	2023	1	14	26.00
2023-1-15	31.20	1.28	2014-01-02	2014	1	2	37.00	2015-01-05	2015	1	5	32.50	2023-01-15	2023	1	15	24.30
2023-1-8	30.28	1.29	2014-01-28	2014	1	28	36.00	2015-01-06	2015	1	6	31.80	2023-01-08	2023	1	8	23.50
2023-1-13	29.70	1.32	2014-01-23	2014	1	23	35.80	2015-01-14	2015	1	14	31.80	2023-01-13	2023	1	13	22.50
2023-1-16	29.20	1.30	2014-01-29	2014	1	29	35.80	2015-01-10	2015	1	10	31.50	2023-01-16	2023	1	16	22.50
2023-1-26	28.56	1.30	2014-01-08	2014	1	8	34.00	2015-01-21	2015	1	21	31.30	2023-01-26	2023	1	26	22.00
2023-1-9	28.04	1.29	2014-01-24	2014	1	24	34.00	2015-01-30	2015	1	30	31.30	2023-01-09	2023	1	9	21.80
2023-1-28	27.65	1.29	2014-01-03	2014	1	3	33.00	2015-01-31	2015	1	31	30.80	2023-01-28	2023	1	28	21.50
2023-1-11	27.07	1.29	2014-01-26	2014	1	26	31.80	2015-01-15	2015	1	15	30.50	2023-01-11	2023	1	11	21.00
2023-1-21	26.76	1.27	2014-01-27	2014	1	27	31.80	2015-01-26	2015	1	26	30.50	2023-01-21	2023	1	21	21.00
2023-1-29	26.05	1.24	2014-01-01	2014	1	1	30.80	2015-01-09	2015	1	9	30.00	2023-01-29	2023	1	29	21.00
2023-1-27	25.64	1.23	2014-01-09	2014	1	9	30.00	2015-01-25	2015	1	25	30.00	2023-01-27	2023	1	27	20.80
2023-1-10	25.25	1.23	2014-01-20	2014	1	20	29.30	2015-01-27	2015	1	27	28.30	2023-01-10	2023	1	10	20.50
2023-1-20	24.66	1.20	2014-01-25	2014	1	25	28.80	2015-01-11	2015	1	11	28.00	2023-01-20	2023	1	20	20.50
2023-1-23	24.27	1.18	2014-01-04	2014	1	4	28.50	2015-01-20	2015	1	20	28.00	2023-01-23	2023	1	23	20.50
2023-1-22	23.90	1.18	2014-01-30	2014	1	30	28.30	2015-01-16	2015	1	16	27.50	2023-01-22	2023	1	22	20.30
2023-1-24	23.48	1.16	2014-01-06	2014	1	6	27.50	2015-01-17	2015	1	17	27.50	2023-01-24	2023	1	24	20.30
2023-1-25	22.86	1.13	2014-01-18	2014	1	18	27.50	2015-01-28	2015	1	28	27.50	2023-01-25	2023	1	25	20.30
2023-1-12	22.19	1.11	2014-01-19	2014	1	19	25.50	2015-01-01	2015	1	1	25.50	2023-01-12	2023	1	12	20.00
2023-1-19	21.77	1.10	2014-01-16	2014	1	16	24.00	2015-01-29	2015	1	29	25.50	2023-01-19	2023	1	19	19.80
2023-1-17	21.17	1.10	2014-01-31	2014	1	31	23.50	2015-01-02	2015	1	2	24.30	2023-01-17	2023	1	17	19.30
2023-1-7	20.72	1.10	2014-01-10	2014	1	10	23.00	2015-01-03	2015	1	3	23.50	2023-01-07	2023	1	7	18.80
2023-1-4	20.36	1.15	2014-01-15	2014	1	15	23.00	2015-01-19	2015	1	19	23.00	2023-01-04	2023	1	4	17.70
2023-1-3	19.79	1.13	2014-01-17	2014	1	17	22.00	2015-01-23	2015	1	23	22.30	2023-01-03	2023	1	3	17.50
2023-1-5	19.46	1.13	2014-01-05	2014	1	5	21.50	2015-01-24	2015	1	24	22.30	2023-01-05	2023	1	5	17.20
2023-1-6	18.83	1.11	2014-01-12	2014	1	12	18.50	2015-01-12	2015	1	12	22.00	2023-01-06	2023	1	6	17.00
2023-1-18	18.15	1.07	2014-01-14	2014	1	14	18.00	2015-01-22	2015	1	22	21.80	2023-01-18	2023	1	18	17.00
2023-1-1	17.19	1.03	2014-01-13	2014	1	13	16.50	2015-01-18	2015	1	18	20.00	2023-01-01	2023	1	1	16.70
2023-1-2	16.00	0.96	2014-01-11	2014	1	11	16.00	2015-01-04	2015	1	4	18.50	2023-01-02	2023	1	2	16.70

The above table shows:

- HDD data for January 2014 sorted by largest to smallest.
- HDD data for January 2015 sorted by largest to smallest.
- HDD data for January 2016 to 2022 was also collected and sorted - not illustrated in table above).
- By sorting the HDD data, these dates are now in order of the January 20123 HDD data sorted by largest to smallest. In the table above, January 31st was the coldest day during January 2023.
- The “10 Yr Avg HDD” is the 10-year average HDD. Each month (January in this instance)

of each year has been sorted by HDD largest to smallest. The average of the 10 highest HDD values for January 2014 to 2023 was considered to be the weather-normal HDD value for the coldest day in January. In this example, the coldest HDD was 34.60.

- The “10 Yr Avg to 2024” calculates the 10-year average HDD divided by the 2023 HDD. In this instance, for January 31st 2023, the calculation is $34.60 / 28.30 = 1.22$. The purpose of this calculation is to adjust the 2023 Demand Profile data for each day (in this example January 31st) by this factor to weather normalize the demand data.

The same sorting and averaging process was repeated to determine weather normal CDD values.

The 2023 weather-normal load profiles are based on 10-year averages of HDD and CDD values up to and including the year in question, 2023 is derived from the 10-year period of 2014 to 2023.

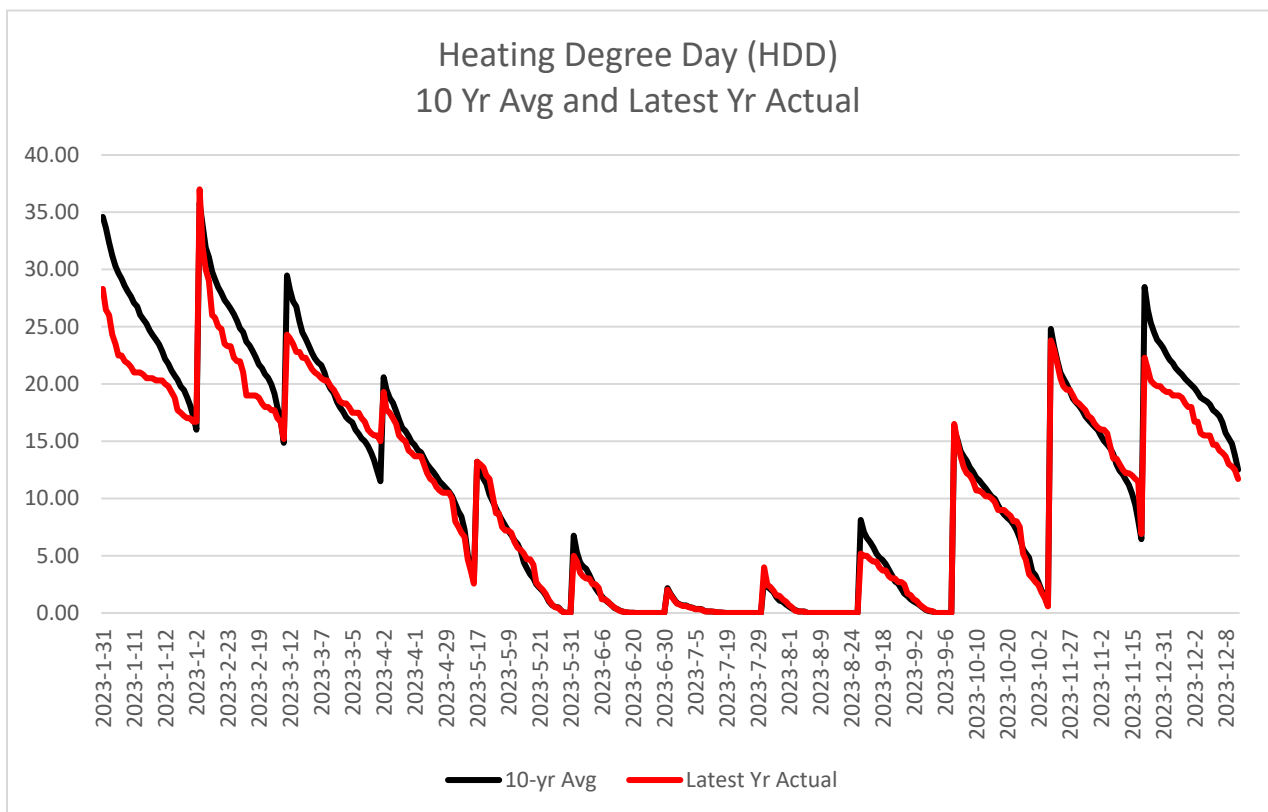
2.3 HDD and CDD Outliers – Check / Validation

Comparison:

Once the HDD data has been sorted, CWH compares the 10- year average HDD values against the latest year HDD values. This analysis is to identify those days where the latest year HDD values appear to be an “outlier” (i.e. peculiar) when compared to the 10-year average HDD value for the same corresponding day.

The chart below shows the 10-year average daily HDD plotted against the latest (2023) daily HDD.

Figure 6: Comparison of 10-year average HDD versus latest Year Actual HDD



In the above chart, the HDD days in January 2023 are lower than the 10-year average January HDD temperatures. Looking at the data, the 10-year average HDD temperature for January is 24.9°C whereas the average 2023 January daily HDD temperature was 20.7°C, suggesting the weather was cooler than ‘normal’ for this time of year.

Figure 7: HDD Data - 10-year average HDD versus latest Year Actual HDD

Outlier Sensitivity		Status Count of Days		
Min	-50%	Ok	305	
Max	50%	Review	60	
Day	HDD (°C)		Variance	Status
	10-yr Avg	Latest Yr Actual	Latest YR to 10-Yr Avg	
2023-4-11	8.81	7.00	-21%	OK
2023-4-21	7.99	2.50	-69%	Review
2023-4-14	7.04	0.50	-93%	Review
2023-4-15	6.26	0.50	-92%	Review
2023-4-16	5.16	0.20	-96%	Review
2023-4-13	4.02	0.00	-100%	Review
2023-5-17	13.22	13.20	0%	OK

By comparing the HDD and CDD latest data values against the 10-year average HDD and CDD values, it will identify the outliers that need to be reviewed.

Outlier Sensitivity Threshold:

In the USF excel Demand Profile Template, users can set minimum and maximum “Outlier Sensitivity” threshold parameters to identify outlier daily actual HDD and CDD values. The template calculates the percentage variance by:

$$\frac{(\text{Latest HDD Daily Value} - 10 \text{ year Average HDD Daily Value})}{10\text{-year Average HDD Daily Value}} = \text{\%}$$

Once the minimum/maximum “Outlier Sensitivity” threshold parameters are input by a user, the template will identify those dates where the actual daily HDD or CDD values have exceeded the calculated percentage variance.

In the example below, the minimum and maximum “Outlier Sensitivity” threshold parameters have been set to -50% and 50% respectively. Using these parameters, the days of April 21st, 2023, April 14th, 2023, April 15th 2023, April 16th 2023 and April 13th 2023 have been flagged for “Review”.

Figure 8: HDD Outliers

Outlier Sensitivity			Status Count of Days	
Min	-50%		Ok	305
Max	50%		Review	60
Day	HDD (°C)		Variance	Status
	10-yr Avg	Latest Yr Actual	Latest YR to 10-Yr Avg	
2023-4-11	8.81	7.00	-21%	OK
2023-4-21	7.99	2.50	-69%	Review
2023-4-14	7.04	0.50	-93%	Review
2023-4-15	6.26	0.50	-92%	Review
2023-4-16	5.16	0.20	-96%	Review
2023-4-13	4.02	0.00	-100%	Review
2023-5-17	13.22	13.20	0%	OK

Steps taken after HDD / CDD Outliers identified:

For the HDD / CDD outlier values identified and reviewed, CWH is doing the following:

- a) Replace the latest year daily HDD /CDD value with the daily HDD / CDD value from the 10- year average HDD/ CDD value;
- b) Continue to replace the value with the updated daily HDD/CDD value from the 10-year average HDD/CDD value after the above input until the flag has gone.

2.4 Estimating the Weather-normal (WN) Load for Each Hour

The estimated weather-normal (WN) load for each hour was calculated by:

WN HDD Adj Month N, Sorted Day N, Hour N

= HDD Adj Month N, Sorted Day N, Hour N multiplied by (WN HDD / Actual HDD) Month N, Sorted Day N

WN CDD Adj Month N, Sorted Day N, Hour N = CDD Adj Month N, Sorted Day N, Hour N multiplied by (WN CDD / Actual CDD) Month N, Sorted Day N

WN Load Month N, Sorted Day N, Hour N

= (NWS Load + WN HDD Adj + WN CDD Adj) Month N, Sorted Day N, Hour N

The tables below illustrate the effect of weather normalization:

Figure 9: 2023 Weather Normalization (kWh)

Rate Class	Demand Profile	Weather Normalization	Effect
Residential	49,303,682	49,914,248	-1.22%
General Service <50 kW	25,012,718	25,310,066	-1.17%
General Service 50-4,999 kW	66,838,627	66,838,627	0.00%
Streetlights	534,848	534,848	0.00%
Sentinel Lighting	35,150	35,150	0.00%
USL	644,042	644,042	0.00%

Rate classes GS 50-4,999 kW, Street Lights, Sentinel Lighting and Unmetered Scattered Load (USL) are not weather-sensitive and therefore the hourly demand for these rate classes were not weather normalized. Customers or connections in these rate-classes do not adjust their electricity demand due to weather temperature fluctuations, for instance:

- a) A manufacturing company in rate-class GS 50-4,999 kW will continue to operate plant machinery despite warmer than normal summer temperatures; and
- b) Streetlights will still come on in the winter despite if cooler than normal temperatures persist.

After weather-normalizing the hourly load profiles for each rate class for 2023, the data was re-sorted in chronological order.

3. Scaling to Test Year Load Forecast (Wholesale Purchases)

As CWH's load forecast is by wholesale predicted kWh purchases, the weather normalized data was scaled to match the Test Year Load Forecast. In essence, this takes the daily demand weather normalized profile (or shape) for each rate class and adjusts it to match the Test Year predicted Load Forecast for each rate class using the formula:

$$= \frac{\text{Daily Weather Normalized Load} \times \text{Test Year Load Forecast}}{\text{Annual Weather Normalized Load}}$$

The table below illustrate the change between the rate class hourly demand data (annualized) as collected by the LDC, the impact of weather normalization on the hourly demand data (annualized) and the Test Year Load Forecast:

Figure 10: 2023 Weather Normalization (kWh) & Test Year Load Forecast

Rate Class	Demand Profile	Weather Normalization	<i>Test Year Load Forecast</i>	<i>Test Year Load Forecast Compared to Actual Demand</i>
Residential	49,303,682	49,914,248	46,859,680	-4.96%
GS <50 kW	25,012,718	25,310,066	23,066,635	-7.78%
GS 50-4,999 kW	66,838,627	66,838,627	68,250,201	2.11%
Streetlights*	534,848	534,848	544,453	1.80%
Sentinel Lighting	35,150	35,150	33,332	-5.17%
USL	644,042	644,042	566,996	-11.96%

Once the data has been scaled to the Test Year Load Forecast, it is now possible to calculate the required NCP and CP values for input to Tab I8 of the OEB’s Cost Allocation Model.

4. Determine NCP and CP Values

After calculating weather-normalized load profiles by rate class for year of 2023, the monthly non-coincident peak demand for the Test Year was identified for each rate class, and the 1NCP, 4NCP and 12 NCP were determined from these peak demand values.

To determine the CP values, the weather-normalized load profiles by rate class were combined to calculate a total-system hourly load profile. The hour in each month during which CWH’s system demand peaked was identified, and the demand for each rate class during these 12 monthly system peak hours were tabulated to determine 1CP, 4CP and 12 CP values.

The result of NCP & CP 2023 as the demand allocator inputs to Tab I8 of the OEB’s Cost Allocation Model, as shown in the following tables:

Figure 11: Non-Coincident Peak: 2023

	Residential	General Service <50 kW	General Service 50- 4,999 kW	Street Lighting	Sentinel Lighting	USL
1 NCP	12,808	5,046	12,973	126	11	180
4 NCP	45,119	19,004	15,504	502	39	662
12 NCP	114,203	50,836	145,484	1,501	95	1,618

Figure 12: Coincident Peak: 2023

	Residential	General Service <50 kW	General Service 50- 4,999 kW	Street Lighting	Sentinel Lighting	USL
1 CP	10,919	4,663	12,174	0	0	0
4 CP	38,499	18,0015	45,143	0	0	0
12 CP	98,741	46,365	130,837	437	22	379

The NCP and CP for 2023 have been input into worksheet “I8 Demand Data” of the OEB’s Cost Allocation Model that was filed in CWH’s application.