



University and Colleges PME & PowerLogic Users Group

Schneider Electric

October 29, 2020

Webinar

Life Is On

Schneider
Electric

Agenda

- 1 **Introductions**
- 2 **Objectives**
- 3 **Application Examples**
- 4 **Discussion**

Agenda

1

Introductions

2

Objectives

3

Application Examples

4

Discussion

Schneider Electric Team

Multi-discipline Team

Schneider Electric Canada:

- Yoann Briant, National Director
- Arturo Muniz, End User Sales
- Roger Lapierre, Sales Manager
- Andrew Muir, Digital Energy
- Tirtho Dutta Gupta, P.Eng.

Schneider Local Rep:

- Adam Campbell
- Eric Langford



Institutions Represented

Universities and colleges are active energy managers.

Following post-secondary campuses have PME software and/or Schneider Meters.
This is a partial list of installations in Ontario.



Institutions Represented

Alphabetical Order

Carleton University:	Penny Jastremski, Gavin Symonds
Conestoga College:	Tony Sasso, Brian Cimbron
Durham College / UOIT:	Stephen Cassar, Brent Skillen
Georgian College:	Duncan Mills
University of Guelph:	Doug Doel
McMaster University:	Joe Emberson, Alvin Baldovino
Queens University:	Janet Pollard, Nathan Splinter, David Gerrish
Ryerson University:	Animesh Roy
Seneca College:	Alex Lapusan
University of Toronto:	Keith Foster
University of Waterloo:	Chris Ford
University of Western Ont:	Mike Greene
Wilfrid Laurier University:	Adam Clarkson
York University:	Steve Prince, Bogdan Strafalogea



Agenda

1

Introductions

2

Objectives

3

Application Examples

4

Discussion

Objective

What and Why a Users Group?

University and College campuses are viewed as leaders in their communities.

We want to ensure that the PowerLogic and ION meters and the Power Monitoring Expert (PME) software is being used to meet the needs of the various users.

We believe that bringing together users with common requirements, it will be possible to maximize these the significant investments in metering and energy monitoring.

If common concerns or requirements are identified, then Schneider should be able to adapt a solution to meet a common need among users. University and College campuses are an important customer base for Schneider Electric.



Overview

Where, when, how.

- Ideally, the sessions will be held every six to ten months depending on feedback.
- While these will be online for a foreseeable future; ideally, we would gather for a formal meet. Maybe at PLUG 2021 (?)
- Based on feedback from today; we will follow up individually or to the group as required.



Agenda

1

Introductions

2

Objectives

3

Application Examples

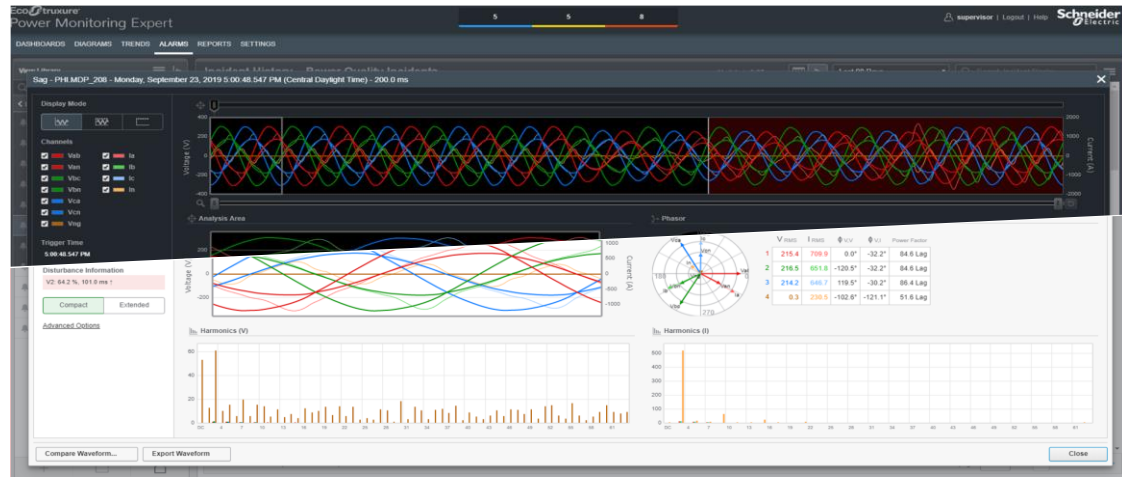
4

Discussion

Some new and interesting applications

Topics for discussion ... survey says ...

1. Multi-user login and dashboard views.
2. Integrating mechanical meters (WAGES)
3. Power Advisor Reports - What are Power Advisor reports and who gets them?



PME2020 Major Innovation Themes

Continual enhancement of Power Monitoring Expert (PME)



Power Event Analysis

Get things back to normal faster than ever before



Multi-Site Systems

Enable monitoring of multiple sites from a single server



IT Compliance

Respond to needs of corporate IT departments



Enhanced Energy Management

Optimize Energy Performance



Equipment Performance

Insights on your Electrical Distribution Equipment



Lower Total Cost of Ownership

Simpler for our key customers and channel

Life Is On

Schneider
Electric

Multi Site with Role Based Access Control (RBAC)

PME Groups

Facilities and Energy – Full access



Users



All meters on campus



Typical installation for most customers.
Full access for all meter views and reports.

Student Residences – Kiosk displays



Users



Sub-meters



Non-academic energy views

Unique read-only dashboards for kiosks or web-site views of energy consumption.

Departmental Usage – Building Specific



Users



Building specific



Usage for department or building

Unique departmental consumption views – instead of emailing reports

Multi Site with Role Based Access Control (RBAC)

PME Groups

A user group is a set of users with access to the same list of devices/sources and the same shared web content.

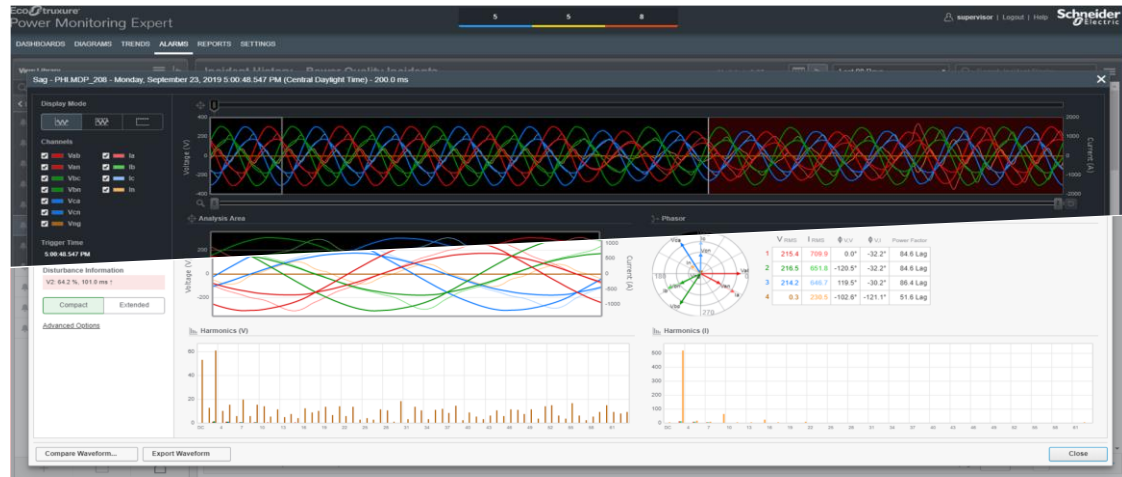
- Users of a group can have private content (dashboards, diagrams, alarms and reports)
- Users can belong to multiple groups
- Users can be Windows or native PME
- PME groups are not required if content partitioning is not needed
- NOTE: License requirements



Some new and interesting applications

Topics for discussion ... survey says ...

1. Multi-user login and dashboard views.
2. Integrating mechanical meters (WAGES)
3. Power Advisor Reports - What are Power Advisor reports and who gets them?



What is WAGES?

Gain an understanding of all utilities on campus

What is WAGES monitoring?



Water
Air
Gas
Electric
Steam



Main driver: Measuring and analyzing utility usage enables customers to identify areas of waste, benchmark normal consumption and set alarms on deviations

How does it work?

Integrating different devices requires different technology or strategies

- > A 'sensor' is used to input a 'signal' to a device or 'meter'
- > 'Meter' is connected through a communication network to the PME Software
- > PME Software adds the context, reports, analysis, etc.
- > Can interface PME to BAS which is already communicating to mechanical meters.



Campus Utility Metering PME Vista

Vista - supervisor - Power Monitoring Expert - [User Diagram:800 Campus Map]

File Edit Options View Window Help



Carleton UNIVERSITY
Canada's Capital University

QA TEMP (C): 25.8

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](#)

Diagram objects

BronsonSub Feeder-1	BronsonSub Feeder-2	BronsonSub Feeder-3
1 avg: 175.4 kW tot: 3,688.9	1 avg: 224.5 kW tot: 4,529.6	1 avg: 131.3 kW tot: 2,757.7

10:42 AM 7/13/2018

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 5B6
scott.macdonald@carleton.ca
613-520-2600 x 8533
613-852-1434 (cell)

Perry Jastrzemki
Utility Monitoring Technician
Carleton University
1125 Colonel By Drive
Ottawa, ON
K1S 5B6
perry.jastrzemki@carleton.ca
613-520-2600 x 8831
613-852-4181

Examples from the Menu

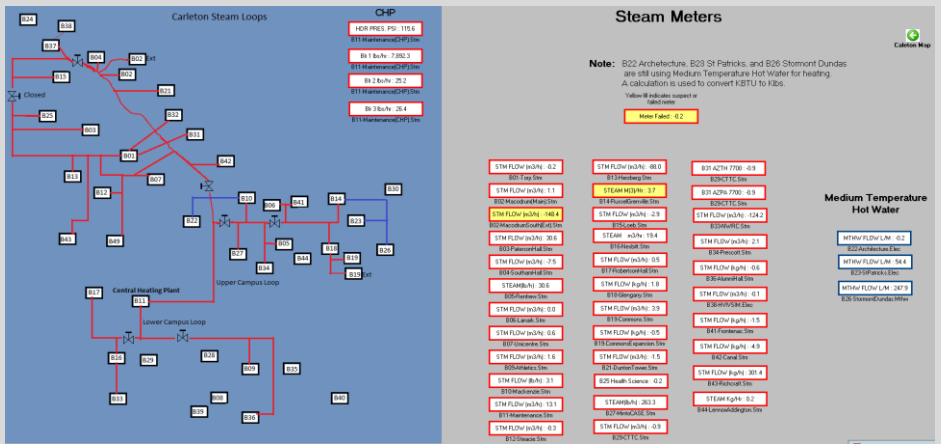


Enbridge Natural Gas Meters

Enbridge Gas Meters
 Note: B42 Canal bldg has a gas meter, but it is not connected



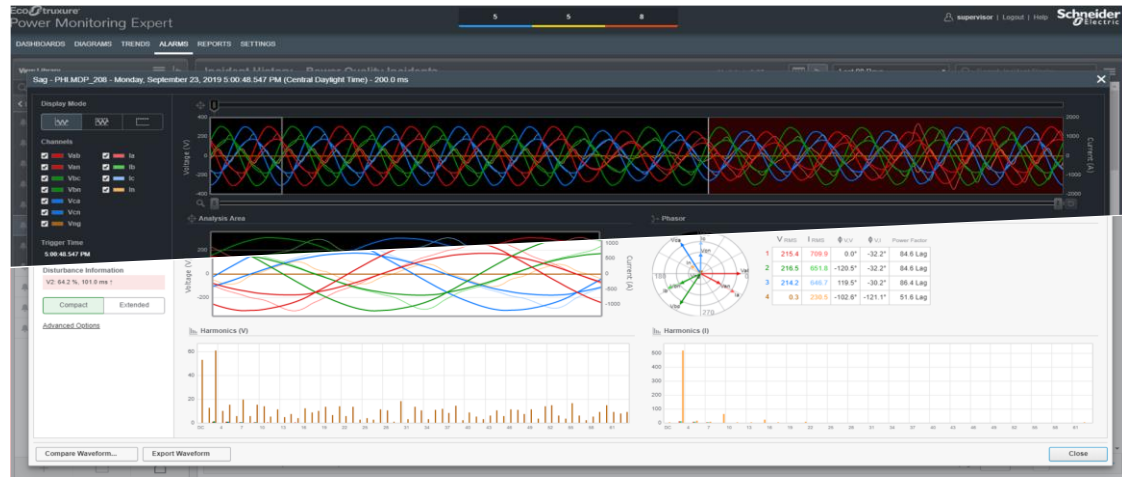
Note: B12-SteaicicCW(Hertzberg) MCC2 - B16 meter has been disconnected until further notice



Some new and interesting applications

Topics for discussion ... survey says ...

1. Multi-user login and dashboard views.
2. Integrating mechanical meters (WAGES)
3. Power Advisor Reports - What are Power Advisor reports and who gets them?



Power Advisor Reports

Proactive check on system

Customers with a support contract should receive an annual system health-check that reviews:

1. PME and meter data quality – looking for missing data, comm errors, etc.
2. Electrical health summary – analyzing harmonics and other power quality values.

Reports mine the PME database and are analyzed by a tech support expert at Schneider.

Reports have a simple score; but no Dean's list, honour roll, or scholarships.

Electrical Health Report Detailed Report

Carleton University: Physical Plant
1125 Colonel By Drive Main Bldg STE-116
Ottawa, Ontario K1S 5B6

Report Run Date: 22-July-2020

Electrical Health Score


Date Range: 14 Jun 2020 - 14 Jul 2020



Your overall score: **Good**
Median score of all other facilities is: **65.5%**

Your overall score is based on an aggregation of all electrical health issues found in your system over the date range.

Report Details

	Potential Issue: Under Voltage Condition
Based on industry standard practices, voltage measurements below allowed threshold reported.	
Source: Unknown	Impact on System Score: -0.06 %
Potential Consequences	
Decreased light output on some fixture/lighting types.	
Erratic equipment or system performance.	
Excessive heating and stressing of components and equipment.	
Increased operating current and decreased starting torque, slip, speed, and efficiency in standard induction motors.	
Reduced effectiveness of power factor correction capacitors.	
Reduced life expectancy or equipment failure.	
Unexpected equipment trips and motor contactor dropouts leading to unplanned interruptions of facility operations.	

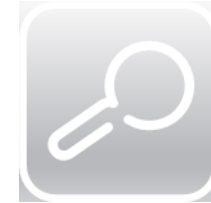
Device Name	Device Type	Comment
B10-Mackenzie.Elec	7330	This issue was detected on 2 measurements. The worst was on 'Voltage L-L Avg Mean'. Here is its evidence: 568 of 692 values of Voltage L-L Avg Mean fell below the allowable lower limit of 456.0 Volts for 480.0 Volt systems according to the ANSI C84.1 Utilization standard. The reference Voltage of 480 Volts had to be guessed from your country's known standard voltages using the Average value of 452 V. The meter Volts Mode is 4W-WYE. Minimum voltage was 439.1 Volts.

Support Contracts

Also called Digital Service Plan (DSP)

Annual support contract includes:

- Software Assurance (PME software upgrades)
- Dedicated Support personnel – remote access
- Power Advisor reports
- On-site services are an option
- Discount on training



Agenda

1

Introductions

2

Objectives

3

Application Examples

4

Discussion

Discussion. Wrap-up.

Forum to foster discussions.

Does anyone have specific application questions?

An regulatory or internal policy requirement where data or a report in PME could assist?

An interesting example you'd like to share with others on the call?

Application you've seen elsewhere and would like implemented in PME?
Software feature requests?

These slides are posted at: www.know-your-power.com in the Archives tab.



Thanks!

Thanks!

Life Is On



Schneider
Electric