EXHIBIT 3 – OPERATING REVENUE

Load and Customer Forecast

Response to Ontario Energy Board Staff Interrogatory 3-Staff-53

Ref: Exhibit 3, Tab 1, Schedule 1, Attachment 1 – OEB Appendix 2-IA OEB Filing Requirements for Electricity Distribution Rate Applications, July 16, 2015, Section 2.3.2 Accuracy of Load Forecast and Variance Analysis

Interrogatory:

a) The above section of the cost of service Filing Requirements will be helpful in assessing Kingston Hydro's five year load forecast. Please provide all the information as per Section 2.3.2 of the Filing Requirements including, but not limited to, the variance analysis and relevant discussion for volumes, revenues, customer/connections count and total system load:

Historical OEB-approved vs. historical actuals
Historical OEB-approved vs. historical actual (weather-normalized)
Historical actual (weather normalized) vs. preceding year
Last year historical actual (weather-normalized) vs. bridge year forecast
Bridge year vs. Test year

b) Please complete Appendix 2-IA such that it shows year over year variances.

Response:

a) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's revised Load Forecast filed on September 11, 2015.*

Please refer to revised Appendix 2-IA Page 1 (3-Staff-53-Attachment 1) for Historical OEB-approved vs. historical actuals.

Please refer to revised Appendix 2-IA Page 2 (3-Staff-53-Attachment 2) for Historical OEB-approved vs. historical actual (weather-normalized).

Please refer to Appendix 2-IA Page 3 (3-Staff-53-Attachment 3) for:

(i) Historical actual (weather normalized) vs. preceding year
(ii) Last year historical actual (weather-normalized) vs. bridge year forecast
(iii) Bridge year vs. Test year

b) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's revised Load Forecast filed on September 11, 2015.*

Please refer to revised Appendix 2-IA Page 3 (3-Staff-53-Attachment 3) for year over year variances.

Response to Ontario Energy Board Staff Interrogatory 3-Staff-53

Attachment 1

File Number:	EB-2015-0083
Exhibit:	3
Tab:	1
Schedule:	1
Page:	1
Date:	11-Sep-15

Appendix 2-IA
Summary and Variances of 2011 Board Approved vs. Historic Actual and Forecast Data

Replace "Rate Class #" with the appropriate rate classification.

	2011 Board Approved	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Bridge Forecast CDM Adjusted	2016 Test Forecast CDM Adjusted	2017 Test Forecast CDM Adjusted	2018 Test Forecast CDM Adjusted	2019 Test Forecast CDM Adjusted	2020 Test Forecast CDM Adjusted	2011 Board Approved vs Actual
Residential												
# of Customers	23,386	23,212	23,193	23,468	23,853	24,004	24,157	24,311	24,466	24,622	24,779	174
kWh	194,606,362	191,104,338	184,953,209	189,348,696	192,061,408	189,417,832	188,560,878	187,842,287	186,889,965	185,977,037	185,141,745	3,502,024
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-0.74%	-0.83%	0.35%	2.00%	2.64%	3.30%	3.96%	4.62%	5.28%	5.95%	
kWh		-1.80%	-4.96%	-2.70%	-1.31%	-2.67%	-3.11%	-3.48%	-3.97%	-4.43%	-4.86%	
GS<50*												
# of Customers	3,244	3,298	3,250	3,213	3,051	3,000	2,950	2,901	2,853	2,805	2,758	- 54
kWh	93,096,784	93,008,635	88,608,641	86,375,577	91,470,555	90,135,229	87,729,830	86,574,290	85,112,366	82,749,000	80,540,933	88,149
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		1.66%	0.18%	-0.96%	-5.94%	-7.51%	-9.05%	-10.57%	-12.07%	-13.54%	-14.98%	
kWh		-0.09%	-4.82%	-7.22%	-1.75%	-3.18%	-5.76%	-7.01%	-8.58%	-11.12%	-13.49%	
***NOTE: GS<50 Customer Count for 2010-2013 has been increased by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
GS>50**												
# of Customers	347	291	307	318	325	331	337	343	350	357	364	56
kWh	259,610,762	273,712,584	274,473,668	279,458,000	272,498,127	273,909,928	276,480,202	279,259,356	281,887,678	284,542,723	287,775,925	- 14,101,822
kW	701,859	766,581	781,260	767,156	743,905	747,759	754,776	762,363	769,538	776,786	785,613	- 64,722
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-16.14%	-11.65%	-8.43%	-6.48%	-4.70%	-2.87%	-1.01%	0.88%	2.81%	4.78%	
kWh		5.43%	5.73%	7.64%	4.96%	5.51%	6.50%	7.57%	8.58%	9.60%	10.85%	
kW		9.22%	11.31%	9.30%	5.99%	6.54%	7.54%	8.62%	9.64%	10.68%	11.93%	
****NOTE: GS>50 Customer Count for 2011-2013 has been reduced by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
Large User												
# of Customers	3	3	3	3	3	3	3	3	3	3	3	0
kWh	152,017,673	154,491,718	155,448,435	153,943,746	151,518,193	154,864,222	156,314,904	157,466,056	158,640,435	159,878,759	161,354,888	- 2,474,045
kW	297,737	294,114	323,212	291,732	286,452	292,778	295,520	297,697	299,917	302,258	305,049	3,623
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	
kWh		1.63%	2.26%	1.27%	-0.33%	1.87%	2.83%	3.58%	4.36%	5.17%	6.14%	
kW		-1.22%	8.56%	-2.02%	-3.79%	-1.67%	-0.74%	-0.01%	0.73%	1.52%	2.46%	
Street Light												
# of Connections	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397	35
kWh	4,024,186	4,142,238	4,555,371	3,336,835	1,817,917	1,814,577	1,818,158	1,821,740	1,825,321	1,828,903	1,832,484	- 118,052
kW	11,336	11,237	10,984	8,304	5,045	5,036	5,046	5,056	5,066	5,076	5,086	99
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Connections		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%	
kWh		2.93%	13.20%	-17.08%	-54.83%	-54.91%	-54.82%	-54.73%	-54.64%	-54.55%	-54.46%	
kW		-0.88%	-3.11%	-26.75%	-55.49%	-55.58%	-55.49%	-55.40%	-55.31%	-55.23%	-55.14%	
Unmetered Scattered Load												
# of Customers	164	156	152	151	147	143	141	138	135	132	129	9
kWh	2,275,040	1,517,655	1,484,560	1,499,820	1,247,036	1,221,326	1,196,145	1,171,483	1,147,330	1,123,675	1,100,508	757,385
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-5.18%	-7.32%	-8.03%	-10.67%	-12.51%	-14.32%	-16.08%	-17.81%	-19.51%	-21.17%	
kWh		-33.29%	-34.75%	-34.08%	-45.19%	-46.32%	-47.42%	-48.51%	-49.57%	-50.61%	-51.63%	

Totals

Customers	27,144	26,959	26,904	27,152	27,378	27,482	27,588	27,696	27,806	27,918	28,032	185
Connections	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397	35
kWh	705,630,807	717,977,169	709,523,884	713,962,674	710,613,236	711,363,113	712,100,117	714,135,212	715,503,095	716,100,097	717,746,483	- 12,346,362
kW from applicable classes	1,010,932	1,071,932	1,115,456	1,067,192	1,035,402	1,045,573	1,055,342	1,065,115	1,074,521	1,084,120	1,095,747	- 61,000

Totals - Variance

Customers		-0.68%	-0.88%	0.03%	0.86%	1.25%	1.64%	2.03%	2.44%	2.85%	3.27%	
Connections		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%	
kWh		1.75%	0.55%	1.18%	0.71%	0.81%	0.92%	1.21%	1.40%	1.48%	1.72%	
kW from applicable classes		6.03%	10.34%	5.57%	2.42%	3.43%	4.39%	5.36%	6.29%	7.24%	8.39%	

Response to Ontario Energy Board Staff Interrogatory 3-Staff-53

Attachment 2

File Number:	EB-2015-0083
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Appendix 2-IA
Summary and Variances of 2011 Board Approved vs. Weather Normalized Actual and Forecast Data

Replace "Rate Class #" with the appropriate rate classification.

	2009 Weather Normalized	2010 Weather Normalized	2011 Board Approved	2011 Weather Normalized	2012 Weather Normalized	2013 Weather Normalized	2014 Weather Normalized	2015 Bridge Forecast CDM Adjusted	2016 Test Forecast CDM Adjusted	2017 Test Forecast CDM Adjusted	2018 Test Forecast CDM Adjusted	2019 Test Forecast CDM Adjusted	2020 Test Forecast CDM Adjusted
Residential													
# of Customers	23,107	23,163	23,386	23,212	23,193	23,468	23,853	24,004	24,157	24,311	24,466	24,622	24,779
kWh	198,884,446	195,591,927	194,606,362	192,163,011	187,471,244	188,263,211	190,835,981	189,417,832	188,560,878	187,842,287	186,889,965	185,977,037	185,141,745
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	-1.19%	-0.95%		-0.74%	-0.83%	0.35%	2.00%	2.64%	3.30%	3.96%	4.62%	5.28%	5.95%
kWh	2.20%	0.51%		-1.26%	-3.67%	-3.26%	-1.94%	-2.67%	-3.11%	-3.48%	-3.97%	-4.43%	-4.86%
GS<50*													
# of Customers	3,319	3,300	3,244	3,298	3,250	3,213	3,051	3,000	2,950	2,901	2,853	2,805	2,758
kWh	96,064,962	94,490,081	93,096,784	93,776,077	90,457,595	87,793,270	92,804,877	90,135,229	87,729,830	86,574,290	85,112,366	82,749,000	80,540,933
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	2.31%	1.73%		1.66%	0.18%	-0.96%	-5.94%	-7.51%	-9.05%	-10.57%	-12.07%	-13.54%	-14.98%
kWh	3.19%	1.50%		0.73%	-2.83%	-5.70%	-0.31%	-3.18%	-5.76%	-7.01%	-8.58%	-11.12%	-13.49%
***NOTE: GS<50 Customer Count for 2010-2013 has been increased by 53 due to Reclassification of 53 customers that occurred in Jan 2014**													
GS>50**													
# of Customers	295	294	347	291	307	318	325	331	337	343	350	357	364
kWh	271,411,676	272,384,595	259,610,762	276,283,654	275,227,380	278,459,749	272,240,655	273,909,928	276,480,202	279,259,356	281,887,678	284,542,723	287,775,925
kW	725,075	744,034	701,859	773,782	783,405	764,416	743,202	747,759	754,776	762,363	769,538	776,786	785,613
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	-14.99%	-15.27%		-16.14%	-11.65%	-8.43%	-6.48%	-4.70%	-2.87%	-1.01%	0.88%	2.81%	4.78%
kWh	4.55%	4.92%		6.42%	6.02%	7.26%	4.86%	5.51%	6.50%	7.57%	8.58%	9.60%	10.85%
kW	3.31%	6.01%		10.25%	11.62%	8.91%	5.89%	6.54%	7.54%	8.62%	9.64%	10.68%	11.93%
****NOTE: GS>50 Customer Count for 2011-2013 has been reduced by 53 due to Reclassification of 53 customers that occurred in Jan 2014**													
Large User													
# of Customers	3	3	3	3	3	3	3	3	3	3	3	3	3
kWh	148,687,034	150,173,340	152,017,673	154,138,390	152,025,145	154,963,792	153,804,618	154,864,222	156,314,904	157,466,056	158,640,435	159,878,759	161,354,888
kW	241,899	291,825	297,737	293,441	316,094	293,665	290,775	292,778	295,520	297,697	299,917	302,258	305,049
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
kWh	-2.19%	-1.21%		1.40%	0.00%	1.94%	1.18%	1.87%	2.83%	3.58%	4.36%	5.17%	6.14%
kW	-18.75%	-1.99%		-1.44%	6.17%	-1.37%	-2.34%	-1.67%	-0.74%	-0.01%	0.73%	1.52%	2.46%
Street Light													
# of Connections	5,114	5,117	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	3,992,185	4,076,824	4,024,186	4,142,238	4,555,371	3,336,835	1,817,917	1,814,577	1,818,158	1,821,740	1,825,321	1,828,903	1,832,484
kW	11,246	11,251	11,336	11,237	10,984	8,304	5,045	5,036	5,046	5,056	5,066	5,076	5,086
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Connections	-0.80%	-0.74%		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%
kWh	-0.80%	1.31%		2.93%	13.20%	-17.08%	-54.83%	-54.91%	-54.82%	-54.73%	-54.64%	-54.55%	-54.46%
kW	-0.79%	-0.75%		-0.88%	-3.11%	-26.75%	-55.49%	-55.58%	-55.49%	-55.40%	-55.31%	-55.23%	-55.14%
Unmetered Scattered Load													
# of Customers	163	158	164	156	152	151	147	143	141	138	135	132	129
kWh	2,256,949	2,229,012	2,275,040	1,517,655	1,484,560	1,499,820	1,247,036	1,221,326	1,196,145	1,171,483	1,147,330	1,123,675	1,100,508
Variance Analysis (relative to 2011 Board Approved Figures)													
# of Customers	-0.61%	-3.66%		-5.18%	-7.32%	-8.03%	-10.67%	-12.51%	-14.32%	-16.08%	-17.81%	-19.51%	-21.17%
kWh	-0.80%	-2.02%		-33.29%	-34.75%	-34.08%	-45.19%	-46.32%	-47.42%	-48.51%	-49.57%	-50.61%	-51.63%

Totals

Customers	26,887	26,918	27,144	26,959	26,904	27,152	27,378	27,482	27,588	27,696	27,806	27,918	28,032
Connections	5,114	5,117	5,155	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	721,297,251	718,945,778	705,630,807	722,021,025	711,221,296	714,316,678	712,751,085	711,363,113	712,100,117	714,135,212	715,503,095	716,100,097	717,746,483
kW from applicable classes	978,220	1,047,110	1,010,932	1,078,460	1,110,483	1,066,385	1,039,022	1,045,573	1,055,342	1,065,115	1,074,521	1,084,120	1,095,747

Totals - Variance

Customers	-0.95%	-0.83%		-0.68%	-0.88%	0.03%	0.86%	1.25%	1.64%	2.03%	2.44%	2.85%	3.27%
Connections	-0.80%	-0.74%		-0.69%	-0.56%	4.46%	1.42%	3.52%	3.75%	3.99%	4.22%	4.45%	4.68%
kWh	2.22%	1.89%		2.32%	0.79%	1.23%	1.01%	0.81%	0.92%	1.21%	1.40%	1.48%	1.72%
kW from applicable classes	-3.24%	3.58%		6.68%	9.85%	5.49%	2.78%	3.43%	4.39%	5.36%	6.29%	7.24%	8.39%

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Appendix 2-IA
Summary and Year Over Year Variances of Weather Normalized Actual and Forecast Data

Replace "Rate Class #" with the appropriate rate classification.

	2009 Weather Normalized	2010 Weather Normalized	2011 Weather Normalized	2012 Weather Normalized	2013 Weather Normalized	2014 Weather Normalized	2015 Bridge Forecast CDM Adjusted	2016 Test Forecast CDM Adjusted	2017 Test Forecast CDM Adjusted	2018 Test Forecast CDM Adjusted	2019 Test Forecast CDM Adjusted	2020 Test Forecast CDM Adjusted
Residential												
# of Customers	23,107	23,163	23,212	23,193	23,468	23,853	24,004	24,157	24,311	24,466	24,622	24,779
kWh	198,884,446	195,591,927	192,163,011	187,471,244	188,263,211	190,835,981	189,417,832	188,560,878	187,842,287	186,889,965	185,977,037	185,141,745
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		0.24%	0.21%	-0.08%	1.19%	1.64%	0.64%	0.64%	0.64%	0.64%	0.64%	0.64%
kWh		-1.66%	-1.75%	-2.44%	0.42%	1.37%	-0.74%	-0.45%	-0.38%	-0.51%	-0.49%	-0.45%
GS<50*												
# of Customers	3,319	3,300	3,298	3,250	3,213	3,051	3,000	2,950	2,901	2,853	2,805	2,758
kWh	96,064,962	94,490,081	93,776,077	90,457,595	87,793,270	92,804,877	90,135,229	87,729,830	86,574,290	85,112,366	82,749,000	80,540,933
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-0.57%	-0.07%	-1.45%	-1.14%	-5.02%	-1.67%	-1.67%	-1.67%	-1.67%	-1.67%	-1.67%
kWh		-1.64%	-0.76%	-3.54%	-2.95%	5.71%	-2.88%	-2.67%	-1.32%	-1.69%	-2.78%	-2.67%
***NOTE: GS<50 Customer Count for 2010-2013 has been increased by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
GS>50**												
# of Customers	295	294	291	307	318	325	331	337	343	350	357	364
kWh	271,411,676	272,384,595	276,283,654	275,227,380	278,459,749	272,240,655	273,909,928	276,480,202	279,259,356	281,887,678	284,542,723	287,775,925
kW	725,075	744,034	773,782	783,405	764,416	743,202	747,759	754,776	762,363	769,538	776,786	785,613
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-0.34%	-1.02%	5.36%	3.64%	2.12%	1.91%	1.91%	1.91%	1.91%	1.91%	1.91%
kWh		0.36%	1.43%	-0.38%	1.17%	-2.23%	0.61%	0.94%	1.01%	0.94%	0.94%	1.14%
kW		2.61%	4.00%	1.24%	-2.42%	-2.78%	0.61%	0.94%	1.01%	0.94%	0.94%	1.14%
****NOTE: GS>50 Customer Count for 2011-2013 has been reduced by 53 due to Reclassification of 53 customers that occurred in Jan 2014**												
Large User												
# of Customers	3	3	3	3	3	3	3	3	3	3	3	3
kWh	148,687,034	150,173,340	154,138,390	152,025,145	154,963,792	153,804,618	154,864,222	156,314,904	157,466,056	158,640,435	159,878,759	161,354,888
kW	241,899	291,825	293,441	316,094	293,665	290,775	292,778	295,520	297,697	299,917	302,258	305,049
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
kWh		1.00%	2.64%	-1.37%	1.93%	-0.75%	0.69%	0.94%	0.74%	0.75%	0.78%	0.92%
kW		20.64%	0.55%	7.72%	-7.10%	-0.98%	0.69%	0.94%	0.74%	0.75%	0.78%	0.92%
Street Light												
# of Connections	5,114	5,117	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	3,992,185	4,076,824	4,142,238	4,555,371	3,336,835	1,817,917	1,814,577	1,818,158	1,821,740	1,825,321	1,828,903	1,832,484
kW	11,246	11,251	11,237	10,984	8,304	5,045	5,036	5,046	5,056	5,066	5,076	5,086
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Connections		0.06%	0.05%	0.13%	5.05%	-2.91%	2.07%	0.22%	0.22%	0.22%	0.22%	0.22%
kWh		2.12%	1.60%	9.97%	-26.75%	-45.52%	-0.18%	0.20%	0.20%	0.20%	0.20%	0.20%
kW		0.04%	-0.13%	-2.25%	-24.40%	-39.24%	-0.18%	0.20%	0.20%	0.20%	0.20%	0.20%
Unmetered Scattered Load												
# of Customers	163	158	156	152	151	147	143	141	138	135	132	129
kWh	2,256,949	2,229,012	1,517,655	1,484,560	1,499,820	1,247,036	1,221,326	1,196,145	1,171,483	1,147,330	1,123,675	1,100,508
Variance Analysis (relative to 2011 Board Approved Figures)												
# of Customers		-3.07%	-1.58%	-2.25%	-0.77%	-2.87%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%
kWh		-1.24%	-31.91%	-2.18%	1.03%	-16.85%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%	-2.06%

Totals

Customers	26,887	26,918	26,959	26,904	27,152	27,378	27,482	27,588	27,696	27,806	27,918	28,032
Connections	5,114	5,117	5,120	5,126	5,385	5,228	5,337	5,349	5,361	5,373	5,385	5,397
kWh	721,297,251	718,945,778	722,021,025	711,221,296	714,316,678	712,751,085	711,363,113	712,100,117	714,135,212	715,503,095	716,100,097	717,746,483
kW from applicable classes	978,220	1,047,110	1,078,460	1,110,483	1,066,385	1,039,022	1,045,573	1,055,342	1,065,115	1,074,521	1,084,120	1,095,747

Totals - Variance

Customers		0.12%	0.15%	-0.20%	0.92%	0.83%	0.38%	0.39%	0.39%	0.40%	0.40%	0.41%
Connections		0.06%	0.05%	0.13%	5.05%	-2.91%	2.07%	0.22%	0.22%	0.22%	0.22%	0.22%
kWh		-0.33%	0.43%	-1.50%	0.44%	-0.22%	-0.19%	0.10%	0.29%	0.19%	0.08%	0.23%
kW from applicable classes		7.04%	2.99%	2.97%	-3.97%	-2.57%	0.63%	0.93%	0.93%	0.88%	0.89%	1.07%

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-54

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR
Exhibit 1, Tab 3, Schedule 1, p. 15
Exhibit 2, Tab 2, Schedule 1, Attachment 1 – Distribution System Plan, p. 69

Interrogatory:

In the second reference, Kingston Hydro indicates that it is requesting approval of the 2016 to 2020 load forecasts as presented in this application, with no annual updates. Based on data from Tables 1 and 2 of the first reference and the sum of the class weather normalized actuals, the following growth rates are obtained:

	W/N Actual/Non CDM Adjusted Forecast kWh	Growth	W/N Actual/CDM Adjusted Forecast kWh	Growth
2009	722,820,774		722,820,774	
2010	719,429,322	-0.47%	719,429,322	-0.47%
2011	721,735,543	0.32%	721,735,543	0.32%
2012	710,919,873	-1.50%	710,919,873	-1.50%
2013	713,891,948	0.42%	713,891,948	0.42%
2014	712,079,234	-0.25%	712,079,234	-0.25%
2015	715,028,487	0.41%	712,428,487	0.05%
2016	712,404,228	-0.37%	704,804,228	-1.07%
2017	709,612,250	-0.39%	696,862,250	-1.13%
2018	706,997,473	-0.37%	688,547,473	-1.19%
2019	704,560,822	-0.34%	679,960,822	-1.25%
2020	702,303,252	-0.32%	671,053,252	-1.31%

	W/N Actual/Non CDM Adjusted Forecast kW	Growth	W/N Actual/CDM Adjusted Forecast kW	Growth
2009	978,952		978,952	
2010	1,047,021	6.95%	1,047,021	6.95%
2011	1,078,032	2.96%	1,078,032	2.96%
2012	1,109,149	2.89%	1,109,149	2.89%
2013	1,066,359	-3.86%	1,066,359	-3.86%
2014	1,039,961	-2.48%	1,039,961	-2.48%
2015	1,042,839	0.28%	1,039,049	-0.09%
2016	1,046,119	0.31%	1,034,965	-0.39%
2017	1,049,033	0.28%	1,030,195	-0.46%
2018	1,052,234	0.31%	1,024,792	-0.52%
2019	1,055,727	0.33%	1,018,888	-0.58%
2020	1,059,513	0.36%	1,012,398	-0.64%

a) Please confirm that Kingston Hydro agrees these numbers are correct.

b) Please update the 2015 numbers with actuals for the first six months and compare to these forecasts.

c) Kingston Hydro is proposing an average annual decrease in its load in the next five years of 1.2%, despite increasing customer numbers. Additionally, on page 69 of its DSP, Kingston Hydro states that in 2012 a 20 year load forecast for capacity planning was done which predicted an average annual increase in load of 1.1%. How does Kingston Hydro reconcile these two contrary forecasts?

d) Did the 20 year load forecast that was done in 2012 include the impacts of the new CDM targets for 2015-2020?

Response:

a) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

Kingston Hydro confirms the kWh amounts in the first table are correct and appear to be derived directly from the Kingston Hydro Load Forecast Model that was submitted. Kingston Hydro also confirms the 2016-2020 kW amounts in the second table for "W/N Actual/Non CDM Adjusted Forecast kW" appear to be correct and derived directly from the Load Forecast Model that was submitted. Kingston Hydro does not know how Board Staff derived the remaining kW amounts presented in the second table of IR 3-Staff-54 a).

b) Kingston Hydro offers the following updated monthly data as requested:

Date	Total Billed kWh
Jan-15	72,508,109
Feb-15	67,845,055
Mar-15	66,761,172
Apr-15	55,134,500
May-15	49,924,744
Jun-15	50,245,003

Date	Total Billed kW
Jan-15	79,143
Feb-15	78,622
Mar-15	87,863
Apr-15	78,334
May-15	106,511
Jun-15	100,305

Kingston Hydro is not able to reconcile the first 6 months of 2015 actual data requested by Board Staff with the annual actual/forecast data provided by Board Staff in IR 3-Staff-54 a).

c) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

The increase in Conservation and Demand Management and the continuation and intensification of provincial conservation investment explains the contrary forecasts. Since 2011, Kingston Hydro customers have helped our LDC become a provincial conservation leader. Investments they've made with help from the IESO's saveONenergy programs account for an approximately 6% drop in both average peak system demand and total kWh purchased compared to 2010 values as published in the OEB yearbook. In 2012, the results of the 2011-2014 Conservation framework were not yet known and there was no promise of a continuation of conservation funding and investment from the province going forward. In 2015, with the long-term "Conservation First" framework in place until the end of 2020 and new targets in place, strong uptake of conservation programs by Kingston Hydro customers, constantly improving codes and standards, and the impact of higher power prices affecting demand, a stronger impact is predicted from CDM than was included in the 2012 load forecast.

The 20 Year Load Forecast developed in 2012 estimates maximum peak system demand and is used by engineering staff for planning future system capacity requirements. The Weather Normalized Forecasts developed by

Elenchus in 2010 and 2015 estimates the nominal system consumption and demand by rate class and is used by finance staff for forecasting annual revenue.

d) No.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-55

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR

Interrogatory:

The referenced report states on page 1 that Kingston Hydro has used the Hartington IHD weather station for its weather data because it "*has nearly interrupted [sic] temperature observations for the 1995-2014 period*."

a) Please confirm that Kingston Hydro meant 'uninterrupted'

b) How much data would be missing if the nearer Kingston Climate station was used?

c) Are the number of HDD and CDD significant different for the Kingston Climate station from the Hartington IHD?

Response:

a) Confirmed.

b) Kingston Climate entered service in July of 2008, and has had equipment changes since that time. From 2009-2014, 35 days are missing recordings, and an additional 17 days have estimated recordings. Hartington has a history of providing nearly uninterrupted data, and was selected for this reason in the previous rate

application. In instances where Hartington data was missing, the nearby Kingston Climate was used to fill the missing values.

c) Hartington IHD typically has 2-4% more HDD and roughly the same number of CDD as Kingston Climate. Given the variations that exist between areas within the service territory, it is impossible for one station to be viewed as representative of the entire service territory. Hartington IHD reasonably captures the distinction between colder months and milder months, and facilitates for robust HDD and CDD explanatory variables.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-56

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal
Distribution System Load Forecast: 2016-2020 Custom IR

Interrogatory:

a) The referenced report states on page 1 that '*There is no known agency that publishes monthly economic accounts on a regional basis for Ontario*." Is there a reason why Kingston Hydro has not used the data that is produced by the Conference Board of Canada for Kingston?

b) Kingston Hydro has used an average of the forecast of employment in Ontario for 2015 and 2016 from four banks to forecast the economic growth for 2015 to 2020.
   i) Please provide an update to the forecasts if available from the four banks.
   ii) Please compare the revised forecast for employment in Ontario to the forecast for employment in Kingston over the application period produced by the Conference Board of Canada.

c) For each class the report states that 72 points of data were used, i.e. monthly data from January 2009 to December 2014. Why were only six years of data used?

d) Kingston Hydro used a similar data set for 2003 to 2009 in their 2011 Cost of Service application. Please update the current load forecast using as much

historical data as is available, but at a minimum including 2003 to 2009.

Response:

a) Elenchus is not aware of a way for the public to obtain free access to the Conference Board of Canada data. The use of data which is not available for free public use brings several challenges. Anyone wishing to confirm our work would need to pay to verify the data from the source. It may be expensive or impossible to obtain a license which permits us to include this data on the public record in a live load forecasting model. Even purchasing this data for confidential use represents a cost to rate payers which in Elenchus' opinion is hard to justify when employment data freely available from Statistics Canada and employment is known to be strongly related to economic activity.

In the case of Kingston, much of the local employment is institutional, and therefore we believe that employment data is likely even a more direct predictor of energy use than economic activity.

b)

i) The current forecasts are as follows:

	BMO	TD	Scotia	RBC	Average
	21-Aug-15	9-July-15	30-July-15	June-15	
2015	0.80%	0.90%	0.90%	1.20%	0.95%
2016	1.30%	1.00%	1.00%	1.30%	1.15%

This reflects a reduction in the average 2015 forecast from 1.15%, and an increase in the 2016 forecast from 1.13%.

ii) For the reasons set out above, we do not believe acquiring a license to Conference Board of Canada data to be a prudent use of rate revenue.

c) The filing requirements at section 2.6.2 require that "the applicant must demonstrate the historical accuracy of the load forecast for at least the past 5 years." The same section requires "All data used to determine the forecast must be presented and filed in live Microsoft Excel spreadsheet format". Elenchus understands these points to mean that any amount of historic data including at least the most recent 5 historical years is acceptable. Any amount of data greater than 5 years should therefore only be included if it appears to improve the accuracy of the forecast.

The use of additional years of historical data has the advantage of including more information in the regression. However, older historic data has less correlation with current data due to changing use patterns. Since many of these changing use patterns are unlikely to return to historic use, the informative value must be weighed against the applicability to the future. The recession in 2008 in particular created a permanent province-wide change in the use of electricity, and therefore historic energy use prior to 2008 does not typically improve the predictive accuracy of models.

d) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. Kingston Hydro notes that given historic CDM data is not available as far back as 2003, it is not practical to apply the methodology proposed in IR 3-Staff-56 d) and update the revised Load Forecast filed on Sept 11, 2015 with 2003-2009 historic data. Kingston Hydro has however provided the following response which is based on its original Load Forecast filed on June 1, 2015.*

Please see the tables and graphs below with the key outputs from the load forecast below. As explained in part c, this forecast does not appear to improve the predictive accuracy as observed in the monthly and annual absolute percentage error, and Kingston Hydro proposes to rely on the forecast based on the years 2009-2014.

Residential Forecast

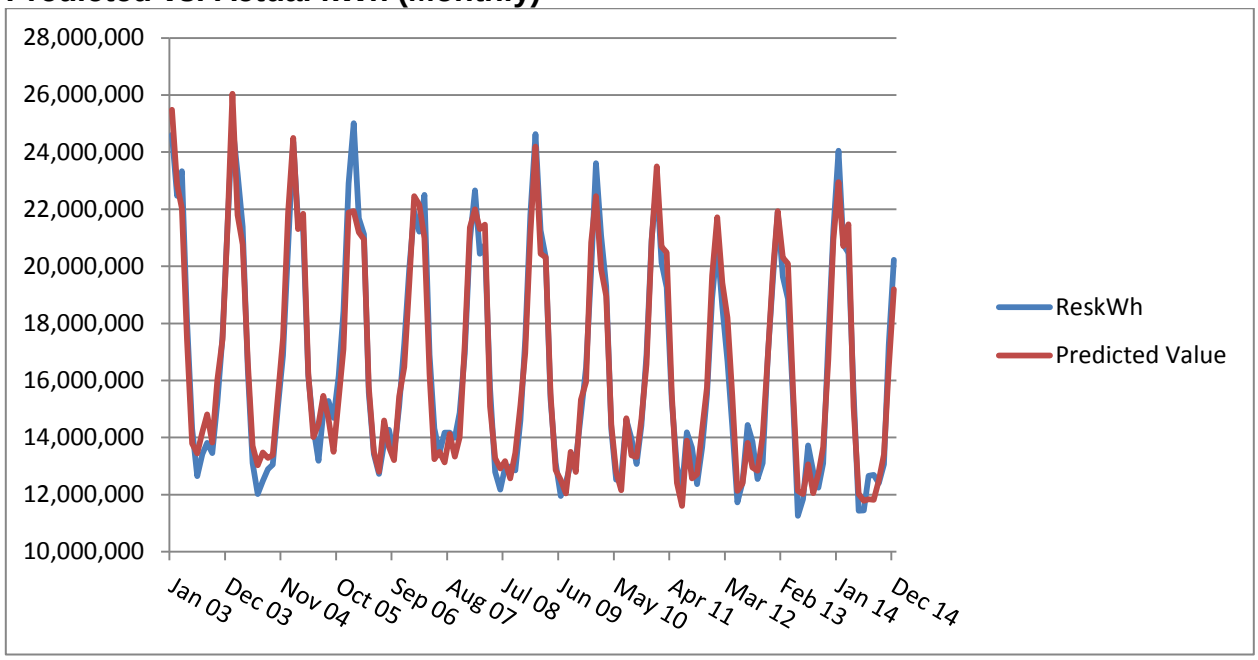
Ordinary Least Squares Model

Model 11: OLS, using observations 2003:01-2014:12 (T = 144)
Dependent variable: ReskWh

	coefficient	std. error	t-ratio	p-value
const	14,794,550	492,782	30.0224829	1.31E-61
HDD	11,619	652	17.81315479	2.93E-37
CDD	27,720	2,924	9.480640192	1.18E-16
Trend	- 12,495	1,529	-8.170458305	1.96E-13
Fall	- 2,283,010	333,032	-6.855224784	2.32E-10
DFEB	-1025243.63	268216.9314	-3.822441872	2.01E-04
DAPR	- 2,109,819.59	351593.5595	-6.00073447	1.71E-08
DDEC	-1007641.269	268670.9882	-3.75046549	2.61E-04
PostSecondarySu	-2892826.85	425628.8249	-6.796595251	3.14E-10

Mean dependent var	16548154.99	S.D. dependent var	3850754.481
Sum squared resid	7.76706E+13	S.E. of regression	758510.429
R-squared	0.963370652	Adjusted R-squared	0.961200024
F(8, 135)	443.8211644	P-value(F)	5.73E-93
Log-likelihood	-2149.312478	Akaike criterion	4.32E+03
Schwarz criterion	4343.353276	Hannan-Quinn	4327.485838
rho	0.30954978	Durbin-Watson	1.365866473

92 **Predicted vs. Actual kWh (Monthly)**



93

94

95 **Predicted vs Actual kWh (Annual Summary):**

Year	Actual	Predicted	Error (%)
2003	210,236,683	212,547,643	1.1%
2004	202,169,320	206,975,254	2.4%
2005	213,231,097	210,364,072	1.3%
2006	203,419,312	199,053,592	2.1%
2007	205,361,403	201,799,172	1.7%
2008	197,176,338	198,476,382	0.7%
2009	196,461,750	196,311,778	0.1%
2010	197,410,764	194,179,041	1.6%
2011	191,104,338	193,124,775	1.1%
2012	184,953,209	189,637,593	2.5%
2013	189,348,696	191,263,903	1.0%
2014	192,061,408	189,201,115	1.5%

Mean Absolute Percentage Error (Annual)	1.4%
Mean Absolute Percentage Error (Monthly)	3.7%

96

97

Predicted vs Actual kWh

Annual kWh Forecast

Year	Res kWh Actual	Annual Change	Normalized	Annual Change
2003	210,236,683		207,827,483	
2004	202,169,320	-3.8%	206,028,134	-0.9%
2005	213,231,097	5.5%	204,228,785	-0.9%
2006	203,419,312	-4.6%	202,429,436	-0.9%
2007	205,361,403	1.0%	200,630,087	-0.9%
2008	197,176,338	-4.0%	198,830,738	-0.9%
2009	196,461,750	-0.4%	197,031,389	-0.9%
2010	197,410,764	0.5%	195,232,040	-0.9%
2011	191,104,338	-3.2%	193,432,691	-0.9%
2012	184,953,209	-3.2%	191,633,342	-0.9%
2013	189,348,696	2.4%	189,833,993	-0.9%
2014	192,061,408	1.4%	188,034,644	-0.9%
2015			186,235,295	-1.0%
2016			184,435,946	-1.0%
2017			182,636,597	-1.0%
2018			180,837,248	-1.0%
2019			179,037,899	-1.0%
2020			177,238,550	-1.0%

Annual kWh Forecast

GS < 50 Forecast

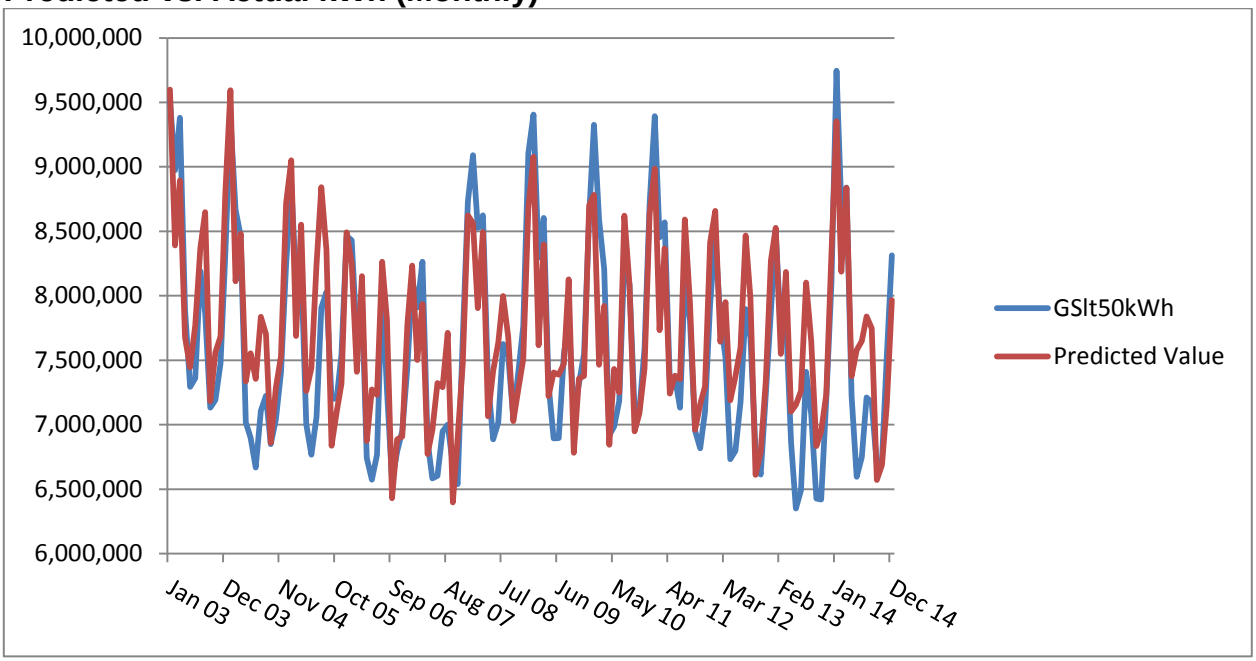
Ordinary Least Squares Model

Model 17: OLS, using observations 2003:01-2014:12 (T = 144)
Dependent variable: GSlt50kWh

	coefficient	std. error	t-ratio	p-value
const	-17973702.6	2952874.788	-6.086848882	1.15E-08
HDD	2375.893583	239.6954495	9.912134705	1.11E-17
CDD	12792.42367	1085.188536	11.78820384	2.11E-22
MonthDays	118874.4706	29684.23512	4.004633102	0.000102763
KingstonFTE	36882.51614	13961.02675	2.641819746	0.009234811
Trend	4687.91513	1246.106655	3.762049671	0.0002517
GS_50_Cust	5513.025976	638.9134776	8.628752043	1.65E-14
Reclassificatio	757935.4307	117978.9274	6.424328879	2.17E-09
Fall	-412227.4794	114863.3388	-3.588851619	0.000465762
DAPR	-549314.467	122722.3946	-4.476073569	1.62E-05
PostSecondarySu	-491942.2484	150974.0568	-3.258455519	0.001422088

Mean dependent var	7611574.443	S.D. dependent var	794249.2437
Sum squared resid	1.01956E+13	S.E. of regression	276872.3486
R-squared	0.886978478	Adjusted R-squared	0.878480619
F(10, 133)	104.3767019	P-value(F)	6.38E-58
Log-likelihood	-2003.114634	Akaike criterion	4028.229268
Schwarz criterion	4060.897214	Hannan-Quinn	4041.503678
rho	0.477246766	Durbin-Watson	1.044309441

Predicted vs. Actual kWh (Monthly)



Predicted vs Actual kWh (Annual Summary):

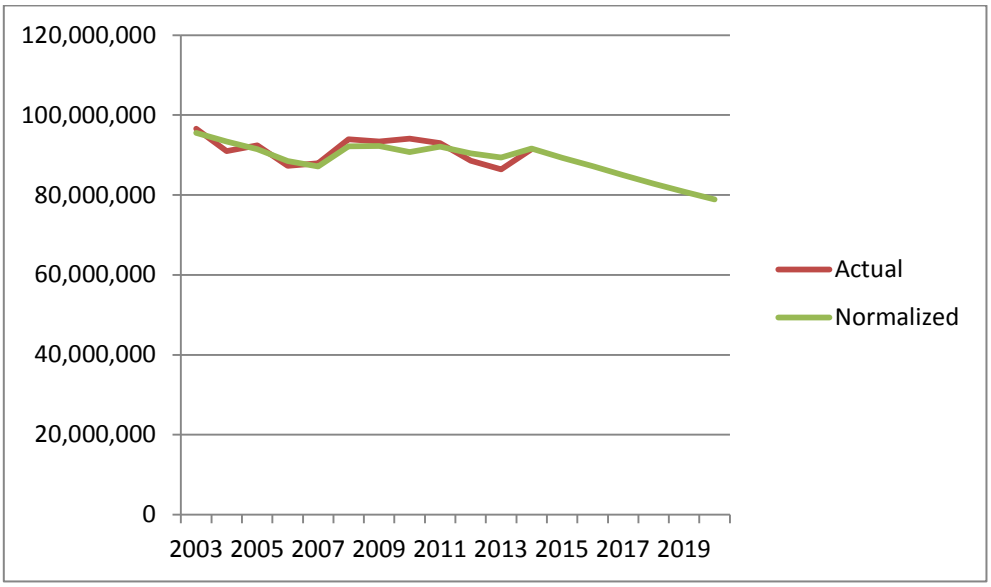
	GS<50 kWh		Absolute Error
	Actual	Predicted	(%)
2003	96,605,505	98,011,262	1.5%
2004	90,968,331	94,374,048	3.7%
2005	92,393,785	95,181,271	3.0%
2006	87,257,190	89,279,059	2.3%
2007	87,931,681	89,120,217	1.4%
2008	93,970,050	93,256,758	0.8%
2009	93,350,687	92,926,147	0.5%
2010	94,126,083	92,508,645	1.7%
2011	93,008,635	93,437,529	0.5%
2012	88,608,641	91,874,031	3.7%
2013	86,375,577	90,861,292	5.2%
2014	91,470,555	92,946,382	1.6%

Mean Absolute Percentage Error (Annual)	2.1%
Mean Absolute Percentage Error (Monthly)	4.5%

Predicted vs Actual kWh

Annual kWh Forecast

Year	GS<50 kWh Actual	Annual Change	Normalized	Annual Change
2003	96,605,505		95,557,579	
2004	90,968,331	-5.8%	93,397,886	-2.3%
2005	92,393,785	1.6%	91,487,138	-2.0%
2006	87,257,190	-5.6%	88,473,005	-3.3%
2007	87,931,681	0.8%	87,173,229	-1.5%
2008	93,970,050	6.9%	92,162,725	5.7%
2009	93,350,687	-0.7%	92,238,077	0.1%
2010	94,126,083	0.8%	90,736,045	-1.6%
2011	93,008,635	-1.2%	92,103,174	1.5%
2012	88,608,641	-4.7%	90,435,263	-1.8%
2013	86,375,577	-2.5%	89,353,255	-1.2%
2014	91,470,555	5.9%	91,615,462	2.5%
2015			89,334,705	-2.5%
2016			87,224,768	-2.4%
2017			84,937,073	-2.6%
2018			82,827,370	-2.5%
2019			80,775,929	-2.5%
2020			78,900,783	-2.3%



Annual kWh Forecast

124 **GS > 50 Forecast**

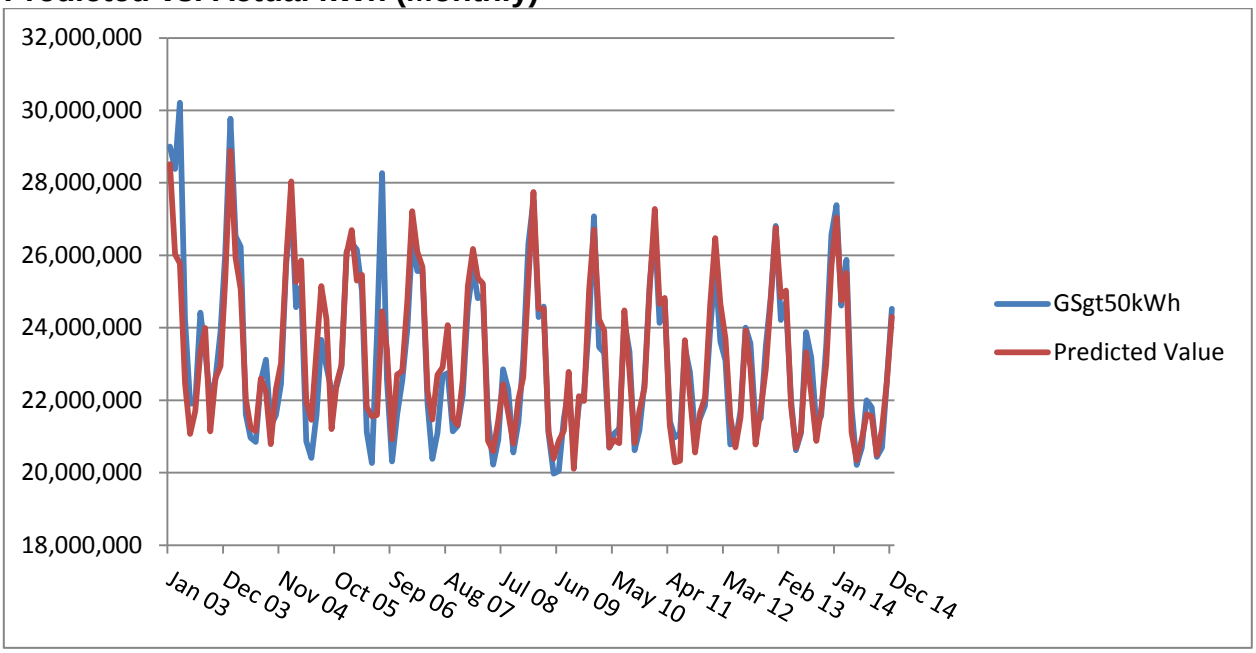
125 **Ordinary Least Squares Model**

Model 24: OLS, using observations 2003:01-2014:12 (T = 144)
Dependent variable: GSgt50kWh

	coefficient	std. error	t-ratio	p-value
const	1,867,599.99	3372679.482	0.553743692	0.5806771
HDD	6,919.16	793.5192752	8.719591338	9.46E-15
CDD	31,793.78	4244.076437	7.491331826	8.25E-12
MonthDays	522,847.79	110967.1543	4.711734706	6.07E-06
GSgt50Cust	9,682.83	1993.725285	4.856652244	3.28E-06
Spring	- 689,620.71	288089.9002	-2.393769122	0.018061499
Fall	- 1,634,979.24	421896.1372	-3.875312185	1.66E-04
DAPR	- 1,307,776.40	406796.4843	-3.214817369	1.64E-03
DDEC	- 1,233,323.24	338378.2861	-3.644806105	3.82E-04
PostSecondarySu	- 1,465,142.40	491173.0808	-2.982945231	3.39E-03

Mean dependent var	23,175,122.91	S.D. dependent var	2248547.977
Sum squared resid	1.02E+14	S.E. of regression	873415.1846
R-squared	0.858614159	Adjusted R-squared	8.49E-01
F(9, 134)	90.41789978	P-value(F)	1.68E-52
Log-likelihood	-2169.089005	Akaike criterion	4.36E+03
Schwarz criterion	4387.876143	Hannan-Quinn	4370.245655
rho	0.437471799	Durbin-Watson	1.122647476

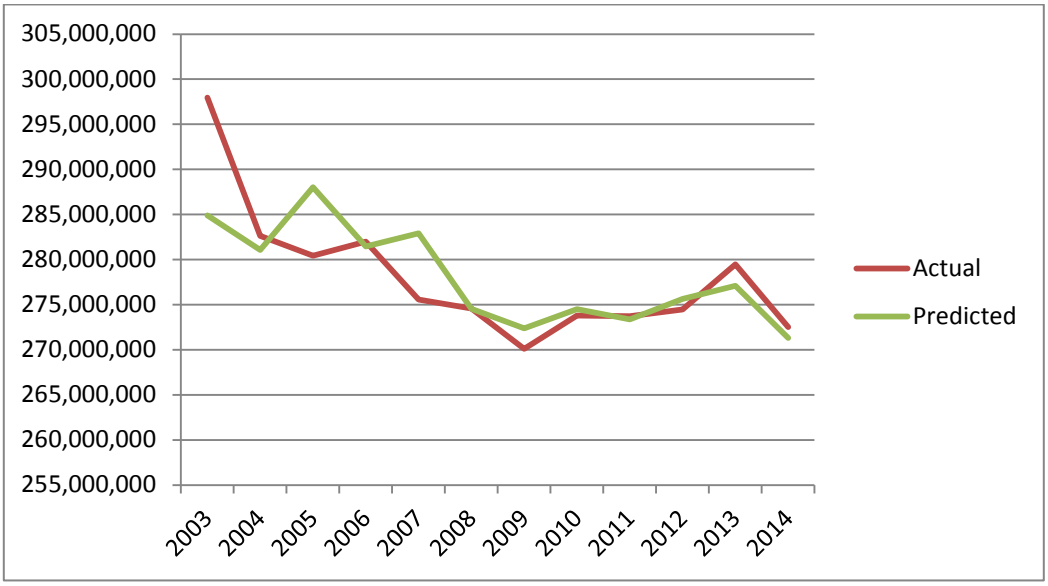
Predicted vs. Actual kWh (Monthly)



Predicted vs Actual kWh (Annual Summary):

	GS>50 kWh		Absolute Error
	Actual	Predicted	(%)
2003	297,965,658	284,907,673	4.4%
2004	282,637,528	281,078,142	0.6%
2005	280,428,685	288,033,215	2.7%
2006	281,992,976	281,458,980	0.2%
2007	275,557,420	282,905,602	2.7%
2008	274,569,665	274,523,386	0.0%
2009	270,117,290	272,384,720	0.8%
2010	273,806,098	274,504,652	0.3%
2011	273,712,584	273,361,543	0.1%
2012	274,473,668	275,644,896	0.4%
2013	279,458,000	277,105,099	0.8%
2014	272,498,127	271,309,792	0.4%

Mean Absolute Percentage Error (Annual)	1.1%
Mean Absolute Percentage Error (Monthly)	2.5%



Predicted vs Actual kWh

Annual kWh Forecast

Year	GS>50 kWh Actual	Annual Change	Normalized	Annual Change
2003	297,965,658		286,465,073	
2004	282,637,528	-5.1%	286,397,268	0.0%
2005	280,428,685	-0.8%	286,707,144	0.1%
2006	281,992,976	0.6%	287,820,669	0.4%
2007	275,557,420	-2.3%	286,106,808	-0.6%
2008	274,569,665	-0.4%	279,793,578	-2.2%
2009	270,117,290	-1.6%	278,583,249	-0.4%
2010	273,806,098	1.4%	278,428,324	-0.1%
2011	273,712,584	0.0%	278,108,790	-0.1%
2012	274,473,668	0.3%	280,432,645	0.8%
2013	279,458,000	1.8%	281,207,296	0.3%
2014	272,498,127	-2.5%	275,833,325	-1.9%
2015			276,554,611	0.3%
2016			277,812,543	0.5%
2017			278,038,841	0.1%
2018			278,802,318	0.3%
2019			279,580,400	0.3%
2020			280,896,214	0.5%

Annual kWh Forecast

Annual kW Forecast

	kWh Normalized	kW / kWh	kW Normalized
	D	**E**	**F = D * E**
2015	276,554,611	0.00273	754,979
2016	277,812,543	0.00273	758,413
2017	278,038,841	0.00273	759,031
2018	278,802,318	0.00273	761,115
2019	279,580,400	0.00273	763,239
2020	280,896,214	0.00273	766,831

Large Use Forecast

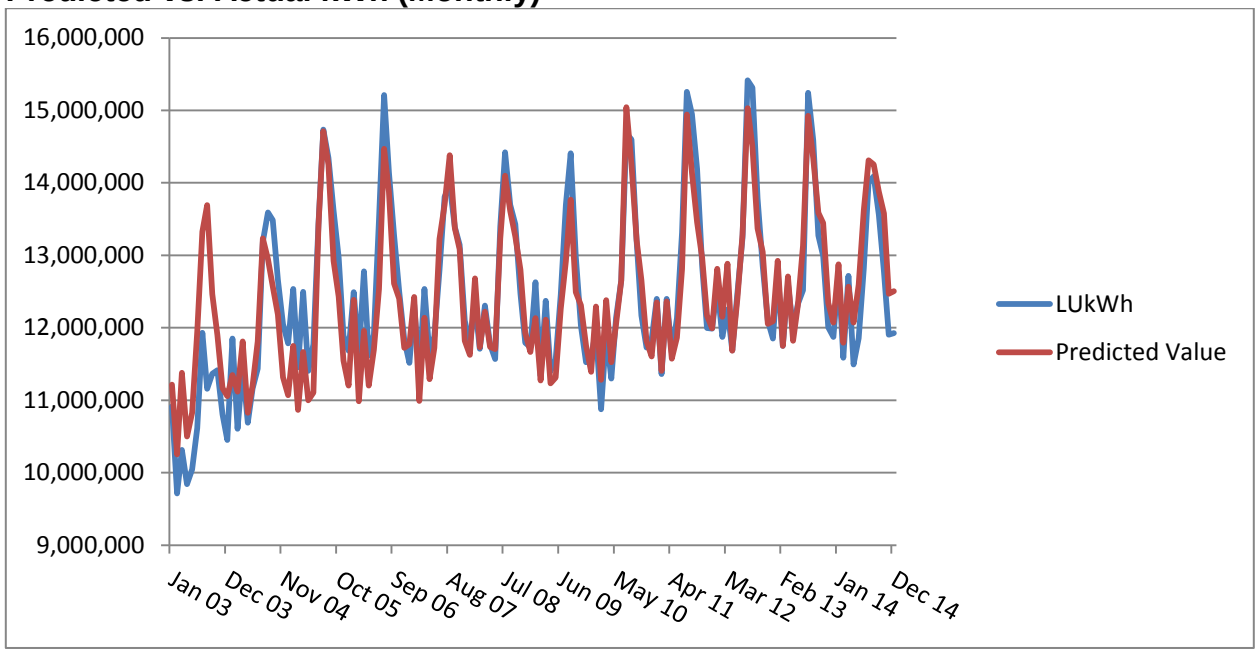
Ordinary Least Squares Model

Model 5: OLS, using observations 2003:01-2014:12 (T = 144)
Dependent variable: LUkWh

	coefficient	std. error	t-ratio	p-value
const	- 12,678,594	2,368,825	-5.352271395	3.66E-07
HDD	- 2,300	476	-4.834812798	3.60E-06
CDD	16,634	2,523	6.592027906	9.14E-10
MonthDays	416,030	66,459	6.259941505	4.85E-09
OntFTE	2,145	225	9.523870614	9.73E-17
Spring	- 478,794	173,563	-2.758618825	6.62E-03
Fall	- 1,032,385	252,158	-4.094197631	7.28E-05
DAPR	- 994,626	243,268	-4.088595118	7.44E-05
DDEC	- 1,096,934	203,025	-5.402961271	2.90E-07
PostSecondarySu	-1.74E+06	293,696	-5.912614667	2.65E-08

Mean dependent var	12,438,597	S.D. dependent var	1.17E+06
Sum squared resid	3.65598E+13	S.E. of regression	522335.5453
R-squared	0.813120645	Adjusted R-squared	0.800569047
F(9, 134)	64.7822385	P-value(F)	1.82E-44
Log-likelihood	-2095.058484	Akaike criterion	4210.116968
Schwarz criterion	4239.815101	Hannan-Quinn	4222.184614
rho	0.687660434	Durbin-Watson	0.625610761

144 **Predicted vs. Actual kWh (Monthly)**



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147 **Predicted vs Actual kWh (Annual Summary):**

	LU kWh		Absolute Error
	Actual	Predicted	(%)
2003	128,577,309	139,738,680	8.7%
2004	143,975,782	141,454,320	1.8%
2005	152,356,156	146,884,868	3.6%
2006	152,420,284	147,625,495	3.1%
2007	150,723,902	149,783,175	0.6%
2008	150,640,722	150,682,044	0.0%
2009	148,002,869	144,974,812	2.0%
2010	149,058,790	150,786,777	1.2%
2011	154,491,718	152,027,198	1.6%
2012	155,448,435	155,311,660	0.1%
2013	153,943,746	155,359,115	0.9%
2014	151,518,193	156,529,763	3.3%

Mean Absolute Percentage Error (Annual)	2.2%
Mean Absolute Percentage Error (Monthly)	3.1%

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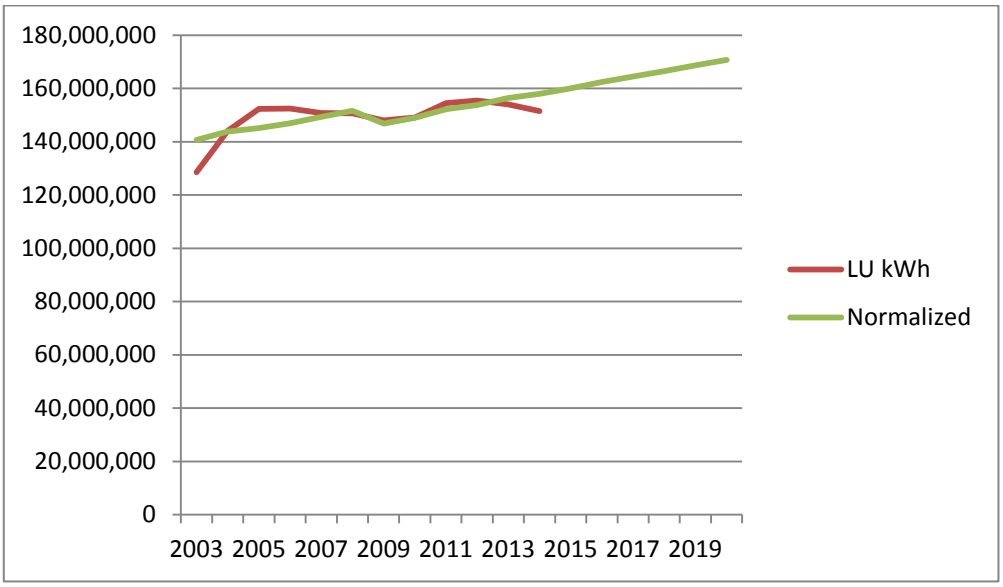
Predicted vs Actual kWh

Annual kWh Forecast

Year	LU kWh Actual	Annual Change	Normalized	Annual Change
2003	128,577,309		140,633,472	
2004	143,975,782	12.0%	143,794,443	2.2%
2005	152,356,156	5.8%	145,106,764	0.9%
2006	152,420,284	0.0%	146,893,678	1.2%
2007	150,723,902	-1.1%	149,293,892	1.6%
2008	150,640,722	-0.1%	151,572,346	1.5%
2009	148,002,869	-1.8%	146,821,387	-3.1%
2010	149,058,790	0.7%	148,988,422	1.5%
2011	154,491,718	3.6%	152,210,016	2.2%
2012	155,448,435	0.6%	153,764,694	1.0%
2013	153,943,746	-1.0%	156,449,915	1.7%
2014	151,518,193	-1.6%	157,951,095	1.0%
2015			159,986,209	1.3%
2016			162,416,007	1.5%
2017			164,452,430	1.3%
2018			166,511,763	1.3%
2019			168,594,263	1.3%
2020			170,700,192	1.2%



Annual kWh Forecast

Annual kW Forecast

	kWh Normalized	kW / kWh	kW Normalized
	D	**E**	**F = D * E**
2015	159,986,209	0.001891	302,461
2016	162,416,007	0.001891	307,055
2017	164,452,430	0.001891	310,905
2018	166,511,763	0.001891	314,798
2019	168,594,263	0.001891	318,735
2020	170,700,192	0.001891	322,716

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Interrogatory 3-Staff-57

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR

Interrogatory:

All of the class kWh forecasts include a trend variable based on the number of months starting from 2009. This variable has a negative coefficient and as a result the impact on the kWh sales grows significantly such that by 2020 it represents a decrease of almost 25% in consumption.

a) Please explain what driver of consumption this trend variable is capturing.

b) If the trend variable is capturing the impact of conservation, then does this result in double counting when the forecast is also manually adjusted for CDM?

c) Why has the trend variable not been continued past December 2014 in the forecast for the GS < 50kW class?

Response:

a) It is impossible to determine the driver of a trend variable as it captures all changes that are happening over time, but which are not captured in other variables. This varies by rate class, but can include changes to demographics,

household size, average unit sizes, changes to installed lighting and appliance technology, commodity price, as well as CDM and other factors.

b) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

It is possible some amount of CDM activity would in effect be anticipated to continue to take place by continuing the trend variable. Therefore, it is possible that some amount of CDM is in effect double counted. Please refer to the attachment "IR 3-Staff-54 Attachment 1.xlsx" for revised CDM calculations and source data. The revised Load Forecast assumes the CDM in place as at December 2014 had always been in place – thereby removing the impact of the historic CDM from the trend.

c) The trend variable should have been continued to December 2020, and was missed in error. Please see the revised Load Forecast Model.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Interrogatory 3-Staff-58

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 – Weather Normal
Distribution System Load Forecast: 2016-2020 Custom IR, p. 13

Interrogatory:

The results of the regression analysis for the Large Use class show the coefficient for HDD as negative 1,950.

a) Does this make sense intuitively? I.e. for ever one unit increase in HDD, the consumption of the Large User goes down by 1,950 kWh?

b) Please provide an explanation of why this is occurring in the model.

Response:

a) Yes, this makes sense based on Kingston Hydro's knowledge of its Large Use customers.

b) The negative coefficient for HDD in the regression analysis of the Large Use class for the 2010-2014 period makes sense intuitively based on the following customer insights:

- All three Large Use customers have steam plants for heating.

- Two of the Large User customers have been Global Adjustment participants since 2013 and have adopted demand management measures to reduce demand during provincial peak periods.
- At least one Large Use customer undertook a variable frequency drive (VFD) retrofit and modified air handling unit scheduling as part of a Kingston Hydro sponsored CDM initiative.
- Large Use CDM measures mentioned above are typically in effect during peak periods especially Spring and Fall when the ambient temperature is between +5 and -15 degrees Celsius resulting in a negative correlation with HDD.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-59

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal
Distribution System Load Forecast: 2016-2020 Custom IR, p. 15
OEB Filing Requirements for Electricity Distribution Rate Applications, July 16, 2015, p. 30

Interrogatory:

Kingston Hydro uses a 10 year average of HDD and CDD for weather normal. The applicant has also provided the 20 year average of HDD and CDD, as required by the second reference. However, the Filing Requirements for cost of service applications also ask the applicant to show the load forecasts based on both a 10 year average and on the 20 year trends. This information would also be helpful for this Custom IR application.

a) Please provide the forecast based on a 20 year average of HDD and CDD. Note that this should be done with the expanded data set request in 3-Staff- 1 above.

b) Please provide the rationale for choosing the 10 year average forecast.

Response:

a) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015*

as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.

It is understood that this request is in reference to 3-Staff-56d which requested the regression be run with energy usage data and explanatory variables for the years 2003-2014 (at a minimum). In that interrogatory, the proposed 10 year average of HDD and CDD (based on 2005-2014) was to be used for the weather normalized forecast. It is also understood that this request is for a 20-year trend of HDD and CDD (based on 1995-2014 and projected to 2016-2020) to be used for the weather normalized forecast.

Please refer to 3-Staff-56d for the details of the weather normalized run using 10 year average of HDD and CDD. This response only includes the updated weather normalized forecast using the 20 year trend of HDD and CDD:

Residential:

Year	Res kWh Actual	Annual Change	Normalized	Annual Change
2003	210,236,683		208,845,722	
2004	202,169,320	-3.8%	206,843,712	-1.0%
2005	213,231,097	5.5%	204,841,703	-1.0%
2006	203,419,312	-4.6%	202,839,693	-1.0%
2007	205,361,403	1.0%	200,837,684	-1.0%
2008	197,176,338	-4.0%	198,835,674	-1.0%
2009	196,461,750	-0.4%	196,833,665	-1.0%
2010	197,410,764	0.5%	194,831,656	-1.0%
2011	191,104,338	-3.2%	192,829,646	-1.0%
2012	184,953,209	-3.2%	190,827,637	-1.0%
2013	189,348,696	2.4%	188,825,627	-1.0%
2014	192,061,408	1.4%	186,823,618	-1.1%
2015			184,821,608	-1.1%
2016			182,819,599	-1.1%
2017			180,817,589	-1.1%
2018			178,815,580	-1.1%
2019			176,813,570	-1.1%
2020			174,811,561	-1.1%

GS < 50:

Year	GS<50 kWh Actual	Annual Change	Normalized	Annual Change
2003	96,605,505		95,704,623	
2004	90,968,331	-5.8%	93,519,170	-2.3%
2005	92,393,785	1.6%	91,582,661	-2.1%
2006	87,257,190	-5.6%	88,542,767	-3.3%
2007	87,931,681	0.8%	87,217,230	-1.5%
2008	93,970,050	6.9%	92,180,966	5.7%
2009	93,350,687	-0.7%	92,230,557	0.1%
2010	94,126,083	0.8%	90,702,764	-1.7%
2011	93,008,635	-1.2%	92,044,133	1.5%
2012	88,608,641	-4.7%	90,350,461	-1.8%
2013	86,375,577	-2.5%	89,242,693	-1.2%
2014	91,470,555	5.9%	91,479,140	2.5%
2015			89,172,621	-2.5%
2016			87,036,924	-2.4%
2017			84,723,468	-2.7%
2018			82,588,005	-2.5%
2019			80,510,803	-2.5%
2020			78,609,896	-2.4%

GS > 50

Year	GS>50 kWh Actual	Annual Change	Normalized	Annual Change
2003	297,965,658		286,940,184	
2004	282,637,528	-5.1%	286,785,339	-0.1%
2005	280,428,685	-0.8%	287,008,176	0.1%
2006	281,992,976	0.6%	288,034,662	0.4%
2007	275,557,420	-2.3%	286,233,762	-0.6%
2008	274,569,665	-0.4%	279,833,492	-2.2%
2009	270,117,290	-1.6%	278,536,124	-0.5%
2010	273,806,098	1.4%	278,294,159	-0.1%
2011	273,712,584	0.0%	277,887,586	-0.1%
2012	274,473,668	0.3%	280,124,401	0.8%
2013	279,458,000	1.8%	280,812,013	0.2%
2014	272,498,127	-2.5%	275,351,003	-1.9%
2015			275,985,250	0.2%
2016			277,156,142	0.4%
2017			277,295,401	0.1%
2018			277,971,839	0.2%
2019			278,662,881	0.2%
2020			279,891,656	0.4%

Large Use:

Year	LU kWh Actual	Annual Change	Normalized	Annual Change
2003	128,577,309		140,242,047	
2004	143,975,782	12.0%	143,491,807	2.3%
2005	152,356,156	5.8%	144,892,919	1.0%
2006	152,420,284	0.0%	146,768,623	1.3%
2007	150,723,902	-1.1%	149,257,627	1.7%
2008	150,640,722	-0.1%	151,624,870	1.6%
2009	148,002,869	-1.8%	146,962,701	-3.1%
2010	149,058,790	0.7%	149,218,526	1.5%
2011	154,491,718	3.6%	152,528,910	2.2%
2012	155,448,435	0.6%	154,172,378	1.1%
2013	153,943,746	-1.0%	156,946,388	1.8%
2014	151,518,193	-1.6%	158,536,358	1.0%
2015			160,660,262	1.3%
2016			163,178,850	1.6%
2017			165,304,063	1.3%
2018			167,452,186	1.3%
2019			169,623,476	1.3%
2020			171,818,194	1.3%

b) An average selects a value towards the middle of recent history – minimizing the impact of random variability on the forecast. A trend naturally achieves the opposite – a couple years of extreme weather on one end of the time range selected will cause the trend to predict progressively more extreme weather. With extreme weather frequently occurring in consecutive years, it seems likely that the average of recent years is likely to provide a more reliable forecast of the near future than a longer term trend analysis.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-60

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 17

Interrogatory:

The report states that the economic variable was used to normalize the historic Residential kWh, however the regression for the Residential class does not include an economic variable. Please explain.

Response:

The report is in error. An economic variable was considered for the Residential class, but none showed statistical significance in forecasting Residential energy consumption, therefore none were used.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-61

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal
Distribution System Load Forecast: 2016-2020 Custom IR, p. 19

Interrogatory:

For the forecast of customer count for the GS < 50 kW and GS > 50 kW classes, Kingston Hydro did not use an economic variable such as full time employment. In the approved load forecast for its 2011 Cost of Service application, Kingston Hydro used a lagging Full Time Employment variable to forecast customer counts for these classes.

a) Did Kingston Hydro test an economic variable for determining customer count in the GS classes?

b) If so, please provide the results?

c) If not, please do so and provide the results.

Response:

a) No, an economic variable was not tested for determining customer counts.

b) As per part a) this was not tested.

c) A model for GS < 50 kW customer count is provided below and was run with the customer count in years 2009-2013 adjusted to reflect the reclassification at the beginning of January 2014. Kingston FTEs proved to be more strongly related to customer counts than Ontario FTEs, but still falls well short of statistical significance.

Model 2: OLS, using observations 2009:01-2014:12 (T = 72)

Dependent variable: GSlt50_Adj_Cust

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	3190.89	228.969	13.9359	<0.00001	***
KingstonFTE	2.49015	2.95793	0.8419	0.40278	
Trend	-4.1495	0.344904	-12.0309	<0.00001	***

Mean dependent var	3238.514	S.D. dependent var	95.61145
Sum squared resid	157376.9	S.E. of regression	47.75799
R-squared	0.757527	Adjusted R-squared	0.750499
F(2, 69)	107.7840	P-value(F)	5.90e-22
Log-likelihood	-378.9940	Akaike criterion	763.9879
Schwarz criterion	770.8179	Hannan-Quinn	766.7070
rho	0.976112	Durbin-Watson	0.087274

A model for GS > 50 kW customer count is provided below and was run with the customer count in years 2009-2013 adjusted to reflect the reclassification at the beginning of January 2014. Again, Kingston FTEs proved to be more strongly related to customer counts than Ontario FTEs. In this case, the employment information does provide statistically significant information in predicting customer counts.

Model 4: OLS, using observations 2009:01-2014:12 (T = 72)

Dependent variable: GSgt50_Adj_Cust

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	175.092	34.4049	5.0892	<0.00001	***
KingstonFTE	1.42118	0.444457	3.1976	0.00209	***
Trend	0.44126	0.0518253	8.5144	<0.00001	***

Mean dependent var	304.8194	S.D. dependent var	13.67565
Sum squared resid	3553.258	S.E. of regression	7.176106
R-squared	0.732408	Adjusted R-squared	0.724652
F(2, 69)	94.42772	P-value(F)	1.77e-20
Log-likelihood	-242.5259	Akaike criterion	491.0519
Schwarz criterion	497.8819	Hannan-Quinn	493.7709
Rho	0.771903	Durbin-Watson	0.310464
Theil's U	1.7723		

The resulting customer counts follow:

Year	Filed Forecast	Economic Regression Results
2009	295	
2010	294	
2011	291	
2012	307	
2013	318	
2014	325	
2015	331	327
2016	337	334
2017	343	340
2018	350	347
2019	357	354
2020	364	360

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-62

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal
Distribution System Load Forecast: 2016-2020 Custom IR

Interrogatory:

a) Has Kingston Hydro done a regression analysis on system purchases?

b) If so, please provide the results

c) If not, please do so and provide the results.

Response:

a) Kingston Hydro has not done a regression analysis on system purchases. Kingston Hydro has reliable monthly energy consumption data by class, and is therefore able to forecast the rate classes separately, which is preferred. The use of a regression based on system purchases would require an apportionment to rate classes outside of the regression model. It is reasonably expected that the method used provides a more accurate forecast by class.

b) n/a

c) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and*

3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.

Please see below.

Model 15: OLS, using observations 2009:01-2014:12 (T = 72)

Dependent variable: WholesalekWh

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	-7.86577e+07	2.95292e+07	-2.6637	0.00987	***
Trend	-102144	36090.8	-2.8302	0.00629	***
HDD	20611.7	1714.66	12.0209	<0.00001	***
CDD	94827.2	9372.56	10.1175	<0.00001	***
MonthDays	1.75284e+06	244832	7.1594	<0.00001	***
OntFTE	12941.4	4812.68	2.6890	0.00923	***
Spring	-1.94491e+06	726203	-2.6782	0.00950	***
Fall	-6.5799e+06	909748	-7.2327	<0.00001	***
DAPR	-4.06117e+06	861530	-4.7139	0.00001	***
DDEC	-3.78182e+06	729371	-5.1850	<0.00001	***
PostSecondarySu	-6.56869e+06	1.08186e+06	-6.0717	<0.00001	***

Mean dependent var	61096296	S.D. dependent var	6658217
Sum squared resid	1.07e+14	S.E. of regression	1323765
R-squared	0.966039	Adjusted R-squared	0.960472
F(10, 61)	173.5192	P-value(F)	6.75e-41
Log-likelihood	-1111.106	Akaike criterion	2244.213
Schwarz criterion	2269.256	Hannan-Quinn	2254.183
rho	0.075857	Durbin-Watson	1.846744
Theil's U	0.21393		

EXHIBIT 3 – OPERATIING REVENUE

Response to Ontario Energy Board Interrogatory 3-Staff-63

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 21

Interrogatory:

To forecast the kW sales for the GS > 50 kW, Large Use and Street Lighting classes, Kingston Hydro has used the kW to kWh ratio for the most recent historical year.

a) Is there a reason that the average of the available previous historical years was not used instead?

b) Please redo the forecast of kWs using the average kW to kWh ratio for all available historical years.

Response:

a) The most recent year was used as it best reflects the presently installed equipment and usage patterns. There was a significant re-classification of customers in the GS > 50 rate class in 2013. Therefore the historical kW to kWh ratios reflect the historic customer mix while the most recent year reflects the current customers. Kingston Hydro's Large Use customers have made significant investments in equipment, and are actively involved in peak shaving under the Industrial Conservation Initiative (ICI). The Street Light class has recently completed a conversion to LED lighting in 2013, therefore the

equipment in prior years does not reflect the installed equipment for the test period.

b) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

Please see the alternate forecast kW below. These correspond to tables 23, 25, and 30 in the load forecast report for GS > 50, Large Use, and Street Light respectively, updated to use a 6-year historical average for determining the kW to kWh ratio.

		GS>50	
Year	kWh Actual	Ratio	kW Actual
	A	**C = B / A**	**B**
2009	270,117,290	0.002671	721,617
2010	273,806,098	0.002732	747,917
2011	273,712,584	0.002801	766,581
2012	274,473,668	0.002846	781,260
2013	279,458,000	0.002745	767,156
2014	272,498,127	0.00273	743,905
	kWh Normalized		
	D	**E**	**F = D * E**
2015	273,251,618	0.002754	752,591
2016	273,969,108	0.002754	754,567
2017	274,745,148	0.002754	756,704
2018	275,580,396	0.002754	759,005
2019	276,475,519	0.002754	761,470
2020	277,431,189	0.002754	764,102

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Large Use

Year	kWh Actual	Ratio	kW Actual
	A	**C = B / A**	**B**
2009	148,002,869	0.001627	240,786
2010	149,058,790	0.001943	289,659
2011	154,491,718	0.001904	294,114
2012	155,448,435	0.002079	323,212
2013	153,943,746	0.001895	291,732
2014	151,518,193	0.001891	286,452

	kWh Normalized		
	D	**E**	**F = D * E**
2015	154,368,712	0.00189	291,724
2016	155,062,234	0.00189	293,035
2017	155,477,670	0.00189	293,820
2018	155,959,780	0.00189	294,731
2019	156,509,313	0.00189	295,770
2020	157,127,028	0.00189	296,937

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Street Light

Year	kWh Actual	Ratio	kW Actual
	A	**C = B / A**	**B**
2009	3,992,185	0.002817	11,246
2010	4,076,824	0.00276	11,251
2011	4,142,238	0.002713	11,237
2012	4,555,371	0.002411	10,984
2013	3,336,835	0.002489	8,304
2014	1,817,917	0.002775	5,045

	kWh Normalized		
	D	**E**	**F = D * E**
2015	1,814,577	0.002661	4,828
2016	1,818,158	0.002661	4,838
2017	1,821,740	0.002661	4,847
2018	1,825,321	0.002661	4,857
2019	1,828,903	0.002661	4,866
2020	1,832,484	0.002661	4,876

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EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-64

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1 - Weather Normal Distribution System Load Forecast: 2016-2020 Custom IR, p. 28 – 30

Interrogatory:

Kingston Hydro has used the ratio of kWh and kW sales in a class to allocate the CDM savings for purposes of adjusting the load forecast.

a) What is the rationale for doing this as opposed to looking at an average of historical CDM savings by class and using those ratios?

b) Please provide the verified kWh and kW savings for each historical year by class and calculate an average percentage contributed by each class to the total savings.

c) Please then apply these percentages to determine the 2016 to 2020 adjusted load forecasts by class.

Response:

a) Sales represent an estimate of the amount of opportunity for CDM. This practice has been used in the past. This was a simplified methodology which was used in the absence of 2011-2014 final IESO-verified CDM results and IESO filed 2015-2020 CDM Plan. With this information now in hand, Kingston Hydro has revised

the load forecast to reflect actual past CDM net end user savings achievements and 2015-2020 CDM net end user savings projections, allocated to each rate class.

Where possible, CDM savings were allocated based on the rate class of the users where conservation investments took place. For example, savings generated by the Home Assistance Program, of which participants must be in the Residential rate class, are allocated 100% to the Residential Rate Class.

Where a program spans multiple rate classes, savings are allocated to each rate class based on one of the following methods:

i. The ratio of CDM savings for a given program in each rate class as per Kingston Hydro records.

ii. Where appropriate, by the ratio of program participants in each rate class.

For past years, CDM savings have been allocated based on actual results, and allocation ratios will differ for savings achieved in each program year based on where the CDM savings were achieved. For future years, Kingston Hydro has averaged the observed allocation ratios for the 2011-2014 period and assumed that uptake by rate class will be similar going forward.

b) Please refer to the attachment “IR 3-Staff-54 Attachment 1.xlsx”, specifically worksheet “Allocation to Rate Classes”, “KH kW Savings Pivot” and “KH kWh Savings Pivot”.

c) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence.*

Please refer to the revised Load Forecast filed on September 11, 2015.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-65

Ref: Exhibit 3, Tab 1, Schedule 3 – CDM Adjustment

Interrogatory:

The reference states "Verified conservation savings achieved from 2010-2014 have been calculated for each rate class and integrated into the current application's load forecast."

a) Please confirm that the 2010-2014 CDM savings have been integrated into the 2016-2020 load forecast because they are picked up in the regression formula, i.e. not requiring a calculation and manual adjustment.

b) If this is not the case, then please explain why Kingston Hydro thinks the savings would not be incorporated in the actual data for 2010 to 2014 and therefore part of the regression model.

c) Why has Kingston Hydro not made a calculation and a manual adjustment for one half of the savings from 2014?

d) If the answer to part c) is that it was an oversight, then please adjust the CDM adjusted load forecast to include one half of 2014 savings.

Response:

a) Confirmed.

b) n/a

c) NOTE: This response is in reference to the Load Forecast filed as part of EB-2015-0083 on June 1, 2015. Please note that Kingston Hydro has filed an updated Load Forecast as new evidence in response to IR 3-Staff-57 b).

Kingston Hydro has revised its load forecast to remove CDM impacts on the load forecast from the trend variable within the regression model. A manual adjustment for all IESO-verified persisting net CDM savings has been performed to separate incremental, persistent savings generated over and above underlying trends such as the impact of codes and standards, economic factors, and non-verified CDM savings that would have occurred in the absence of saveONenergy programs. Verified CDM savings for 2009-2015 have been incorporated into the load forecast via manual adjustment.

These results employ the manual “half year rule” or “50% rule” for kW and kWh savings in the year that they were achieved, and reflect full year persistence for the remainder of their life per IESO-verified final 2011-2014 CDM results and Kingston Hydro’s IESO-filed 2015-2020 Conservation Plan. As IESO-verified historical 2011-2014 results and IESO-vetted 2015-2020 Conservation First Framework projections were not available at the time of filing this was previously not possible.

All calculations and source data are available in the attachment “IR 3-Staff-54 Attachment 1.xlsx”. CDM Savings have been allocated to each rate class based

on ratios of actual end user level savings achieved by each rate class on an annual basis for historical results, and based on the 2011-2014 average ratio of CDM achievements per rate class for 2015-2020 projected savings.

d) See above.

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-66

Ref: Exhibit 3, Tab 1, Schedule 3 – Attachment 1, OEB Appendix 2-I

Interrogatory:

Please redo Appendix 2-I using the revised Chapter 2 Appendices issued by the OEB on July 7, 2015.

Response:

Please refer to the modified Appendix 2-I available in "IR 3-Staff-54 Attachment 1.xlsx". Kingston Hydro used the revised Chapter 2 Appendices issued by the OEB on July 7, 2015, but has revised it to reflect that:

- The IESO published Kingston Hydro's verified final 2011-2014 CDM Results on Sept. 1, 2015, and more accurate, verified data is available to calculate and separate actual incremental saveONenergy program enabled net CDM achievements.

- Kingston Hydro filed its 2015-2020 CDM Plan with the IESO. Since the time of filing, the IESO has confirmed that Kingston Hydro has appropriately projected future incremental saveONenergy program enabled net CDM savings under the Conservation First Framework.

- As such, Kingston Hydro has undertaken a full allocation of past and planned incremental net energy and demand savings to each rate class to allow for separation of Kingston Hydro's saveONenergy programs past and present from the load forecast trend variable. This will eliminate potential double counting of CDM within the load forecast trend variable, and allows accurate and final LRAMVA calculations to be performed for 2011-2014 and for reasonable, IESO vetted projections of LRAMVA balances from 2015 through 2020.

- As the July 7, 2015 Appendix 2-I does not follow a methodology whereby actual CDM savings allocated to each rate class are used to provide the basis for the manual adjustment and LRAMVA balances, additional data and calculations used to develop the outputs for the Ch 2 Appendices are included in the attachment "IR 3-Staff-54 Attachment 1.xlsx".

In reference to the Load Forecast filed as part of EB-2015-0083 on June 1, 2015, please note that Kingston Hydro has filed an updated Load Forecast as new evidence in response to IR 3-Staff-57 b).

EXHIBIT 3 – OPERATING REVENUE

Response to Ontario Energy Board Staff Interrogatory 3-Staff-67

Ref: Exhibit 3, Tab 3, Schedule 1 – Appendix 2-H

Interrogatory:

Please provide the most recent year-to-date figures available for the 2016 test year and the compare to 2015 figures over the same time period.

Ref: Exhibit: 3 Tab: 3 Schedule: 1 Other Operating Revenue

Interrogatory:

Please update Appendix 2-H to include a five year forecast for all other operating revenue.

Response:

Please find attached a table showing June 30, 2015 with June 30, 2014 Other operating revenue:

Other Operating Revenue

USoA #	USoA Description	2015	2014
		30-Jun	30-Jun
		MIFRS	CGAAP
4082	Retail Service Revenues	$ 8,340	$ 9,054
4084	Service Transaction Requests (STR) Revenues	$ 964	$ (438)
4210	Rent from Electric Property	$ 80,666	$ 80,283
4225	Late Payment Charges	$ 27,800	$ 32,056
4235	Miscellaneous Service Revenues	$ 59,463	$ 48,138
4305	Regulatory Debits	$ -	$ -
4325	Revenues from Merchandise, Jobbing, Etc	$ 1,555	$ 865
4375	Revenues from Non-Utility	$ -	$ -
4380	Expenses of Non-Utility Operations	$ -	$ -
4390	Miscellaneous Non-Operating Revenue	$ 15,534	$ 24,970
4405	Interest and Dividend Income	$ 105,015	$ 87,765
Specific Service Charges		$ 59,463	$ 48,138
Late Payment Charges		$ 27,800	$ 32,056
Other Operating Revenues		$ 89,969	$ 88,899
Other Income or Deductions		$ 122,104	$ 113,599
Total		$ 299,336	$ 282,692

Appendix 2-H as filed includes a forecast for 2015-2020.

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-13

Ref: Exhibit 3, Tab 1, Schedule 1, Attachment 1 &
Exhibit 4, Tab 2, Schedule 1, Attachment 3

Interrogatory:

Please explain the difference in the total number of customers shown in Appendix 2-IA and in Appendix 2-L.

Response:

The difference in the total number of customers shown in Appendix 2-IA and in Appendix 2-L is the Unmetered Scattered Load (USL) class.

In Appendix 2-IA, Exhibit 3 Tab 1 Schedule 1 Attachment 1, the Unmetered Scattered Load class should be shown as based on ‘customers’ rather than ‘connections’.

The total number of customers shown in Appendix 2-IA then does not include the USL customer numbers whereas Appendix 2-L total customer numbers includes the USL customer numbers.

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-14

Ref: Exhibit 3, Tab 1, Schedule 4

Interrogatory:

Please update the cost of power and the working capital allowance to reflect the most recent rates available.

Response:

With regard to the update to working capital allowance please see response to 1-Staff-5 interrogatory.

For the update to the cost of power, the commodity price estimate has been updated to reflect the April, 2015 Regulated Price Plan Price Report (beginning with May 2015 and using the current forecasts for January through April, 2015).

In the following Attachment 1, a table of the pass through charges is provided with commodity charges reflecting the updated weighted average commodity price estimate of $103.40 per MWh.

Response to Energy Probe Interrogatory 3-Energy Probe-14

Attachment 1

Pass Through Charges - Volumes reflect Load Forecast Update - RE: IRR 3-Staff-57 (b)

Electricity (Commodity)	**Customer**	**Revenue**	**Expense**	**2015**	*rate ($/kWh):*	$ 0.10304	**2016**	*rate ($/kWh):*	$ 0.10304
	Class Name	**USA #**	**USA #**	**Volume**		**Amount**	**Volume**		**Amount**
kWh	Residential	4006	4705	196,670,604		20,264,159	195,430,504		20,136,384
kWh	General Service < 50 kW	4010	4705	93,535,288		9,637,505	90,139,442		9,287,610
kWh	General Service 50 to 4999 kW	4035	4705	279,418,591		28,790,183	279,364,406		28,784,600
kWh	Large Use	4035	4705	157,471,735		16,225,263	149,848,101		15,439,754
kWh	Unmetered Scattered Load	4035	4705	1,269,308		130,784	1,243,138		128,088
kWh	Street Lighting	4035	4705	1,885,866		194,312	1,889,588		194,696
kWh	Standby Approved on an Interim Basis	4035	4705	0		0	0		0
	TOTAL	0	0	**730,251,392**		**75,242,206**	**717,915,178**		**73,971,132**
Transmission - Network	**Customer**	**Revenue**	**Expense**		**2015**			**2016**	
	Class Name	**USA #**	**USA #**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**
kWh	Residential	4066	4714	196,670,604	$ 0.0067	1,315,698	195,430,504	$ 0.0071	1,387,557
kWh	General Service < 50 kW	4066	4714	93,535,288	$ 0.0060	564,902	90,139,442	$ 0.0063	567,878
kW	General Service 50 to 4999 kW	4066	4714	746,118	$ 2.6313	1,963,223	745,973	$ 2.7797	2,073,582
kW	Large Use	4066	4714	292,212	$ 3.1704	926,438	278,065	$ 3.3492	931,295
kWh	Unmetered Scattered Load	4066	4714	1,269,308	$ 0.0067	8,491	1,243,138	$ 0.0071	8,826
kW	Street Lighting	4066	4714	5,036	$ 1.9006	9,571	5,046	$ 2.0078	10,131
kW	Standby Approved on an Interim Basis	4066	4714	0	$ -	0	0	$ -	0
	TOTAL	0	0	**292,518,566**		**4,788,325**	**287,842,168**		**4,979,270**
Transmission - Connection	**Customer**	**Revenue**	**Expense**		**2015**			**2016**	
	Class Name	**USA #**	**USA #**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**
kWh	Residential	4068	4716	196,670,604	$ 0.0051	1,003,644	195,430,504	$ 0.0056	1,094,411
kWh	General Service < 50 kW	4068	4716	93,535,288	$ 0.0046	433,933	90,139,442	$ 0.0051	459,711
kW	General Service 50 to 4999 kW	4068	4716	746,118	$ 2.0128	1,501,774	745,973	$ 2.2225	1,657,944
kW	Large Use	4068	4716	292,212	$ 2.4253	708,703	278,065	$ 2.6780	744,658
kWh	Unmetered Scattered Load	4068	4716	1,269,308	$ 0.0051	6,477	1,243,138	$ 0.0056	6,962
kW	Street Lighting	4068	4716	5,036	$ 1.4538	7,321	5,046	$ 1.6053	8,100
kW	Standby Approved on an Interim Basis	4068	4716	0	$ -	0	0	$ -	0
	TOTAL	0	0	**292,518,566**		**3,661,853**	**287,842,168**		**3,971,786**
Wholesale Market Service	**Customer**	**Revenue**	**Expense**	**2015**	*rate ($/kWh):*		**2016**	*rate ($/kWh):*	
	Class Name	**USA #**	**USA #**	**Volume**		**Amount**	**Volume**		**Amount**
kWh	Residential	4062	4708	196,670,604	$ 0.0044	865,351	195,430,504	$ 0.0044	859,894
kWh	General Service < 50 kW	4062	4708	93,535,288	$ 0.0044	411,555	90,139,442	$ 0.0044	396,614
kWh	General Service 50 to 4999 kW	4062	4708	279,418,591	$ 0.0044	1,229,442	279,364,406	$ 0.0044	1,229,203
kWh	Large Use	4062	4708	157,471,735	$ 0.0044	692,876	149,848,101	$ 0.0044	659,332
kWh	Unmetered Scattered Load	4062	4708	1,269,308	$ 0.0044	5,585	1,243,138	$ 0.0044	5,470
kWh	Street Lighting	4062	4708	1,885,866	$ 0.0044	8,298	1,889,588	$ 0.0044	8,314
kWh	Standby Approved on an Interim Basis	4062	4708	0		0	0		0
	TOTAL	0	0	**730,251,392**		**3,213,106**	**717,915,178**		**3,158,827**

Pass Through Charges - Volumes reflect Load Forecast Update - RE: IRR 3-Staff-57 (b)

Rural Rate Protection	**Customer**	**Revenue**	**Expense**	**2015**	*rate ($/kWh):*	$ 0.00130	**2016**	*rate ($/kWh):*	$ 0.00130
	Class Name	**USA #**	**USA #**	**Volume**		**Amount**	**Volume**		**Amount**
kWh	Residential	4062	4730	196,670,604		255,672	195,430,504		254,060
kWh	General Service < 50 kW	4062	4730	93,535,288		121,596	90,139,442		117,181
kWh	General Service 50 to 4999 kW	4062	4730	279,418,591		363,244	279,364,406		363,174
kWh	Large Use	4062	4730	157,471,735		204,713	149,848,101		194,803
kWh	Unmetered Scattered Load	4062	4730	1,269,308		1,650	1,243,138		1,616
kWh	Street Lighting	4062	4730	1,885,866		2,452	1,889,588		2,456
kWh	Standby Approved on an Interim Basis	4062	4730	0		0	0		0
	TOTAL	0	0	**730,251,392**		**949,327**	**717,915,178**		**933,290**
Debt Retirement Charge	**Customer**	**Revenue**	**Expense**	**2015**	*rate ($/kWh):*	$ 0.00700	**2016**	*rate ($/kWh):*	$ 0.00700
	Class Name	**USA #**	**USA #**	**Volume**		**Amount**	**Volume**		**Amount**
	TOTAL	0	0	**0**		**0**	**0**		**0**
Low Voltage Charges	**Customer**	**Revenue**	**Expense**		**2015**			**2016**	
	Class Name	**USA #**	**USA #**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**
kWh	Residential	4075	4750	189,236,126	0.0007	132,465	188,042,904	0.0012	225,651
kWh	General Service < 50 kW	4075	4750	89,999,498	0.0006	54,000	86,732,020	0.0011	95,405
kW	General Service 50 to 4999 kW	4075	4750	746,118	0.2520	188,022	745,973	0.4660	347,624
kW	Large Use	4075	4750	292,212	0.3036	88,715	278,065	0.5615	156,133
kWh	Unmetered Scattered Load	4075	4750	1,221,326	0.0007	855	1,196,145	0.0012	1,435
kW	Street Lighting	4075	4750	5,036	0.1820	917	5,046	0.3366	1,698
kW	Standby Approved on an Interim Basis	4075	4750	0		0	0	0	0
	TOTAL	0	0	**281,500,315**		**464,974**	**277,000,153**		**827,948**
Smart Meter Entity Charge	**Customer**	**Revenue**	**Expense**	**2015**	*rate ($/kWh):*		**2016**	*rate ($/kWh):*	
	Class Name	**USA #**	**USA #**	**Volume**		**Amount**	**Volume**		**Amount**
Cust	Residential	4076	4751	24,004	0.788	18,915	24,157	0.788	19,036
Cust	General Service < 50 kW	4076	4751	3,000	0.788	2,364	2,950	0.788	2,325
Cust	General Service 50 to 4999 kW	4076	4751	331		0	337		0
Cust	Large Use	4076	4751	3		0	3		0
Cust	Unmetered Scattered Load	4076	4751	145		0	141		0
Cust	Street Lighting	4076	4751	5,337		0	5,349		0
Cust	Standby Approved on an Interim Basis	4076	4751	0		0	0		0
	TOTAL	0	0	**32,820**		**21,279**	**32,937**		**21,360**
GRAND TOTAL		0	0	**0**		**88,341,069**	**0**		**87,863,612**

Pass Through Charges - Volumes reflect Load Fore

Electricity (Commodity)	**Customer**	**2017**	*rate ($/kWh):*	$ 0.10304	**2018**	*rate ($/kWh):*	$ 0.10304	**2019**	*rate ($/kWh):*	$ 0.10304	**2020**	*rate ($/kWh):*	$ 0.10304
	Class Name	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**
kWh	Residential	194,617,589		20,052,624	193,560,035		19,943,658	192,541,698		19,838,733	191,602,324		19,741,943
kWh	General Service < 50 kW	88,109,494		9,078,453	85,677,632		8,827,883	82,251,550		8,474,873	78,916,837		8,131,278
kWh	General Service 50 to 4999 kW	279,939,710		28,843,877	280,116,538		28,862,097	280,204,816		28,871,192	280,653,146		28,917,387
kWh	Large Use	147,161,164		15,162,902	142,707,146		14,703,978	147,172,775		15,164,099	147,426,832		15,190,276
kWh	Unmetered Scattered Load	1,217,507		125,447	1,192,405		122,861	1,167,821		120,328	1,143,743		117,847
kWh	Street Lighting	1,893,310		195,079	1,897,032		195,463	1,900,755		195,846	1,904,476		196,230
kWh	Standby Approved on an Interim Basis	0		0	0		0	0		0	0		0
	TOTAL	**712,938,774**		**73,458,383**	**705,150,788**		**72,655,939**	**705,239,415**		**72,665,071**	**701,647,358**		**72,294,960**
Transmission - Network	**Customer**	**2017**	**2017**		**2018**	**2018**		**2019**	**2019**		**2020**	**2020**	
	Class Name	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**
kWh	Residential	194,617,589	$ 0.0071	1,381,785	193,560,035	$ 0.0071	1,374,276	192,541,698	$ 0.0071	1,367,046	191,602,324	$ 0.0071	1,360,376
kWh	General Service < 50 kW	88,109,494	$ 0.0063	555,090	85,677,632	$ 0.0063	539,769	82,251,550	$ 0.0063	518,185	78,916,837	$ 0.0063	497,176
kW	General Service 50 to 4999 kW	747,509	$ 2.7797	2,077,852	747,982	$ 2.7797	2,079,164	748,217	$ 2.7797	2,079,820	749,414	$ 2.7797	2,083,147
kW	Large Use	273,079	$ 3.3492	914,596	272,967	$ 3.3492	914,221	273,101	$ 3.3492	914,668	273,572	$ 3.3492	916,247
kWh	Unmetered Scattered Load	1,217,507	$ 0.0071	8,644	1,192,405	$ 0.0071	8,466	1,167,821	$ 0.0071	8,292	1,143,743	$ 0.0071	8,121
kW	Street Lighting	5,056	$ 2.0078	10,151	5,066	$ 2.0078	10,172	5,076	$ 2.0078	10,192	5,086	$ 2.0078	10,212
kW	Standby Approved on an Interim Basis	0	$ -	0	0	$ -	0	0	$ -	0	0	$ -	0
	TOTAL	**284,970,234**		**4,948,119**	**281,456,086**		**4,926,069**	**276,987,463**		**4,898,202**	**272,690,976**		**4,875,280**
Transmission - Connection	**Customer**	**2017**			**2018**			**2019**				**2020**	
	Class Name	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**
kWh	Residential	194,617,589	$ 0.0056	1,089,858	193,560,035	$ 0.0056	1,083,936	192,541,698	$ 0.0056	1,078,234	191,602,324	$ 0.0056	1,072,973
kWh	General Service < 50 kW	88,109,494	$ 0.0051	449,358	85,677,632	$ 0.0051	436,956	82,251,550	$ 0.0051	419,483	78,916,837	$ 0.0051	402,476
kW	General Service 50 to 4999 kW	747,509	$ 2.2225	1,661,358	747,982	$ 2.2225	1,662,408	748,217	$ 2.2225	1,662,932	749,414	$ 2.2225	1,665,592
kW	Large Use	273,079	$ 2.6780	731,306	272,967	$ 2.6780	731,006	273,101	$ 2.6780	731,363	273,572	$ 2.6780	732,626
kWh	Unmetered Scattered Load	1,217,507	$ 0.0056	6,818	1,192,405	$ 0.0056	6,677	1,167,821	$ 0.0056	6,540	1,143,743	$ 0.0056	6,405
kW	Street Lighting	5,056	$ 1.6053	8,116	5,066	$ 1.6053	8,132	5,076	$ 1.6053	8,149	5,086	$ 1.6053	8,165
kW	Standby Approved on an Interim Basis	0	$ -	0	0	$ -	0	0	$ -	0	0	$ -	0
	TOTAL	**284,970,234**		**3,946,815**	**281,456,086**		**3,929,116**	**276,987,463**		**3,906,700**	**272,690,976**		**3,888,237**
Wholesale Market Service	**Customer**	**0**	*rate ($/kWh):*		**0**	*rate ($/kWh):*		**0**	*rate ($/kWh):*		**2020**	*rate ($/kWh):*	
	Class Name	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**
kWh	Residential	194,617,589	$ 0.0044	856,317	193,560,035	$ 0.0044	851,664	192,541,698	$ 0.0044	847,183	191,602,324	$ 0.0044	843,050
kWh	General Service < 50 kW	88,109,494	$ 0.0044	387,682	85,677,632	$ 0.0044	376,982	82,251,550	$ 0.0044	361,907	78,916,837	$ 0.0044	347,234
kWh	General Service 50 to 4999 kW	279,939,710	$ 0.0044	1,231,735	280,116,538	$ 0.0044	1,232,513	280,204,816	$ 0.0044	1,232,901	280,653,146	$ 0.0044	1,234,874
kWh	Large Use	147,161,164	$ 0.0044	647,509	147,100,869	$ 0.0044	647,244	147,172,775	$ 0.0044	647,560	147,426,832	$ 0.0044	648,678
kWh	Unmetered Scattered Load	1,217,507	$ 0.0044	5,357	1,192,405	$ 0.0044	5,247	1,167,821	$ 0.0044	5,138	1,143,743	$ 0.0044	5,032
kWh	Street Lighting	1,893,310	$ 0.0044	8,331	1,897,032	$ 0.0044	8,347	1,900,755	$ 0.0044	8,363	1,904,476	$ 0.0044	8,380
kWh	Standby Approved on an Interim Basis	0		0	0		0	0		0	0		0
	TOTAL	**712,938,774**		**3,136,931**	**709,544,510**		**3,121,996**	**705,239,415**		**3,103,053**	**701,647,358**		**3,087,248**

Pass Through Charges - Volumes reflect Load Fore

Rural Rate Protection	**Customer**	**0**	*rate ($/kWh):*	$ 0.00130	**0**	*rate ($/kWh):*	$ 0.00130	**0**	*rate ($/kWh):*	$ 0.00130	**2020**	*rate ($/kWh):*	$ 0.00130
	Class Name	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**
kWh	Residential	194,617,589		253,003	193,560,035		251,628	192,541,698		250,304	191,602,324		249,083
kWh	General Service < 50 kW	88,109,494		114,542	85,677,632		111,381	82,251,550		106,927	78,916,837		102,592
kWh	General Service 50 to 4999 kW	279,939,710		363,922	280,116,538		364,151	280,204,816		364,266	280,653,146		364,849
kWh	Large Use	147,161,164		191,310	147,100,869		191,231	147,172,775		191,325	147,426,832		191,655
kWh	Unmetered Scattered Load	1,217,507		1,583	1,192,405		1,550	1,167,821		1,518	1,143,743		1,487
kWh	Street Lighting	1,893,310		2,461	1,897,032		2,466	1,900,755		2,471	1,904,476		2,476
kWh	Standby Approved on an Interim Basis	0		0	0		0	0		0	0		0
	TOTAL	**712,938,774**		**926,820**	**709,544,510**		**922,408**	**705,239,415**		**916,811**	**701,647,358**		**912,142**
Debt Retirement Charge	**Customer**	**0**	*rate ($/kWh):*	$ 0.00700	**0**	*rate ($/kWh):*	$ 0.00700	**0**	*rate ($/kWh):*	$ 0.00700	**2020**	*rate ($/kWh):*	$ 0.00700
	Class Name	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**
	TOTAL	**0**		**0**	**0**		**0**	**0**		**0**	**0**		**0**
Low Voltage Charges	**Customer**	**2017**			**2018**			**2019**				**2020**	
	Class Name	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**	**Volume**	**Rate**	**Amount**
kWh	Residential	187,260,718	0.0012	224,713	186,243,142	0.0012	223,492	185,263,300	0.0012	222,316	184,359,435	0.0012	221,231
kWh	General Service < 50 kW	84,778,808	0.0011	93,257	82,438,874	0.0011	90,683	79,142,304	0.0011	87,057	75,933,648	0.0011	83,527
kW	General Service 50 to 4999 kW	747,509	0.4660	348,339	747,982	0.4660	348,559	748,217	0.4660	348,669	749,414	0.4660	349,227
kW	Large Use	273,079	0.5615	153,334	272,967	0.5615	153,271	273,101	0.5615	153,346	273,572	0.5615	153,611
kWh	Unmetered Scattered Load	1,171,483	0.0012	1,406	1,147,330	0.0012	1,377	1,123,675	0.0012	1,348	1,100,508	0.0012	1,321
kW	Street Lighting	5,056	0.3366	1,702	5,066	0.3366	1,705	5,076	0.3366	1,709	5,086	0.3366	1,712
kW	Standby Approved on an Interim Basis	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL	**274,236,653**		**822,750**	**270,855,360**		**819,087**	**266,555,673**		**814,445**	**262,421,664**		**810,629**
Smart Meter Entity Charge	**Customer**	**2017**	*rate ($/kWh):*		**2018**	*rate ($/kWh):*		**2019**	*rate ($/kWh):*		**2020**	*rate ($/kWh):*	
	Class Name	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**	**Volume**		**Amount**
Cust	Residential	24,311	0.788	19,157	24,466	0.788	19,279	24,622	0.788	19,402	24,779	0.788	19,526
Cust	General Service < 50 kW	2,901	0.788	2,286	2,853	0.788	2,248	2,805	0.788	2,210	2,758	0.788	2,173
Cust	General Service 50 to 4999 kW	343		0	350		0	357		0	364		0
Cust	Large Use	3		0	3		0	3		0	3		0
Cust	Unmetered Scattered Load	138		0	135		0	132		0	129		0
Cust	Street Lighting	5,361		0	5,373		0	5,385		0	5,397		0
Cust	Standby Approved on an Interim Basis	0		0	0		0	0		0	0		0
	TOTAL	**33,057**		**21,443**	**33,180**		**21,527**	**33,304**		**21,612**	**33,430**		**21,699**
GRAND TOTAL		**0**		**87,261,261**	**0**		**86,396,142**	**0**		**86,325,895**	**0**		**85,890,194**

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-15

Ref: Exhibit 3, Tab 2, Schedule 1

Interrogatory:

Please provide a set of tables that show the revenue at current rates (2015) for each of 2016 through 2020.

Response:

The following attachment provides a set of tables that show the revenue at current rates (2015) for each of 2016 through 2020.

Response to Energy Probe Interrogatory
3-Energy Probe-15

Attachment 1

Projected Revenues for Test Years 2016 through 2020 using Existing 2015 Rates

	2015 PROJECTED REVENUE FROM EXISTING VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	187,160,982	2,882,279	$0.00	-	0	2,882,279
General Service < 50 kW	$0.0106	kWh	96,172,824	1,019,432	$0.00	-	0	1,019,432
General Service 50 to 4999 kW	$2.0063	kW	743,238	1,491,158	($0.60)	282,411	(169,446)	1,321,712
Large Use	$1.0535	kW	290,775	306,331	($0.60)	98,343	(59,006)	247,325
Unmetered Scattered Load	$0.0141	kWh	1,221,326	17,221	$0.00	-	0	17,221
Street Lighting	$4.6750	kW	5,036	23,543	($0.60)	-	0	23,543
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,739,965**		**380,754**	**(228,452)**	**5,511,512**

	2015 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,004	3,617,883	2,882,279	6,500,162	55.66%	44.34%	56.80%
General Service < 50 kW	$25.8500	3,000	930,600	1,019,432	1,950,032	47.72%	52.28%	17.04%
General Service 50 to 4999 kW	$280.0900	331	1,112,517	1,321,712	2,434,230	45.70%	54.30%	21.27%
Large Use	$5,164.0000	3	185,904	247,325	433,229	42.91%	57.09%	3.79%
Unmetered Scattered Load	$11.5500	145	20,097	17,221	37,318	53.85%	46.15%	0.33%
Street Lighting	$1.0200	5,337	65,325	23,543	88,868	73.51%	26.49%	0.78%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**5,932,326**	**5,511,512**	**11,443,839**	51.84%	48.16%	100.00%

	2016 PROJECTED REVENUE FROM EXISTING VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	183,959,618	2,832,978	$0.00	-	0	2,832,978
General Service < 50 kW	$0.0106	kWh	93,395,362	989,991	$0.00	-	0	989,991
General Service 50 to 4999 kW	$2.0063	kW	739,908	1,484,477	($0.60)	281,145	(168,687)	1,315,790
Large Use	$1.0535	kW	290,012	305,528	($0.60)	98,085	(58,851)	246,676
Unmetered Scattered Load	$0.0141	kWh	1,196,145	16,866	$0.00	-	0	16,866
Street Lighting	$4.6750	kW	5,046	23,590	($0.60)	-	0	23,590
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,653,430**		**379,231**	**(227,538)**	**5,425,891**

	2016 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,157	3,640,943	2,832,978	6,473,921	56.24%	43.76%	56.86%
General Service < 50 kW	$25.8500	2,950	915,090	989,991	1,905,081	48.03%	51.97%	16.73%
General Service 50 to 4999 kW	$280.0900	337	1,132,684	1,315,790	2,448,474	46.26%	53.74%	21.51%
Large Use	$5,164.0000	3	185,904	246,676	432,580	42.98%	57.02%	3.80%
Unmetered Scattered Load	$11.5500	141	19,543	16,866	36,408	53.68%	46.32%	0.32%
Street Lighting	$1.0200	5,349	65,472	23,590	89,062	73.51%	26.49%	0.78%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**5,959,635**	**5,425,891**	**11,385,527**	52.34%	47.66%	100.00%

	2017 PROJECTED REVENUE FROM EXISTING VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	180,751,226	2,783,569	$0.00	-	0	2,783,569
General Service < 50 kW	$0.0106	kWh	90,657,781	960,972	$0.00	-	0	960,972
General Service 50 to 4999 kW	$2.0063	kW	736,506	1,477,652	($0.60)	279,853	(167,912)	1,309,740
Large Use	$1.0535	kW	288,634	304,076	($0.60)	97,619	(58,572)	245,504
Unmetered Scattered Load	$0.0141	kWh	1,171,483	16,518	$0.00	-	0	16,518
Street Lighting	$4.6750	kW	5,056	23,637	($0.60)	-	0	23,637
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,566,424**		**377,472**	**(226,483)**	**5,339,941**

	2017 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,311	3,664,154	2,783,569	6,447,723	56.83%	43.17%	56.92%
General Service < 50 kW	$25.8500	2,901	899,890	960,972	1,860,863	48.36%	51.64%	16.43%
General Service 50 to 4999 kW	$280.0900	343	1,152,850	1,309,740	2,462,591	46.81%	53.19%	21.74%
Large Use	$5,164.0000	3	185,904	245,504	431,408	43.09%	56.91%	3.81%
Unmetered Scattered Load	$11.5500	138	19,127	16,518	35,645	53.66%	46.34%	0.31%
Street Lighting	$1.0200	5,361	65,619	23,637	89,255	73.52%	26.48%	0.79%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**5,987,544**	**5,339,941**	**11,327,485**	52.86%	47.14%	100.00%

	2018 PROJECTED REVENUE FROM EXISTING VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	177,434,297	2,732,488	$0.00	-	0	2,732,488
General Service < 50 kW	$0.0106	kWh	87,909,490	931,841	$0.00	-	0	931,841
General Service 50 to 4999 kW	$2.0063	kW	732,604	1,469,823	($0.60)	278,370	(167,022)	1,302,801
Large Use	$1.0535	kW	287,122	302,483	($0.60)	97,108	(58,265)	244,218
Unmetered Scattered Load	$0.0141	kWh	1,147,330	16,177	$0.00	-	0	16,177
Street Lighting	$4.6750	kW	5,066	23,684	($0.60)	-	0	23,684
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,476,496**		**375,478**	**(225,287)**	**5,251,209**

	2018 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,466	3,687,516	2,732,488	6,420,004	57.44%	42.56%	56.96%
General Service < 50 kW	$25.8500	2,853	885,001	931,841	1,816,841	48.71%	51.29%	16.12%
General Service 50 to 4999 kW	$280.0900	350	1,176,378	1,302,801	2,479,179	47.45%	52.55%	22.00%
Large Use	$5,164.0000	3	185,904	244,218	430,122	43.22%	56.78%	3.82%
Unmetered Scattered Load	$11.5500	135	18,711	16,177	34,888	53.63%	46.37%	0.31%
Street Lighting	$1.0200	5,373	65,766	23,684	89,449	73.52%	26.48%	0.79%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**6,019,275**	**5,251,209**	**11,270,484**	53.41%	46.59%	100.00%

	2019 PROJECTED REVENUE FROM EXISTING VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	174,038,354	2,680,191	$0.00	-	0	2,680,191
General Service < 50 kW	$0.0106	kWh	85,166,503	902,765	$0.00	-	0	902,765
General Service 50 to 4999 kW	$2.0063	kW	728,299	1,461,186	($0.60)	276,734	(166,041)	1,295,146
Large Use	$1.0535	kW	285,513	300,788	($0.60)	96,564	(57,938)	242,850
Unmetered Scattered Load	$0.0141	kWh	1,123,675	15,844	$0.00	-	0	15,844
Street Lighting	$4.6750	kW	5,076	23,730	($0.60)	-	0	23,730
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,384,504**		**373,298**	**(223,979)**	**5,160,525**

	2019 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,622	3,711,028	2,680,191	6,391,218	58.06%	41.94%	57.00%
General Service < 50 kW	$25.8500	2,805	870,111	902,765	1,772,876	49.08%	50.92%	15.81%
General Service 50 to 4999 kW	$280.0900	357	1,199,906	1,295,146	2,495,051	48.09%	51.91%	22.25%
Large Use	$5,164.0000	3	185,904	242,850	428,754	43.36%	56.64%	3.82%
Unmetered Scattered Load	$11.5500	132	18,295	15,844	34,139	53.59%	46.41%	0.30%
Street Lighting	$1.0200	5,385	65,912	23,730	89,643	73.53%	26.47%	0.80%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**6,051,156**	**5,160,525**	**11,211,681**	53.97%	46.03%	100.00%

	2020 PROJECTED REVENUE FROM EXISTING VARIABLE CHARGES							
Customer Class Name	**Variable Distribution Rate**	**per**	**Volume**	**Gross Variable Revenue**	**Transform. Allowance Rate**	**Transform. Allowance kW's**	**Transform. Allowance $'s**	**Net Variable Revenue**
Residential	$0.0154	kWh	170,554,076	2,626,533	$0.00	-	0	2,626,533
General Service < 50 kW	$0.0106	kWh	82,425,355	873,709	$0.00	-	0	873,709
General Service 50 to 4999 kW	$2.0063	kW	723,530	1,451,618	($0.60)	274,922	(164,953)	1,286,665
Large Use	$1.0535	kW	283,782	298,964	($0.60)	95,978	(57,587)	241,377
Unmetered Scattered Load	$0.0141	kWh	1,100,508	15,517	$0.00	-	0	15,517
Street Lighting	$4.6750	kW	5,086	23,777	($0.60)	-	0	23,777
Standby Approved on an Interim Basis	$0.0000	kW	0	0	($0.60)		0	0
TOTAL VARIABLE REVENUE				**5,290,118**		**370,900**	**(222,540)**	**5,067,578**

	2020 PROJECTED DISTRIBUTION REVENUE AT EXISTING RATES							
Customer Class Name	**Fixed Rate**	**Customers (Connections)**	**Fixed Charge Revenue**	**Variable Revenue**	**TOTAL**	**% Fixed Revenue**	**% Variable Revenue**	**% Total Revenue**
Residential	$12.5600	24,779	3,734,691	2,626,533	6,361,224	58.71%	41.29%	57.05%
General Service < 50 kW	$25.8500	2,758	855,532	873,709	1,729,240	49.47%	50.53%	15.51%
General Service 50 to 4999 kW	$280.0900	364	1,223,433	1,286,665	2,510,098	48.74%	51.26%	22.51%
Large Use	$5,164.0000	3	185,904	241,377	427,281	43.51%	56.49%	3.83%
Unmetered Scattered Load	$11.5500	129	17,879	15,517	33,397	53.54%	46.46%	0.30%
Street Lighting	$1.0200	5,397	66,059	23,777	89,836	73.53%	26.47%	0.81%
Standby Approved on an Interim Basis	$0.0000	0	0	0	0			0.00%
DISTRIBUTION REVENUE			**6,083,498**	**5,067,578**	**11,151,076**	54.56%	45.44%	100.00%

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-16

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1

Interrogatory:

a) Please confirm that the use of the trend variable would account for the reduction in volumes due to the historical CDM achieved through 2014.

b) Please explain how the continuation of the trend variable does not overlap with the CDM adjustments made for 2015 through 2020.

Response:

a) Please refer to Kingston Hydro's Response to IR 3-Staff-57 a)

b) Please refer to Kingston Hydro's Response to IR 3-Staff-57 b)

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-17

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1

Interrogatory:

a) Please estimate a residential kWh equation that includes the explanatory variables shown on page 5, along with the following 8 dummy variables where the dummy variable has a value of 1 in the specified month and 0 otherwise: January, April, May, June & July, August, September, October, November.

b) Please provide the regression statistics of the this equation similar to that found on page 5, along with a graph on page 6 and the table on page 6 including the annual and monthly MAPE statistics.

c) Please provide the resulting table on page 17 that reflects the change in the equation.

Response:

a) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

Please see the resulting Ordinary Least Squares:

Model 1: OLS, using observations 2009:01-2014:12 (T = 72)

Dependent variable: ReskWh

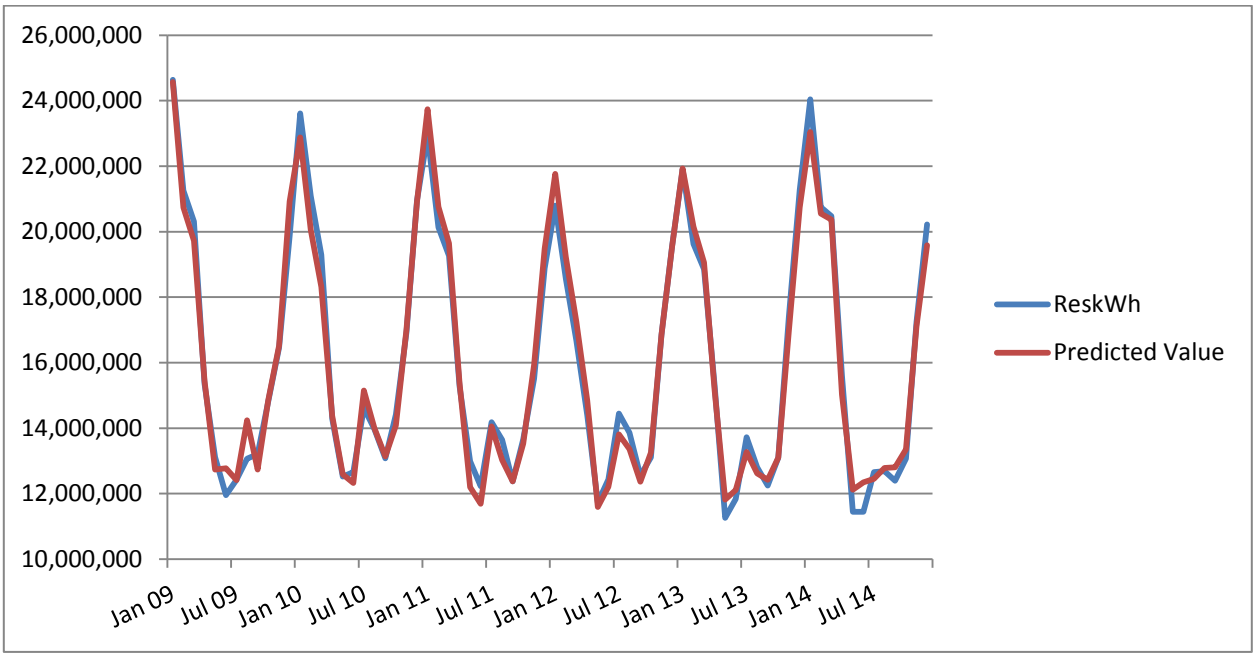
	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
Const	-1.94811e+07	1.0244e+07	-1.9017	0.06210	*
HDD	10356.2	1211.88	8.5455	<0.00001	***
CDD	28874.6	3874.83	7.4518	<0.00001	***
Trend	-28986	5813.06	-4.9864	<0.00001	***
Res_Cust	1444.32	446.988	3.2312	0.00202	***
Jan	1.39385e+06	329914	4.2249	0.00008	***
April	-1.70058e+06	441624	-3.8508	0.00029	***
May	-2.49792e+06	655171	-3.8126	0.00033	***
JuneJuly	-2.26865e+06	770381	-2.9448	0.00462	***
August	-1.9218e+06	807253	-2.3807	0.02053	**
September	-2.08186e+06	692403	-3.0067	0.00388	***
October	-2.2686e+06	514678	-4.4078	0.00004	***
November	-1.17186e+06	340284	-3.4438	0.00106	***

Mean dependent var	15990836	S.D. dependent var	3697974
Sum squared resid	1.79e+13	S.E. of regression	550465.9
R-squared	0.981587	Adjusted R-squared	0.977842
F(12, 59)	262.1035	P-value(F)	1.82e-46
Log-likelihood	-1046.728	Akaike criterion	2119.457
Schwarz criterion	2149.053	Hannan-Quinn	2131.239
Rho	0.301302	Durbin-Watson	1.388000
Theil's U	0.21608		

b) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

Please refer to part a) for the regression statistics, and below for the graph and table requested, pertaining to the model in part a)

Predicted (weather actual) vs Actual kWh



Predicted (weather actual) vs Actual kWh

Year	Res kWh Actual	Predicted	Absolute Error (%)
2009	196,461,750	197,672,876	0.6%
2010	197,410,764	194,846,680	1.3%
2011	191,104,338	191,834,762	0.4%
2012	184,953,209	186,080,000	0.6%
2013	189,348,696	189,356,272	0.0%
2014	192,061,408	191,549,576	0.3%
Mean Absolute Percentage Error (Annual)			0.5%
Mean Absolute Percentage Error (Monthly)			2.5%

c) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

Please see below for the resulting forecast based on the model in part a)

Actual vs Forecasted (weather normal)

Year	Res kWh Actual	Annual Change	Normalized	Annual Change
2009	196,461,750		198,689,029	
2010	197,410,764	0.5%	195,485,631	-1.6%
2011	191,104,338	-3.2%	192,155,134	-1.7%
2012	184,953,209	-3.2%	187,641,741	-2.3%
2013	189,348,696	2.4%	188,234,008	0.3%
2014	192,061,408	1.4%	190,734,218	1.3%
2015			189,192,810	-0.8%
2016			187,668,166	-0.8%
2017			186,160,394	-0.8%
2018			184,669,599	-0.8%
2019			183,195,891	-0.8%
2020			181,739,378	-0.8%

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-18

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1

Interrogatory:

Please explain why a negative coefficient on HDD in the large use equation is considered appropriate.

Response:

Please see the response to 3-Staff-58.

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-19

Ref: Exhibit 3, Tab 1, Schedule 2, Attachment 1

Interrogatory:

Please explain why in the GS<50 equation, the forecast value of the trend value has been set to 0 for all of 2015 through 2020.

Response:

Please see the response to 3-Staff-57 c).

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-20

Ref: Exhibit 3, Tab 3, Schedule 1, Attachment 1

Interrogatory:

a) Please explain why Kingston Hydro is not forecasting any change in revenues beyond 2015 for any of the categories listed except for interest and dividend income.

b) Please explain the difference in the figures provided in Appendix 2-H for each of 2016 through 2019 compared to the figures shown as revenue offsets on the revenue requirement sheet of each of the RRWF's.

c) Please provide, in the same level of detail as shown in Appendix 2-H, the most recent year-to-date figures available for 2015 along with the figures for the corresponding period in 2014. Please exclude regulatory debits (account 4305) from this calculation.

Response:

a) As a low growth utility, each of the categories listed are fairly stable with respect to rates charged and annual revenues realized. The exception would be bank interest earned which is dependent on funds on deposit.

b) The difference in the figures provided in Appendix 2-H and the RRWF for each year is account 4080 Distribution Services Revenue in the amount of $77,333. The numbers on the RRWF are correct.

c) Please see response to 3-Staff-67.

EXHIBIT 3 – OPERATING REVENUE

Response to Energy Probe Interrogatory 3-Energy Probe-21

Ref: Exhibit 3, Tab 3, Schedule 1, Attachment 1

Interrogatory:

If Kingston Hydro were to change the rates charged for any of the services provided that generate other operating revenue during the term of the Custom IR, such as the charge for pole rentals or the rates for specific service charges, would Kingston Hydro agree to apply for a variance account and record in that account any variance from the forecasted revenues built into the Custom IR forecast that are the result of changes in rates? If not, why not?

Response:

Kingston Hydro is not aware of any precedent that would indicate that such a variance account would be necessary. As a low growth utility with fairly stable “other revenues” with specific service charges approved in the rate orders, any changes in rates would likely not materially affect total other revenue.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-14

Reference: E3/T1/S1, pg. 1 and Attachment 1 (Appendix 2-1A)

Interrogatory:

a) Was the monthly class-specific retail data provided to Elenchus based on calendar monthly readings? If not, please explain what is meant by "monthly" and how the values were determined.

b) With respect to Appendix 2-1A, please describe how the actual 2014 values were "weather normalized".

Response:

a) Retail consumption data is based on monthly meter reads staggered throughout the month. An average daily consumption is calculated for the cycle, and that average daily rate is used to calculate each month's consumption. For example, if the meter was read at midnight on the 10th day of every month, the read on January 10th would be divided by 31 (the daily average) then multiplied by 21 to count toward December and multiplied by 10 to count toward January.

b) The Weather Normalized 2014 is produced by applying the regression model to the explanatory variables for 2014. It is effectively normalized for all factors in the regression model.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-15

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 1-4

Interrogatory:

a) Page 1 explains that GDP was not used as an independent variable since there were no published sources that provided history on a regional basis. However, in the final equation, Elenchus has chosen to use provincial employment as the economic variable as opposed to regional employment. Given this, did Elenchus examine provincial GDP as a possible explanatory variable for the GS>50 and Large Use classes?

b) If the response to part (a) is no, please provide the results (i.e., equation coefficients and equation statistics) if Ontario GDP is used in lieu of Ontario employment for each of these classes.

Response:

a) No, Elenchus did not examine provincial GDP as a possible explanatory variable. Elenchus believes that while GDP and Employment are themselves closely linked, Employment is more intuitively linked to energy use in Kingston. Large Use customers and frequently GS > 50 customers are typically thought of as being industrial where a link between GDP and widgets produced is expected, and the link between widgets produced and energy is a logical consequence. Kingston Hydro's Large Use customers are institutional, and GS > 50 are significantly

institutional or residential. There is no significant industrial activity in Kingston. Therefore employment is more likely to directly correspond to energy use than GDP.

b) After searching Statistics Canada data, Elenchus was unable to find Provincial GDP on a more frequent basis than annual. National GDP is only available quarterly. The use of annual data in a monthly data series would greatly diminish the value of the variable. The use of National GDP data similarly does not make intuitive sense for Kingston's service territory. Therefore any GDP related analysis appears unlikely to produce an informative result.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-16

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 5-6

Interrogatory:

a) How much (i.e., in terms of kWh) does the trend variable contribute to the predicted Residential use in 2014?

b) What was the impact on Kingston Hydro's 2014 residential sales of the CDM Programs implemented over the period 2009-2014? Please provide references for the values reported.

Response:

a) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's revised Load Forecast filed on September 11, 2015.*

The trend variable contributes - 21,631,684 kWh to the 2014 predicted Residential use.

b) Please refer to "IR 3-Staff-54 Attachment 1.xlsx" for calculations, specifically the "CDM kWh By Rate Class" worksheet. Based on these calculations, the impact

on Residential Sales of verified CDM savings from residential CDM programming delivered from 2009 to 2014 based on IESO verified net-end user level savings and persistence in 2014 is negative 2,562,256.78 kWh.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-17

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 7-9

Interrogatory:

a) How much (i.e., in terms of kWh) does the trend variable contribute to the predicted GS<50 use in 2014?

b) Was the bulk reclassification of customers from GS<50 to GS>50 reflected in the GS<50 customer count variable?
   i. If no, why not?
   ii. If yes, please explain why is a "reclassification" variable is needed and provide the regression analysis results (i.e model coefficients and statistics) if this variable is excluded.

c) What was the impact on Kingston's 2014 GS<50 sales of the CDM Programs implemented over the period 2009-2014? Please provide references for the values reported.

d) Did Elenchus examine Ontario GDP as a possible explanatory variable? If not, please provide the results (i.e., equation coefficients and equation statistics) if Ontario GDP is also included. If yes, why was it rejected.

Response:

a) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's revised Load Forecast filed on September 11, 2015.*

The GS < 50 class does not have a statistically significant trend in the revised Load Forecast model.

b) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

Yes

i) n/a

ii) The customers reclassified reflect the former largest GS<50 customers, and therefore were not typical for the rate class. The regression model with the Reclassification variable omitted is as follows.

Model 16: OLS, using observations 2009:01-2014:12 (T = 72)
Dependent variable: GSlt50kWh

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	1.32786e+07	3.24238e+06	4.0953	0.00012	***
HDD	3177.88	184.443	17.2296	<0.00001	***
CDD	14515.2	1559.23	9.3092	<0.00001	***
Trend	-15132.5	3621.36	-4.1787	0.00009	***
GS_50_Cust	-1989.77	976.733	-2.0372	0.04577	**
Fall	-319014	92411.6	-3.4521	0.00099	***
DFEB	-252853	132178	-1.9130	0.06023	*
DAPR	-379007	131984	-2.8716	0.00553	***

Mean dependent var	7596391	S.D. dependent var	801475.1
Sum squared resid	5.14e+12	S.E. of regression	283525.5
R-squared	0.887196	Adjusted R-squared	0.874858
F(7, 64)	71.90769	P-value(F)	7.04e-28
Log-likelihood	-1001.888	Akaike criterion	2019.775
Schwarz criterion	2037.988	Hannan-Quinn	2027.026
rho	0.322601	Durbin-Watson	1.347552
Theil's U	0.3924		

c) Please refer to "IR 3-Staff-54 Attachment 1.xlsx", specifically worksheet "CDM kWh by Rate Class 2009-2020". The impact of 2009-2014 CDM programs on GS<50kW kWh sales in 2014 is negative 3,869,357.11 kWh.

d) As per in VECC-15, Elenchus did not examine Ontario GDP, but it is impractical to produce a run using GDP as an explanatory variable.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-18

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 9-11

Interrogatory:

a) How much (i.e., in terms of kWh) does the trend variable contribute to the predicted GS>50 use in 2014?

b) What was the impact on Kingston's 2014 GS>50 sales of the CDM Programs implemented over the period 2009-2014? Please provide references for the values reported.

Response:

a) **PREFACE***: Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's revised Load Forecast filed on September 11, 2015.*

The trend variable contributes -19,672,334 kWh to the 2014 predicted GS > 50 use.

b) The impact of 2009-2014 CDM programs on GS>50kW 2014 kWh sales is negative 7,491,975.76 kWh. Please refer to the file "IR 3-Staff-54 Attachment

1.xlsx" for this calculation, specifically within the "CDM kWh by Rate Class 2009-2020" worksheet.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-19

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 12-14

Interrogatory:

a) How much (i.e., in terms of kWh) does the trend variable contribute to the predicted Large Use class use in 2014?

b) What was the impact on Kingston's 2014 Large Use sales of the CDM Programs implemented over the period 2009-2014? Please provide references for the values reported.

Response:

a) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's revised Load Forecast filed on September 11, 2015.*

The trend variable contributes -27,021,856 kWh to the 2014 predicted Large Use energy use.

b) The impact of 2009-2014 CDM programs on 2014 Large User kWh sales is negative 3,178,683.61 kWh. Please refer to the file "IR 3-Staff-54 Attachment

1.xlsx" for this calculation, specifically within the "CDM kWh by Rate Class 2009-2020" worksheet.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-20

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 15-23
OEB's Chapter 2 Cost of Service Rate Application Filing Guidelines, July 16, 2015, page 30

Interrogatory:

a) It is noted that the Filing Guidelines for 2016 Cost of Service Based Rate Applications require that the Applicant provide "the load forecasts based on a) 10-year average and b) 20-year trends in HDD and CDD". For those classes using HDD and/or CDD, please provide a schedule that compares the customer class forecasts (as produced using the regression models based on: a) a definition of weather normal using a 10 year average, as proposed by Kingston Hydro, and b) a 20-year trend in the HDD and CDD values.

b) What was the source and values for the forecast of Ontario Employment for the years after 2016?

c) For those classes using Ontario Employment, please provide an alternate kWh load forecast using the employment forecast from the Ontario Budget released in April 2015. (http://www.fin.gov.on.ca/en/budget/ontariobudgets/2015/ch2d.html#t2-5)

d) For each of classes employing a trend variable in the forecast model, please provide a schedule that indicates the impact the continuing increase in the trend

variable has post December 2014 on forecast annual kWh for each of the years 2015-2020.

Response:

a) Please refer to 3-Staff-59 a) which made the same request for a 20-year trend forecast and 3-Staff-56 d) which provides the comparable 10-year average forecast based on the same regression models.

b) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

A 20-year trend analysis would be directionally consistent, and show larger differences (a 20-year trend would reduce the Residential, GS < 50, and GS > 50 forecasts even further in the test years, and increase the Large Use forecast even more).

c) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

The bank employment forecast for 2016 is assumed to persist in 2017-2020.

GS > 50 and Large Use used the Ontario Employment forecast. Please see the requested alternate forecast for those two classes below:

GS > 50 kWh

Year	GS>50 kWh Actual	Annual Change	Normalized	Annual Change
2009	270,117,290		271,420,410	
2010	273,806,098	1.4%	272,534,007	0.4%
2011	273,712,584	0.0%	276,373,015	1.4%
2012	274,473,668	0.3%	274,828,836	-0.6%
2013	279,458,000	1.8%	278,356,828	1.3%
2014	272,498,127	-2.5%	272,478,959	-2.1%
2015			273,022,941	0.2%
2016			274,547,032	0.6%
2017			276,617,663	0.8%
2018			278,305,146	0.6%
2019			280,072,896	0.6%
2020			281,921,956	0.7%

GS > 50 kW

	GS>50		
Year	kWh Actual	Ratio	kW Actual
	A	**C = B / A**	**B**
2009	270,117,290	0.002671	721,617
2010	273,806,098	0.002732	747,917
2011	273,712,584	0.002801	766,581
2012	274,473,668	0.002846	781,260
2013	279,458,000	0.002745	767,156
2014	272,498,127	0.00273	743,905

	kWh Normalized		
	D	**E**	**F = D * E**
2015	273,022,941	0.00273	745,338
2016	274,547,032	0.00273	749,498
2017	276,617,663	0.00273	755,151
2018	278,305,146	0.00273	759,758
2019	280,072,896	0.00273	764,584
2020	281,921,956	0.00273	769,632

Large Use kWh

Year	LU kWh Actual	Annual Change	Normalized	Annual Change
2009	148,002,869		149,122,149	
2010	149,058,790	0.7%	149,917,704	0.5%
2011	154,491,718	3.6%	153,782,311	2.6%
2012	155,448,435	0.6%	151,928,995	-1.2%
2013	153,943,746	-1.0%	155,099,352	2.1%
2014	151,518,193	-1.6%	153,957,083	-0.7%
2015			154,111,201	0.1%
2016			155,713,027	1.0%
2017			157,586,286	1.2%
2018			159,028,087	0.9%
2019			160,560,275	1.0%
2020			162,184,026	1.0%

Large Use kW

	Large Use		
Year	kWh Actual	Ratio	kW Actual
	A	**C = B / A**	**B**
2009	148,002,869	0.001627	240,786
2010	149,058,790	0.001943	289,659
2011	154,491,718	0.001904	294,114
2012	155,448,435	0.002079	323,212
2013	153,943,746	0.001895	291,732
2014	151,518,193	0.001891	286,452

	kWh Normalized		
	D	**E**	**F = D * E**
2015	154,111,201	0.001891	291,354
2016	155,713,027	0.001891	294,383
2017	157,586,286	0.001891	297,924
2018	159,028,087	0.001891	300,650
2019	160,560,275	0.001891	303,546
2020	162,184,026	0.001891	306,616

d) **PREFACE:** *Kingston Hydro filed its original Load Forecast as part of EB-2015-0083 on June 1, 2015. In response to subsequent interrogatories 3-Staff-57 and 3-Staff-64 Kingston Hydro filed a revised Load Forecast on September 11, 2015 as new evidence. The following response is based on Kingston Hydro's original Load Forecast filed on June 1, 2015.*

The impact of the trend variables to increase (decrease) the annual kWh forecast relative to 2014 is as follows:

	Residential	GS < 50	GS > 50	Large Use
2015	(4,394,802)	(1,057,351)	(4,486,914)	(5,511,112)
2016	(8,789,605)	(2,114,702)	(8,973,828)	(11,022,224)
2017	(13,184,407)	(3,172,053)	(13,460,741)	(16,533,336)
2018	(17,579,209)	(4,229,404)	(17,947,655)	(22,044,449)
2019	(21,974,011)	(5,286,756)	(22,434,569)	(27,555,561)
2020	(26,368,814)	(6,344,107)	(26,921,483)	(33,066,673)

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-21

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 24-26

Interrogatory:

a) With respect to the Street Light count, the text in the first paragraph refers to Street Light connections whereas the subsequent table refers to Street Light devices. Is the data shown based on devices or connections?

b) Please explain how the Street Light kWh forecast for 2015-2020 was derived.

Response:

a) The data shown is based on devices.

b) The Street Light kWh forecast for 2015-2020 was derived as follows:

- Used the latest customer device count (5331 devices) and connected demand (394.835 kW) as of January 2015 as the baseline.
- Forecast 1 new device per month (65W per new device) beginning February 2015.
- Determined the street light hours of operation for each month (January through December) based on actual daytime/nighttime hours.
- Calculated forecast monthly consumption by multiplying the monthly demand by the hours of operation for that month.

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-22

Reference: E3/T1/S3, pg. 1-3

Interrogatory:

a) Please provide a copy of the 2015-2020 CDM Plan submitted to the IESO.

b) Kingston Hydro states (page 2) that "verified conservation saving achieved from 2010-2014 have been calculated for each rate class and integrated into the current application's load forecast".

   i. Please provide the calculation referred to and set out the savings persisting in each of the years 2015-2020, by rate class and by year (2010-2014) the CDM program was implemented.

   ii. Please outline how these 2010-2014 calculated savings were integrated into the load forecast.

c) With respect to Table 2, please explain the proposed 2014 CDM threshold for the LRAMVA of 16,073,206 kWh.

d) With respect to Attachment 1 (Appendix 2-I), please provide an updated version based on the revised Appendix 2-1 as posted by the OEB on July 16, 2015 and reconcile any differences as between the values reported and those proposed by Elenchus.

e) Please provide any reports the OPA/IESO have prepared (preliminary or final) regarding Kingston Hydro's full-year 2014 CDM results.

Response:

a) Relevant sections of Kingston Hydro's 2015-2020 IESO-filed CDM Plan are included in attachment "IR 3-Staff-54 Attachment 1.xlsx", specifically in the worksheets "KH 2015-2020 CDM Plan Milestone", "2015-20 Measure Savings Results", "2015-20 Measures-CE Results".

b)

i. Please refer to attachment "IR 3-Staff-54 Attachment 1.xlsx", specifically the worksheet "2011-2014 LRAMVA Summary".

ii. 2010-2014 calculated savings and persistence through the Custom IR period were integrated into the load forecast by means of inclusion as a contributor to a trend variable integral to the load forecast calculation. In response to this and other interrogatories, Kingston Hydro has revised the Load Forecast to separate the monthly impact kW and kWh savings achievements from Kingston Hydro's delivery of saveONenergy programs from 2011-2014 and the projected future savings to be achieved through 2015-2020 conservation programming from the load forecast trend variable. Calculations are provided in "IR 3-Staff-54 Attachment 1.xlsx" and a revised load forecast using these results has also been submitted. Calculations were based on IESO reported or vetted net savings calculations at the end user level, and the 50% rule has been applied to all savings in the year they were achieved.

Since both 2011-2014 IESO-reported Kingston Hydro CDM results and the IESO-vetted 2015-2020 CDM Plan were not available at the time of filing, this work was previously not possible.

c) In reference to the Load Forecast filed as part of EB-2015-0083 on June 1, 2015, please note that Kingston Hydro has filed an updated Load Forecast as new evidence in response to IR 3-Staff-57 b). Revised Ch. 2 Appendices worksheet 2-I are included in this filing. For reference, a copy of the revised Appendix 2_I is available in "IR 3-Staff-54 Attachment 1.xlsx". The Ch. 2 Appendices has been modified to reflect Kingston Hydro's provision of monthly net kWh and kW verified CDM savings generated by sales of CDM programs from 2009-2015

d) Please refer to "IR 3-Staff-54 Attachment 1.xlsx" and Kingston Hydro's response to IR 3-Staff-57. CDM has been removed from the trend variable and manual adjustments have been revised based on actual and projected CDM savings by rate class rather than inclusion in the trend variable and allocation of CDM savings by rate class gross kWh sales. Kingston Hydro has filed an updated Load Forecast as new evidence in response to IR 3-Staff-57 b).

e) Relevant sections of the IESO's 2011-2015 Final Results Report are provided in "IR 3-Staff-54 Attachment 1.xlsx", specifically worksheets "Kingston Hydro – Summary", "Kingston Hydro Results (Net)" and "Kingston Hydro NTGs".

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-23

Reference: E3/T1/S2, Attachment 1 (Elenchus Report), pg. 27-33

Interrogatory:

a) With respect to the LRAMVA (page 31) the text makes reference to the period 2014-2020 but the subsequent table only includes 2016-2020. Please reconcile.

b) Please reconcile the reported manual adjustment to the 2015 load forecast as shown on page 28 with that reported at Exhibit 3/Tab 1/Schedule 3, Table 2.

Response:

a) The text should make reference to the years 2015-2020. This reconciles with the table which has savings realized in the years 2016-2020 from programs delivered in the years 2015-2020.

b) Kingston Hydro confirms that these tables do not match. The table on page 28 of the forecast uses a preliminary 2020 IESO conservation target for Kingston Hydro. The table in Exhibit 3/Tab1/Schedule 3, Table 2 uses the final 2020 IESO conservation target for Kingston Hydro. Fully revised tables to support the LRAMVA with updates for draft final 2011-2014 IESO verified conservation results published Jul. 31, 2015, are available in “IR 3-Staff-54 Attachment 1.xlsx”.

In reference to the Load Forecast filed as part of EB-2015-0083 on June 1, 2015, please note that Kingston Hydro has filed an updated Load Forecast as new evidence in response to IR 3-Staff-57 b).

EXHIBIT 3 – OPERATING REVENUE

Response to Vulnerable Energy Consumers Coalition Interrogatory 3-VECC-24

Reference: E3/T3/S1, Attachment 1 and Appendix 2-H

Interrogatory:

a) In what account are SSS Admin revenues recorded?

b) In what account are the revenues from micro-Fit service charges recorded, what were the revenues for 2014 and what are the projected revenues for 2016-2020?

c) What is the source of Rent for Electric Property and why is it forecast to remain at 2014 levels through to 2020?

d) Why does the forecast of Interest and Dividend Income include Interest on Regulatory Asset Accounts?

e) Are the amounts shown for Account 4325 the gross or net revenues from Merchandising, Jobbing, etc.?

f) Why are the revenues from Late Payment and Specific Service charges forecast to remain at 2014 levels through to 2020?

Response:

a) They are reported in Account 4080-Distribution Revenue.

b) They are reported in Account 4080-Distribution Revenue.

c) Rent for Electric Property is related to access to power poles. Kingston Hydro is a low growth land-locked utility and therefore the latest known actual revenue was used for 2016.

d) Appendix 2-H requested a breakdown of account 4405. Kingston Hydro has reported interest on regulatory in this account for RRR purposes.

e) The amounts shown are gross amounts.

f) Similar to c) above, the latest known actual revenue was used for 2016.