

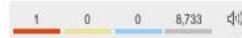
Carleton University Campus



Web Application User Interface



Power Monitoring Expert



Penny | Logout | Help

DASHBOARDS **DIAGRAMS** TABLES TRENDS ALARMS REPORTS SETTINGS



OA TEMP (°C) : 29.2



Menu

- [Floor Plans with Meter Locations](#)
- [Natural Gas Meter Locations](#)
- [Fibre Switch / layout](#)
- [Domestic Water Meters](#)
- [Chilled Water Meters](#)
- [Steam Meters](#)
- [Electrical Meters kW Totals](#)
- [Bronson Substation Meters](#)
- [Bronson Substation Meter Loops](#)
- [Real Time Voltages](#)
- [Real Time Currents](#)
- [Real Time Average Currents](#)
- [Meter Communication Loops](#)
- [Meter Communications Check](#)

Welcome to Carleton University Utility Metering

The Carleton metering system approach is to measure all the energy used in each of the buildings on campus. Steam, Domestic Water, Chilled Water, Natural Gas, and Electrical consumption data is captured, and stored for energy analysis. Reports are available on request.

This site is a comprehensive overview of the meters and the data available. User interface with each building and respective energy used, is just a click away. Click on the desired building for an in depth look at both the meters real time data, and logged historical data.

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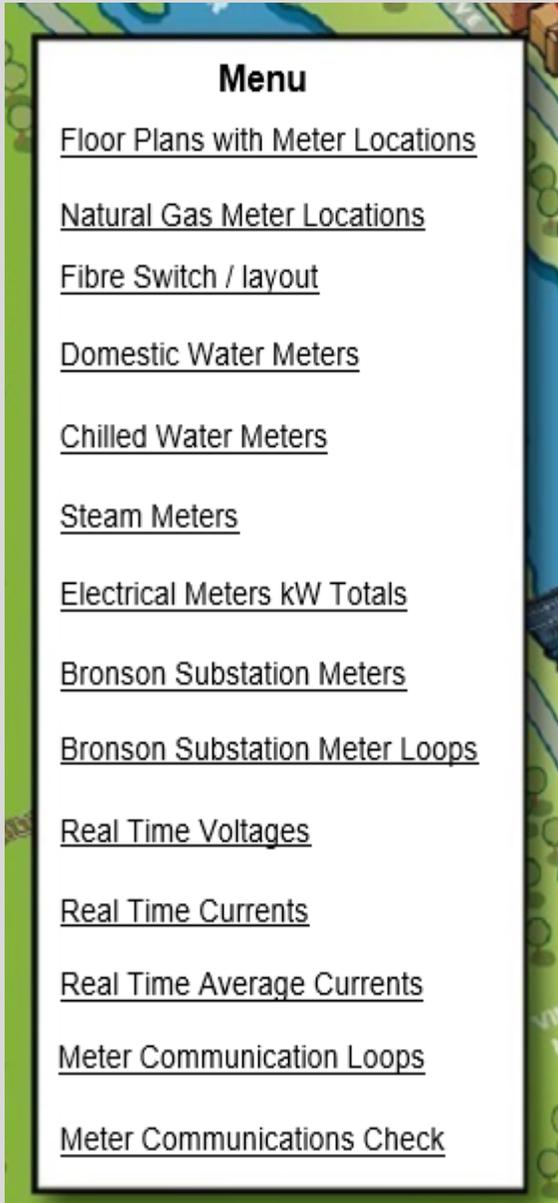
Penny Jastrzemski Utility
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613-520-2600 x 8531 613-852-
4181

DropSub Feeder-1	BronsonSub Feeder-2	BronsonSub Feeder-3
I avg : 2.6	I avg : 216.2	I avg : 138.5
kW tot : 2.7	kW tot : 4,429.4	kW tot : 2,928.6

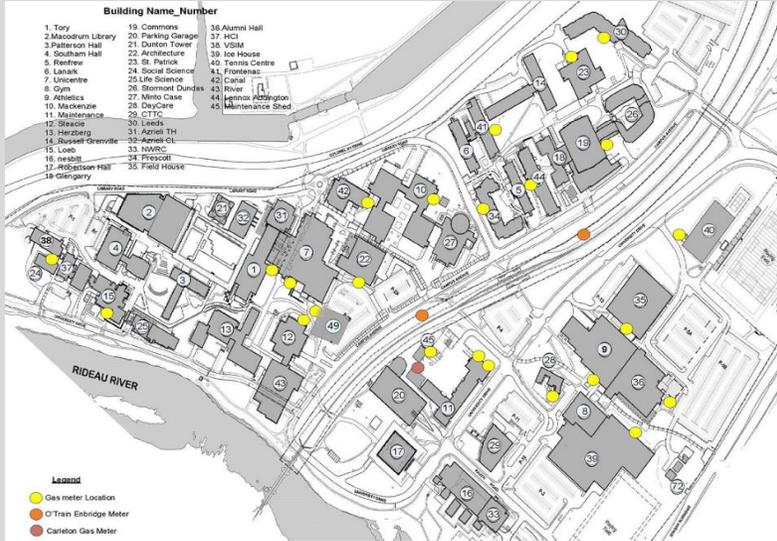
Options from the Menu

- To select a page from the menu, hover over desired page title and double click with mouse

- To select the desired building double click red circle.



Examples from the Menu



Enbridge Natural Gas Meters

Enbridge Gas Meters

Note: B42 Canal bldg. has a gas meter, but it is not connected



Note: B12-SteacieCW(Herzberg)MCC2- this meter has been disconnisioned until further notice

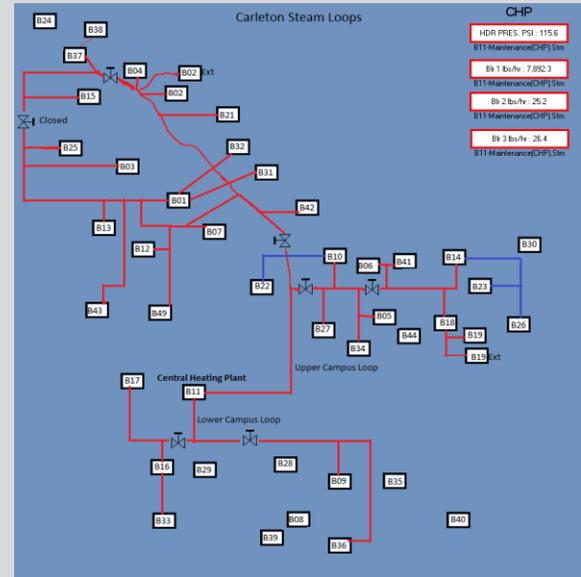
Hogs Back Ottawa



Domestic Water Meters

Note: Yellow indicates Meter Failed

DW FLOW (L/M): -0.1	DW FLOW (L/M): 1.6	DW FLOW (L/M): 48.1
B01-Tory Stm	B13-Herzberg Stm	B28-CTTC Stm
DW FLOW (L/M): 0.0	DW FLOW (L/M): 62.9	DW FLOW (L/M): 0.1
B02-Macdunn(Man) Stm	B14-Russe/Grenville Cw	B30-Leeds Elec
DW FLOW (L/M): 10.6	DW FLOW (L/M): -0.3	DW FLOW (L/M): 80.9
B02-Macdunn(South/E) Stm	B15-Leob Stm	B32-Azpelli Pavilion 7930
DW FLOW (L/M): 0.1	DW FLOW (L/M): 27.3	B32-Azpelli Pavilion 7930
B03-PatersonHall Stm	B16-Health Stm	B33-ARISSE Elec
DW Stm (L/M): 9.0	DW FLOW (L/M): -0.3	DOM WAT GPM: 0.0
B04-SouthernHall Stm	B17-RobertsonHall Stm	B33-NWRRC Stm
DW (L/M): 0.1	DW FLOW (L/M): 0.0	Water Volume Flow Rate (L/min): -0.7
B05-Renfrew Stm	B18-Glenarry Stm	B35-Fieldhouse Dw
DW FLOW (L/M): 0.0	DW FLOW (L/M): 47.0	B34-Prescott Stm
B06-Lanark Stm	B19-Commons Cw	B34-Prescott Stm
DW FLOW (L/M): 44.3	DW FLOW (L/M): 18.5	B35-AlumniHall Stm
B07-Unicef Cw	B20-SpartanTower Stm	DW FLOW (L/M): 99.8
DW FLOW (L/M): 22.4	DW FLOW (L/M): 10.9	B35-ARISSE Elec
B08-Symposium Elec	B22-Architecture Elec	Dom Wt Gpm: 0.6
DW (L/M): 68.1	DW FLOW (L/M): 0.0	B36-Fieldhouse Elec
B09-Athletics Stm	B23-StPatricks Elec	DW FLOW (L/M): 0.4
DW FLOW (L/M): 233.4	DW FLOW (L/M): 11.6	B41-Frontenac Stm
B10-Mackenzie Stm	B24-SRB Elec	DW FLOW (L/M): 0.4
Water Volume Flow Rate (L/min)	DW FLOW (L/M): 11.6	B42-Canal Stm
B11-Maintenance(CHP) Dw	B25-ARISSE Elec	DW FLOW (L/M): 17.7
DW MAIT (L/M): 0.2	DW FLOW (L/M): 22.3	B43-Richcraft Stm
B11-Maintenance Stm	B26-StomontDundas Mthw	DW FLOW (L/M): 0.2
Water Volume Flow Rate (L/min)	DW (L/M): 98.0	B44-LennoxAddition Stm
B12-Steacie Stm	B27-MintoCASE Dw	DW FLOW (L/M): 0.2
	DC DW (L/M): 0.0	B45-Health Science
	B28-DayCare Elec	
	B29-DayCare Elec	
	B46-Health Science	



Steam Meters

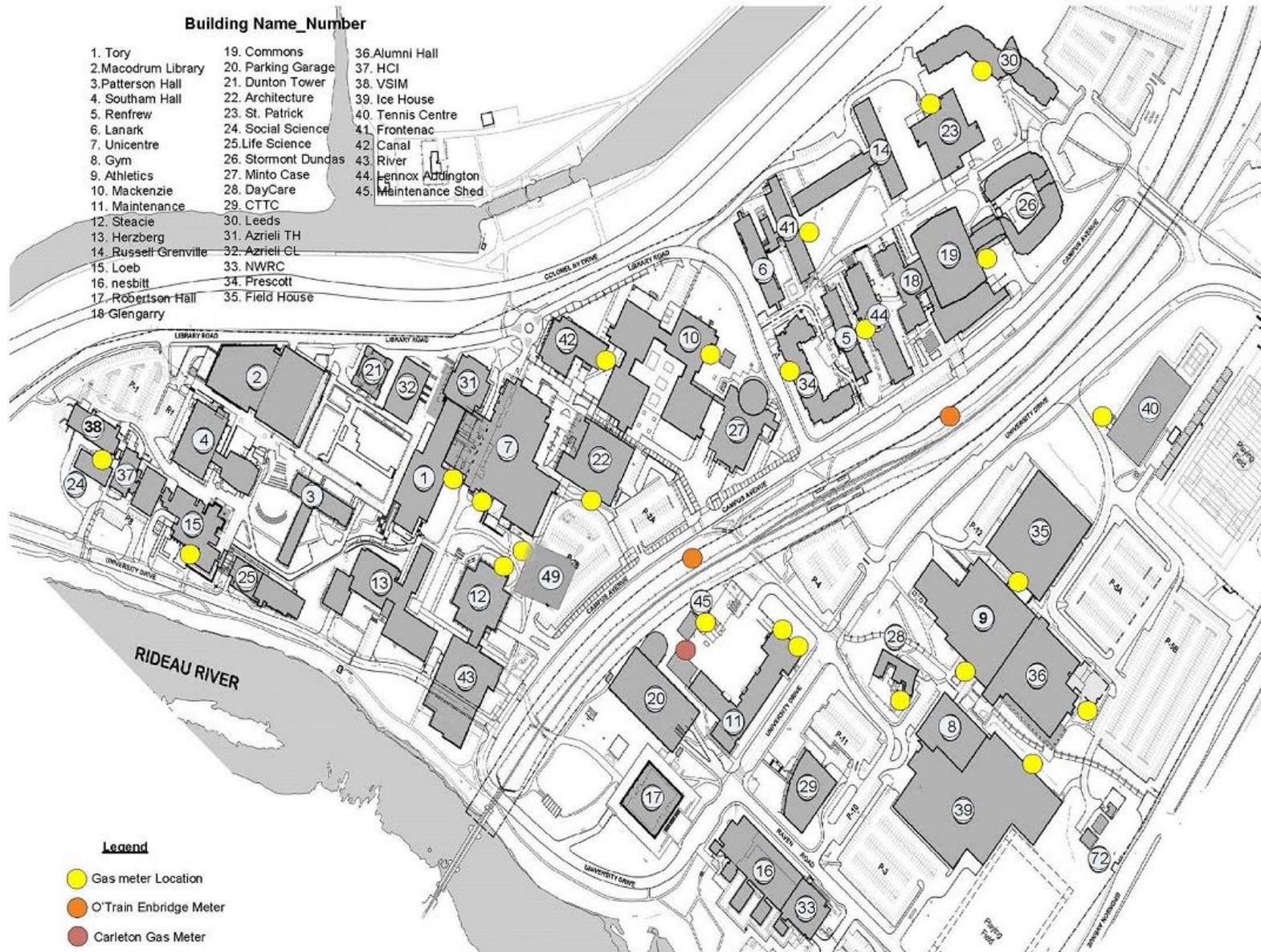
Note: B22 Architecture, B23 St Patricks, and B26 Stormont Dundas are still using Medium Temperature Hot Water for heating. A calculation is used to convert KBTU to Kbs.

STM FLOW (m3/h): -0.2	STM FLOW (m3/h): 98.0	B31 AZH 7700: 0.9
B01-Top Stm	B13-Herzberg Stm	B28-CTTC Stm
STM FLOW (m3/h): 1.1	STEAM (m3/h): 3.7	B31 AZH 7700: 0.9
B02-Macdunn(Man) Stm	STM FLOW (m3/h): -2.9	B28-CTTC Stm
STM FLOW (m3/h): -148.4	STM FLOW (m3/h): -124.2	STM FLOW (m3/h): -124.2
B03-Macdunn(South/E) Stm	STEAM m3/hr: 19.4	B33NWRRC Stm
STM FLOW (m3/h): 30.6	STM FLOW (m3/h): 0.5	STM FLOW (m3/h): -2.1
B03-PatersonHall Stm	STM FLOW (m3/h): -7.5	B16-Nesbitt Stm
STM FLOW (m3/h): -7.5	STM FLOW (m3/h): 1.8	STM FLOW (m3/h): -0.6
B04-SouthernHall Stm	STM FLOW (m3/h): 1.8	B26-AlumniHall Stm
STEAM (m3/h): 30.6	STM FLOW (m3/h): 3.9	STM FLOW (m3/h): -0.1
B05-Renfrew Stm	STM FLOW (m3/h): 0.0	B38NWRRC Elec
STM FLOW (m3/h): 0.0	STM FLOW (m3/h): 1.5	STM FLOW (m3/h): -1.5
B06-Lanark Stm	STM FLOW (m3/h): -0.5	B41-Frontenac Stm
STM FLOW (m3/h): 0.6	STM FLOW (m3/h): -1.5	STM FLOW (m3/h): -4.9
B07-Unicef Cw	STM FLOW (m3/h): 1.6	B42-Canal Stm
B08-Symposium Elec	STM FLOW (m3/h): 3.1	B43-Richcraft Stm
STM FLOW (m3/h): 3.1	STEAM (m3/h): 263.3	STEAM (m3/h): 0.2
B09-Athletics Stm	STM FLOW (m3/h): -0.3	STM FLOW (m3/h): -0.9
STM FLOW (m3/h): 1.31	B29-DayCare Elec	B29-CTTC Stm
B11-Maintenance Stm		
B12-Steacie Stm		

Medium Temperature Hot Water

MTHW FLOW (L/M): -0.2
B23-StPatricks Elec
MTHW FLOW (L/M): 54.4
B23-StPatricks Elec
MTHW FLOW (L/M): 247.9
B26-StomontDundas Mthw

Natural Gas Meters



Enbridge Natural Gas Meters

Enbridge Gas Meters

Note: B42 Canal bldg. has a gas meter, but it is not connected

Electrical Real time Data by Loops

Real Time Voltages



LOOP A1	LOOP B1	LOOP C1	LOOP D1	LOOP E1
VII ab : 576.4 VII bc : 575.9 VII ca : 575.1 B13-Herzberg.Stm	VII ca : 599.8 VII ca : 599.8 VII ca : 599.8 B39-Icehouse.Elec	VII ab : 604.9 VII bc : 605.0 VII ca : 606.6 B44-LennoxAddington.Stm	VII ab : 588.2 VII bc : 588.0 VII ca : 588.3 B36-AlumniHall.Stm	VII ab : 600.4 VII bc : 600.3 VII ca : 600.2 B33-NV.FC.Stm
VII ab : 573.3 VII bc : 576.5 VII ca : 573.6 B25-RISE	VII ab : 601.2 VII bc : 601.6 VII ca : 600.5 B08-Gymnasium.Elec	VII ab : 0.0 VII bc : 0.0 VII ca : 0.0 B44-LennoxAddington.Cw	VII ab : 585.7 VII bc : 585.8 VII ca : 586.2 B35-Fieldhouse.Elec	VII ab : 590.3 VII bc : 591.1 VII ca : 591.2 B29-CTC.Stm
VII ab : 603.4 VII bc : 604.9 VII ca : 603.3 B38-HVIVS.M(Lab).Elec	VII ab : 596.7 VII bc : 597.6 VII ca : 596.3 B08-Gymnasium.Elec_1	VII ab : 598.4 VII bc : 596.7 VII ca : 596.2 B18-GlenGarry.Stm	VII ab : 583.7 VII bc : 583.7 VII ca : 584.8 B28-DayCare.Elec	VII ab : 209.0 VII bc : 208.5 VII ca : 208.7 B16-Nesbitt.Elec
VII ab : 599.7 VII bc : 601.7 VII ca : 599.8 B38-HVIVS.M(Lab).Elec	VII ca : 205.3 VII ca : 205.3 VII ca : 205.3 B08-Gymnasium.Elec_2	VII ab : 598.1 VII bc : 595.4 VII ca : 595.1 B19-Commons.Elec	VII ab : 582.1 VII bc : 583.3 VII ca : 583.1 B09-Athletics.Stm	VII ab : 586.3 VII bc : 587.7 VII ca : 586.2 B17-RobertsonHall.Stm
BREAK	VII ab : 207.0 VII bc : 205.9 VII ca : 205.8 B22-Architecture.Elec	VII ab : 202.9 VII ab : 202.9 VII ab : 202.9 B26-StormontDundas.Cw	VII ab : 594.8 VII bc : 596.9 VII ca : 593.0 B11-Maintenance(CHP).Stm	VII ab : 589.8 VII bc : 590.9 VII ca : 588.8 B17-RobertsonHall.Cw
VII bc : 580.0 VII bc : 580.0 VII ca : 581.2 B15-Loeb.Elec	VII ab : 573.3 VII bc : 576.5 VII ca : 573.6 B21-Duntoon.Tower.Stm	VII ab : 573.4 VII bc : 572.5 VII ca : 574.3 B23-St.Patricks.Elec	VII ab : 591.9 VII bc : 592.8 VII ca : 589.9 B11-Maintenance.Stm	VII ab : 588.9 VII bc : 590.1 VII ca : 590.1 B20-ParkingGarage.P9_Elec-1
VII ab : 579.3 VII bc : 579.4 VII ca : 580.1 B15-Loeb.Stm	VII ab : 573.3 VII bc : 576.5 VII ca : 573.6 B21-Duntoon.Tower.Stm	BREAK	VII ab : 594.8 VII bc : 594.3 VII ca : 598.2 B11-Maintenance.DtrainElec	VII ab : 200.6 VII bc : 200.2 VII ca : 200.4 B20-ParkingGarage.P9_Elec-2
VII ab : 593.3 VII bc : 591.8 VII ca : 590.3 B15-Loeb.Chiller-1	VII ab : 575.7 VII ab : 575.7 VII ab : 575.7 B32-AzieliFavilion.7500	BREAK	VII ab : 444.7 VII bc : 445.9 VII ca : 445.9 B10-MacKenzie.Elec	
VII ab : 596.2 VII bc : 602.2 VII ca : 608.1 B15-Loeb.Chiller-2	VII ab : 597.1 VII bc : 599.4 VII ca : 598.5 B02-Macodrun.South(Ext).Stm	VII ab : 608.1 VII bc : 607.1 VII ca : 608.7 B46-ParkingGarage.P18	VII ab : 447.4 VII bc : 461.1 VII ca : 456.9 B10-MacKenzie.Stm	
VII ab : 577.1 VII bc : 576.1 VII ca : 574.7 B24-SS18.Elec	VII ab : 599.6 VII bc : 603.1 VII ca : 603.1 B02-Macodrun.North(Ext).Elec	VII ab : 587.7 VII bc : 589.3 VII ca : 588.4 B30-Leads.Elec	VII ab : 559.4 VII bc : 561.9 VII ca : 561.6 B27-MintCASE.Stm	
VII ab : 595.0 VII bc : 597.0 VII ca : 595.7 B12-Steacie.Elec	VII ab : 209.6 VII bc : 207.9 VII ca : 208.5 B04-SouthamHall.Elec	VII ab : 208.0 VII bc : 208.5 VII ca : 208.0 B14-RussellFrenville.Stm	VII ab : 603.4 VII bc : 603.9 VII ca : 603.6 B42-Canal.Stm	
VII ab : 574.6 VII bc : 575.9 VII ca : 573.7 B12-Steacie.Stm	VII ab : 468.0 VII bc : 466.2 VII ca : 467.7 B03-PatersonHall.Stm	VII ab : 605.3 VII bc : 607.4 VII ca : 605.3 B41-Frontenac.Stm	VII ab : 625.0 VII bc : 627.1 VII ca : 626.9 B42-Canal(Canal).Chiller-1	
VII ab : 588.6 VII bc : 589.6 VII ca : 588.3 B43-Richcraft.Stm	BREAK	VII ab : 207.7 VII bc : 208.6 VII ca : 208.3 B06-Lark.Stm	VII ab : 626.1 VII bc : 626.9 VII ca : 625.6 B42-Canal(Mackenzie).Chiller-2	
VII ab : 587.7 VII bc : 587.8 VII ca : 586.7 B12-SteacieCw(Total).MCC1	VII ab : 478.1 VII bc : 477.9 VII ca : 477.4 B01-Tow.Chiller	VII ab : 209.7 VII bc : 209.2 VII ca : 209.7 B05-Renrew.Stm		
VII ab : 587.2 VII bc : 588.2 VII ca : 586.8 B12-SteacieCw(Herzberg).MCC2	VII ab : 482.7 VII bc : 482.7 VII ca : 482.7 B31-AzieliTheatre.7500	VII ab : 609.7 VII bc : 608.2 VII ca : 608.0 B34-Prescott.Stm	BREAK	BREAK
VII ab : 587.2 VII bc : 587.9 VII ca : 586.7 B12-Steacie(Richcraft).Chiller-1	VII ab : 483.4 VII bc : 481.8 VII ca : 481.1 B01-Tow.Stm			
VII ab : 588.7 VII bc : 587.9 VII ca : 586.8 B12-SteacieCw(Steacie).Chiller-2	VII ab : 582.2 VII bc : 581.7 VII ca : 581.4 B07-Unionentre.Cw			
VII ab : 588.6 VII bc : 589.6 VII ca : 588.3 B49-HealthScience	VII ab : 201.9 VII bc : 201.9 VII ca : 201.9 B07-Unionentre.Stm			

Note: values shaded yellow represent sub-meters

B44 Lennox Addington has 38 ION 6200 electric meters for lighting and receptacles

Bronson Sub Station Meters

BronsonSub.Loopa1 VII ab : 13,092.0 VII bc : 13,022.0 VII ca : 13,016.0	BronsonSub.Loopa2 VII ab : 13,056.8 VII bc : 13,066.7 VII ca : 13,038.1
BronsonSub.LoopaB1 VII ab : 13,095.0 VII bc : 13,018.0 VII ca : 13,016.0	BronsonSub.LoopaB2 VII ab : 13,055.0 VII bc : 13,025.0 VII ca : 12,928.0
BronsonSub.LoopaC1 VII ab : 13,088.0 VII bc : 13,015.0 VII ca : 13,018.0	BronsonSub.LoopaC2 VII ca : 13,024.7 VII bc : 13,051.7 VII ca : 13,024.7
BronsonSub.LoopaD1 VII ab : 13,056.0 VII bc : 13,015.0 VII ca : 13,018.0	BronsonSub.LoopaD2 VII ab : 13,050.2 VII bc : 13,060.2 VII ca : 13,029.2
BronsonSub.LoopaE1 VII ab : 13,058.0 VII bc : 13,025.0 VII ca : 12,924.0	BronsonSub.LoopaE2 VII ab : 13,042.8 VII bc : 13,052.6 VII ca : 13,026.6
BronsonSub.Feeder-1 VII ab : 13,022.1 VII bc : 13,021.5 VII ca : 12,989.5	BronsonSub.Feeder-1 VII ab : 12,983.4 VII bc : 12,978.0 VII ca : 12,984.7
BronsonSub.Feeder-2 VII ab : 12,983.4 VII bc : 12,978.0 VII ca : 12,984.7	BronsonSub.Feeder-2 VII ab : 12,983.4 VII bc : 12,978.0 VII ca : 12,984.7
BronsonSub.Feeder-3 VII ab : 13,034.4 VII bc : 13,035.3 VII ca : 13,008.7	BronsonSub.Feeder-3 VII ab : 13,034.4 VII bc : 13,035.3 VII ca : 13,008.7

LOOP A2

LOOP B2

LOOP C2

LOOP D2

LOOP E2

Meter Communications Check

Meter Communications Check



Caletan Map

Switch 01

B01-Tory.Chiller
192.168.100.140

Tory Chiller Status

Loop10 Com1

B01-Tory.Stm Status

B07-Unicentre.Cw Status

B07-Unicentre.Stm Status

B32-AZPA_7500 Status

B32-AZPA_7700 Status

Loop 5 Com2

B31-AZTH 7500 Status

B31-AZTH 7700 Status

B12-Steacie.Elec Status

B12-Steacie.Stm Status

B13-Herzberg.Stm Status

Switch 02

B21-Dunton Tower.Elec
192.168.100.110

B21-DuntonTower.Elec Status

Loop23 Com1

B21-DuntonTower.Stm Status

B02-Macodrum(Main).Elec
192.168.100.137

B02-Macodrum(Main).Elec

Loop24 Com1

B02-Macodrum(Main).Stm Status

B02-MacodrumNorth(Ext).Elec Status

B02-MacodrumSouth(Ext).Stm Status

Switch 03

B41-Frontenac.Stm
192.168.100.132

B41-Frontenac.Stm Status

B34 Prescott

B34-Prescott.Stm Status

Loop3 Com1

B05-Renfrew.Stm Status

Loop9 Com2

B27-MintoCASE.Cw Status

B27-MintoCASE.Stm Status

B06 Lanark

B06-Lanark.Stm Status

Loop4 Com1

B10-Mackenzie.Elec Status

B10-Mackenzie.Mthw Status

B10-Mackenzie.Stm Status

B22-Architecture.Cw Status

B22-Architecture.Elec Status

Switch 04

Loop2 Com1

B11-Maintenance(CHP).Stm Status

B11-Maintenance.OTrain Status

B11-Maintenance.Stm Status

Loop8 Com2

B09-Athletic.Stm Status

B29-DayCare.Elec Status

B35-FieldHouse.Elec Status

Switch 05

BronsonSub.Feeder-1
192.168.100.124

BronsonSub.Feeder-1 Status

Loop13 Com1

BronsonSub.LoopA1 Status

BronsonSub.LoopB1 Status

BronsonSub.LoopC1 Status

BronsonSub.Feeder-2

BronsonSub.Feeder-2 Status

Loop14 Com1

BronsonSub.LoopD1 Status

BronsonSub.LoopB2 Status

BronsonSub.LoopE1 Status

BronsonSub.Feeder-3

BronsonSub.Feeder-3 Status

Loop17 Com1

BronsonSub.LoopE2 Status

BronsonSub.LoopD2 Status

BronsonSub.LoopA2 Status

BronsonSub.LoopC2 Status

Switch 06

B30 Leeds
192.168.100.138

B30-Leeds.Elec Status

Loop6 Com1

B46-ParkingGarage.P18_Elec Status

Switch 07

B26-StormontDundas.Cw
192.168.100.136

B26-StormontDundas.Cw Status

Loop20 Com1

B26-StormontDundas.Mthw Status

Loop21 Com2

B23-StPatricks.Cw Status

B23-StPatricks.Elec Status

Switch 08

B18 Glengary.Elec
192.168.100.134

B18-Glengary.Stm Status

Loop19 Com1

B19-Commons.Elect Status

Loop22 Com2

B19-Commons.Cw Status

B19-Commons.Stm Status

B19-CommonsExpansion.Stm Status

B14 RussellGrenville.Stm
192.168.100.160

B14-RusselGrenville.Stm Status

Loop22 Com2

B14-RusselGrenville.Mthw Status

B14-RusselGrenville.Cw Status

Switch 09

B38-HCIVSIM(Lab).Elec
192.168.100.191

B38-HCIVSIM(Lab) Status

B38-HCIVSIM

B38-HCIVSIM.Elec Status

Loop15 Com1

B03-PattersonHall.Stm Status

B04-SouthamHall.Elec Status

B04-SouthamHall.Stm Status

Loop16 Com2

B15-Loeb.Stm Status

B15-Loeb.Elec Status

B15-Loeb.Chiller-1 Status

B15-Loeb.Chiller-2 Status

B15-Loeb.ChillerPlant_AI Status

B24-SSRB.Elec Status

Switch 10

B44-LennoxAddington.Stm
192.168.100.144

B44-LennoxAddington.Stm Status

Loop29 Com1

ION 6200's ID#2-19

B44-LennoxAddington.Cw Status

Loop30 Com2

ION 6200's ID#3-22

Switch 11

B43-Richcraft
192.168.100.143

B43-Richcraft.Stm Status

Switch 12

B42-Canal.Stm
192.168.100.142

B42-Canal.Stm Status

Loop26 Com1

B42-Canal(Canal).Chiller-1 Status

B42-Canal.(Mackenzie)Chiller-2 Status

Switch 13

B12-SteacieCW.MCC1
192.168.100.141

B12-SteacieCW(Total).MCC1 Status

Loop28 Com1

B12-Steacie(Richcraft).Chiller-1 Status

B12-SteacieCW(Herzberg).MCC2 Status

B12-SteacieCW(Steacie).Chiller-2 Status

Switch 14

B33-NWRC
192.168.100.150

B33-NWRC.Stm Status

Loop1 Com1

B20-ParkingGarage.P9_Elec-1 Status

B20-ParkingGarage.P9_Elec-2 Status

B17-RobertsonHall.Stm Status

Loop7 Com2

B16-Nesbitt.Elec Status

B16-Nesbitt.Stm Status

B29-CTTC.Stm Status

B16-Nesbitt.Cw Status

B17-RobertsonHall.Cw Status

Switch 15

B39-IceHouse
192.168.100.180

B39-IceHouse.Elec Status

Loop12 Com1

B08-Gymnasium.Elec Status

B08-Gymnasium.Elec_1 Status

B08-Gymnasium.Elec_2 Status

When Selecting A Building

- Once you have selected a building the new page will offer;
- a photo of the building
- square footage
- relevant notes
- Real-time data for analog inputs
- Historical data logs
- An icon for selecting floor plans identifying location of meters in the building
- All the icons for every electrical meter in that building for real-time electrical data



Sample Building



B44 Lennox Addington House



142,405 sq. ft.

Meters: 2 ION bldg meters, B44-LennoxAddington.Stm, B44-LennoxAddington.Cw, 38 ION 6200's, 1 gas meter, B44-LennoxAddington.Gas

Electrical = B44-LennoxAddington.Stm

Steam = B44-LennoxAddington.Stm

Domestic Water = B44-LennoxAddington.Stm

Chilled Water = B44-LennoxAddington.Cw

Enbridge Gas Meter = Manually read at month end

Note:



B44 Lennox Addington Meter Location

Real-time Data

STEAM Kg/Hr : 0.2 B44-LennoxAddington.Stm	DW Flow L/M : 20.1 B44-LennoxAddington.Stm	CW FLOW L/M : 1,132.1 B44-LennoxAddington.Cw
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ION Meters

- B44-LennoxAddington.Stm
- B44-LennoxAddington.Cw
- 38 ION 6200's

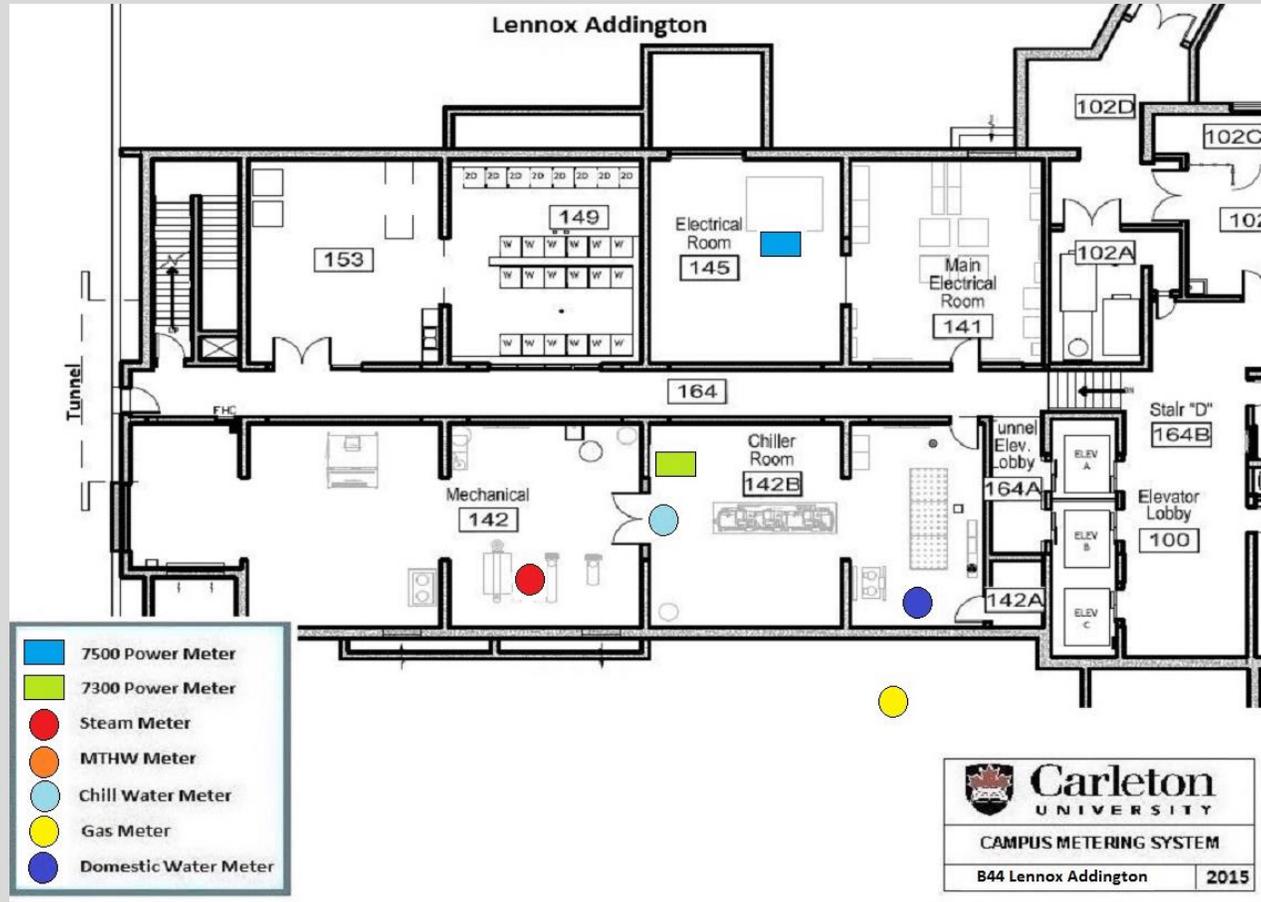
Logged Historical Data

- B44-Electrical
- B44-Steam
- B44-Domestic Water
- B44-Lennox Addington Gas
- B44-Chilled Water

Floor Plan for Meter Locations Icon



B44 Lennox Addington Meter Location



B44 Lennox Addington

Note: there are 38 ION 6200's
4 meters located on each floor in the electrical
room near stairwell "A" it is broke out as East
and West, and lighting and recepticals.

Selecting the Meter Icon



B22-Architecture.Elec

Volts/Amps | Power Quality | Energy & Dmd | Inputs/Outputs | Setpoints | Setup/Diagnostic | [Back to Network](#)

Volts II	Current	Power
206 V ca	219 A c	23 kW c
207 V bc	232 A b	25 kW b
208 V ab	244 A a	25 kW a

Frequency: 60.04 Hz
Power Factor: -89.0 %

kW total: 74 kW
kVAR total: 38 kVAR
kVA total: 83 kVA

% V unbal: 0.3
Vll average: 207 V
I average: 232 A

Vln average: 119 V
120 V an, 120 V bn, 119 V cn

Logs | Long-term min/max

Device Time 7/16/2018 09:59:53.200 AM
Device Type 7330

B18-Glengarry.Stm

Volts/Amps | System & Logs | Power Quality | Revenue | I/O | Setpoints | [Back to Network Diagram](#)

Voltage Disturbances

Number of events since last reset on **6/6/2014 03:13:07.825 PM**

Sag/swell count: 686
Present state: **Voltage Normal**

Harmonics Measurements

Total Harmonic Distortion

V1(ab)	2.8 %	I1	9.1 %
V2(ca)	2.8 %	I2	8.9 %
V3(bc)	2.7 %	I3	7.3 %

Power Availability

Availability [%]: 99.5842819
No. of 'Nines': 2

EvalTime [days]: 1,503
Meter down [sec]: 275,877
Disturbance [sec]: 539,912

Logged Power-Quality Events

Waveforms/sequence of events
Sag/swell statistics CBEMA
Harmonics trending

Harmonics Details (IF SUPPORTED)
EN50160 (IF SUPPORTED)
Setup

Advanced PQ Parameters (If Supported)

Time : 7/16/2018 10:05:19.983 AM

PME Web Application User Interface

Penny | Logout | Help

DASHBOARDS **DIAGRAMS** TABLES TRENDS ALARMS REPORTS SETTINGS

Power Monitoring Expert 1 0 0 8,733

Carleton UNIVERSITY
Canada's Capital University

OA TEMP (°C) : 29.1

Menu

- [Floor Plans with Meter Locations](#)
- [Natural Gas Meter Locations](#)
- [Fibre Switch / layout](#)
- [Domestic Water Meters](#)
- [Chilled Water Meters](#)
- [Steam Meters](#)
- [Electrical Meters kW Totals](#)
- [Bronson Substation Meters](#)
- [Bronson Substation Meter Loops](#)
- [Real Time Voltages](#)
- [Real Time Currents](#)
- [Real Time Average Currents](#)
- [Meter Communication Loops](#)
- [Meter Communications Check](#)

BronsonSub Feeder-1	BronsonSub Feeder-2	BronsonSub Feeder-3
1 avg : 2.6	1 avg : 212.9	1 avg : 137.9
kW tot : 2.7	kW tot : 4,358.4	kW tot : 2,913.3

Welcome to Carleton University Utility Metering

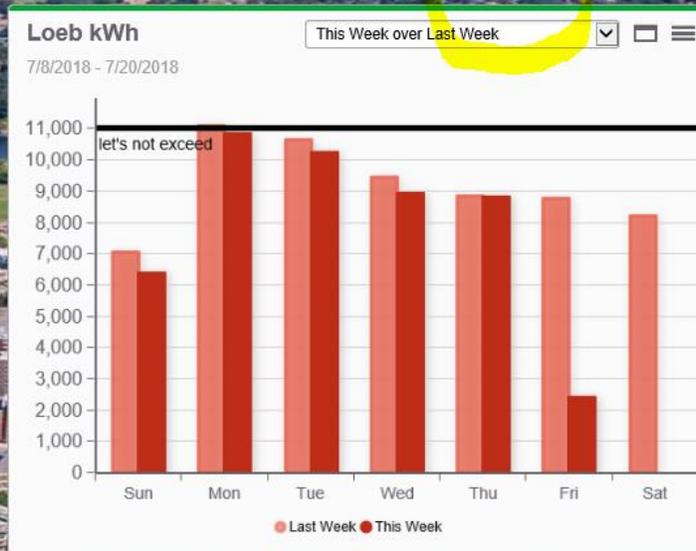
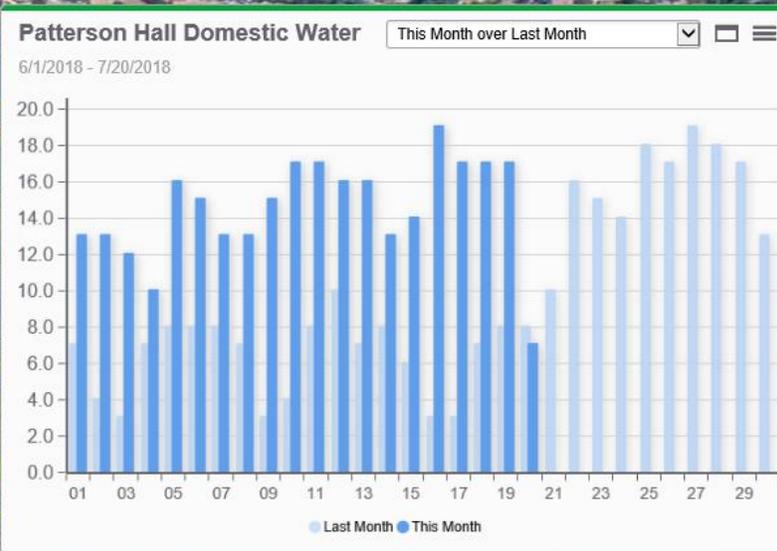
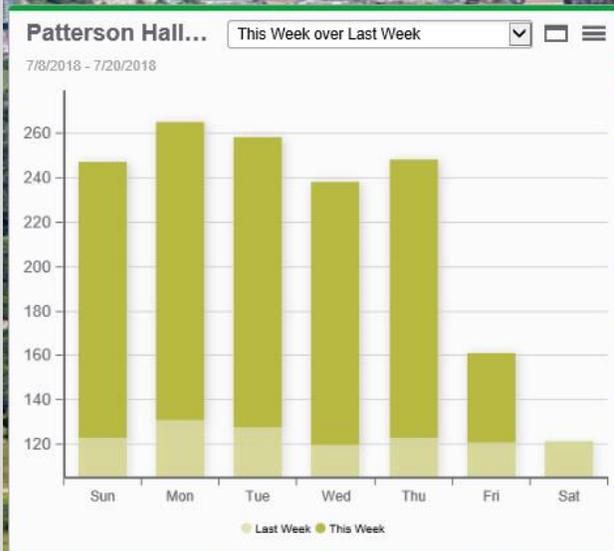
' The Carleton metering system approach is to measure all the energy used in each of the buildings on campus. Steam, Domestic Water, Chilled Water, Natural Gas, and Electrical consumption data is captured, and stored for energy analysis. Reports are available on request.

' This site is a comprehensive overview of the meters and the data available. User interface with each building and respective energy used, is just a click away. Click on the desired building for an in depth look at both the meters real time data, and logged historical data.

Scott Macdonald Manager,
Building Operations Carleton
University 1125 Colonel By
Drive Ottawa, ON K1S 5S8
scott.macdonald@carleton.ca
613-520-2600 x. 8533 613-852-
1434 (cell)

Penny Jastrzemski Utility
Monitoring Technician Carleton
University 1125 Colonel By
Drive Ottawa ON K1S 5S8
penny.jastrzemski@carleton.ca
613-520-2600 x. 8831 613 852-
4181

Dashboards



Dashboard Library

Add Dashboard

- Dashboard Folders
- EnergyManager
- Penny Exploratory
 - Local Weather
 - Carleton background, various types
 - Earthday 2018

Web View

We use cookies on this site to improve your experience as explained in our Cookie Policy. You can reject cookies by changing your b

Your weather when it really matters™

Ottawa, ON Weather

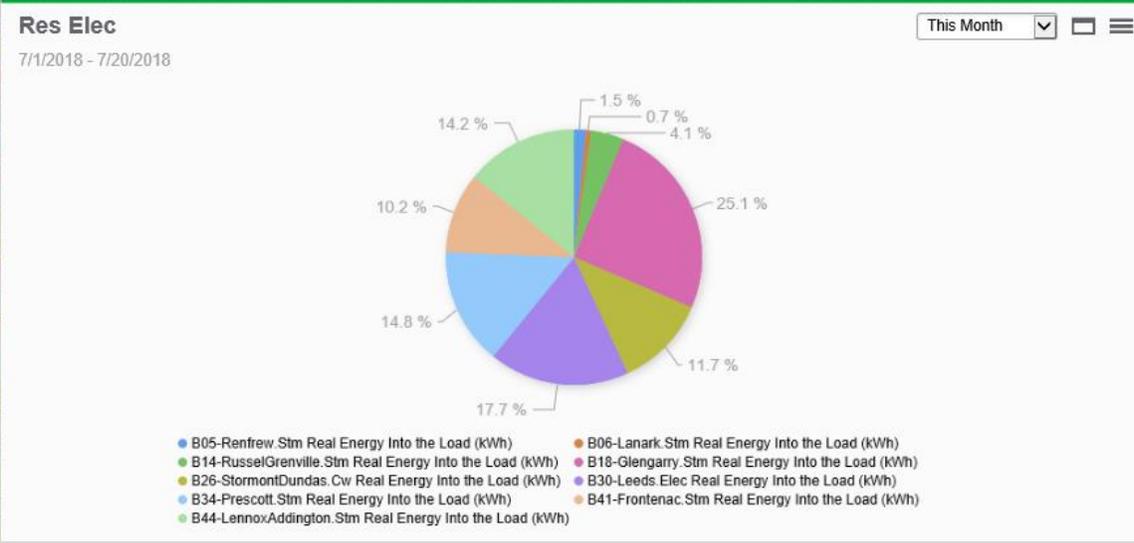
Updated on Fri Jul 20 9:05 AM

20°C FEELS LIKE 23

A few clouds

TOP STORY: Be one with nature in the nation's capital. Here's why OTTAWA is the best place to visit this summer

Wind 6 km/h, Humidity 60%, Visibility 24 km, Sunrise 5:35 AM, Air Quality 2 Low Risk, UV 3 Moderate, Pollen Low



Dashboard Controls

Edit Dashboard

Name: Carleton background, various types

Add Gadget...

Styling...

Private Dashboard

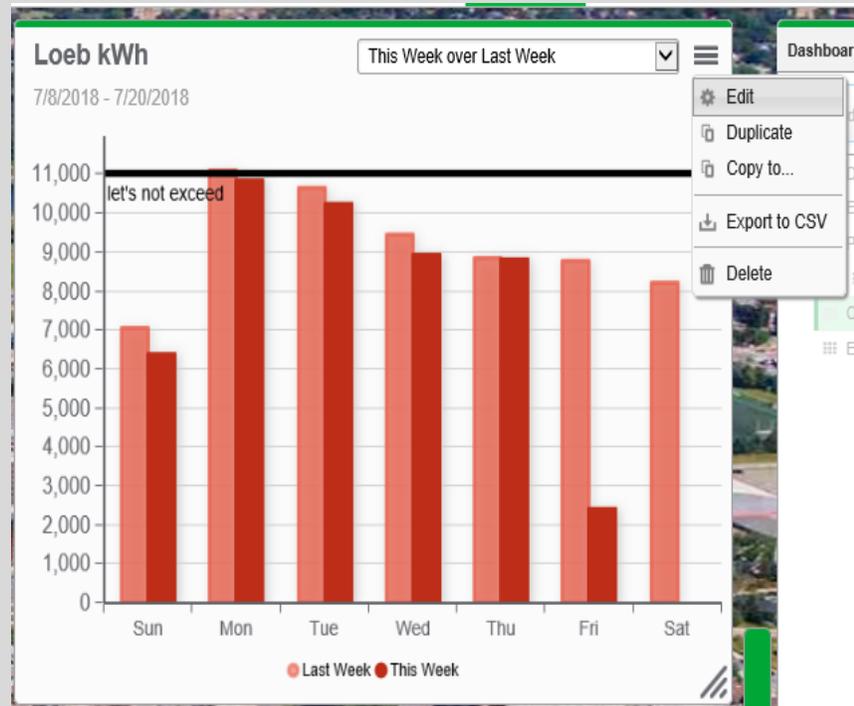
Cancel Finish

Building your Dashboards

Dashboard Library

Add Dashboard  

- Dashboard Folders
- EnergyManager
- Penny Exploratory
 - Local Weather
 - Carleton background, various types**
 - Earthday 2018



Gadget Setup

General Settings | **Data Series** | Viewing Period | Axes | Target Lines

Add **Edit** **Remove**  

- B15 Loeb Electrical Real Energy (kWh)**

Dashboard Controls

Edit Dashboard 

Name: **Carleton background, various types** 

Add Gadget...

Styling...

Private Dashboard

Cancel **Finish**

Gadget Setup

General Settings | **Data Series** | Viewing Period | Axes | Target Lines

Title

Loeb kWh

Opacity

Use Dashboard Opacity

100 %

Gadget Setup

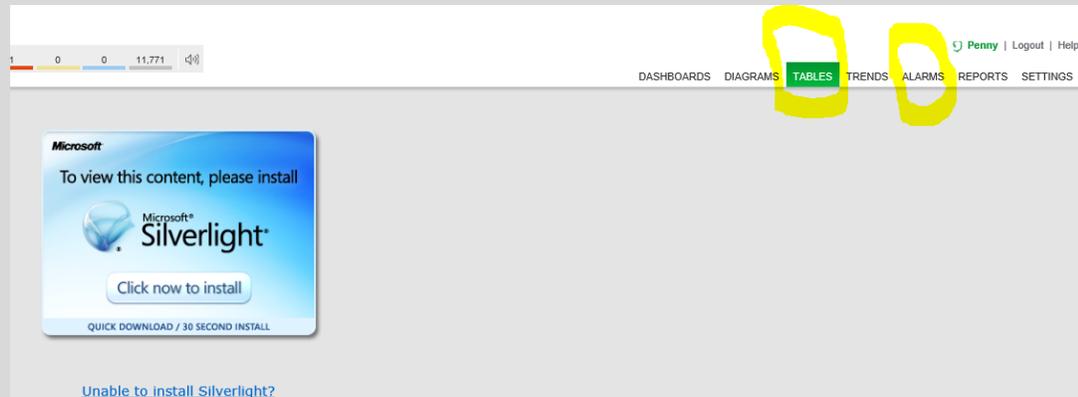
General Settings | Data Series | Viewing Period | Axes | **Target Lines**

Add Target Line

Type: **Per Day Target** | Label: **11,000** |  | **let's not exceed** | Plot On: **Left Axis** 

Tables and Alarms

Both tabs; Tables and Alarm are currently not available in any other browser other than Internet Explorer



Alarms

 Edit Settings

 Configure Alarms

10 Seconds ▾

Select Columns

View: Recent Alarms (24 hours)

Alarms Displayed: 0

Unacknowledged Alarms: 0 Acknowledge

Drag a column here to group by that column

Active	Start Time	Device	Priority	Type	Condition	Measurement	Value	Acknowledgement
--------	------------	--------	----------	------	-----------	-------------	-------	-----------------

Settings



Alarms

Show the Alarm Annunciator (requires an application restart).

Audible Alarm notifications:

- On Low, Medium or High Priority Alarms
- On Medium or High Priority Alarms
- On High Priority Alarms
- Disabled

Views include Alarms generated within:

- 3 Months ▾
- All time
- 1 Month
- 2 Months
- 3 Months
- 6 Months
- 12 Months
- 24 Months

Event and Alarm priority classifications:

-  192 ▾ Priorities between 192 to 255 will be identified as 'High Priority' Alarms.
-  128 ▾ Priorities between 128 to 191 will be identified as 'Medium Priority' Alarms.
-  64 ▾ Priorities between 64 to 127 will be identified as 'Low Priority' Alarms.
Priorities between 0 to 63 will not be identified as Alarms.

OK

Cancel

Configuration of Alarms

Alarm Rules **Source View**

Add Alarm Rule

Alarm Rule Name	Alarm Template	Measurements	Sources	Active When	Alarm Type	Enabled	
Communications Loss Alarms	Communication (Loss)	1	135	> 600s	Communication Status	<input checked="" type="checkbox"/>	  

1 - 1 of 1 Rules Lines/page : 10

Add Alarm Rule - Alarm Template

Select Alarm Template

Standard

- Over Voltage (Line to Line)
- Under Voltage (Line to Line)
- Over Voltage (Line to Neutral)
- Under Voltage (Line to Neutral)
- Over Current

User Defined

- Analog Measurements
- Digital Measurements

Device Status

- Breaker Status (Tripped)
- Communication (Loss)

Cancel **Previous** **Next**

Tables

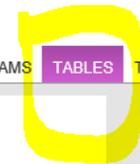


Table: Energy Summary

Export Last Update: 8/27/2018 11:18:38 AM Update in: 00:04 Pause Update Interval: 5 Seconds

Devices	Real Energy...	Real Energy...	Real Energy...	Reactive...	Reactive...	D/T Last Reset...
B01-Tory.Stm	7,606,456.0	7,606,456.0	7,606,456.0	6,220,058.0	6,220,058.0	

Table Library

- System
 - Basic Readings Summary
 - Circuit Breaker Status Summary
 - Demand Current Summary
 - Demand Voltage Summary
 - Energy Summary
 - Incremental Reactive Energy Su
 - Incremental Real Energy Summa
 - Load Current Summary
 - MicroLogic Circuit Loading Capac
 - Overall Power Quality Index Sum
 - Power Factor Summary

Table Library

- MicroLogic Circuit Loading Capac
- Overall Power Quality Index Sum
- Power Factor Summary
- Power Flow Summary
- System Voltage Summary
- THD Current Summary
- THD Voltage Summary
- Uptime Summary
- Vigilohm System Measurements
- Shared
- Private
- Other User Tables

Table Library

- System
 - Basic Readings Summary
 - Circuit Breaker Status Summary
 - Demand Current Summary
 - Demand Voltage Summary
 - Energy Summary
 - Incremental Reactive Energy Su
 - Incremental Real Energy Summa
 - Load Current Summary
 - MicroLogic Circuit Loading Capac
 - Overall Power Quality Index Sum
 - Power Factor Summary

Devices

- B01-Tory
 - Chiller
 - Gas
 - Stm
- B02-Macodrum(Main)
- B02-MacodrumNorth(Ext)
- B02-MacodrumSouth(Ext)
- B03-PatersonHall
- B04-SouthamHall
- B05-Renfrew
- B06-Lanark
- B07-Unicentre
- B08-Gymnasium
- B09-Athletics

Measurements

- Favorite Measurements
- Alarm
- Breaker Status
- Cost
- Current
- Custom
- Demand
- Energy

Trends

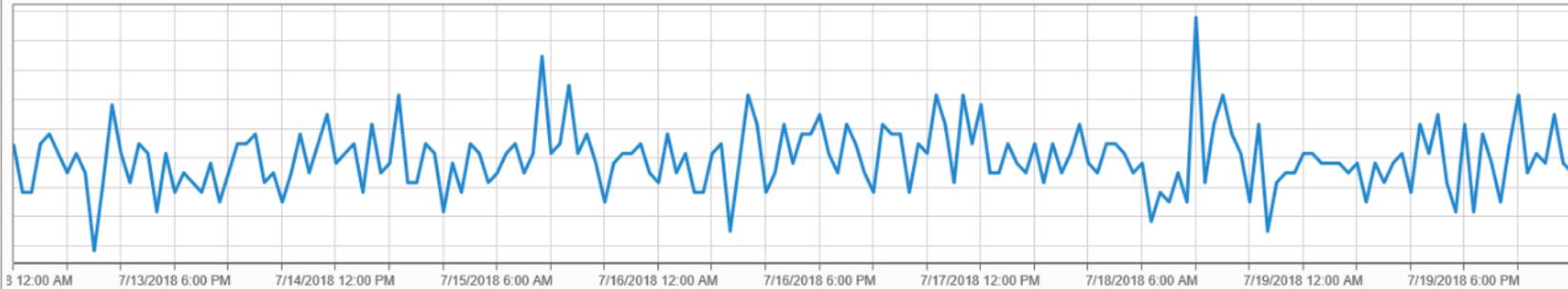
Minto CASE DW Flow



Steam Trend



Chilled Water Test



Trend Library

- Add Trend
- Shared
 - CHP Boilers
 - Electric Feeders
 - MacKenzie
 - Minto CASE DW Flow
 - test trend
 - Private
 - Other User Trends
 - Chilled Water Test (supervisor)
 - Steam Trend (supervisor)
 - Test (supervisor)
 - water (Scott)

Building Your Trend

Trend Setup [Close]

General | Axes | Chart | Data

Title
Test

Data Series

Add Edit Remove [Up] [Down]

B34-Prescott.Stm Steam Pressure (kPa)

Privacy
 Private Trend

Cancel Save

Trend Setup

General | Axes | Chart | Data

Text
Size: Medium

Legend
Position: Right

Content
 Name
 Value
 Difference
 Difference (%)

Trend Setup

General | Axes | Chart | Data

Right Axis (Primary) Series on Right Axis: 1

Title: [Text Box]

Max Value: Auto Fixed [Text Box]

Upper Threshold [Color] [Text Box]

Target Line [Color] [Text Box]

Lower Threshold [Color] [Text Box]

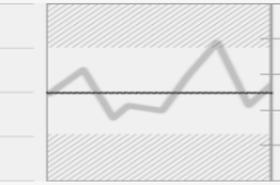
Min Value: Auto Fixed [Text Box]

Left Axis (Secondary) Series on Left Axis: 0 (Axis hidden)

Title: [Text Box]

Max Value: Auto Fixed [Text Box]

Min Value: Auto Fixed [Text Box]



Cancel Save

Trend Setup

General | Axes | Chart | Data

Data Update Intervals

From device: 5 seconds Number of series configured for device polling: 1

From database: 5 minutes Number of series configured for database polling: 0

Data Points

Max per series: 40,000

Reports

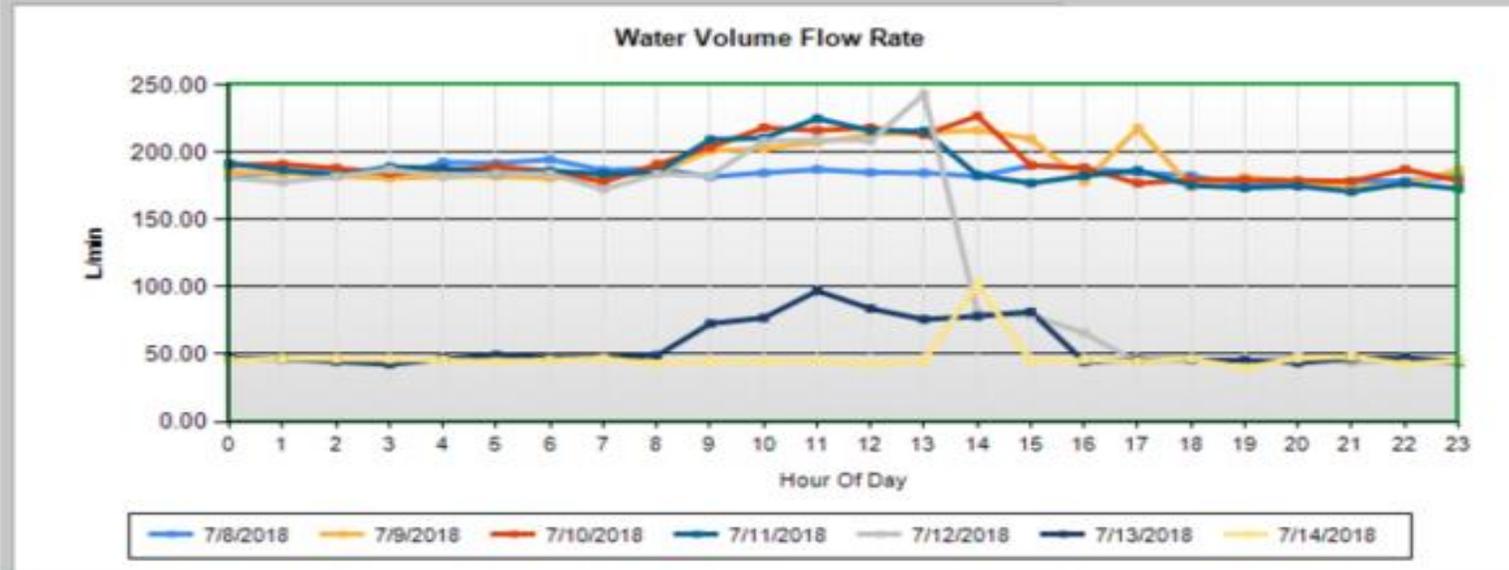


Minto CASE DW Usage Report

B27-MintoCASE.Cw

Measurement	7/8/2018	7/9/2018	7/10/2018	7/11/2018	7/12/2018	7/13/2018	7/14/2018
Water Volume Flow Rate (L/min)	4,432.11	4,575.91	4,819.37	4,527.80	3,227.48	1,350.64	1,141.05

Water Volume Flow Rate (L/min)



Water Volume Flow Rate (L/min)									
Hour Of Day	7/8/2018	7/9/2018	7/10/2018	7/11/2018	7/12/2018	7/13/2018	7/14/2018		
0	182.41	185.20	190.65	191.44	181.21	47.11	45.52		
1	184.53	184.13	191.18	195.93	177.62	46.45	46.85		
2	186.93	182.14	188.12	182.67	182.01	44.59	46.45		
3	181.21	180.88	184.40	189.18	187.19	42.59	48.18		
4	192.64	181.87	186.28	188.25	182.41	46.45	45.65		
5	191.84	182.14	188.32	184.40	184.27	49.37	44.72		
6	184.63	180.81	185.99	186.28	184.13	47.38	45.78		
7	186.66	182.67	178.02	183.67	172.44	47.51	46.96		
8	188.12	184.27	190.91	185.06	183.80	48.97	43.12		
9	181.74	201.28	203.67	204.39	182.81	72.76	44.72		
10	184.80	202.81	218.16	210.58	206.32	77.01	44.59		

Report Library



Filter Report Library

+ DOM Water

+ Earth Day 2018

- Energy Management

Calendar Trend Month Report

Calendar Trend Week Report

Consumption Ranking Report

Energy Comparison Report

Energy Cost Report

Energy Period Over Period Report

Energy Usage by Shift Report

Energy Usage by TOU Report

Energy Usage Report

Load Profile Report

- General

100 ms Report

Data Export - Extended

Data Export - Standard

Event History Report

System Configuration Report

Tabular Report

Reports List

- Power Quality

EN50160:2000 Mains Signaling

EN50160:2000 Report

EN50160:2010 Mains Signaling

EN50160:2010 Report

Harmonic Compliance Report

IEC61000-4-30 Report

Power Quality Report

- Usage Trending

B27 MintoCASE Usage Report

Hourly Usage Report

Multi Device Usage Report

Multiple Trend Report

Single Device Usage Report

Trend Report

Settings

Hierarchy Manager

[Show Views](#) | [Help](#)

[Site](#) [Buildings](#) [Virtual Meter](#)

Site

[Add](#) [Edit](#) [Delete](#)

Name	Building
<Filter>	<Filter>
Carleton University	B41-Frotenac

Settings

- THEME
- LOCALIZATION
- DIAGNOSTICS AND USAGE
- REPORT SETTINGS

Configuration Tools

- ALARM CONFIGURATION
- HIERARCHY MANAGER**

Hierarchy Management

Hierarchy Manager

- Site
- Buildings
- Virtual Meter

Virtual Meter

- Add
- Edit
- Delete

Name	Device
<Filter>	<Filter>
B01 Tory Chilled Water	B01-Tory.Chiller, B07-Unicentre.Cw (-100 %), B31-AzrieliTheatre.7700 (-100 %), B32-AzrieliPavilion.7330 (-100 %)
B01 Tory Domestic Water	B01-Tory.Stm
B01 Tory Electrical	B01-Tory.Stm, B01-Tory.Chiller, B31-AzrieliTheatre.7500 (-100 %)
B01 Tory Steam	B01-Tory.Stm, B31-AzrieliTheatre.7700 (-100 %), B32-AzrieliPavilion.7330 (-100 %)
B02 MacOdrum Domestic Water	B02-Macodrum(Main).Stm, B02-MacodrumSouth(Ext).Stm
B02 MacOdrum Electrical	B02-MacodrumNorth(Ext).Elec, B02-Macodrum(Main).Elec, B02-MacodrumSouth(Ext).Stm
B02 MacOdrum Steam	B02-Macodrum(Main).Stm, B02-MacodrumSouth(Ext).Stm
B03 Paterson Hall Chilled Water	B03-PatersonHall.Cw
B03 Paterson Hall Domestic Water	B03-PatersonHall.Stm
B03 Paterson Hall Electrical	B03-PatersonHall.Stm
B03 Paterson Hall Steam	B03-PatersonHall.Stm
B15 Loeb Cafe Domestic Water	B15-Loeb.Stm (3.125 %)
B15 Loeb Cafe Electrical	B15 Loeb Bldg. Total Electrical (3.125 %)
B15 Loeb Cafe Steam	B15-Loeb.Stm (3.125 %)
B15 Loeb Chilled Water	B15-Loeb.1-2_Cw, B15-Loeb.3-9_Cw
B15 Loeb Domestic Water	B15-Loeb.Stm (96.875 %)

Carleton University

