



Grand Erie District School Board

TO: JoAnna Roberto, Ph. D., Director of Education & Secretary of the Board
FROM: Rafal Wyszynski, Superintendent of Business & Treasurer
RE: **Energy Conservation Consumption Report (2020-21)**
DATE: June 27, 2022

Recommended Action: Moved by _____ Seconded by _____
THAT the Grand Erie District School Board receive the Energy Conservation Consumption Report for 2020-21 as information.

Background

O. Reg 507/18, under the Electricity Act requires public agencies such as municipalities, school boards, universities, colleges and hospitals to report annually on their energy consumption and greenhouse gas (GHG) emissions. The report is due July 1st and must report on the total consumption and GHS of all energy types for the previous fiscal year. This year's report covers September 1, 2020 to August 31, 2021.

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 - 2020-21. This is referred to as Grand Erie's 2020-21 Consumption report in the remainder of this report. Grand Erie District School Board's 2020-21 Energy Report was successfully completed, uploaded and is available as of June 3, 2022 on the Ministry of Energy's BPS Portal. For the purpose of the report, Grand Erie reports on Branlyn and Notre Dame while the Brant Haldimand Norfolk Catholic District School Board reports on St. Basils and Walter Gretzky.

As per O. Reg. 507/18, Boards are required to submit their completed consumption report annually 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.

Additional Information

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.

Energy intensity is driven by energy consumption at each site. This is impacted by a number of variables. 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).
- 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
- COVID-19 with increased ventilation and system operational times

Below are the previous three years energy consumption broken out by the three sources: electricity, natural gas and propane (Glen Morris only).

Energy Consumed	2018-19	2019-20	2020-21
Total Electricity (kWh)	20,120,996	17,042,409	16,736,730
Total Natural Gas (m3)	5,009,260	4,407,316	4,210,492
Total Propane (L)	34,891	32,494	11,017

Although there are several variables, as mentioned, which affect energy consumption, COVID-19 likely played a large role in the reduced energy consumption in the 2020-21 school year. Province-wide school closures resulted in less in-person instructional days for the year. Further, most schools, except for those running special education programs, were scheduled to be unoccupied for the duration of the school closure periods.

Next Steps

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. 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.

Grand Erie Multi-Year Plan

This report supports the Belonging indicator of Learn Lead Inspire and the following statement: We build a culture of belonging to support an equitable, inclusive and responsive environment for each learner.

Respectfully submitted,

Rafal Wyszynski
Superintendent of Business & Treasurer

Energy Consumption and Greenhouse Gas Emissions Reporting - for 2020

Confirm consecutive 12-mth period (mth-yr to mth-yr)	Sept/2020 - Aug/2021
Sector	School Board
Agency Sub-sector	School Board
Organization Name	Grand Erie District School Board

Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Swimmin g Pool (Yes/No)	Number of Portables	Electricity Quantity	Electricity Unit	Natural Gas Quantity	Natural Gas Unit	Propane Quantity	Propane Unit	GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)
Agnes G Hodge PS	School	52 Clench Avenue	Brantford	N3T 1B6	39,905.37	Square feet	80	No	0	129,707.20117	kWh	46,154.73891	Cubic Meter			90,562.18441	15.54251
Banbury Heights PS	School	141 Banbury Rd	Brantford	N3P 1E3	38,125.77	Square feet	80	No	0	394,409.97070	kWh	30,245.39399	Cubic Meter			67,219.70343	18.77605
Bellview PS	School	97 Tenth Avenue	Brantford	N3S 1G5	37,494.46	Square feet	80	No	0	160,783.43361	kWh	43,509.51976	Cubic Meter			86,351.88964	16.62093
Bloomsburg PS	School	25 Concession 12, R.R. #3	Waterford	N0E 1Y0	23,433.03	Square feet	80	No	0	69,375.17896	kWh	30,613.24349	Cubic Meter			59,643.68426	16.84485
Board Office	Administrative offices and related facilities	349 Erie Avenue	Brantford	N3S 2H7	29,264.00	Square feet	80	No	2	312,266.58203	kWh	40,155.24659	Cubic Meter			83,865.15337	25.25381
Boston PS	School	2993 Cockshutt Rd., R.R. #1	Waterford	N0E 1Y0	21,893.79	Square feet	80	No	0	56,048.60840	kWh	34,112.94282	Cubic Meter			65,921.17573	19.11927
Branlyn PS	School	238 Brantwood Park Rd	Brantford	N3P 1N9	78,496.59	Square feet	100	No	0	402,615.13867	kWh	44,429.59845	Cubic Meter			94,245.54848	11.14447
Brantford CI & VS	School	120 Brant Ave	Brantford	N3T 3H3	204,578.90	Square feet	80	No	0	1,477,419.42969	kWh	50,401.12029	Cubic Meter			132,887.08850	9.84007
Brier Park PS	School	10 Blackfriar Lane	Brantford	N3R 6C5	35,542.96	Square feet	80	No	2	306,765.51367	kWh	32,216.60407	Cubic Meter			68,716.15030	18.26399
Burford Elementary (formerly Burford DHS)	School	35 Alexander St	Burford	N0E 1A0	46,360.16	Square feet	80	No	0	134,172.30632	kWh	54,643.15112	Cubic Meter			106,724.23373	15.42073
Caledonia Centennial PS	School	110 Shetland St	Caledonia	N3W 2H1	29,923.67	Square feet	80	No	8	151,776.40161	kWh	23,210.25069	Cubic Meter			47,744.33250	13.31554
Cayuga SS	School	70 Highway #54	Cayuga	N0A 1E0	131,704.10	Square feet	80	No	0	469,045.90625	kWh	187,915.73167	Cubic Meter			367,214.83624	18.72510
Cedarland PS	School	60 Ashgrove Ave	Brantford	N3R 6E5	33,863.26	Square feet	80	No	0	134,339.34668	kWh	27,074.87087	Cubic Meter			54,607.14958	12.46439
Centennial-Grand Woodlands S	School	41 Ellenson Dr	Brantford	N3R 3E7	29,493.11	Square feet	80	No	0	134,885.87344	kWh	39,212.48583	Cubic Meter			77,568.76015	18.70360
Central PS	School	135 George St	Brantford	N3T 6B4	33,748.62	Square feet	80	No	2	156,583.43262	kWh	20,682.74502	Cubic Meter			43,088.09136	11.15290
Cobblestone Elementary School	School	179 Grandville Circle	Paris	N3L 0A9	50,326.00	Square feet	80	No	3	238,838.90527	kWh	35,484.64419	Cubic Meter			73,166.19885	12.23943
Courtland PS	School	1012 Queen Street, Box 245	Courtland	N0J 1E0	24,864.63	Square feet	80	No	0	68,693.33386	kWh	31,302.66164	Cubic Meter			60,929.76523	16.14225
Delhi DSS	School	393 James St	Delhi	N4B 2B6	89,890.49	Square feet	80	No	0	279,335.10059	kWh	99,365.38256	Cubic Meter			194,971.39478	14.85550
Delhi PS	School	227 Queen St	Delhi	N4B 2K6	36,551.00	Square feet	80	No	1	164,453.10477	kWh	44,108.29760	Cubic Meter			87,577.34098	17.32446
Dufferin PS	School	106 Chestnut Ave	Brantford	N3T 4C6	40,358.19	Square feet	80	No	3	122,156.15110	kWh	39,966.76324	Cubic Meter			78,670.87142	13.55150
Dunnville SS	School	110 Helena St	Dunnville	N1A 2S5	151,913.40	Square feet	80	No	0	386,076.35742	kWh	184,566.89177	Cubic Meter			358,772.02003	15.45362
Echo Place PS	School	723 Colborne St	Brantford	N3S 3R5	18,376.00	Square feet	80	No	0	94,507.43187	kWh	20,512.66897	Cubic Meter			41,186.83092	17.00650
Ecole Confederation (Formerly Coronation (Brantford))	School	54 Ewing D Dr	Brantford	N3R 5H8	31,502.00	Square feet	80	No	3	211,217.34777	kWh	45,884.78721	Cubic Meter			92,126.07664	22.18496
Elgin Avenue PS	School	80 Elgin Ave	Simcoe	N3Y 4A8	40,121.00	Square feet	80	No	0	109,781.65503	kWh	43,002.09468	Cubic Meter			84,094.64481	14.12722
Glen Morris Central PS	School	522 Glen Morris Rd E	Glen Morris	N0B 1W0	15,157.00	Square feet	80	No	0	76,069.91503	kWh			11,017.37898	Litre	18,913.43192	10.12919
Graham Bell-Victoria PS	School	56 Grand St	Brantford	N3R 4B2	34,103.00	Square feet	80	No	0	78,400.49537	kWh	33,523.13111	Cubic Meter			65,374.87260	12.74600
Grand Erie Learning Alternatives	School	365 Rawdon St	Brantford	N3S 633	20,343.79	Square feet	80	No	0	55,274.90311	kWh	33,867.69716	Cubic Meter			65,437.81841	20.40983
Grandview Central PS	Administrative offices and related facilities	11 Thrush St	Dunnville	N1A 1X7	19,711.00	Square feet	80	No	0	17,188.26445	kWh	29,146.82353	Cubic Meter			55,543.17848	16.58740
Grandview PS	School	68 North Park St	Brantford	N3R 4J9	31,757.00	Square feet	80	No	0	94,779.86989	kWh	36,290.38448	Cubic Meter			71,023.53887	15.12945
Greenbrier PS	School	33 White Oaks Ave	Brantford	N3R 5N8	22,068.00	Square feet	80	No	0	72,495.77336	kWh	29,396.08586	Cubic Meter			57,421.90606	17.44203
Hagersville Elementary School	School	40 Parkview Road	Hagersville	N0A 1H0	29,332.00	Square feet	80	No	0	60,692.90540	kWh	29,669.62068	Cubic Meter			57,638.69899	12.81928
Hagersville SS	School	70 Parkview Rd	Hagersville	N0A 1H0	132,596.60	Square feet	80	No	1	735,209.91797	kWh	266,491.75163	Cubic Meter			522,544.12289	26.90435
Houghton Annex	School	505 Fairground SR, R.R. #5	Langton	N0E 1G0	2,798.62	Square feet	40	No	0	4,565.20003	kWh	1,733.50928	Cubic Meter			3,393.59466	8.21424
Houghton PS	School	505 Fairground Sideroad	Langton	N0E 1G0	27,289.08	Square feet	80	No	7	171,793.23097	kWh	20,779.85816	Cubic Meter			43,658.75503	14.38806
J L Mitchener PS	School	Box 99 60 Munsee St South	Cayuga	N0A 1E0	35,900.22	Square feet	80	No	0	72,191.31921	kWh	34,543.15736	Cubic Meter			67,145.35066	12.23692
James Hillier PS	School	62 Queensway Dr	Brantford	N3R 4W8	30,211.06	Square feet	80	No	2	87,947.00845	kWh	33,746.09290	Cubic Meter			66,039.34985	14.78243
Jarvis PS	School	14 Monson St	Jarvis	N0A 1J0	31,947.30	Square feet	80	No	0	127,226.14127	kWh	31,900.84496	Cubic Meter			63,550.24964	14.59470
Joseph Brant Learning Centre	School	347 Erie Ave	Brantford	N3S 2H7	19,278.69	Square feet	80	No	3	116,370.36342	kWh	22,385.77741	Cubic Meter			45,284.54820	18.37684
King George PS	School	265 Rawdon St	Brantford	N3S 6G7	39,245.22	Square feet	80	No	0	137,034.97852	kWh	35,743.90015	Cubic Meter			71,065.64885	13.17137
Lakewood Elementary (Formerly Port Dover Comp)	School	713 St. George St	Port Dover	N0A 1N0	90,309.21	Square feet	80	No	0	301,483.00781	kWh	107,818.71285	Cubic Meter			211,517.10920	16.02667
Langton PS	School	23 Albert Street	Langton	N0E 1G0	20,214.62	Square feet	80	No	0	52,799.86743	kWh	30,118.96555	Cubic Meter			58,287.38051	18.44692
Lansdowne PS	School	21 Preston Blvd	Brantford	N3T 5B1	28,997.97	Square feet	80	No	0	124,824.48516	kWh	31,073.98161	Cubic Meter			61,925.84213	15.69323
Lynddale Heights ES	School	55 Donly Drive South	Simcoe	N3Y 5G7	35,284.10	Square feet	80	No	0	186,659.25702	kWh	38,219.06046	Cubic Meter			77,008.09239	16.80198
Major Ballachey PS	School	105 Rawdon St	Brantford	N3S 6C7	47,813.29	Square feet	80	No	0	143,415.50314	kWh	39,177.68560	Cubic Meter			77,720.02792	11.70777
Mapleview Elementary	School	223 Fairview Ave W	Dunnville	N1A 1M4	45,325.00	Square feet	80	No	0	156,030.00000	kWh	17,457.45191	Cubic Meter			36,976.18138	7.53588
McKinnon Park SS	School	91 Haddington St	Caledonia	N3W 2H2	123,854.10	Square feet	80	No	10	891,295.51953	kWh	172,124.61834	Cubic Meter			348,105.13919	21.96615
Mount Pleasant PS	School	667 Mt. Pleasant Road	Mt. Pleasant	N0E 1K0	18,556.98	Square feet	80	No	0	55,351.56303	kWh	22,666.25497	Cubic Meter			44,262.02021	15.96399
North Park C & VS	School	280 North Park St	Brantford	N3R 4L1	174,387.20	Square feet	80	No	5	602,946.75532	kWh	183,457.22045	Cubic Meter			362,192.96336	14.63805
North Ward PS	School	107 Silver St	Paris	N3L 1V2	43,927.52	Square feet	80	No	0	122,025.74902	kWh	58,867.60013	Cubic Meter			114,401.98549	17.02025
Oakland-Scotland PS	School	15 Church Street West	Scotland	N0E 1R0	21,667.75	Square feet	80	No	0	98,678.00061	kWh	24,945.47399	Cubic Meter			49,673.74442	16.78960
Oneida Central PS	School	661 4th Line	Caledonia	N3W 2B2	20,634.61	Square feet	80	No	3	99,192.75037	kWh	27,725.25244	Cubic Meter			54,942.36795	19.08689
Onondaga-Brant PS	School	21 Brant School Rd., R.R. #1	Brantford	N3T 5L4	19,906.23	Square feet	80	No	2	70,970.49674	kWh	25,529.01880	Cubic Meter			50,071.90944	17.19498
Paris Central PS	School	7 Broadway St E	Paris	N3L 2R2	24,756.99	Square feet	80	No	0	207,120.23779	kWh	21,021.77674	Cubic Meter			45,015.13451	17.39044
Paris DHS (Sec)	School	231 Grand River St N	Paris	N3L 2N6	148,945.00	Square feet	80	No	4	588,911.38686	kWh	84,834.18387	Cubic Meter			175,376.41552	10.00712
Pauline Johnson C & VS	School	627 Colborne St	Brantford	N3S 3M8	184,622.60	Square feet	80	No	0	544,675.22656	kWh	179,393.55964	Cubic Meter			353,027.20265	13.27698
Port Rowan PS	School	48 College Avenue	Port Rowan	N0E 1M0	22,927.13	Square feet	80	No	0	54,499.31299	kWh	27,818.97676	Cubic Meter			53,982.20708	15.27244
Prince Charles PS	School	40 Morton Ave	Brantford	N3R 2N5	28,621.24	Square feet	80	No	0	117,217.10693	kWh	35,835.64852	Cubic Meter			70,734.78558	17.40212
Princess Elizabeth PS	School	60 Tecumseh St	Brantford	N3S 2B5	25,887.21	Square feet	80	No	0	61,353.69716	kWh	43,909.58186	Cubic Meter			84,577.96990	20.39675
Rainham Central PS	School	RR 1 572 Concession 5	Fisherville	N0A 1G0	23,027.77	Square feet	80	No	0	73,660.43811	kWh	28,062.97806	Cubic Meter</				

Operation Name	Operation Type	Address	City	Postal Code	Total Floor Area	Unit	Avg hrs/wk	Swimming Pool (Yes/No)	Number of Portables	Electricity Quantity	Electricity Unit	Natural Gas Quantity	Natural Gas Unit	Propane Quantity	Propane Unit	GHG Emissions (Kg)	Energy Intensity (ekWh/sqft)
Teeterville PS	School	229 Teeter St. PO Box 1	Teeterville	N0E 1S0	21,194.14	Square feet	80	No	0	88,180.52298	kWh	32,386.94963	Cubic Meter			63,475.65937	20.40101
Thompson Creek E S	School	800 Cross St W	Dunnville	N1A 1N7	52,463.30	Square feet	80	No	0	155,167.77930	kWh	55,034.62175	Cubic Meter			107,998.65147	14.10631
Tollgate Technological Skills Centre	School	112 Tollgate Rd	Brantford	N3R 4Z6	98,867.56	Square feet	80	No	4	622,760.73242	kWh	168,327.56821	Cubic Meter			334,092.66042	24.39333
Valley Heights SS	School	2561 #59 Highway	Langton	N0E 1G0	109,092.20	Square feet	80	No	0	474,022.50196	kWh	161,551.27368	Cubic Meter			377,496.12453	20.08350
Walpole North E S	School	1895 Regional Rd. #55, R.R. #5	Hagersville	N0A 1H0	20,654.65	Square feet	80	No	1	59,913.85010	kWh	18,934.26494	Cubic Meter			37,322.32018	12.64330
Walsh Public School	School	933 St. John's Road West ,RR#2	Simcoe	N3Y 4K1	38,065.47	Square feet	80	No	2	111,758.32236	kWh	30,479.12210	Cubic Meter			60,468.67696	11.44564
Waterford DHS	School	227 Main St., South	Waterford	N0E 1Y0	126,260.70	Square feet	80	No	0	402,204.09009	kWh	156,458.43093	Cubic Meter			306,039.82358	16.35512
Waterford PS (Formally A.B. Massecar)	School	100 East Church St	Waterford	N0E 1Y0	20,305.31	Square feet	80	No	5	170,355.69519	kWh	30,790.05709	Cubic Meter			62,547.72500	24.50519
West Lynn PS	School	18 Parker Dr	Simcoe	N3Y 1A1	28,815.63	Square feet	80	No	0	99,336.46753	kWh	33,717.94113	Cubic Meter			66,275.96432	15.88316
Woodman Drive (Cainsville PS)	School	51 Woodman Dr	Brantford	N3S 4K3	26,063.71	Square feet	80	No	6	177,985.64844	kWh	21,092.87312	Cubic Meter			44,408.13420	15.42973