

OEB staff notes that the changes to Orillia's RTSRs can be partially attributed to the change in retail volumes as well as wholesale demand volumes. Orillia's 2016, 2017 and 2018 retail volumes and wholesale demand volumes are summarized in the table below:¹

Orillia Retail Volumes						
	2016	2017	2018	% Variance 2016 to 2017	% Variance 2017 to 2018	
Residential Service	110,779,991	107,795,137	116,546,976	-2.69%	8.12%	
General Service <50 kW	46,064,219	45,744,399	47,198,413	-0.69%	3.18%	
General Service 50 to 4,999 kW	409,239	428,254	418,598	4.65%	-2.25%	
Unmetered Scattered Load	824,955	810,492	802,591	-1.75%	-0.97%	
Sentinel Lighting	736	658	633	-10.60%	-3.80%	
Street Lighting	7,302	7,351	7,416	0.67%	0.88%	
Orillia Wholesale Network						
January	40,300	39,998	49,474	-0.75%	23.69%	
February	40,915	39,180	42,507	-4.24%	8.49%	
March	38,879	38,156	38,195	-1.86%	0.10%	
April	34,320	37,008	41,727	7.83%	12.75%	
May	32,749	35,000	46,241	6.88%	32.12%	
June	43,314	40,789	42,692	-5.83%	4.67%	
July	46,058	40,338	49,974	-12.42%	23.89%	
August	52,797	38,479	46,696	-27.12%	21.36%	
September	51,521	49,127	51,502	-4.65%	4.83%	
October	41,729	36,783	41,278	-11.85%	12.22%	
November	46,200	39,679	42,974	-14.11%	8.30%	
December	46,333	49,195	40,511	6.18%	-17.65%	
Total:	515,117	483,732	533,773	-6.09%	10.34%	
Orillia Wholesale Line/Tx						
January	41,275	40,903	52,045	-0.90%	27.24%	
February	42,097	39,881	42,578	-5.26%	6.76%	
March	39,358	38,156	38,715	-3.05%	1.46%	
April	35,273	37,008	41,727	4.92%	12.75%	
May	35,424	35,000	46,241	-1.20%	32.12%	
June	43,864	40,789	48,742	-7.01%	19.50%	
July	49,372	41,237	53,085	-16.48%	28.73%	
August	52,896	38,652	46,696	-26.93%	20.81%	
September	51,521	50,027	51,502	-2.90%	2.95%	
October	42,864	37,682	41,706	-12.09%	10.68%	
November	47,051	39,679	44,313	-15.67%	11.68%	
December	48,022	49,571	40,511	3.23%	-18.28%	
Total:	529,018	488,586	547,861	-7.64%	12.13%	

From 2016 to 2017, OEB staff notes that retail volumes have not decreased to the same degree as wholesale demand volumes. Over this period, while wholesale demand volumes have decreased by -6.09% (network) and -7.64% (line/Tx), the largest decrease in retail volumes (aside from sentinel lighting) was only -2.69% for the residential class.

From 2017 to 2018, OEB staff notes that retail volumes have not increased to the same degree as wholesale demand volumes. Over this period, while wholesale demand volumes have increased by 10.34% (network) and 12.13% (line/Tx), the largest increase in retail volumes (aside from sentinel lighting) was only 8.12% for the residential class.

While OEB staff recognizes that retail consumption volumes (in the rate classes that are billed by kWh) do not necessarily correlate to wholesale demand volumes, the variance in retail

¹ 2016 volumes are taken from Orillia's 2018 IRM Model, 2017 volumes from Orillia's 2019 IRM Model and 2018 volumes from Orillia's 2020 IRM Model.

volumes between 2016 and 2017 does not seem to support the decrease in wholesale volumes of -6.09% (network) and -7.64% (line/Tx). OEB staff makes the same observation for retail volumes between 2017 and 2018, which does not seem to support the increase in wholesale demand volumes of 10.34% (network) and 12.13% (line/Tx). Given the disconnect between the changes in retail volumes versus wholesale demand volumes, please explain the reasons for the year-to-year variances in wholesale demand volumes. In particular:

- 1) For 2016, 2017, & 2018 please provide two analyses:
 - a. the monthly peak kW demand by customer class coincident with the wholesale Transmission Network monthly peak kW demand, and
 - b. the monthly peak kW demand by customer class coincident with the wholesale Transmission Connection monthly peak kW demand.
- 2) For each of the analyses performed above please explain the cause of the shift in coincident peak demand from 2016 to 2017, and then from 2017 to 2018. Provide operational reasons for shift in demand.

Reply:

OPDC acknowledges an apparent disconnect between the changes in retail volumes versus wholesale demand volumes as described above. We are unable to provide the analyses requested in 1) a. and b. However, the variance can be explained as provided below.

- demand values shown in the OEB staff table are based on billed demands. We have added columns for adjustments each year that gross up peak system demand for OPDC each month for Wheeling credits and CoGen.
- Wheeling credits are related to a legacy Wheeling Agreement between Orillia Power (OPDC) and Hydro One Networks Inc. (Hydro One) which provides savings to OPDC customers through RTSRs on their bills. Coincident demand from Orillia Power Generation Corporation (OPGC)'s Swift and Minden generation plants is netted against the aggregated demand of OPDC's 4 feeders, delivery points fed by Hydro One. The resulting savings in both Network and Connection charges are recorded in GL 4714 Retail Network Charges and GL 4716 Retail Connection Charges.
- OPDC has one customer with non-renewable load displacement generation greater than 1.0 MW² (CoGen). OPDC peak demand for connection charges is grossed up to account for the impact of this customer when the CoGen is operating.

After adjusting OPDC billed determinants for Wheeling credits and CoGen, the variance in retail volumes between 2016 and 2017 does support the decrease in wholesale demand volumes. Likewise, the variance in retail volumes between 2017 and 2018 supports the increase in wholesale demand volumes. The adjustments and their impact on OPDC billed demand and variance between years is shown in the following table:

² Hydro One Networks Inc. EB-2019-0043 Tariff of Rates and Charges – Note 5c. The monthly billing determinant for the RTSR Line and Transformation Connection Service rates for customers with load displacement generation above 1MW, or 2 MW for renewable generation, installed after October 1998, RTSR connection is billed at the gross demand level.

Orillia Retail Volumes	RTSRs determinants (billed)					Adjustments			RTSRs determinants (grossed up)				
	2016	2017	2018	% Variance 2016 to 2017	% Variance 2017 to 2018	2016	2017	2018	2016	2017	2018	% Variance 2016 to 2017	% Variance 2017 to 2018
	Residential Service	110,779,991	107,795,137	116,546,976	-2.69%	8.12%				110,779,991	107,795,137	116,546,976	-2.69%
General Service <50kW	46,064,219	45,744,399	47,198,413	-0.69%	3.18%				46,064,219	45,744,399	47,198,413	-0.69%	3.18%
General Service 50 to 4,999 kW	409,239	428,254	418,598	4.65%	-2.25%				409,239	428,254	418,598	4.65%	-2.25%
Unmetered Scattered Load	824,955	810,492	802,591	-1.75%	-0.97%				824,955	810,492	802,591	-1.75%	-0.97%
Sentinel Lighting	736	658	633	-10.60%	-3.80%				736	658	633	-10.60%	-3.80%
Street Lighting	7,302	7,351	7,416	0.67%	0.88%				7,302	7,351	7,416	0.67%	0.88%
Orillia Wholesale Network						Wheeling CREDITS			RTSRs determinant (adjusted for Wheeling CREDITS)				
January	40,300	39,998	49,474	-0.75%	23.69%	11,761	11,568	8,665	52,061	51,567	58,139	-0.95%	12.75%
February	40,915	39,180	42,507	-4.24%	8.49%	11,827	9,962	9,445	52,742	49,142	51,952	-6.83%	5.72%
March	38,879	38,156	38,195	-1.86%	0.10%	10,727	10,860	8,940	49,607	49,017	47,135	-1.19%	-3.84%
April	34,320	37,008	41,727	7.83%	12.75%	9,922	5,311	3,765	44,242	42,319	45,492	-4.35%	7.50%
May	32,749	35,000	46,241	6.88%	32.12%	10,655	9,169	4,138	43,403	44,170	50,379	1.77%	14.06%
June	43,314	40,789	42,692	-5.83%	4.67%	7,757	9,543	10,522	51,072	50,332	53,215	-1.45%	5.73%
July	46,058	40,338	49,974	-12.42%	23.89%	908	8,252	7,642	46,966	48,590	57,617	3.46%	18.58%
August	52,797	38,479	46,696	-27.12%	21.36%	1,688	9,829	8,380	54,485	48,308	55,077	-11.34%	14.01%
September	51,521	49,127	51,502	-4.65%	4.83%	2,258	4,306	6,140	53,779	53,433	57,642	-0.64%	7.88%
October	41,729	36,783	41,278	-11.85%	12.22%	1,486	5,572	2,755	43,215	42,354	44,033	-1.99%	3.96%
November	46,200	39,679	42,974	-14.11%	8.30%	2,136	9,392	8,476	48,336	49,071	51,450	1.52%	4.85%
December	46,333	49,195	40,511	6.18%	-17.65%	3,690	4,274	9,420	50,023	53,469	49,932	6.89%	-6.62%
Total:	515,117	483,732	533,773	-6.09%	10.34%	74,814	98,039	88,289	589,931	581,771	622,061	-1.38%	6.93%
Orillia Wholesale Line/Tx						Wheeling CREDITS / CoGen			RTSRs determinant (adjusted for Wheeling CREDITS / CoGen)				
January	41,275	40,903	52,045	-0.90%	27.24%	10,786	10,664	6,095	52,061	51,567	58,139	-0.95%	12.75%
February	42,097	39,881	42,578	-5.26%	6.76%	10,645	9,261	9,374	52,742	49,142	51,952	-6.83%	5.72%
March	39,358	38,156	38,715	-3.05%	1.46%	10,249	10,860	8,420	49,607	49,017	47,135	-1.19%	-3.84%
April	35,273	37,008	41,727	4.92%	12.75%	8,969	5,311	3,765	44,242	42,319	45,492	-4.35%	7.50%
May	35,424	35,000	46,241	-1.20%	32.12%	7,979	9,169	4,138	43,403	44,170	50,379	1.77%	14.06%
June	43,864	40,789	48,742	-7.01%	19.50%	7,208	9,543	4,473	51,072	50,332	53,215	-1.45%	5.73%
July	49,372	41,237	53,085	-16.48%	28.73%	908	7,353	4,531	50,280	48,590	57,617	-3.36%	18.58%
August	52,896	38,652	46,696	-26.93%	20.81%	1,588	9,657	8,380	54,485	48,308	55,077	-11.34%	14.01%
September	51,521	50,027	51,502	-2.90%	2.95%	2,258	3,406	6,140	53,779	53,433	57,642	-0.64%	7.88%
October	42,864	37,682	41,706	-12.09%	10.68%	351	4,672	2,327	43,215	42,354	44,033	-1.99%	3.96%
November	47,051	39,679	44,313	-15.67%	11.68%	1,285	9,392	7,137	48,336	49,071	51,450	1.52%	4.85%
December	48,022	49,571	40,511	3.23%	-18.28%	2,001	3,898	9,420	50,023	53,469	49,932	6.89%	-6.62%
Total:	529,018	488,586	547,861	-7.64%	12.13%	64,228	93,185	74,200	593,245	581,771	622,061	-1.93%	6.93%