# Grand Erie District School Board Annual Energy Consumption and Greenhouse Gas Emission Reporting: O. Reg 507/18 Reporting 2017-2018



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### **Background:**

In late 2018, Ontario Regulation 507/18: Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans was introduced replacing Ontario Regulation 397/11. Similarly to the previous regulation, O. Reg 507/18 requires public agencies such as municipalities, school boards, universities, colleges and hospitals to report annually on their energy consumption and greenhouse gas (GHG) emissions. O. Reg. 507/18 outlines the reporting requirements to be completed by July 1st annually and must report on the previous fiscal year.

Each school board is required to report the total consumption of all energy types for all facilities. The use of electricity, natural gas and all other energy sources for each building must be identified within the report. All data must be uploaded onto the Ministry of Energy's reporting module. From the reporting module, a report is generated using the Ministry of Energy's reporting template. Please refer to Appendix A: Energy Consumption and Greenhouse Gas Emissions Reporting - for FY2018. This is referred to as Grand Erie's 2017-2018 Consumption report in the remainder of this report.

The annual report must include the following information:

- o Name of site and building type (i.e. school, administration, etc).
- Full Address
- Gross floor area
- Hours of operation per week
- Whether or not the school has a pool
- Number of portables on site
- Electricity (kWh) consumption for fiscal year
- Natural gas (m3) consumption for fiscal year, if applicable
- o Other energy sources consumption (i.e. propane) for fiscal year, if applicable
- o Total greenhouse gas emissions (kg) for each site
- Total ekWh/sq ft (equivalent kilowatt hours per square feet) for each site.

Grand Erie District School Board's 2017-2018 Energy Report was successfully completed, uploaded and available as of May 23, 2019 on the Ministry of Energy's BPS Portal. For the purpose of the report, Grand Erie reports on Branlyn and Notre Dame while the BHNCDSB reports on St. Basils and Walter Gretzky.

As additional requirement under O. Reg 507/18 requires school boards to create and post an Energy Conservation and Demand Management Plan (CDM).

As per O. Reg. 507/18, Boards are required to submit their completed consumption report to the Ministry of Energy, post both reports on both the internet and intranet sites and provide a hard copy at their office to any interested member of the public.

### **Report Data and Variables:**

The report provides readers with an insight and overview into the energy consumption and performance of sites within Grand Erie District School Board.

The most informative figures within the report are the Energy Intensity figures located in the last column. Energy Use Intensity (EUI), measured in equivalent kilowatt hours per square feet (ekWh/sqft), is the base unit used by energy managers for comparison purposes. This metric is developed by first establishing natural gas consumption which is reported as cubic metres (m3) or gigajoules (GJ). Propane consumption reported in litres are also reported. These consumptions are then converted to equivalent kilowatt hours (ekWh). Total energy consumption is calculated by adding ekWh of gas and propane use to electrical consumption, already reported in kWh. Determining intensity involves accounting for square footage of all facilities in our inventory. This produces the EUI measured in ekWh/sq ft. Please refer to Appendix D: Energy Intensity per Site (ekWh/sqft), Appendix B: Electricity Consumption per Site (kWh/sqft) and Appendix C: Natural Gas & Propane Consumption per Site (ekWh/sqft).

Natural Resources Canada have established a benchmark for Ontario schools of 23.69 ekWh/sq ft within their National Energy Performance Report. Within Grand Erie's 2017-2018 Consumption report, the average EUI was 18.49 ekWh/sq ft. All values below within this report use raw data and not weather-normalized data.

### All Sites:

Outlined below is Grand Erie District School Board's average and median energy use intensity figures from the current and previous two Consumption reports. This represents all Grand Erie DSB-owned properties including administration sites. Overall, our energy use intensity has been decreasing year over year with the exception of 2017-2018 where we experienced an increase in natural gas but a slight decrease in electricity.

Table 1.

Energy Use Intensity (ekWh/sq foot)	2015-2016	2016-2017	2017-2018			
Average	17.54	17.21	18.49			
Median	16.72	16.34	18.20			

### **Elementary:**

The chart below outlines the average and median energy use intensity (ekWh/sq ft) for Grand Erie's Elementary sites separated by hydro, natural gas and total energy as per the 2017-2018 Consumption Report. All figures are in ekWh/sq ft.

Table 2.

Energy Use Intensity (ekWh/sq foot)	Hydro	Natural Gas	Total Energy			
Average	4.97	12.39	18.09			
Median	4.85	12.56	17.40			

### Secondary:

The chart below outlines the average and median energy use intensity (ekWh/sq ft) for Grand Erie's Secondary sites separated by hydro, natural gas and total energy as per the 2017-2018 Consumption Report. All figures are in ekWh/sq ft. This includes all secondary school locations and Grand Erie Learning Alternatives on Rawdon.

Table 3.

Energy Use Intensity (ekWh/sq foot)	Hydro	Natural Gas	Total Energy			
Average	5.32	14.12	20.43			
Median	4.65	14.02	19.39			

### Administration:

The chart below outlines the average and median energy use intensity (ekWh/sq ft) for Grand Erie's Administration sites separated by hydro, natural gas and total energy as per the 2017-2018 Consumption Report. All figures are in ekWh/sq ft. Average and median wasn't provided for administration sites due to small quantity of sites.

Table 4.

Energy Use Intensity (ekWh/sq foot)	Hydro	Natural Gas	Total Energy
Education Centre/Facility Services	12.27	13.94	15.23
Joseph Brant Learning Centre	8.3	16.20	16.12
Teachers Resource Centre	18.32	11.23	20.77

Energy intensity is driven by energy consumption at each site. This is impacted by a number of variables that must be considered. It is important to note that some variables are beyond the control of the school board itself. For example, both community growth and Ministry-driven expectations require additional space and extended hours at a facility which would increase energy demand and consumption. Examples of other facility variables include:

- Year of construction and building design, including Building Automation Systems (BAS), building envelope, etc.
- Building area, including renovations, additions, portables, etc.
- HVAC equipment on site, including system type, system age, lifecycle considerations, areas with air conditioning and vented spaces.
- Site use/Facility Type elementary, secondary, administrative or maintenance facility
- Shared use schools, including libraries, literacy centres, sports fields, childcare facilities and other third party partnerships.
- Hours of operations and specialty programming, including before and after school programs, community use, summer school, etc.

Other variables which greatly impact the energy consumption at a site include:

- Weather as colder or hotter weather conditions drive energy demand
- Location and topography of the site (lake effect, wind, etc.)
- Occupancy behaviour

### **Example of variable: Age of Building & Performance:**

Below is an example of one of the variables. The age of the facility plays a large role in the energy performance of a building. Newer facilities include air conditioning, additional fans and pumps to draw in outside air, and were built based on different standards compared to our older facilities. As you can see, newer facilities use more hydro than schools over 100 years old, however, they use much less natural gas. All figures are in ekWh/sq ft.

Table 5.

Energy Use Intensity (ekWh/sq foot)	Hydro	Total Energy				
1-24 years old:	Average: 6.48	Average: 8.45	Average: 15.19			
3 SCHOOLS	Median: 5.89	Median: 7.05	Median: 12.93			
25-49 years old: 12 SCHOOLS	Average: 7.09 Median: 6.6	Average: 11.45 Median: 11.69	Average: 18.89 Median: 19.73			
50-74 years old: 43 SCHOOLS	Average: 4.59 Median: 4.48	Average: 13.19 Median: 13.18	Average: 18.04 Median: 17.62			
75-99 years old:	Average: 4.13	Average: 13.16	Average: 17.68			
8 SCHOOLS	Median: 4.07	Median: 12.96	Median: 17.81			
100 years +:	Average: 4.98	Average: 13.23	Average: 18.61			
7 SCHOOLS	Median: 5.15	Median: 13.83	Median: 19.4			

Note: this does not include administration facilities as they use energy differently.

It is important to note when reviewing this information that budget and actual expenses cannot be compared directly year over year as a metric for operational efficiencies. Consumption is weather dependent and costs are market dependent. Market pricing can greatly fluctuate due to weather, demand, storage and other variables. As a strategy, The Grand Erie DSB purchases energy sources (electricity, natural gas and propane) in bulk as a commodity, when available, through a consortium.

Outlined below is Grand Erie District School Board's total utility consumptions from previous Consumption reports. Values below are raw data.

Table 6.

Energy Consumed	2015-2016	2016-2017	2017-2018
Total Electricity (kWh)	23,741,079	21,316,732	21,242,880
Total Natural Gas (m3)	4,132,805	4,196,534	4,758,286
Total Propane (L)	24,913	26,234	25,671

### **Grand Erie's Top 10 Performing Buildings:**

Outlined below is Grand Erie's top 10 performing buildings based on the total energy use intensity alone (hydro + natural gas intensity) for the 2017-2018 Consumption Reporting Year.

Table 7.

Site:	Energy Use Intensity:
Houghton Annex	8.8
Brantford CI & VS	12.01
Hagersville Elementary	12.37
Walsh PS	12.81
Branlyn Community School	12.83
Cobblestone ES	12.88
Ryerson Heights ES	12.93
Major Ballachey PS	13.07
JL Mitchener PS	13.46
Central PS	13.64

### **Grand Erie's Bottom 10 Performing Buildings:**

Outlined below is Grand Erie's bottom 10 performing buildings based on the total energy use intensity alone (hydro + natural gas intensity) for the 2017-2018 Consumption Reporting Year.

Table 8.

Site:	Energy Use Intensity:
Prince Charles PS	23.73
Onondaga Brant PS	24.36
Hagersville Secondary	24.93
Joseph Brant Learning Centre	24.99
Echo Place	25.22
Paris Central PS	25.76

Board Office	26.63
McKinnon Park SS	26.91
Tollgate Technological Skills	28.71
Teachers Resource Centre	29.89

### **Energy Demand and Conservation:**

As the Grand Erie District School Board continues to monitor energy consumption and performance data under O. Reg 507/18, energy management initiatives and strategies will continue to be implemented and developed. These initiatives and strategies can be categorized into three categories.

- 1. Design/Construction/Retrofit
- 2. Operations and Maintenance
- 3. Occupant Behaviour

The design, construction and retrofits encompass the original and ongoing intent of how a building and its systems are to perform as a whole. This includes but is not limited to: lighting retrofits and upgrades, HVAC upgrades, Building Automation System expansion and upgrades, and building envelope upgrades. Grand Erie DSB has begun the process of retrofitting all existing lighting to LED. This includes the replacement of all light tubes, ballasts and a number of fixtures. This also includes the extensive work which is taking place on our masonry, windows and roofs which will improve our buildings energy performance and conservation.

The Operations and Maintenance includes the strategies which are used to ensure that existing buildings and equipment perform at peak efficiency. This includes but is not limited to: preventative maintenance, energy audits, policy and planning, and real-time monitoring.

Finally, an efficient building requires educated occupants. The occupant behaviour strategies will assist in educating occupants, including staff, students, community users and the wider community, in changing specific behaviours in order to reduce our energy consumption. This includes but is not limited to: staff and student conference, Building Automation training, energy workshops, Ontario EcoSchools program, partnerships with outside organizations (i.e. Conservation Authorities), and energy monitoring and dashboard.

### **Summary:**

This report was created in order to outline the Green Energy Act's Ontario Regulation 507/18 requirements for Ontario school boards including Grand Erie District School Board. It has hopefully provided readers with a better understanding and insight into energy consumption and performance of our sites. The Grand Erie District School Board will continue to expand and improve its energy and environmental conservation initiatives for the betterment of our students, staff, school community, and the environment.

Energy Consumption and Greenhouse Gas Emissions Reporting - for FY2018															
Confirm consecutive 12-month period (mon	nt Sep 01, 2017 - Aug 31, 2018														
Type of Public Agency (Sector):	School Boards	7													
Agency Sub-sector	School Board														
Organization Name	Grand Erie District School Board														
											Energy Type and Amo	unt Purchased and Consume	d in Natural Units		
					Total Floor Area of the Indoor	Average #	Continue	na Number						GHG Emissions	Energy Intensity
Operation Name and/or Unique Identifier	Operation Type	Address	City	Postal Code	Space in which Operation is Conducted	Hours Per Week		ng Number o  N) Portable		Electricity	Natural Gas	Propane	Renewable?	(kg)	(ekWh/sqft)
Agnes G Hodge PS	School	52 Clench Avenue	Brantford	N3T 1B6	43,771.25 Square feet	80	No	it) i ortable.	<b>J</b>	233,947.78 kWh	39.523.91 Cubic Meter	0.00 Litre	No	78,771.80851	14.94129
Anna Melick Memorial S - Closed July 2017	School	1347 Hutchinson Rd., R.R. #8 Rd	Dunnville	N1A 2W7	18,297.00 Square feet	80	No			15,451.25 kWh	24,777.77 Cubic Meter	0.00 Litre	No	47,112.80527	15.23659
Banbury Heights PS	School	141 Banbury Rd	Brantford	N3P 1E3	47,071.23 Square feet	80	No			402,610.22 kWh	33,537.60 Cubic Meter	0.00 Litre	No	70,371.45220	16.12536
Bellview PS Bloomsburg PS	School School	97 Tenth Avenue 25 Concession 12, R.R. #3	Brantford Waterford	N3S 1G5 N0E 1Y0	37,265.65 Square feet 24,999.28 Square feet	80 80	No No		1	272,845.14 kWh 76,873.69 kWh	47,170.63 Cubic Meter 29,531.96 Cubic Meter	0.00 Litre 0.00 Litre	No No	93,901.73457 57,163.68325	20.77420 15.62976
Board Office	Administrative offices and related facilities	349 Erie Avenue	Brantford	N3S 2H7	32,244.65 Square feet	80	No		3	395,705.62 kWh	43,569.41 Cubic Meter	0.00 Litre	No	89,218.41999	26.63237
Boston PS	School	2993 Cockshutt Rd., R.R. #1	Waterford	N0E 1Y0	21,840.53 Square feet	80	No			83,861.25 kWh	29,978.80 Cubic Meter	0.00 Litre	No	58,129.36747	18.42763
Branlyn PS	School	238 Brantwood Park Rd	Brantford	N3P 1N9 N3T 3H3	86,329.81 Square feet	100	No			536,898.09 kWh	53,764.73 Cubic Meter	0.00 Litre	No No	110,936.32178	12.83795
Brantford CI & VS Brier Park PS	School School	120 Brant Ave 10 Blackfriar Lane	Brantford Brantford	N3R 6C5	210,340.19 Square feet 33,759.01 Square feet	80 80	No No		3	1,717,248.38 kWh 368,337.01 kWh	76,245.12 Cubic Meter 32,048.40 Cubic Meter	0.00 Litre 0.00 Litre	No No	173,856.03684 66,963.06313	12.01655 21.00003
Burford Elementary (formerly Burford DHS)	School	35 Alexander St	Burford	N0E 1A0	52,348.45 Square feet	80	No			161,721.55 kWh	53,737.21 Cubic Meter	0.00 Litre	No	104,394.48735	13.99905
Caledonia Centennial PS	School	110 Shetland St	Caledonia	N3W 2H1	31,520.89 Square feet	80	No		2	246,319.42 kWh	23,216.29 Cubic Meter	0.00 Litre	No	48,154.17435	15.64223
Cayuga SS Cedarland PS	School School	70 Highway #54	Cayuga Brantford	N0A 1E0 N3R 6E5	131,945.62 Square feet 32,514.66 Square feet	80 80	No No			591,213.68 kWh 239,685.32 kWh	187,327.86 Cubic Meter 37,580.86 Cubic Meter	0.00 Litre 0.00 Litre	No No	364,393.91844 75,197.46675	19.56937 19.65533
Centennial-Grand Woodlands S	School	60 Ashgrove Ave 41 Ellenson Dr	Brantford	N3R 3E7	29,510.91 Square feet	80	No No			152,998.01 kWh	39,871.78 Cubic Meter	0.00 Litre	No	78,029.22286	19.54350
Central PS	School	135 George St	Brantford	N3T 6B4	23,713.82 Square feet	80	No		2	143,546.97 kWh	16,932.62 Cubic Meter	0.00 Litre	No	34,496.35130	13.64197
Cobblestone Elementary School	School	179 Grandville Circle	Paris	N3L 0A9	48,569.17 Square feet	80	No			286,255.45 kWh	31,942.76 Cubic Meter	0.00 Litre	No	65,343.50055	12.88340
Courtland PS Delhi DSS	School School	1012 Queen Street, Box 245 393 James St	Courtland Delhi	N0J 1E0 N4B 2B6	25,679.59 Square feet 89,070.30 Square feet	80 80	No No			87,404.67 kWh 391,175.25 kWh	26,630.46 Cubic Meter 115,035.73 Cubic Meter	0.00 Litre 0.00 Litre	No No	51,860.19267 224,256.20228	14.42497 18.11770
Delhi PS	School	227 Queen St	Delhi	N4B 2K6	35,287.56 Square feet	80	No		2	210,571.06 kWh	53,297.19 Cubic Meter	0.00 Litre	No	104,407.56886	22.01914
Dufferin PS	School	106 Chestnut Ave	Brantford	N3T 4C6	36,249.22 Square feet	80	No		4	176,608.05 kWh	61,213.16 Cubic Meter	0.00 Litre	No	118,786.22096	22.81892
Dunnville SS	School	110 Helena St	Dunnville	N1A 2S5	150,609.50 Square feet	80	No			604,828.55 kWh	212,631.83 Cubic Meter	0.00 Litre	No	412,469.80556	19.02026
Echo Place PS Ecole Confederation (Formerly Coronation (B	School	723 Colborne St 54 Ewing D Dr	Brantford Brantford	N3S 3R5 N3R 5H8	18,379.09 Square feet 43,709.90 Square feet	80 80	No No		4	69,274.41 kWh 269,618.64 kWh	37,103.46 Cubic Meter 55,978.52 Cubic Meter	0.00 Litre 0.00 Litre	No No	71,347.11129 110,498.36400	25.22441 19.77918
Elgin Avenue PS	School	80 Elgin Ave	Simcoe	N3Y 4A8	40,112.09 Square feet	80	No		4	153,166.00 kWh	43,473.37 Cubic Meter	0.00 Litre	No	84,841.38456	15.33680
Fairview Avenue PS	School	223 Fairview Ave W	Dunnville	N1A 1M4	33,330.00 Square feet	80	No			164,599.78 kWh	33,779.96 Cubic Meter	0.00 Litre	No	66,712.55553	15.70974
Glen Morris Central PS	School	522 Glen Morris Rd E	Glen Morris	NOB 1W0	15,058.76 Square feet	80	No			84,963.86 kWh	0.00 Cubic Meter	25,671.71 Litre	No	41,029.40224	17.62763
Graham Bell-Victoria PS Grand Erie Learning Alternatives	School School	56 Grand St 365 Rawdon St	Brantford Brantford	N3R 4B2 N3S 6J3	34,097.51 Square feet 20,340.79 Square feet	80 80	No No			113,182.36 kWh 67,272.30 kWh	42,251.25 Cubic Meter 36,575.93 Cubic Meter	0.00 Litre 0.00 Litre	No No	81,839.18308 70,315.11405	16.48857 22.41767
Grandview Central PS	School	11 Thrush St	Dunnville	N1A 1X7	20,479.00 Square feet	80	No			55,413.97 kWh	25,735.33 Cubic Meter	0.00 Litre	No	49,614.45989	16.06149
Grandview PS	School	68 North Park St	Brantford	N3R 4J9	33,568.60 Square feet	80	No			117,220.87 kWh	41,950.25 Cubic Meter	0.00 Litre	No	81,339.96282	16.77338
Greenbrier PS Hagersville Elementary School	School School	33 White Oaks Ave 40 Parkview Road	Brantford Hagersville	N3R 5N8 N0A 1H0	22,064.88 Square feet 29,332.74 Square feet	80 80	No No			90,015.67 kWh 80,133.48 kWh	26,421.32 Cubic Meter 26,604.61 Cubic Meter	0.00 Litre 0.00 Litre	No No	51,509.94837 51,685.53447	16.80569 12.37120
Hagersville SS	School	70 Parkview Rd	Hagersville	N0A 1H0	132,582.97 Square feet	80	No		1	788,114.63 kWh	236,897.55 Cubic Meter	0.00 Litre	No	461,517.71221	24.93388
Houghton Annex	School	505 Fairground SR, R.R. #5	Langton	N0E 1G0	4,920.09 Square feet	40	No			15,951.73 kWh	2,589.46 Cubic Meter	0.00 Litre	No	5,171.64515	8.83561
Houghton PS	School	505 Fairground Sideroad	Langton	N0E 1G0	30,778.23 Square feet	80	No		3	231,006.76 kWh	42,667.10 Cubic Meter	0.00 Litre	No	84,663.53230	22.23855
J L Mitchener PS James Hillier PS	School School	Box 99 60 Munsee St South 62 Queensway Dr	Cayuga Brantford	N0A 1E0 N3R 4W8	35,848.25 Square feet 30,101.95 Square feet	80 80	No No		2	74,981.78 kWh 99,781.31 kWh	38,376.97 Cubic Meter 38,692.13 Cubic Meter	0.00 Litre 0.00 Litre	No No	73,853.56944 74,878.40856	13.46910 16.97540
Jarvis PS	School	14 Monson St	Jarvis	NOA 1JO	31,950.96 Square feet	80	No		-	159,230.27 kWh	31,264.32 Cubic Meter	0.00 Litre	No	61,863.53966	15.38297
Joseph Brant Learning Centre	School	347 Erie Ave	Brantford	N3S 2H7	18,963.57 Square feet	80	No		3	157,565.28 kWh	29,776.11 Cubic Meter	0.00 Litre	No	59,021.08534	24.99630
King George PS	School	265 Rawdon St	Brantford	N3S 6G7 N0A 1N0	39,243.16 Square feet	80 80	No			239,636.24 kWh	57,885.33 Cubic Meter 118.828.33 Cubic Meter	0.00 Litre	No No	113,584.80198	21.78287
Lakewood Elementary (Formerly Port Dover Langton PS	School	713 St. George St 23 Albert Street	Port Dover Langton	NOE 1G0	90,437.10 Square feet 23,954.31 Square feet	80 80	No No			393,417.00 kWh 76,143.13 kWh	33,866.85 Cubic Meter	0.00 Litre 0.00 Litre	No No	231,465.38217 65,346.71136	18.31436 18.20434
Lansdowne PS	School	21 Preston Blvd	Brantford	N3T 5B1	29,050.92 Square feet	80	No			193,308.44 kWh	35,079.15 Cubic Meter	0.00 Litre	No	69,665.44120	19.48723
Lynndale Heights ES	School	55 Donly Drive South	Simcoe	N3Y 5G7	35,521.11 Square feet	80	No			280,448.91 kWh	39,703.40 Cubic Meter	0.00 Litre	No	79,915.52136	19.77438
Major Ballachey PS McKinnon Park SS	School School	105 Rawdon St 91 Haddington St	Brantford Caledonia	N3S 6C7 N3W 2H2	47,797.17 Square feet 123,641.84 Square feet	80 80	No No	1	12	179,867.26 kWh 1,209,282.77 kWh	41,887.38 Cubic Meter 199,331.23 Cubic Meter	0.00 Litre 0.00 Litre	No No	82,304.75375 397,779.18172	13.07686 26.91429
Mount Pleasant PS	School	667 Mt. Pleasant Road	Mt. Pleasant	N0E 1K0	21,936.77 Square feet	80	No	'	12	78,802.73 kWh	26,566.33 Cubic Meter	0.00 Litre	No	51,590.14655	16.46294
North Park C & VS	School	280 North Park St	Brantford	N3R 4L1	174,353.36 Square feet	80	No		6	784,058.92 kWh	197,344.13 Cubic Meter	0.00 Litre	No	386,666.79972	16.52614
North Ward PS	School	107 Silver St	Paris	N3L 1V2	43,853.93 Square feet	80	No			146,218.75 kWh	56,013.82 Cubic Meter	0.00 Litre	No	108,430.52507	16.90889
Oakland-Scotland PS Oneida Central PS	School School	15 Church Street West 661 4th Line	Scotland Caledonia	N0E 1R0 N3W 2B2	23,201.64 Square feet 23,304.18 Square feet	80 80	No No		4	118,237.94 kWh 154,697.15 kWh	32,539.99 Cubic Meter 28,527.43 Cubic Meter	0.00 Litre 0.00 Litre	No No	63,566.26721 56,610.67737	20.00142 19.64799
Onondaga-Brant PS	School	21 Brant School Rd., R.R. #1	Brantford	N3T 5L4	19,669.81 Square feet	80	No		1	95,524.71 kWh	36,115.54 Cubic Meter	0.00 Litre	No	69,933.39616	24.36997
Paris Central PS	School	7 Broadway St E	Paris	N3L 2R2	25,969.96 Square feet	80	No			257,545.03 kWh	38,728.93 Cubic Meter	0.00 Litre	No	77,676.96981	25.76621
Paris DHS (Sec) Pauline Johnson C & VS	School School	231 Grand River St N 627 Colborne St	Paris Brantford	N3L 2N6 N3S 3M8	152,108.75 Square feet 184,625.00 Square feet	80 80	No		7	725,698.96 kWh 620,539.72 kWh	190,394.47 Cubic Meter 190,450.76 Cubic Meter	0.00 Litre 0.00 Litre	No No	372,518.05787 370,805.45241	18.07370 14.32421
Port Rowan PS	School	48 College Avenue	Port Rowan	N0E 1M0	22,997.59 Square feet	80	No No			89,975.35 kWh	26,920.59 Cubic Meter	0.00 Litre	No	52,453.19181	16.35308
Prince Charles PS	School	40 Morton Ave	Brantford	N3R 2N5	28,610.81 Square feet	80	No			152,515.83 kWh	49,548.02 Cubic Meter	0.00 Litre	No	96,315.04163	23.73582
Princess Elizabeth PS	School	60 Tecumseh St	Brantford	N3S 2B5	26,128.11 Square feet	80	No			68,130.13 kWh	46,175.70 Cubic Meter	0.00 Litre	No	88,479.54220	21.38981
Rainham Central PS River Heights E S	School School	RR 1 572 Concession 5 37 Forfar St.	Fisherville Caledonia	N0A 1G0 N3W 1L6	24,310.31 Square feet 57,724.13 Square feet	80 80	No No		1	113,037.68 kWh 189,680.00 kWh	28,685.41 Cubic Meter 56,975.33 Cubic Meter	0.00 Litre 0.00 Litre	No No	56,188.73165 111,000.18989	17.19023 13.77589
Russell Reid PS	School	43 Cambridge Dr.	Brantford	N3R 5E3	29,103.50 Square feet	80	No			128,132.66 kWh	32,650.06 Cubic Meter	0.00 Litre	No	63,945.53100	16.32554
Ryerson Heights	School	33 Dowden Ave	Brantford	N3T 0A3	65,411.56 Square feet	80	No		1	370,877.34 kWh	44,686.13 Cubic Meter	0.00 Litre	No	90,900.24115	12.93031
Seneca Central PS	School	2767 Reg Rd #9	York	N0A 1R0	16,836.89 Square feet	80	No			66,484.00 kWh	22,700.41 Cubic Meter	0.00 Litre	No	44,068.05717	18.27766
Simcoe Comp S St George-German PS	School School	40 Wilson Ave 3 College Street	Simcoe St. George	N3Y 2E5 N0E 1N0	163,362.98 Square feet 41,420.30 Square feet	80 80	No No			768,981.63 kWh 297,805.87 kWh	213,298.77 Cubic Meter 49,184.57 Cubic Meter	0.00 Litre 0.00 Litre	No No	416,570.26385 98,141.12727	18.58360 19.80982
Teacher Resource Centre	Administrative offices and related facilities	108 Tollgate Rd	Brantford	N3R 4Z6	19,622.56 Square feet	80	No			359,594.33 kWh	21,353.28 Cubic Meter	0.00 Litre	No	46,591.35447	29.89071
Teeterville PS	School	229 Teeter St. PO Box 1	Teeterville	N0E 1S0	21,394.15 Square feet	80	No			94,307.50 kWh	34,324.61 Cubic Meter	0.00 Litre	No	66,526.36006	21.45922
Thompson Creek E S	School	800 Cross St W	Dunnville Brootford	N1A 1N7	46,405.20 Square feet	80	No No		6	231,933.46 kWh	58,193.85 Cubic Meter	0.00 Litre	No No	114,034.84213	18.32563
Tollgate Technological Skills Centre	School	112 Tollgate Rd	Brantford	N3R 4Z6	98,764.00 Square feet	80	No		6	684,906.68 kWh	202,383.87 Cubic Meter	0.00 Litre	No	394,479.92863	28.71286

Valley Heights SS	School	2561 #59 Highway	Langton	N0E 1G0	110,141.29 Square feet	80	No		622,958.68 kWh	160,632.45 Cubic Meter	0.00 Litre	No	314,471.98818	21.15577
Walpole North E S	School	1895 Regional Rd. #55, R.R. #5	Hagersville	N0A 1H0	20,637.35 Square feet	80	No	1	94,722.33 kWh	27,925.05 Cubic Meter	0.00 Litre	No	54,434.36139	18.97063
Walsh Public School	School	933 St. John's Road West ,RR#2	Simcoe	N3Y 4K1	39,052.72 Square feet	80	No	3	111,852.91 kWh	36,559.22 Cubic Meter	0.00 Litre	No	71,054.67883	12.81335
Waterford DHS	School	227 Main St., South	Waterford	N0E 1Y0	123,794.72 Square feet	80	No		570,420.55 kWh	155,381.69 Cubic Meter	0.00 Litre	No	303,635.95090	17.94732
Waterford PS (Formally A.B. Massecar)	School	100 East Church St	Waterford	N0E 1Y0	26,086.06 Square feet	80	No	3	152,913.42 kWh	41,781.48 Cubic Meter	0.00 Litre	No	81,638.28380	22.88416
West Lynn PS	School	18 Parker Dr	Simcoe	N3Y 1A1	29,041.31 Square feet	80	No		161,296.13 kWh	41,102.48 Cubic Meter	0.00 Litre	No	80,499.55163	20.59563
Woodman Drive (Cainsville PS)	School	51 Woodman Dr	Brantford	N3S 4K3	26,173.05 Square feet	80	No	4	171,327.18 kWh	24,857.15 Cubic Meter	0.00 Litre	No	49,959.22357	16.63939











