

APPENDIX D

NOTL HYDRO 2019 LOAD FORECAST
WHOLESALE 20190110

2019 COST OF SERVICE RATE APPLICATION
NIAGARA-ON-THE-LAKE HYDRO INC.
EB-2018-0056



LDC Info

Utility Name	Niagara-on-the-Lake Hydro Inc.
Service Territory	Niagara-on-the-Lake
Assigned EB Number	EB 2018-0056
Name of Contact and Title	Jeff Klassen, VP Finance
Phone Number	905-468-4235 ext 380
Email Address	jklassen@notlhydro.com
Bridge Year	2018
Test Year	2019
Last Rebasing Year	2014

Model Notes

Input cells

Drop down cells





Customer Classes

Customer Class Name	Energy (kWh) Weather Sensitive / Non-weather sensitive	Demand (kW) Weather Sensitive / Non-weather sensitive
Residential	Weather-Sensitive	n/a
General Service < 50 kW	Weather-Sensitive	n/a
Unmetered Scattered Load	Non-Weather Sensitive	Non-Weather Sensitive
	n/a	n/a
General Service > 50 kW - 4999 kW	Non-Weather Sensitive	Non-Weather Sensitive
Streetlighting	Non-Weather Sensitive	Non-Weather Sensitive
Large User	Non-Weather Sensitive	Non-Weather Sensitive
	n/a	n/a

Enter **Only** Customer Classes in which Distribution Volumetric is billed in **kWh**

kWh
kWh
kWh

Enter **Only** Customer Classes in which Distribution Volumetric is billed in **kW**

kW
kW
kW
kW



Consumption by Rate Class

Notes:

- 1) "Wholesale" purchases are purchases measured at the wholesale meter.
- 2) "Metered" or Class consumption is monthly usage measured at the retail meter, unadjusted for losses (i.e., the retail consumption amount)
- 3) "Consumed" consumption (retail) is the uplifted consumption billed
- 4) Number of customers is defined as number of connections (i.e., meters). Add or delete rate classes as appropriate.

Consumption should reflect usage in the month, not the month in which it was billed (e.g what was used in January not what was billed in January, etc.).

Year	Month	Residential		General Service < 50 kW		Unmetered Scattered Load		General Service > 50 kW - 4999 kW			Streetlighting			Large User		
		Unadjusted		Unadjusted		Unadjusted		Unadjusted			Unadjusted			Unadjusted		
		kWh	Customer Connections	kWh	Customer Connections	kWh	Customer Connections	kWh	kW	Customer Connections	kWh	kW	Customer Connections	kWh	kW	Customer Connections
2011	January	5,993,233	6,543	3,009,477	1,227	20,229	20	6,629,574	15,376	121	120,418	258	1,946			
2011	February	6,217,237	6,551	3,244,052	1,227	22,701	21	6,497,277	13,865	121	100,413	241	1,946			
2011	March	4,225,360	6,555	2,209,669	1,226	14,472	22	5,655,606	17,941	121	99,433	321	1,946			
2011	April	4,662,714	6,563	2,537,363	1,227	17,309	22	5,766,519	12,501	121	84,358	229	1,946			
2011	May	12,020,065	6,570	4,649,503	1,229	18,026	22	6,258,449	18,026	121	76,808	284	1,946			
2011	June	5,733,962	6,577	2,819,289	1,231	16,871	22	6,700,502	16,512	121	70,039	249	1,946			
2011	July	7,882,978	6,592	3,567,043	1,230	17,719	22	7,934,266	19,209	121	75,241	291	1,946			
2011	August	7,046,796	6,612	3,634,742	1,234	22,533	23	7,783,033	20,737	121	84,504	261	1,946			
2011	September	2,453,051	6,626	2,065,244	1,242	18,621	24	6,922,899	17,260	120	93,231	261	1,946			
2011	October	720,988	6,635	1,382,331	1,246	18,642	24	6,432,133	18,242	118	108,656	288	1,946			
2011	November	4,389,737	6,648	2,455,279	1,248	18,651	23	5,975,170	15,100	118	115,694	252	1,946			
2011	December	5,630,709	6,660	2,747,042	1,251	19,588	23	6,077,039	15,149	118	125,093	288	1,946			
2012	January	5,715,083	6,670	2,855,719	1,251	19,634	22	6,297,951	15,181	118	121,946	261	1,946			
2012	February	5,023,845	6,679	2,631,052	1,252	19,454	22	5,916,005	17,759	118	105,126	253	1,946			
2012	March	4,700,287	6,684	2,655,346	1,260	18,231	22	6,102,584	14,379	118	100,695	306	1,946			
2012	April	4,414,337	6,688	2,534,293	1,267	18,225	22	5,695,533	15,084	118	85,427	243	1,946			
2012	May	4,890,985	6,691	2,800,387	1,274	18,232	22	6,430,107	18,279	118	77,782	288	1,946			
2012	June	6,454,309	6,699	3,270,941	1,278	18,227	22	6,974,378	17,787	117	70,069	252	1,946			
2012	July	8,054,449	6,710	4,037,845	1,278	18,232	22	8,027,663	20,563	118	75,240	288	1,946			
2012	August	7,023,140	6,724	3,709,392	1,280	18,232	22	7,772,104	19,610	118	84,504	261	1,946			
2012	September	5,382,154	6,738	2,859,233	1,277	18,227	22	6,594,815	18,760	118	93,231	261	1,946			
2012	October	4,699,064	6,751	2,564,024	1,275	19,409	22	6,215,486	17,913	118	108,656	288	1,949			
2012	November	4,983,442	6,768	2,619,968	1,275	19,411	22	5,936,528	14,243	118	115,694	252	1,949			
2012	December	5,745,878	6,796	2,836,678	1,264	20,880	22	6,030,493	13,181	117	125,093	288	1,948			
2013	January	5,981,421	6,823	2,985,396	1,251	20,819	22	6,367,883	15,680	117	121,946	261	1,946			
2013	February	5,329,196	6,845	2,780,277	1,234	20,574	22	5,815,641	15,131	117	101,885	244	1,946			
2013	March	5,409,442	6,866	2,889,531	1,219	19,408	22	6,145,069	17,119	117	100,695	325	1,946			
2013	April	4,691,366	6,874	2,592,932	1,220	19,402	22	5,791,301	12,204	117	85,427	232	1,946			
2013	May	4,778,001	6,888	2,713,317	1,218	19,409	22	6,284,585	18,682	117	77,782	288	1,946			
2013	June	5,905,179	6,904	2,947,997	1,219	19,027	21	6,733,967	16,809	117	70,069	252	1,946			
2013	July	7,385,958	6,915	3,544,818	1,219	19,032	21	7,456,365	21,105	118	75,240	288	1,946			
2013	August	6,483,158	6,933	3,494,422	1,217	19,032	21	7,447,661	20,860	118	84,504	261	1,946			
2013	September	5,501,922	6,952	2,925,463	1,212	19,027	21	6,755,713	16,244	118	93,231	261	1,946			
2013	October	4,917,782	6,968	2,589,877	1,208	19,032	21	6,441,762	21,229	119	108,656	288	1,946			
2013	November	5,302,449	6,987	2,717,466	1,209	19,032	21	6,172,802	15,295	120	115,694	270	1,946			
2013	December	6,440,935	6,998	3,109,636	1,230	20,673	21	6,483,345	14,236	121	125,093	288	1,979			
2014	January	6,653,406	7,009	3,327,004	1,286	20,423	21	6,776,353	14,688	125	121,946	243	2,012			
2014	February	5,746,565	7,016	3,050,129	1,319	19,016	21	6,114,701	14,138	127	101,685	244	2,012			
2014	March	5,802,479	7,026	3,242,279	1,318	19,031	21	6,511,020	19,629	128	100,695	325	2,032			
2014	April	4,865,503	7,049	2,858,596	1,317	19,025	21	5,813,579	14,327	130	85,427	232	2,051			
2014	May	4,770,891	7,074	3,110,798	1,316	19,027	22	6,261,781	15,461	130	77,782	279	2,051			
2014	June	5,859,852	7,101	3,437,599	1,314	19,027	22	6,837,349	18,947	129	70,069	270	2,051			
2014	July	6,618,150	7,126	3,807,262	1,313	19,027	22	7,351,313	19,760	129	75,240	279	2,051			
2014	August	6,469,853	7,149	3,890,117	1,314	19,027	22	7,611,046	17,492	130	84,504	244	2,051			
2014	September	5,526,119	7,168	3,334,866	1,313	19,027	22	6,882,554	22,729	131	93,231	279	2,066			
2014	October	4,860,007	7,181	2,937,049	1,312	19,027	22	6,571,092	19,271	131	108,657	315	2,080			
2014	November	5,327,677	7,203	3,004,231	1,312	19,027	22	6,504,299	11,688	132	115,694	208	2,080			
2014	December	6,099,025	7,223	3,288,531	1,311	20,133	22	6,841,811	19,912	133	125,094	323	2,080			
2015	January	6,455,140	7,244	3,561,752	1,311	20,070	22	7,188,554	-4,596	133	121,946	234	2,080			
2015	February	5,878,381	7,268	3,399,226	1,315	19,167	22	6,670,994	33,514	133	101,685	244	2,080			

2015	March	5,691,167	7,294	3,427,001	1,313	18,747	22	6,941,446	19,958	133	100,696	334	2,080
2015	April	4,761,388	7,325	2,954,154	1,311	18,378	21	6,210,160	13,773	133	85,427	232	2,080
2015	May	5,011,527	7,354	3,119,465	1,314	18,378	21	6,624,124	17,863	134	70,674	270	2,080
2015	June	5,615,306	7,375	3,339,588	1,315	18,378	21	6,697,772	20,079	134	51,379	270	2,080
2015	July	7,147,308	7,400	4,095,754	1,321	18,378	20	7,523,781	16,699	128	55,172	141	2,080
2015	August	7,263,501	7,427	4,275,684	1,329	18,378	19	7,774,848	21,376	122	61,965	172	2,080
2015	September	6,137,261	7,454	3,667,948	1,330	18,378	19	7,223,226	20,033	123	68,363	211	2,080
2015	October	4,988,846	7,486	3,108,858	1,332	18,378	19	6,597,352	22,741	123	79,674	211	2,080
2015	November	4,938,972	7,510	3,021,348	1,335	18,406	19	6,166,722	12,317	121	85,205	185	2,080
2015	December	5,736,180	7,536	3,201,510	1,336	19,865	19	6,229,533	20,193	121	92,186	239	2,089
2016	January	6,220,643	7,566	3,614,481	1,334	19,685	19	6,753,762	10,877	121	89,866	153	2,098
2016	February	5,534,016	7,592	3,359,107	1,331	18,514	19	6,342,617	18,126	121	77,514	199	2,098
2016	March	5,298,065	7,616	3,396,219	1,330	18,378	19	6,496,718	18,239	121	74,686	226	2,112
2016	April	4,951,857	7,632	3,226,280	1,329	18,378	19	6,126,223	14,370	121	63,361	181	2,126
2016	May	5,322,667	7,637	3,368,298	1,328	18,125	19	6,523,363	15,138	121	57,690	213	2,126
2016	June	6,375,093	7,647	4,042,293	1,327	18,125	19	7,175,255	18,506	121	53,405	187	2,126
2016	July	8,681,957	7,662	4,312,616	1,330	18,125	18	8,198,319	19,976	121	54,371	213	2,126
2016	August	9,164,896	7,677	4,829,307	1,335	18,125	17	8,698,046	21,845	121	62,677	194	2,126
2016	September	6,361,569	7,693	3,756,229	1,337	18,125	16	7,385,631	20,437	121	69,148	194	2,126
2016	October	5,037,008	7,713	3,171,989	1,340	18,125	16	6,624,741	23,019	122	80,590	213	2,126
2016	November	4,912,953	7,737	2,994,381	1,340	18,838	16	6,345,448	14,404	122	85,810	187	2,126
2016	December	6,328,936	7,760	3,439,642	1,336	21,532	16	7,011,501	16,219	126	92,782	213	2,126
2017	January	6,057,912	7,779	3,485,348	1,333	21,821	17	7,102,729	12,512	129	90,447	194	2,126
2017	February	5,129,391	7,792	3,057,244	1,332	19,187	18	6,305,251	13,500	129	75,419	181	2,126
2017	March	5,566,750	7,805	3,382,917	1,331	19,396	19	6,966,551	19,463	129	74,686	241	2,126
2017	April	4,840,450	7,818	2,980,919	1,332	18,887	19	6,270,899	14,779	129	63,361	172	2,126
2017	May	5,114,384	7,829	3,094,631	1,332	18,923	19	6,529,992	19,005	129	57,690	213	2,126
2017	June	6,229,800	7,837	3,397,578	1,329	18,887	18	6,916,519	17,170	130	51,970	187	2,126
2017	July	7,664,295	7,843	3,972,459	1,329	18,923	18	7,798,186	20,267	130	55,806	213	2,126
2017	August	7,144,315	7,854	4,054,193	1,332	19,860	22	8,050,916	20,372	129	62,677	194	2,126
2017	September	6,121,011	7,863	3,443,539	1,335	22,412	25	7,373,228	19,498	128	69,148	194	2,126
2017	October	5,131,776	7,865	3,085,519	1,333	22,880	27	6,879,126	23,347	128	80,164	213	2,121
2017	November	5,354,783	7,878	3,177,537	1,331	23,904	28	6,669,540	15,167	130	85,274	188	2,116
2017	December	6,662,432	7,901	3,601,182	1,334	25,681	28	7,236,360	16,455	129	92,202	210	2,116
2018	January												
2018	February												
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2019	July												
2019	August												
2019	September												
2019	October												
2019	November												
2019	December												

[illegible]



Customer Growth Chart

Notes:

1) Utilities will have the choice to manually adjust the projected growth in the bridge and test years if it is felt that the Geomean average does not represent forecasted growth.

	Residential		General Service < 50 kW		Unmetered Scattered Load		General Service > 50 kW - 4999 kW		Streetlighting		Large User	
Date	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate	Customers or Connections	Growth Rate
2011	6,594		1,235		22		120		1,946		-	
2012	6,716	1.0185	1,269	1.0278	22	0.9962	118	0.9806	1,947	1.0004	-	0.0000
2013	6,912	1.0292	1,221	0.9622	21	0.9716	118	1.0014	1,949	1.0010	-	0.0000
2014	7,110	1.0286	1,312	1.0744	22	1.0117	129	1.0976	2,051	1.0526	-	0.0000
2015	7,389	1.0392	1,322	1.0074	20	0.9345	128	0.9894	2,081	1.0143	-	0.0000
2016	7,661	1.0368	1,333	1.0084	18	0.8763	122	0.9492	2,120	1.0189	-	0.0000
2017	7,838	1.0232	1,332	0.9992	21	1.2000	129	1.0614	2,124	1.0018	-	0.0000
Geomean		1.0292		1.0127		0.9936		1.0120		1.0147		0.0000
2018	8,067		1,349		21		131		2,155		-	
2019	8,303		1,366		21		132		2,187		-	

Total Customers	
Customers & Connections	Growth Rate
9,917	
10,072	1.0156
10,222	1.0149
10,624	1.0394
10,940	1.0297
11,253	1.0286
11,444	1.0170
	1.0242
11,723	
12,009	

In the section below, LDCs can adjust the computed customer count for the Bridge and Test Year for special circumstance such as new subdivision or loss of customer or other utility specific reasons.

Adjusted												
2018	7,976	1.0176	1,337	1.0038	26	1.2235	131	1.0120	2,155	1.0147	-	0.0000
2019	8,152	1.0221	1,342	1.0037	26	1.0000	131	1.0038	2,187	1.0147	1	0.0000

Adjusted	
11,625	1.0158
11,839	1.0184

Note: The model computes an average customer count. Utility may chose to overwrite the customer/connection count if a year end count is more appropriate.

FINAL ADJUSTED NUMBERS												
2018	7,976	1.0176	1,337	1.0038	26	1.2235	131	1.0120	2,155	1.0147	-	0.0000
2019	8,152	1.0221	1,342	1.0037	26	1.0000	131	1.0038	2,187	1.0147	1	0.0000

Adjusted	
11,625	1.0158
11,839	1.0184

Notes:

Note: Your final regression analysis does not need to include all six of the variables

HDD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2011	678.00	578.50	527.45	342.80	187.10	21.90	-	-	26.90	185.70	284.90	463.70
2012	554.40	482.40	500.70	296.30	99.50	19.90	-	-	19.90	191.90	381.90	462.50
2013	556.40	565.90	508.70	341.30	150.35	44.30	3.20	-	51.60	159.95	416.30	608.50
2014	727.80	648.10	638.20	356.60	174.70	27.00	0.60	0.90	46.40	173.70	418.00	508.75
2015	686.25	776.00	596.90	325.90	131.80	61.20	2.60	2.20	17.10	186.05	284.45	372.95
2016	597.25	537.40	444.60	373.25	157.95	19.10	-	-	14.40	141.90	270.50	540.90
2017	556.50	469.50	528.40	373.25	181.80	27.00	-	0.90	76.10	94.70	293.85	817.20

CDD	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2011	-	-	-	-	4.10	41.80	196.90	146.30	39.90	4.20	-	-
2012	-	-	-	-	22.40	105.60	203.50	148.70	50.30	2.60	-	-
2013	-	-	-	-	12.15	47.50	139.50	106.40	34.40	4.80	-	-
2014	-	-	-	-	3.00	19.50	78.40	88.10	42.30	5.70	-	-
2015	-	-	-	-	8.75	39.50	121.20	104.30	84.00	1.80	-	-
2016	-	-	-	-	31.00	67.10	166.60	198.85	88.80	12.35	-	-
2017	-	-	-	-	7.80	67.80	111.60	102.03	69.60	14.50	-	-

Daylight Hours	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2011	9:12	10:20	11:50	13:26	14:47	15:30	15:11	14:00	12:27	10:52	9:31	8:50
2012	9:12	10:20	11:50	13:26	14:47	15:30	15:11	14:00	12:27	10:52	9:31	8:50
2013	9:12	10:20	11:50	13:26	14:47	15:30	15:11	14:00	12:27	10:52	9:31	8:50
2014	9:12	10:20	11:50	13:26	14:47	15:30	15:11	14:00	12:27	10:52	9:31	8:50
2015	9:12	10:20	11:50	13:26	14:47	15:30	15:11	14:00	12:27	10:52	9:31	8:50
2016	9:12	10:20	11:50	13:26	14:47	15:30	15:11	14:00	12:27	10:52	9:31	8:50
2017	9:12	10:20	11:50	13:26	14:47	15:30	15:11	14:00	12:27	10:52	9:31	8:50

# Customers	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2011	7,891	7,899	7,902	7,911	7,919	7,928	7,943	7,967	7,987	7,999	8,013	8,029
2012	8,039	8,049	8,062	8,072	8,082	8,094	8,105	8,122	8,133	8,144	8,160	8,178
2013	8,190	8,196	8,202	8,210	8,216	8,229	8,251	8,268	8,282	8,295	8,315	8,347
2014	8,419	8,462	8,471	8,496	8,520	8,544	8,568	8,598	8,611	8,623	8,647	8,666
2015	8,688	8,716	8,759	8,801	8,824	8,848	8,877	8,907	8,940	8,969	9,002	9,032
2016	9,020	9,044	9,067	9,082	9,096	9,095	9,113	9,133	9,151	9,174	9,199	9,221
2017	9,240	9,252	9,264	9,278	9,289	9,296	9,302	9,315	9,326	9,336	9,349	9,364

Day per Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2011	31	28	31	30	31	30	31	31	30	31	30	31
2012	31	29	31	30	31	30	31	31	30	31	30	31
2013	31	28	31	30	31	30	31	31	30	31	30	31
2014	31	28	31	30	31	30	31	31	30	31	30	31
2015	31	28	31	30	31	30	31	31	30	31	30	31
2016	31	29	31	30	31	30	31	31	30	31	30	31
2017	31	28	31	30	31	30	31	31	30	31	30	31

Spring/Fall Flag	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
2011	1	1	0	0	0	1	1	1	0	0	0	1
2012	1	1	0	0	0	1	1	1	0	0	0	1
2013	1	1	0	0	0	1	1	1	0	0	0	1
2014	1	1	0	0	0	1	1	1	0	0	0	1
2015	1	1	0	0	0	1	1	1	0	0	0	1
2016	1	1	0	0	0	1	1	1	0	0	0	1
2017	1	1	0	0	0	1	1	1	0	0	0	1

[illegible]



Regression Analysis

Notes:

- 1) Update Wholesale Purchases.
- 2) Use drop down lists to select the variables inputted from 5.Variable Worksheet and Select Forecast Methodology
- 3) Run Regression -> Data -> Data Analysis -> Regression

Period	Month	Unadjusted Wholesale Purchases kWh	Adjustments to Wholesale Purchases (i.e. CDM, Loss of customer etc)					Revised Wholesale Purchases	Variables Used							Weather Normalized	Yearly Total	
			MicroFIT	FIT	SOP	Adjustment	Adjustment		Adjustment	HDD	CDD	Daylight Hours	# Customers	Day per Month	Spring/Fall Flag			Blended Rate
FORECAST METHODOLOGY																		
Average																		
Linear Trending Adjusted																		
Average																		
Most Recent																		
1	2011-January	15,867,080.49	4,689.57	-	340,619.94			16,212,390	678.00	0.00	9.12	7991.00	31.00	1.00	6.50	16,758,804		
2	2011-February	14,293,680.94	4,834.98	-	205,698.10			14,504,214	578.50	0.00	10.20	7898.50	28.00	1.00	6.50	15,090,503		
3	2011-March	14,071,879.78	10,279.70	-	929,670.52			15,011,830	527.45	0.00	11.50	7902.00	31.00	0.00	6.50	14,643,350		
4	2011-April	11,999,599.95	10,578.06	-	1,567,509.99			13,577,688	342.60	0.00	13.26	7910.50	30.00	0.00	6.50	13,990,989		
5	2011-May	12,392,697.66	12,163.73	-	1,574,424.61			13,979,286	187.10	4.10	14.47	7919.00	31.00	0.00	7.30	13,700,823		
6	2011-June	14,159,950.01	15,161.40	-	1,470,199.59			15,645,311	21.90	41.80	15.30	7928.00	30.00	1.00	7.30	15,800,982		
7	2011-July	19,649,509.69	42,755.67	-	1,589,080.64			21,281,346	0.00	196.90	15.11	7942.50	31.00	1.00	7.30	22,246,194		
8	2011-August	17,403,161.69	33,814.69	-	1,575,857.62			19,012,834	0.00	146.30	14.00	7966.50	31.00	1.00	7.30	20,351,882		
9	2011-September	14,102,512.73	37,995.16	-	1,541,652.11			15,682,160	26.90	39.90	12.27	7987.00	30.00	0.00	7.30	14,350,491		
10	2011-October	12,832,548.71	25,061.99	-	1,499,763.30			14,357,374	185.70	4.20	10.52	7999.00	31.00	0.00	7.30	13,961,597		
11	2011-November	12,467,338.53	20,757.39	-	1,221,548.08			13,709,644	284.90	0.00	9.31	8013.00	30.00	0.00	7.57	13,710,076		
12	2011-December	13,712,938.00	27,730.22	3,911.11	1,579,864.67			15,324,444	463.70	0.00	8.50	8029.00	31.00	1.00	7.57	16,324,529	190,530,219.37	
13	2012-January	15,498,934.00	21,094.42	13,065.16	150,948.54			15,684,042	554.40	0.00	9.12	8038.50	31.00	1.00	7.57	16,577,713		
14	2012-February	14,102,894.00	27,625.25	22,411.87	170,081.21			14,323,012	482.40	0.00	10.20	8048.50	29.00	1.00	7.57	15,440,266		
15	2012-March	12,935,100.00	72,172.41	54,180.06	972,831.21			14,034,284	366.70	0.00	11.50	8061.50	31.00	0.00	7.57	14,367,811		
16	2012-April	11,683,162.00	92,378.12	64,422.51	1,437,021.89			13,276,983	296.30	0.00	13.26	8072.00	30.00	0.00	7.57	13,654,654		
17	2012-May	13,184,475.00	119,561.86	75,701.57	1,428,675.70			14,808,414	99.50	22.40	14.47	8082.00	31.00	0.00	8.07	14,357,136		
18	2012-June	15,507,309.00	114,984.84	79,781.84	1,312,050.71			17,014,106	18.90	105.60	15.30	8093.50	31.00	0.00	8.07	18,480,320		
19	2012-July	19,772,339.00	117,029.87	81,423.79	1,419,338.01			21,390,131	0.00	203.50	15.11	8105.00	31.00	1.00	8.07	22,704,213		
20	2012-August	17,960,624.00	102,971.62	69,336.19	1,429,827.93			19,562,760	0.00	148.70	14.00	8121.50	31.00	1.00	8.07	20,637,139		
21	2012-September	13,948,856.00	88,852.15	62,535.70	1,266,055.08			15,366,299	37.90	50.30	12.27	8133.00	30.00	0.00	8.07	14,968,361		
22	2012-October	12,836,472.00	56,871.08	34,161.86	1,156,662.18			14,084,167	191.90	2.60	10.52	8143.50	31.00	0.00	8.07	14,096,405		
23	2012-November	13,296,539.00	46,729.25	24,568.03	867,787.76			14,235,624	381.90	0.00	9.31	8160.00	30.00	0.00	7.94	14,177,403		
24	2012-December	14,288,574.00	26,162.61	16,866.46	1,057,626.19			15,389,251	462.50	0.00	8.50	8176.00	31.00	1.00	7.94	16,502,937	195,964,358.13	
25	2013-January	15,903,018.00	32,474.70	16,218.59	69,393.93			16,021,105	556.40	0.00	9.12	8190.00	31.00	1.00	7.94	16,771,106		
26	2013-February	14,500,205.00	35,354.29	27,897.85	134,753.89			14,698,211	565.90	0.00	10.20	8195.50	28.00	1.00	7.94	15,421,024		
27	2013-March	14,041,657.00	82,699.78	49,100.17	1,036,687.50			15,210,144	508.70	0.00	11.50	8202.00	31.00	0.00	7.94	14,959,489		
28	2013-April	12,034,641.00	108,214.65	62,810.64	1,464,361.53			13,670,028	341.30	0.00	13.26	8210.00	30.00	0.00	7.94	13,957,850		
29	2013-May	12,746,996.00	147,010.67	75,811.35	1,474,945.23			14,444,763	150.35	12.15	14.47	8222.50	31.00	0.00	9.10	14,281,670		
30	2013-June	14,278,379.00	135,277.73	75,442.46	1,339,186.20			15,828,287	44.30	47.50	15.30	8239.00	31.00	1.00	9.10	16,473,669		
31	2013-July	18,003,814.00	150,365.99	85,506.66	1,431,998.94			19,671,686	3.20	139.50	15.11	8250.50	31.00	1.00	9.10	20,402,597		
32	2013-August	16,941,461.00	153,958.59	89,730.47	1,416,364.60			18,601,515	0.00	106.40	15.00	8267.50	31.00	1.00	9.10	19,171,371		
33	2013-September	13,979,166.00	122,659.35	68,891.15	1,366,978.90			15,537,695	51.60	34.40	12.27	8281.50	30.00	0.00	9.10	14,573,578		
34	2013-October	13,084,554.00	96,930.13	48,701.23	1,351,181.30			14,581,367	159.95	4.80	10.52	8294.50	31.00	0.00	9.10	14,274,925		
35	2013-November	13,288,408.00	56,018.41	28,004.55	1,368,024.70			14,740,456	416.30	0.00	9.31	8314.50	30.00	0.00	8.89	14,469,834		
36	2013-December	15,650,880.00	31,907.03	22,328.86	1,112,680.10			16,817,796	608.50	0.00	8.50	8349.00	31.00	1.00	8.89	17,146,609	191,903,721.59	
37	2014-January	17,449,392.00	51,212.50	29,499.61	160,321.16			17,690,425	727.80	0.00	9.12	8419.00	31.00	1.00	8.89	17,558,818		
38	2014-February	15,454,341.00	69,299.26	39,825.63	85,070.66			15,648,537	648.10	0.00	10.20	8462.00	28.00	1.00	8.89	15,992,709		
39	2014-March	15,715,398.00	110,809.60	69,911.42	595,392.99			16,491,512	636.20	0.00	11.50	8471.00	31.00	0.00	8.89	15,667,548		
40	2014-April	12,518,352.00	153,077.46	92,402.16	1,343,018.43			14,106,850	356.60	0.00	13.26	8495.50	30.00	0.00	8.89	14,356,222		
41	2014-May	13,065,162.00	177,712.67	109,836.29	1,261,021.12			14,633,732	174.70	3.00	14.47	8519.50	31.00	0.00	9.25	14,364,751		
42	2014-June	15,459,248.00	191,177.84	112,245.00	1,205,450.73			16,968,122	27.00	39.10	15.30	8543.50	30.00	1.00	9.25	16,472,685		
43	2014-July	16,827,472.00	181,740.50	111,335.32	1,314,875.72			18,435,424	0.60	78.40	15.11	8567.50	31.00	1.00	9.25	18,409,058		
44	2014-August	17,191,186.00	178,772.20	100,899.68	1,446,708.65			18,917,347	0.90	88.10	14.00	8593.00	31.00	0.00	9.25	18,964,581		
45	2014-September	14,732,429.00	141,770.25	78,249.33	1,357,122.49			16,309,571	46.40	42.30	12.27	8611.00	30.00	0.00	9.25	15,273,592		
46	2014-October	13,632,688.00	100,933.42	55,146.06	1,182,329.38			14,871,097	173.70	5.70	10.52	8623.00	31.00	0.00	9.25	14,756,989		
47	2014-November	14,402,191.00	53,193.36	30,074.60	1,161,217.69			15,646,677	416.00	0.00	9.31	8646.50	30.00	0.00	9.50	14,879,861		
48	2014-December	15,819,396.00	44,118.31	22,035.00	1,046,805.90			16,932,355	509.75	0.00	8.50	8665.50	31.00	1.00	9.50	17,247,798	193,844,611.69	
49	2015-January	18,010,471.20	51,209.37	21,968.00	70,753.00			18,154,432	696.25	0.00	9.12	8688.00	31.00	1.00	9.50	17,798,929		
50	2015-February	16,943,673.00	37,076.03	28,418.00	29,646.00			17,038,816	776.40	0.00	10.20	8715.40	28.00	1.00	9.50	16,983,938		
51	2015-March	15,856,379.80	142,560.97	62,952.00	729,965.00			16,791,858	596.90	0.00	11.50	8739.50	31.00	0.00	9.50	15,884,239		
52	2015-April	12,885,469.20	172,100.12	92,885.00	1,293,710.00			14,424,164	325.90	0.00	13.26	8769.00	30.00	0.00	9.50	14,604,404		
53	2015-May	13,913,349.00	203,737.85	107,592.00	1,361,307.00			15,585,986	131.80	9.75	14.47	8801.00	31.00	0.00	10.21	14,849,675		
54	2015-June	14,362																

71	2016-November	13,954,420.00	101,587.72	43,960.00	795,316.11			14,895,284	270.50	0.00	9.31	9196.50	30.00	0.00	11.00	15,134.980	
72	2016-December	16,007,630.00	48,513.82	22,080.00	1,362,085.90			17,440,290	540.90	0.00	8.50	9220.50	31.00	1.00	11.00	18,026.358	212,828,670.71
73	2017-January	17,263,822.00	50,578.89	26,400.00	14,321.30			17,355,120	556.50	0.00	9.12	9240.00	31.00	1.00	11.00	18,070.965	
74	2017-February	15,045,537.00	91,810.81	91,004.94	-			15,228,153	468.50	0.00	10.20	9252.00	28.00	1.00	11.00	16,442,068	
75	2017-March	15,907,915.00	134,253.11	70,258.20	494,312.00			16,606,738	528.40	0.00	11.50	9264.00	31.00	0.00	11.00	16,331,866	
76	2017-April	13,255,630.00	159,255.15	74,953.40	1,151,901.80			14,641,740	273.05	0.00	13.26	9278.00	30.00	0.00	11.00	15,078,891	
77	2017-May	13,925,925.00	184,961.90	100,360.80	1,092,416.50			15,303,664	181.80	2.80	14.47	9288.00	31.00	0.00	9.80	15,330,251	
78	2017-June	15,555,222.00	206,251.24	108,653.60	1,251,149.20			17,121,276	27.00	62.80	15.30	9295.50	30.00	1.00	9.80	18,325,911	
79	2017-July	18,542,998.00	198,128.92	97,714.80	1,291,560.90			20,130,403	0.00	111.60	15.11	9301.50	31.00	1.00	9.80	20,608,015	
80	2017-August	18,341,581.00	193,084.71	105,258.40	1,325,601.20			19,865,525	0.30	102.00	14.00	9314.50	31.00	1.00	9.80	20,296,840	
81	2017-September	16,015,086.00	174,286.05	85,655.80	1,321,481.70			17,596,520	25.10	59.50	12.27	9325.50	30.00	0.00	9.80	16,784,733	
82	2017-October	14,205,016.00	118,003.95	59,110.80	1,350,013.70			15,732,144	94.70	14.90	10.52	9328.00	31.00	0.00	9.80	15,752,747	
83	2017-November	14,501,902.00	64,725.96	31,395.80	1,209,082.70			15,807,106	383.85	0.00	9.31	9338.50	30.00	0.00	8.00	15,641,746	
84	2017-December	17,776,748.00	32,921.21	16,956.20	489,751.10			18,296,377	617.20	0.00	8.50	9363.50	31.00	1.00	8.00	18,427,832	207,071,865.40
85	2018-January								623.80	0.00	9.12	9375.63	31.00	1.00	8.00	18,436,841	
86	2018-February								579.60	0.00	10.20	9387.59	28.29	1.00	8.00	17,064,434	
87	2018-March								515.56	0.00	11.50	9399.56	31.00	0.00	8.00	16,461,876	
88	2018-April								329.86	0.00	13.26	9411.52	30.00	0.00	8.00	15,411,279	
89	2018-May								154.74	12.17	14.47	9423.48	31.00	0.00	8.00	15,781,858	
90	2018-June								31.34	54.77	15.30	9435.44	30.00	1.00	8.00	18,199,390	
91	2018-July								0.91	145.39	15.11	9447.40	31.00	1.00	8.00	22,106,350	
92	2018-August								0.49	127.81	14.00	9459.37	31.00	1.00	8.00	21,481,192	
93	2018-September								31.34	57.03	12.27	9471.33	30.00	0.00	8.00	16,867,391	
94	2018-October								181.99	6.62	10.52	9483.29	31.00	0.00	8.00	15,823,152	
95	2018-November								348.27	0.00	9.31	9495.25	30.00	0.00	8.00	15,731,077	
96	2018-December								510.79	0.00	8.50	9507.21	31.00	1.00	8.00	18,292,616	211,657,455.70
97	2019-January								623.80	0.00	9.12	9524.72	31.00	1.00	8.00	18,621,369	
98	2019-February								579.60	0.00	10.20	9542.24	28.29	1.00	8.00	17,255,831	
99	2019-March								515.56	0.00	11.50	9559.75	31.00	0.00	8.00	16,660,142	
100	2019-April								329.86	0.00	13.26	9577.26	30.00	0.00	8.00	15,616,414	
101	2019-May								154.74	12.17	14.47	9594.77	31.00	0.00	8.00	15,983,862	
102	2019-June								31.34	54.77	15.30	9612.28	30.00	1.00	8.00	18,418,263	
103	2019-July								0.91	145.39	15.11	9629.80	31.00	1.00	8.00	22,332,092	
104	2019-August								0.49	127.81	14.00	9647.31	31.00	1.00	8.00	21,713,804	
105	2019-September								31.34	57.03	12.27	9664.62	30.00	0.00	8.00	17,106,872	
106	2019-October								181.99	6.62	10.52	9682.33	31.00	0.00	8.00	16,069,502	
107	2019-November								348.27	0.00	9.31	9699.84	30.00	0.00	8.00	15,984,296	
108	2019-December								510.79	0.00	8.50	9717.35	31.00	1.00	8.00	18,552,705	214,325,151.90



Weather Sensitive Load

Notes:

- 1) Please Select Only the Weather Sensitive Customer Classes from the Drop Down List (Include GS>50 kW customers)
- 2) Select if you need to manually adjust for Load Growth or not - i.e. if this was not captured through the regression analysis (this can be verified by a quick calculation, comparing weather normal kwh purchases/forecasted customer totals for the forecast year)-

Does Your Utility need to Adjust for Load Correct Growth?

No

Residential							
Year	Residential Metered kWh	Wholesale Purchases	Weather Normalized	Ratio% *	Weather Normal	Average # Customers	Per customer
2011	66,976,830	188,298,521	190,530,219	35.57%	67,770,634	6,594	10,277
2012	67,086,975	189,169,073	195,964,358	35.46%	69,496,857	6,716	10,348
2013	68,126,809	189,823,053	191,903,722	35.89%	68,873,553	6,912	9,964
2014	68,599,528	196,751,647	193,844,612	34.87%	67,585,959	7,110	9,505
2015	69,624,978	201,773,815	200,603,196	34.51%	69,221,039	7,389	9,368
2016	74,189,661	209,189,302	212,828,671	35.47%	75,480,375	7,661	9,853
2017	71,017,299	203,784,767	207,071,865	34.85%	72,162,825	7,838	9,206
2018			211,657,456	34.85%	73,760,865	7,976	9,247
2019			214,325,152	34.85%	74,690,535	8,152	9,162

* the model uses metered per class to determine the wholesale per class

Load corrected for Utility Growth based on utility input

Residential				
Year	New Customer	Per Customer Weather Normalized (based on 2014 cust count)	Added Load	Total
2018	0	9,247	0	73,760,865
2019	0	9,162	0	74,690,535

General Service < 50 kW							
Year	GS<50 Metered kWh	Wholesale Purchases	Weather Normalized	Ratio% *	Weather Normal	Average # Customers	Per customer
2011	34,321,035	188,298,521	190,530,219	18.23%	34,727,805	1,235	28,127
2012	35,374,878	189,169,073	195,964,358	18.70%	36,645,606	1,269	28,878
2013	35,291,131	189,823,053	191,903,722	18.59%	35,677,960	1,221	29,219
2014	39,288,460	196,751,647	193,844,612	19.97%	38,707,967	1,312	29,507
2015	41,172,288	201,773,815	200,603,196	20.41%	40,933,421	1,322	30,974
2016	43,510,841	209,189,302	212,828,671	20.80%	44,267,820	1,333	33,216
2017	40,733,064	203,784,767	207,071,865	19.99%	41,390,099	1,332	31,081
2018			211,657,456	19.99%	42,306,679	1,337	31,651
2019			214,325,152	19.99%	42,839,906	1,342	31,930

* the model uses metered per class to determine the wholesale per class

Load corrected for Utility Growth based on utility input

General Service < 50 kW				
Year	New Customer	Per Customer Weather Normalized (based on 2014 cust count)	Added Load	Total
2018	2	31,651	63,302	42,369,981
2019	4	31,930	127,721	42,967,627



kW and Non-Weather Sensitive Load

Notes:

- 1) Please Select All Customers billed Distribution Volumetric Rates by kW.
- 2) Please update the Average Years that is used to calculate an average kW/kWh ratio and forecast kW's
- 3) If required, A Distributor may manually adjust kWh's - i.e. Wholesale Market Participant might not have been reflected through Regression for Large C
- 4) Select if you need to manually adjust for Load Growth or not - i.e. if this was not captured through the regression analysis (Distributor must support de

General Service > 50 kW - 4999 kW								
Year	kWh	Adjusted kWh	kWh	kW	Customer/ Connection	kWh per connection	KW per connection	KW/kWh Ratio
2011	78,632,457		78,632,457	199,918	120	655,043.03	1,665.401	0.00254
2012	77,993,648		77,993,648	202,738	118	662,600.90	1,722.374	0.00260
2013	77,896,093		77,896,093	204,593	118	660,836.42	1,735.676	0.00263
2014	80,076,899		80,076,899	208,043	129	618,951.87	1,608.058	0.00260
2015	81,848,511		81,848,511	213,949	128	639,441.49	1,671.473	0.00261
2016	83,681,624		83,681,624	211,155	122	688,737.64	1,737.904	0.00252
2017	84,099,297		84,099,297	211,534	129	652,143.18	1,640.328	0.00252
2018	85,961,669		85,961,669	221,277	131	658,671.99	1,695.509	
2019	87,045,116	- 2,700,000	84,345,116	217,115	131	643,855.85	1,657.370	
Avg - Years =			7.00			653,964.93	1,683.03	0.00257

* the model uses metered per class to determine the wholesale per class

Load corrected for Utility Growth based on utility input



General Service > 50 kW - 4999 kW								
Year			New Customer	Average kWh	Average kW	Growth Corrected?	Total kWh	Total kW
2018			2	653,964.93	1,683.031	No	85,961,669	221,277
2019			2	653,964.93	1,683.031		84,345,116	217,115

Customers (Distributor must support decision)
 decision)

Streetlighting								
Year	kWh	Adjusted kWh	kWh	kW	Customer/ Connection	kWh per connection	KW per connection	KW/kWh Ratio
2011	1,153,888		1,153,888	3,222	1,946	592.95	1.656	0.00279
2012	1,163,464		1,163,464	3,239	1,947	597.64	1.664	0.00278
2013	1,160,024		1,160,024	3,257	1,949	595.27	1.671	0.00281
2014	1,160,025		1,160,025	3,239	2,051	565.50	1.579	0.00279
2015	974,371		974,371	2,743	2,081	468.28	1.318	0.00282
2016	861,899		861,899	2,373	2,120	406.52	1.119	0.00275
2017	858,844		858,844	2,400	2,124	404.37	1.130	0.00279
2018	873,782		873,782	2,439	2,155	405.45	1.132	
2019	886,616		886,616	2,475	2,187	405.45	1.132	
Avg - Years =			7.00			405	1.1247	0.00279

* the model uses metered per class to determine the wholesale per class

Load corrected for Utility Growth based on utility input



Streetlighting								
Year			New Customer	Average kWh	Average kW	Growth Corrected?	Total kWh	Total kW
2018			31	405.45	1.125	No	873,782	2,439
2019			63	405.45	1.125		886,616	2,475

Unmetered Scattered Load								
Year	kWh	Adjusted kWh	kWh	kW	Customer/ Connection	kWh per connection	KW per connection	KW/kWh Ratio
2011	225,362		225,362		22	10,205.08	-	-
2012	226,394		226,394		22	10,290.63	-	-
2013	234,467		234,467		21	10,969.23	-	-
2014	230,817		230,817		22	10,673.61	-	-
2015	224,901		224,901		20	11,129.13	-	-
2016	224,075		224,075		18	12,653.66	-	-
2017	250,759		250,759		21	11,800.44	-	-
2018	251,508		251,508		26	9,673.38	-	-
2019	251,508		251,508		26	9,673.38	-	-
Avg - Years =			7.00			9,673.38	-	-

* the model uses metered per class to determine the wholesale per class

Load corrected for Utility Growth based on utility input



Unmetered Scattered Load								
Year			New Customer	Average kWh	Average kW	Growth Corrected?	Total kWh	Total kW
2018			5	9,673.38	-	No	251,508	-
2019			5	9,673.38	-		251,508	-

Large User								
Year	kWh	Adjusted kWh	kWh	kW	Customer/ Connection	kWh per connection	KW per connection	KW/kWh Ratio
2011	0		0	0	0	-	-	-
2012	0		0	0	0	-	-	-
2013	0		0	0	0	-	-	-
2014	0		0	0	0	-	-	-
2015	0		0	0	0	-	-	-
2016	0		0	0	0	-	-	-
2017	0		0	0	0	-	-	-
2018	0		0	0	0	-	-	-
2019	23,308,825		23,308,825	60,000	1	23,308,825	60,000.000	0.00257
Avg - Years =						-	0.0000	0.00257

* the model uses metered per class to determine the wholesale per class

Load corrected for Utility Growth based on utility input



Large User								
Year			New Customer	Average kWh	Average kW	Growth Corrected?	Total kWh	Total kW
2018			0	-	-	No	-	-
2019			1	-	-		23,308,825	60,000



Weather Adjusted Load Forecast Results

Year		2011	2012	2013	2014	2015	2016	2017	2018	2019
Residential	Cust/Conn	6,594	6,716	6,912	7,110	7,389	7,661	7,838	7,976	8,152
	kWh	66,976,830	67,086,975	68,126,809	68,599,528	69,624,978	74,189,661	71,017,299	73,760,865	74,690,535
	kW									
General Service < 50 kW	Cust/Conn	1,235	1,269	1,221	1,312	1,322	1,333	1,332	1,337	1,342
	kWh	34,321,035	35,374,878	35,291,131	39,288,460	41,172,288	43,510,841	40,733,064	42,369,981	42,967,627
	kW									
General Service > 50 kW - 4999 kW	Cust/Conn	120	118	118	129	128	122	129	131	131
	kWh	78,632,457	77,993,648	77,896,093	80,076,899	81,848,511	83,681,624	84,099,297	85,961,669	84,345,116
	kW	199,918	202,738	204,593	208,043	213,949	211,155	211,534	221,277	217,115
Unmetered Scattered Load	Cust/Conn	22	22	21	22	20	18	21	26	26
	kWh	225,362	226,394	234,467	230,817	224,901	224,075	250,759	251,508	251,508
	kW									
Street Lights	Cust/Conn	1,946	1,947	1,949	2,051	2,081	2,120	2,124	2,155	2,187
	kWh	1,153,888	1,163,464	1,160,024	1,160,025	974,371	861,899	858,844	873,782	886,616
	kW	3,222	3,239	3,257	3,239	2,743	2,373	2,400	2,439	2,475
Large User	Cust/Conn	-	-	-	-	-	-	-	-	1
	kWh	-	-	-	-	-	-	-	-	23,308,825
	kW	-	-	-	-	-	-	-	-	60,000
Total	Cust/Conn	9,917	10,072	10,222	10,624	10,940	11,253	11,444	11,625	11,839
	kWh	181,309,571	181,845,359	182,708,524	189,355,729	193,845,050	202,468,101	196,959,263	203,217,805	226,450,228
	kW	203,139	205,977	207,850	211,281	216,692	213,529	213,934	223,716	279,590



Appendix 2-I Load Forecast CDM Adjustment Work Form (2018)

Appendix 2-I was initially developed to help determine what would be the amount of CDM savings needed in each year to cumulatively achieve the four year 2011-2014 CDM target. This then determined the amount of

2018 is the fourth year of the six-year (2015-2020) Conservation First program. Final results for the 2011-14 program were issued in the fall of 2015, and the program is completed, although in some instances

The new six year (2015-2020) CDM program works in a slightly different manner to the previous 2011-2014 CDM program. Distributors will offer programs each year that, over the six years (from January 1, 2015 to

2015-2020 CDM Program - 2018 fifth year of the current CDM plan

For the first year of the new 2015-2020 CDM plan, it is assumed that each year's program will achieve an equal amount of new CDM savings. This results in each year's program being about 1/6 (16.67%) of the

6 Year (2015-2020) kWh Target:							
11,680,000							
	2015	2016	2017	2018	2019	2020	Total
	%						
2015 CDM Programs	5.20%	5.19%	5.19%	5.11%	5.11%	5.11%	30.92%
2016 CDM Programs		6.72%	6.72%	6.72%	6.71%	6.65%	33.50%
2017 CDM Programs			6.21%	5.75%	5.75%	5.74%	23.44%
2018 CDM Programs				2.56%	2.54%	2.53%	7.62%
2019 CDM Programs					1.74%	1.73%	3.47%
2020 CDM Programs						1.04%	1.04%
Total in Year	5.20%	11.91%	18.12%	20.13%	21.85%	22.80%	100.00%
	kWh						
2015 CDM Programs	3,119,882.00	3,115,781.00	3,115,689.00	3,066,757.00	3,065,932.00	3,063,490.00	18,547,531.00
2016 CDM Programs		4,029,459.00	4,029,459.00	4,028,659.00	4,022,774.00	3,988,118.00	20,098,469.00
2017 CDM Programs			3,722,902.00	3,448,140.00	3,447,680.00	3,445,057.00	14,063,779.00
2018 CDM Programs				1,533,536.37	1,524,390.03	1,515,298.24	4,573,224.64
2019 CDM Programs					1,045,247.50	1,039,013.42	2,084,260.91
2020 CDM Programs						625,490.86	625,490.86
Total in Year	3,119,882.00	7,145,240.00	10,868,050.00	12,077,092.37	13,106,023.53	13,676,467.52	59,992,755.42

Inputs do not match 2015-20 CDM target

Note: The default formulae in the above table assume that the 2015-2020 kWh CDM target is achieved through persistence of CDM savings to the end of 2020. The distributor should enter measured CDM savings for

Weight Factor for Inclusion in CDM Adjustment to 2018 Load Forecast

	2014	2015	2016	2017	2018	2019	
Weight Factor for each year's CDM program impact on 2018 load forecast	0	0	0	0.5	1	0.5	Distributor can select "0", "0.5", or "1" from drop-down list

2015-2020 LRAMVA and 2018 CDM adjustment to Load Forecast

One manual adjustment for CDM impacts to the 2018 load forecast is made. There is a different but related threshold amount that is used for the 2018 LRAMVA amount for Account 1568.

The amount used for the CDM threshold of the LRAMVA is the kWh that will be used to determine the base amount for the LRAMVA balance for 2018, for assessing performance against the six-year target.

If used to determine the manual CDM adjustment for the system purchased kWh, the proposed loss factor should correspond with the proposed total loss factor calculated in Appendix 2-R.

The Manual Adjustment for the 2018 Load Forecast is the amount manually subtracted from the system-wide load forecast (either based on a purchased or billed basis) derived from the base forecast from historical

The distributor should determine the allocation of the savings to all customer classes in a reasonable manner (e.g. taking into account what programs and what IESO-measured impacts were directed at specific

	2014	2015	2016	2017	2018	2019	Total for 2019
Amount used for CDM threshold for LRAMVA	1,320,428.00	1,320,428.00	1,320,428.00				3,961,284.00
Amount used for CDM threshold for LRAMVA (2019)				3,447,680.00	1,524,390.03	1,045,247.50	6,017,317.53
Total Manual Forecast to Load Forecast				1,723,840.00	1,524,390.03	522,623.75	3,770,853.78



CDM Allocation Worksheet

Notes:

- 1) Use this sheet to allocate Projected CDM Savings for the Test Year.
- 2) Reallocate CDM savings to specific classes if required (Distributors must support reallocation)

Note: This sheet is linked from Worksheet 10.CDM Adjustments

CDM Allocation

kWh	Year	2019
Residential	kWh	74,690,535
General Service < 50 kW	kWh	42,967,627
General Service > 50 kW - 4999 kW	kWh	84,345,116
	kW	217,115
Unmetered Scattered Load	kWh	251,508
Street Lights	kWh	886,616
	kW	2,475
Large User	kWh	23,308,825
	kW	60,000
Total kWh		226,450,228
Total kW		279,590

2017-2018 Plan	Share	Target	Manual Reallocation	Final Adjusted (kWh)
791,837	21%	791,837		73,898,698
1,101,949	29%	1,101,949		41,865,678
1,877,067	50%	1,877,067		82,468,049
4,832		4,832		212,284
-	0%	0		251,508
-	0%	0		886,616
-	0%	0		2,475
-	0%	0		23,308,825
				60,000
3,770,854	100%	3,770,854	-	222,679,374
4,832				

- S/b Zero



Final Load Forecast Results - CDM Adjusted

	Year	2011	2012	2013	2014	2015	2016	2017	2018	2019
Residential	Cust/Conn	6,594	6,716	6,912	7,110	7,389	7,661	7,838	7,976	8,152
	kWh	66,976,830	67,086,975	68,126,809	68,599,528	69,624,978	74,189,661	71,017,299	73,760,865	73,898,698
	kW									
General Service < 50 kW	Cust/Conn	1,235	1,269	1,221	1,312	1,322	1,333	1,332	1,337	1,342
	kWh	34,321,035	35,374,878	35,291,131	39,288,460	41,172,288	43,510,841	40,733,064	42,369,981	41,865,678
	kW									
General Service > 50 kW - 4999 kW	Cust/Conn	120	118	118	129	128	122	129	131	131
	kWh	78,632,457	77,993,648	77,896,093	80,076,899	81,848,511	83,681,624	84,099,297	85,961,669	82,468,049
	kW	199,918	202,738	204,593	208,043	213,949	211,155	211,534	221,277	212,284
Unmetered Scattered Load	Cust/Conn	22	22	21	22	20	18	21	26	26
	kWh	225,362	226,394	234,467	230,817	224,901	224,075	250,759	251,508	251,508
	kW									
Street Lights	Cust/Conn	1,946	1,947	1,949	2,051	2,081	2,120	2,124	2,155	2,187
	kWh	1,153,888	1,163,464	1,160,024	1,160,025	974,371	861,899	858,844	873,782	886,616
	kW	3,222	3,239	3,257	3,239	2,743	2,373	2,400	2,439	2,475
Large User	Cust/Conn	-	-	-	-	-	-	-	-	1
	kWh	-	-	-	-	-	-	-	-	23,308,825
	kW	-	-	-	-	-	-	-	-	60,000
Total	Cust/Conn	9,917	10,072	10,222	10,624	10,940	11,253	11,444	11,625	11,839
	kWh	181,309,571	181,845,359	182,708,524	189,355,729	193,845,050	202,468,101	196,959,263	203,217,805	222,679,374
	kW	203,139	205,977	207,850	211,281	216,692	213,529	213,934	223,716	274,758



Average per customer

	Residential		General Service < 50 kW		General Service > 50 kW - 4999 kW		Unmetered Scattered Load		Street Lights		Large User	
Year	per cust kWh	per cust kW	per cust kWh	per cust kW	per cust kWh	per cust kW	per cust kWh	per cust kW	per cust kWh	per cust kW	per cust kWh	per cust kW
2011	10,157	0	27,798	0	655,043	1,665	10,205	0	593	2	#DIV/0!	#DIV/0!
2012	9,989	0	27,877	0	662,601	1,722	10,291	0	598	2	#DIV/0!	#DIV/0!
2013	9,856	0	28,902	0	660,836	1,736	10,969	0	595	2	#DIV/0!	#DIV/0!
2014	9,648	0	29,949	0	618,952	1,608	10,674	0	565	2	#DIV/0!	#DIV/0!
2015	9,423	0	31,155	0	639,441	1,671	11,129	0	468	1	#DIV/0!	#DIV/0!
2016	9,684	0	32,648	0	688,738	1,738	12,654	0	407	1	#DIV/0!	#DIV/0!
2017	9,060	0	30,588	0	652,143	1,640	11,800	0	404	1	#DIV/0!	#DIV/0!
2018	9,247	0	31,698	0	658,672	1,696	9,673	0	405	1	#DIV/0!	#DIV/0!
2019	9,065	0	31,204	0	629,527	1,620	9,673	0	405	1	23,308,825	60,000



Actual

Residential					
Year	Cust	%chg	kWh	%chg	kW
2011	6,594		66,976,830		
2012	6,716	1.85%	67,086,975	0.16%	0.00%
2013	6,912	2.92%	68,126,809	1.55%	0.00%
2014	7,110	2.86%	68,599,526	0.69%	0.00%
2015	7,389	3.92%	69,624,978	1.49%	0.00%
2016	7,661	3.68%	74,189,661	6.56%	0.00%
2017	7,838	2.32%	71,017,299	(4.28%)	0.00%
2018		(100.00%)		(100.00%)	0.00%
2019		0.00%		0.00%	0.00%
2020		0.00%		0.00%	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

General Service < 50 kW					
Year	Cust	%chg	kWh	%chg	kW
2011	1,235		34,321,035		
2012	1,269	2.78%	35,374,878	3.07%	0.00%
2013	1,221	(3.76%)	35,291,131	(0.24%)	0.00%
2014	1,312	7.44%	39,288,490	11.33%	0.00%
2015	1,322	0.74%	41,172,288	4.79%	0.00%
2016	1,333	0.84%	43,510,841	5.68%	0.00%
2017	1,332	(0.06%)	40,733,064	(6.38%)	0.00%
2018		(100.00%)		(100.00%)	0.00%
2019		0.00%		0.00%	0.00%
2020		0.00%		0.00%	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

General Service > 50 kW - 4999 kW					
Year	Cust	%chg	kWh	%chg	kW
2011	120		78,632,457		199,918
2012	118	(1.94%)	77,993,648	(0.81%)	202,738
2013	118	0.14%	77,896,093	(0.13%)	204,593
2014	129	9.76%	80,076,899	2.80%	208,043
2015	128	(1.06%)	81,848,511	2.21%	213,949
2016	122	(5.08%)	83,681,624	2.24%	211,155
2017	129	6.14%	84,099,297	0.50%	211,534
2018		(100.00%)		(100.00%)	(100.00%)
2019		0.00%		0.00%	0.00%
2020		0.00%		0.00%	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

Unmetered Scattered Load					
Year	Cust	%chg	kWh	%chg	kW
2011	22		225,362		
2012	22	(0.38%)	226,394	0.46%	0.00%
2013	21	(2.84%)	234,467	3.57%	0.00%
2014	22	1.17%	230,817	(1.56%)	0.00%
2015	20	(6.55%)	224,901	(2.56%)	0.00%
2016	18	(12.37%)	224,075	(0.37%)	0.00%
2017	21	20.00%	250,759	11.91%	0.00%
2018		(100.00%)		(100.00%)	0.00%
2019		0.00%		0.00%	0.00%
2020		0.00%		0.00%	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

Street Lights					
Year	Connections	%chg	kWh	%chg	kW
2011	1,946		1,153,888		3,222
2012	1,947	0.04%	1,163,464	0.83%	3,239
2013	1,949	0.10%	1,160,024	(0.30%)	3,257
2014	2,051	5.26%	1,160,025	0.00%	3,239
2015	2,081	1.43%	974,371	(16.00%)	2,743
2016	2,120	1.89%	861,899	(11.54%)	2,373
2017	2,124	0.18%	858,844	(0.35%)	2,400
2018		(100.00%)		(100.00%)	(100.00%)
2019		0.00%		0.00%	0.00%
2020		0.00%		0.00%	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

Large User					
Year	Cust	%chg	kWh	%chg	kW
2011	0		0		0
2012	0	0.00%	0	0.00%	0
2013	0	0.00%	0	0.00%	0
2014	0	0.00%	0	0.00%	0
2015	0	0.00%	0	0.00%	0
2016	0	0.00%	0	0.00%	0
2017	0	0.00%	0	0.00%	0
2018	0	0.00%	0	0.00%	0
2019	0	0.00%	0	0.00%	0
2020	0	0.00%	0	0.00%	0
2021	0	0.00%	0	0.00%	0
2022	0	0.00%	0	0.00%	0

Total					
Year	Cust/Conn	%chg	kWh	%chg	kW
2011	9,917		181,309,571		203,139
2012	10,072	1.56%	181,845,359	0.30%	205,977
2013	10,222	1.49%	182,709,524	0.47%	207,850
2014	10,624	3.94%	189,355,729	3.64%	211,281
2015	10,940	2.97%	193,845,050	2.37%	216,892
2016	11,253	2.86%	202,468,101	4.45%	213,529
2017	11,444	1.70%	196,959,263	(2.72%)	213,934
2018		(100.00%)		(100.00%)	(100.00%)
2019		0.00%		0.00%	0
2020		0.00%		0.00%	0
2021		0.00%		0.00%	0
2022		0.00%		0.00%	0

Weather Adjusted Load Forecast Results

Residential					
Year	Cust	%chg	kWh	%chg	kW
2011	6,594		67,770,634		
2012	6,716	1.85%	69,496,857	2.55%	0.00%
2013	6,912	2.92%	68,873,553	(0.90%)	0.00%
2014	7,110	2.86%	67,585,959	(1.87%)	0.00%
2015	7,389	3.92%	69,221,039	2.42%	0.00%
2016	7,661	3.68%	75,480,375	9.04%	0.00%
2017	7,838	2.32%	72,162,825	(4.40%)	0.00%
2018	7,976	1.76%	73,780,865	2.21%	0.00%
2019	8,152	2.21%	74,690,535	1.26%	0.00%
2020		(100.00%)		(100.00%)	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

General Service < 50 kW					
Year	Cust	%chg	kWh	%chg	kW
2011	1,235		34,727,805		
2012	1,269	2.78%	36,645,606	5.52%	0.00%
2013	1,221	(3.78%)	35,677,960	(2.94%)	0.00%
2014	1,312	7.44%	38,707,967	8.49%	0.00%
2015	1,322	0.74%	40,933,421	5.75%	0.00%
2016	1,333	0.84%	44,267,820	8.15%	0.00%
2017	1,332	(0.06%)	41,390,099	(6.50%)	0.00%
2018	1,337	0.38%	42,306,679	2.21%	0.00%
2019	1,342	0.37%	42,839,906	1.26%	0.00%
2020		(100.00%)		(100.00%)	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

General Service > 50 kW - 4999 kW					
Year	Cust	%chg	kWh	%chg	kW
2011	120		78,632,457		199,918
2012	118	(1.94%)	77,993,648	(0.81%)	202,738
2013	118	0.14%	77,896,093	(0.13%)	204,593
2014	129	9.76%	80,076,899	2.80%	208,043
2015	128	(1.06%)	81,848,511	2.21%	213,949
2016	122	(5.08%)	83,681,624	2.24%	211,155
2017	129	6.14%	84,099,297	0.50%	211,534
2018	131	1.20%	85,961,669	2.21%	221,277
2019	131	0.38%	84,345,116	(1.88%)	217,115
2020		(100.00%)		(100.00%)	(100.00%)
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

Unmetered Scattered Load					
Year	Cust	%chg	kWh	%chg	kW
2011	22		225,362		
2012	22	(0.38%)	226,394	0.46%	0.00%
2013	21	(2.84%)	234,467	3.57%	0.00%
2014	22	1.17%	230,817	(1.56%)	0.00%
2015	20	(6.55%)	224,901	(2.56%)	0.00%
2016	18	(12.37%)	224,075	(0.37%)	0.00%
2017	21	20.00%	250,759	11.91%	0.00%
2018	26	22.35%	251,508	0.30%	0.00%
2019	26	0.00%	251,508	0.00%	0.00%
2020		(100.00%)		(100.00%)	0.00%
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

Street Lights					
Year	Connections	%chg	kWh	%chg	kW
2011	1,946		1,153,888		3,222
2012	1,947	0.04%	1,163,464	0.83%	3,239
2013	1,949	0.10%	1,160,024	(0.30%)	3,257
2014	2,051	5.26%	1,160,025	0.00%	3,239
2015	2,081	1.43%	974,371	(16.00%)	2,743
2016	2,120	1.89%	861,899	(11.54%)	2,373
2017	2,124	0.18%	858,844	(0.35%)	2,400
2018	2,155	1.47%	873,782	1.74%	2,439
2019	2,187	1.47%	886,616	1.47%	2,475
2020		(100.00%)		(100.00%)	(100.00%)
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

Large User					
Year	Cust	%chg	kWh	%chg	kW
2011	0		0		0
2012	0	0.00%	0	0.00%	0
2013	0	0.00%	0	0.00%	0
2014	0	0.00%	0	0.00%	0
2015	0	0.00%	0	0.00%	0
2016	0	0.00%	0	0.00%	0
2017	0	0.00%	0	0.00%	0
2018	0	0.00%	0	0.00%	0
2019	1	0.00%	23,308,825	0.00%	60,000
2020		(100.00%)		(100.00%)	(100.00%)
2021		0.00%		0.00%	0.00%
2022		0.00%		0.00%	0.00%

Total					
Year	Cust/Conn	%chg	kWh	%chg	kW
2011	9,917		182,510,145		203,139
2012	10,072	1.56%	185,525,969	1.65%	205,977
2013	10,222	1.49%	183,942,098	(0.91%)	207,850
2014	10,624	3.94%	187,781,667	2.13%	211,281
2015	10,940	2.97%	193,202,244	2.90%	216,892
2016	11,253	2.86%	204,515,794	5.86%	213,529
2017	11,444	1.70%	198,781,824	(2.81%)	213,934
2018	11,625	1.58%	203,154,504	2.21%	223,716
2019	11,839	1.84%	226,322,506	11.40%	279,590
2020		(100.00%)		(100.00%)	(100.00%)
2021		0.00%		0.00%	0
2022		0.00%		0.00%	0