

ELECTRICITY ACT, 1998

ONTARIO REGULATION 507/18: BROADER PUBLIC SECTOR: ENERGY REPORTING AND CONSERVATION AND DEMAND MANAGEMENT PLANS

ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSIONS REPORT

CITY OF THUNDER BAY

OCTOBER 1, 2020

In 2018 the Ministry of Energy, Northern Development and Mines enacted, under the *Electricity Act, 1998*, Ontario Regulation 507/18: Broader Public Sector: Energy Reporting and Conservation and Demand Management Plans to help public agencies including municipalities, hospitals, and schools manage and reduce their energy consumption. Under this Regulation, public agencies are required to report on their annual energy consumption and greenhouse gas emissions for prescribed facilities. The regulation also requires the development and implementation of conservation and demand management (CDM) plans every five years starting in 2014.

The data reported in 2020 is for the 2018 calendar year (January 1, 2018 to December 31, 2018).

O. Reg 507/18 outlines the operations for which the municipality is required to report on its energy use and greenhouse gas emissions and prepare CDM plans. The list of prescribed operations for which the municipality must report are:

- Administrative offices and related facilities including municipal council chambers
- Public libraries
- Cultural facilities, indoor recreational facilities and community centres, including art galleries, performing arts facilities, auditoriums, indoor sports arenas, indoor ice rinks, indoor swimming pools, gyms and indoor courts for playing tennis, basketballs or other sports
- Ambulance stations and associated offices and facilities
- Fire stations and associated offices and facilities
- Police stations and associated offices and facilities
- Storage facilities where equipment or vehicles are maintained, repaired or stored
- Buildings/facilities or facilities related to the treatment or pumping of water or sewage
- Parking garages

The prescribed operations must also be conducted in a building/facility that the municipality owns or leases, and the municipality must be issued and be responsible for paying the utility invoice.

The City of Thunder Bay facilities and energy consumption portfolio also includes other operations that were not included in the prescribed list of required reporting. Facilities and operations that were not included are:

- Outdoor pools and operations
- Homes for the Aged

- Tourism facilities and signage
- Animal Services facilities
- Commercial facilities
- Seasonal parks
- Waterfront facilities
- Conservatory
- Cemeteries
- Golf facilities and operations
- Daycares
- Stadiums
- Parking lot lighting
- Streetlighting
- Flashing lights and traffic control lighting
- Other outdoor lighting

As a result, the energy consumption and greenhouse gas emissions reported through O. Reg 507/18 is not inclusive of all the operations and facilities within the City of Thunder Bay's energy consumption portfolio.

For more information on the City of Thunder Bay's energy consumption, the Energy Consumption and Greenhouse Gas Emissions report and energy management initiatives within City operations, please contact Vanessa DeGiacomo-Zwaresh at 807-684-2510 or email at vanessa.degiacomozwaresh@thunderbay.ca.

onfirm consecutive 12-mth period (mth-yr to mth-yr)	January 2018 to December 2018													
ector	Municipality													
gency Sub-sector	Municipal													
ganization Name	City of Thunder Bay													
				Postal	Total	Average	Annual	Electricity	Electricity	Natural Gas Natural Gas	GHG Emissions	Energy Intensity	Energy Intensity	
eration Name	Operation Type	Address	City	Code	Floor Area Unit	hrs/wk		Quantity	Unit	Quantity Unit	(Kg)	(ekWh/sqft)	(ekWh/Mega Litre)	Comments
henson Building	Administrative offices and related facilities, including municipal council chambers	2160 Yonge Street	Toronto	M7A 2G5	135,034.00 Square feet	70	23516.00224	2,181,065.00000	kWh	125,300.00000 Cubic meter		Litre		Litre
nteer Pool and Community Centre	Indoor swimming pools	180 Martha St	Thunder Bay		21,738.00 Square feet	85		376,069.70000		76,195.44000 Cubic Meter	155,169.26364	54.55230		Based on hours of operations
S Syndicate Ave (CIT) Centre	Administrative offices and related facilities, including municipal council chambers Indoor recreational facilities	125 Syndicate Ave S 700 River St	Thunder Bay Thunder Bay	P7E 6H8 P7A 3S6		60	0.00000	128,679.55000 339,626.34000		30,985.25000 Cubic Meter	3,802.22334 68,616.82935	13.25364 29.73025	0.00000	
ives	Administrative offices and related facilities, including municipal council chambers	235 Vickers St N	Thunder Bay	P7C 6A4		60	0.00000	175,923.05000		35,626.10000 Cubic Meter	72,553.84085	25.20679	0.00000	
strong EMS 43	Ambulance stations and associated offices and facilities	6 Northern Dr	Armstrong	POT 1A0	1,600.00 Square feet	168		13,456.19000	kWh		397.60350	8.41012	0.00000	
strong EMS 46	Ambulance stations and associated offices and facilities	4 Northern Dr	Armstrong	POT 1A0		168		13,433.60000			396.93601	8.39600		
trong EMS oral Police Station	Ambulance stations and associated offices and facilities Police stations and associated offices and facilities	65 Queen Street, PO Box 6 1200 Balmoral St	Armstrong Thunder Bay	P0T 1A0 P7B 5Z5	2,218.00 Square feet 65,500.00 Square feet	168		29,038.23000 1.383.327.21000		128.256.42000 Cubic Meter	858.02162 283.359.60298	13.09208 41.92989		
dmore EMS	Ambulance stations and associated offices and facilities	133 Main St	Beardmore	POT 1G0	2,325.00 Square feet	84		37,408.37000		128,230.42000 Cubic Meter	1,105.34252	16.08962	0.00000	
St EMS	Ambulance stations and associated offices and facilities	181 Beck St	Thunder Bay	P7A 2J7	2,888.00 Square feet	168		11,411.70000		2,972.89000 Cubic Meter	5,957.81901	14.89159		
ie St Library	Public libraries	216 Brodie St S	Thunder Bay	P7E 1C2	24,200.00 Square feet	65		312,250.29000		43,665.69000 Cubic Meter	91,781.90406	32.07932		based on hours of operations
n Street EMS	Ambulance stations and associated offices and facilities	1321 Brown St	Thunder Bay	P7E 2M4	3,972.00 Square feet	168		16,762.84000		9,041.19000 Cubic Meter	17,588.82632	28.41153		
da Games Complex chill Pool	Indoor swimming pools Indoor swimming pools	420 Winnipeg Ave 130 Churchill Dr W	Thunder Bay Thunder Bay	P7B 6B7 P7C 1V5		112		2,053,012.56000 363.701.36000		504,904.50000 Cubic Meter 91.915.45000 Cubic Meter	1,015,248.49524	65.64231 121.70297		based on hours of operations based on hours of operations
Hall	Administrative offices and related facilities, including municipal council chambers	500 Donald St E	Thunder Bay	P7E 5V3	43,500.00 Square feet	65		689,878.61000		93,775.45000 Cubic Meter	197.678.93088	38,77019	0.00000	
munity Services Administration Building	Administrative offices and related facilities, including municipal council chambers	53 Water Street S	Thunder Bay	P7B 6E8		60	0.00000	127,293.02000		38,135.44000 Cubic Meter	75,861.14668	61.92883		
nee EMS	Ambulance stations and associated offices and facilities	Fire #5750 Hwy 11/17	Conmee	P0T 1W0	3,000.00 Square feet	84		10,781.83000			318.58151	3.59394		
ity Park Library	Public libraries	1020 Dawson Rd	Thunder Bay	P7B 1K6	4,122.00 Square feet	50	0.00000	42,029.34000		5,023.14000 Cubic Meter	10,738.76705	23.14754		based on hours of operations - transfer of natural gas invoices to library in 2018
ent River Arena ent River Community Centre	Indoor ice rinks	425 Grenville Ave 450 Dewe Ave	Thunder Bay Thunder Bay	P7A 2B9 P7A 2G7	26,310.00 Square feet 8,050.00 Square feet	126		510,981.79200 127,745.44800		67,424.93000 Cubic Meter 13,510.96000 Cubic Meter	142,573.88312 29,318.80827	46.65750 33.70645		Full year ice including summer ice - ice plant runs continuously to maintain ice quality
rent River Community Centre aney Arena	Community centres Indoor ice rinks	450 Dewe Ave 300 Legion Track Dr/200 Hyde Park Ave	Thunder Bay Thunder Bay	P7A 2G7 P7E 1Y2	8,050.00 Square feet 35,100.00 Square feet	65		127,745.44800 715,279.22000		13,510.96000 Cubic Meter 99,395.63000 Cubic Meter	29,318.80827 209,055.13215	33.70645		includes office hours and regular programming hours October to April ice plant runs continuously to maintain ice quality
		and the second s	manaci ody	175.216	se, toolog square leet	120	0.00000	, 15,2, 5.22000		contraction of the second seco	200,000.20210	55.47350		October to April ice plant runs continuously to maintain ice quality. Also houses offices for Arena adn
t William Gardens	Indoor ice rinks	901 Miles St E	Thunder Bay	P7C 1J9	74,000.00 Square feet	126	0.00000	1,378,345.80000		207,403.81000 Cubic Meter	432,850.60479	48.41334	0.00000	Jan-Dec.
derica Fire Station	Fire stations and associated offices and facilities	1710 Frederica St W	Thunder Bay	P7E 0A8		168		88,232.71000		15,359.62000 Cubic Meter	31,646.41240	48.82938		
t and Egan Administration Building and Garage	Storage facilities where equipment or vehicles are maintained, repaired or stored	155 Front St	Thunder Bay	P7A 2P3	39,010.00 Square feet	60		285,722.46000	kWh	139,663.89000 Cubic Meter	272,494.84861	45.37398	0.00000	
t and Egan AfterHours& Stores & Washbay Idton EMS	Storage facilities where equipment or vehicles are maintained, repaired or stored Ambulance stations and associated offices and facilities	155 Front St 815 Main St, Box 1350	Thunder Bay Geraldton	P7A 2P3 P0T 1M0	4,000.00 Square feet	168 140		41,858.78000 37,461.43000		11,024.48000 Cubic Meter 7,595.76000 Cubic Meter	22,080.02278 15,467.65928	39.75612 29.83779	0.00000	
Idton ENIS dview Arena	Ambulance stations and associated offices and facilities	300 Madeline St	Thunder Bay	P01 1M0 P7A 5Y9	3,961.00 Square feet 23,310.00 Square feet	140	0.00000	290.191.21000		53.343.50000 Cubic Meter	109.427.23125	29.83779 36.77023		October to April ice plant runs continously to maintain ice quality
nstone EMS (Longlac)	Ambulance stations and associated offices and facilities	105 Skinner Ave, PO Box 640	Longlac	POT 2A0	3,280.00 Square feet	84		26,226.81000		8,538.78000 Cubic Meter	16,918.59780	35.66313	0.00000	occount to April nee plant rails contained by to maintain nee quarty
der Avenue Fire Station	Fire stations and associated offices and facilities	300 Hodder Ave	Thunder Bay	P7A 1T3		168	0.00000	60,164.09000		7,532.75000 Cubic Meter	16,019.34907	46.74016		new equipment installed
an Resources	Administrative offices and related facilities, including municipal council chambers	141 May St S	Thunder Bay	P7E 1A9		60	0.00000	353,027.15000	kWh		10,431.24623	37.55608	0.00000	
es Street Fire Station	Fire stations and associated offices and facilities	501 Churchill Dr W	Thunder Bay	P7C 1W2	5,600.00 Square feet	168		61,703.77000		12,322.83000 Cubic Meter	25,121.09811	34.40501		
Jumbo Community Centre	Community centres	330 Toivo St	Thunder Bay	P7B 6K8	2,878.00 Square feet	45		5,446.16000		2,487.50000 Cubic Meter	4,863.85780	11.07809	0.00000	Includes office hours and regular programming hours
nt Ave EMS nt Avenue Fire Station	Ambulance stations and associated offices and facilities Fire stations and associated offices and facilities	105 Junot St S 20 Junot Ave N	Thunder Bay Thunder Bay	P7B 4X6 P7A 7L1	38,000.00 Square feet 3,600.00 Square feet	168		435,925.12000 59,293.29000		49,332.86000 Cubic Meter 12,010.05000 Cubic Meter	106,150.75255 24,458.52293	25.26905 51.92595	0.00000	
men Youth Centre	Community centres	609 James St South	Thunder Bay	P7C 4T5	6,732.00 Square feet	30	0.00000	26,138.27000		9,738.93000 Cubic Meter	19,185.01761	19.25749		Based on hours of operations
nitouwadge EMS	Ambulance stations and associated offices and facilities	1 Paramedic Lane, PO Box 548	Manitouwadge		5,080.00 Square feet	84		84.827.11000		5,750.55000 Cubic Meter	2.506.47145	16.69825		
eward Fire Station	Fire stations and associated offices and facilities	3000 Government Rd	Thunder Bay	P7G 1V5		168	0.00000	51,129.46000	kWh	4,467.66000 Cubic Meter	9,957.45191	23.87670	0.00000	
pleward Solid Waste and Recycling Bomag Building	Storage facilities where equipment or vehicles are maintained, repaired or stored	5405 Mapleward Rd	Thunder Bay	P7G 1R8	1,750.00 Square feet	61		15,807.00000			467.06524	9.03257	0.00000	
pleward Solid Waste and Recycling Garage	Storage facilities where equipment or vehicles are maintained, repaired or stored	5405 Mapleward Rd	Thunder Bay	P7G 1R8	17,510.00 Square feet	61		337,455.88030		67,365.50590 Cubic Meter	137,334.19067	60.15999		main also feeds out to power 3 transtor units
oleward Solid Waste& Recycling Admin Building/Kiosk	Administrative offices and related facilities, including municipal council chambers	5405 Mapleward Rd 26 Peninsula Rd, PO Box 459	Thunder Bay	P7G 1R8 P0T 2E0		61	0.00000	100,798.50970 19,748.91000		20,122.16410 Cubic Meter	41,021.90111 583.54079	61.21642 5.41066	0.00000	main also feeds out to power 3 transtor units
athon EMS y J L Black Library	Ambulance stations and associated offices and facilities Public libraries	901 Edward St S	Marathon Thunder Bay	P01 2E0 P7E 6R2	3,650.00 Square feet 9,440.00 Square feet	50	0.00000	93.128.50000		11,576.82000 Cubic Meter	24.639.20938	22.89877		based on hours of operation
intdale - InOps	Storage facilities where equipment or vehicles are maintained, repaired or stored	410 Mountdale Ave	Thunder Bay	P7E 6G8		60	0.00000	152,746.00000		121,000.00000 Cubic Meter	233,279.20581	53.48353		
intdale - Parks/Mechanics	Storage facilities where equipment or vehicles are maintained, repaired or stored	410 Mountdale Ave	Thunder Bay	P7E 6G8	14,400.00 Square feet	60	0.00000	175,639.00000		41,259.00000 Cubic Meter	83,195.16057	42.64795	0.00000	
untdale Administration Building	Administrative offices and related facilities, including municipal council chambers	410 Mountdale Ave	Thunder Bay	P7E 6G8	10,760.00 Square feet	60		96,019.79000		13,193.70000 Cubic Meter	27,781.55820	21.95534		
ina EMS	Ambulance stations and associated offices and facilities	204-B Thornton St, Box 429	Nakina	POT 2H0	2,100.00 Square feet	84	0.00000	24,443.42000			722.25417	11.63972		
bing Arena bing Fire Station	Indoor ice rinks Fire stations and associated offices and facilities	1715 Bowlker Rd 2065 - 20th Side Rd	Thunder Bay Thunder Bay	P7K 1L4 P7K 1H6	25,000.00 Square feet 5,150.00 Square feet	126		279,761.88000 78,065.49000	kWh	49,469.67000 Cubic Meter 17,585.29000 Cubic Meter	101,795.09781 35,553.90318	32.22058 51.44816	0.00000	October to April ice plant runs continuously to maintain ice quality
gon EMS	Ambulance stations and associated offices and facilities	125 HOGAN RD, UNIT R	Nipigon	POT 2J0	2,050.00 Square feet	84		78,085.49000	KWU	5,021.92000 Cubic Meter	9,494.57754	26.03505		
th Central Fire Station	Fire stations and associated offices and facilities	60 Water St S	Thunder Bay	P7B 6E8		168		246,811.52000	kWh	25,666.02000 Cubic Meter	55,817.65719	21.02644		
h End Community Centre	Community centres	954 Huron Ave	Thunder Bay	P7A 6L4	5,400.00 Square feet	45	0.00000	67,819.00000	kWh	15,744.65000 Cubic Meter	31,771.17621	43.54623	0.00000	Includes office hours and regular programming hours
h McIntyre Community Centre	Community centres	2051 Government Rd	Thunder Bay	P7G 2E9	10,200.00 Square feet	60		52,577.27000		14,717.95000 Cubic Meter	29,379.70683	20.48984	0.00000	Includes office hours and regular programming hours
r Road Community Centre	Community centres	563 Oliver Rd	Thunder Bay	P7B 2H2	10,025.00 Square feet	60	0.00000	65,561.44000		9,841.69000 Cubic Meter	20,544.17427	16.97324	0.00000	Includes office hours and regular programming hours
s North Admin/Garage Arthur Arena	Storage facilities where equipment or vehicles are maintained, repaired or stored	645 Cumberland St N 420 Linger St	Thunder Bay	P7A 4S2 P7B 6T4		60 126		71,126.00000 548,374.57000		29,542.00000 Cubic Meter 107,829.11000 Cubic Meter	57,954.53388 220,067.99855	19.98089 56.31530	0.00000	
Arthur Arena Rock EMS - Frost St	Indoor ice rinks Ambulance stations and associated offices and facilities	420 Lisgar St 30 Frost St	Thunder Bay Red Rock	P78 614 POT 2P0	30,087.00 Square feet 700.00 Square feet	126		9.054.00000		107,829.11000 Cubic Weter	220,067.99855	12.93429		
Rock EMS	Ambulance stations and associated offices and facilities	4 Taylor St, Box 217	Red Rock	POT 2PO	1,638.00 Square feet	84		9,027.91000		2,806.09000 Cubic Meter	5,572.02620	23.71820		
iah EMS	Ambulance stations and associated offices and facilities	1700A Lakeshore Dr	Shuniah	P7A 0T1	4,750.00 Square feet	84		28,956.34000			855.60193	6.09607	0.00000	
h Neebing Community Centre	Community centres	1841 Mountain Rd	Thunder Bay	P7J 1A8	6,960.00 Square feet	45	0.00000	27,006.35000	kWh	6,919.63000 Cubic Meter	13,880.42294	14.44636		Includes office hours and regular programming hours
ace Bay EMS	Ambulance stations and associated offices and facilities	20 Cartier Dr, Box 400	Terrace Bay	POT 2W0	2,675.00 Square feet	84	0.00000	40,969.89000	kWh		1,210.57831	15.31585	0.00000	
														Hours of operation vary depending on number of events held per year. Approx 140 events per year - depend on types of event ranging from 9:30am to 1:00am or 24 hours a day. Box office is opened 9:3
nder Bay Community Auditorium	Auditoriums	1 Paul Shaffer Dr	Thunder Bay	P7B 6C7	60,000.00 Square feet	90	0.00000	661,766.61000	kWh	66,769.43000 Cubic Meter	145,789.96692	22.85629	0.00000	Tues to Sat
der Bay Training Centre	Fire stations and associated offices and facilities	750 Hammond Ave	Thunder Bay	P7B 6T5	13,717.00 Square feet	40		81,798.14000		13,361.37000 Cubic Meter	27,678.33832	16.31551		Based on hours of operations
ic Control & Streetlighting Admin/Garage	Storage facilities where equipment or vehicles are maintained, repaired or stored	625 Cumberland St N	Thunder Bay	P7A 4S2	10,750.00 Square feet	60	0.00000	43,817.00000	kWh	17,047.00000 Cubic Meter	33,524.22319	20.92918	0.00000	
it Adminstration/Garage	Administrative offices and related facilities, including municipal council chambers	570 Fort William Rd	Thunder Bay	P7B 2Z8	103,000.00 Square feet	140		800,045.00000		221,730.00000 Cubic Meter	442,848.45437	30.64604		
la EMS	Ambulance stations and associated offices and facilities	20 North Rd	Upsala	POT 2YO	1,982.00 Square feet	84		50,833.17000		40.555.00005.2.1.1.1.1	1,502.01851	25.64741		
Community Centre	Community centres	420 Vale Ave 1695 Broadway Ave	Thunder Bay Thunder Bay	P7C 5E7 P7K 1M6	6,528.00 Square feet	53	0.00000 0.00000	34,123.27000 21,779.22000		10,656.88000 Cubic Meter	21,156.45945 14,056.81252	22.57693	0.00000	
ers Heights Community Centre ers Street Fire Station	Community centres Fire stations and associated offices and facilities	1695 Broadway Ave 330 Vickers St N	Thunder Bay Thunder Bay	P7K 1M6 P7C 4B2	4,195.00 Square feet 13,000.00 Square feet	45		21,779.22000		7,094.62000 Cubic Meter 48.383.42000 Cubic Meter	14,056.81252 95.616.00171	23.16550 50.33485		
riaville Civic Centre	Administrative offices and related facilities, including municipal council chambers	111 Syndicate Ave S	Thunder Bay Thunder Bay	P7C 4B2 P7E 6S4	51,360.00 Square feet	60 108	0.00000	674,901.67000		9,018.88000 Cubic Meter	36.993.33258	50.33485	0.00000	
rfront Parkade	Parking garages	18 Court St N	Thunder Bay	P7C 5K4	3,000.00 Square feet	40		2,644.00000		998.0000 Cubic Meter	1,964.97066	4.41684		transfer of office space to tenant in Sept 2018 - tenant assuming utility invoices
erley Resource Library	Public libraries	285 Red River Rd	Thunder Bay	P7B 1A9	23,300.00 Square feet	58	8 0.00000	342,737.33000		39,450.95000 Cubic Meter	84,714.23387	32.70443		Based on hours of operations
														Facility operates as South side 55+ centre with increased daily programming. Includes office hours a
Arthur Community Centre	Community centres	1914 Arthur St W	Thunder Bay	P7K 1C7	8,125.00 Square feet	42	0.00000	81,188.25000		7,867.99000 Cubic Meter	17,274.38474	20.28400	0.00000	programming.
t Thunder Community Centre	Community centres Administrative officer and related facilities, including municipal council chambers	915 Edward St S	Thunder Bay	P7E 6R2 P7A 4L3	14,456.00 Square feet	87		163,114.90000		27,295.09000 Cubic Meter	56,424.55319	31.35038 19.34699		Includes office hours and regular programming hours
len Building P - Atlantic Ave	Administrative offices and related facilities, including municipal council chambers Facilities related to the treatment of sewage	34 N. Cumberland 901 Atlantic Ave	Thunder Bay Thunder Bay	P7A 4L3 P7E 2T2	80,000.00 Square feet 117,631.00 Square feet	60	0 0.00000 25681.00000	988,670.80000 11.840.953.00000		52,606.32000 Cubic Meter 1.237.124.00000 Cubic Meter	128,672.17376 2.688.816.51599	19.34699 212.43406	0.00000 973.04743	
AUGULE AVE	· venues related to the treatment of sewage	901 Atlantic Ave RR#13 Bare Point Rd	Thunder Bay	P7E 212 P7A 8C6			3 13976.00000	6.571.728.00000		1,237,124.00000 Cubic Meter 383.875.00000 Cubic Meter	2,688,816.51599 919.945.85857	158.17678	973.04743 762.12549	