

Disclaimer



The information provided in this document is confidential and the property of Schneider Electric, and any modification or use of all or part of the content of this document without the express written consent of Schneider Electric is strictly prohibited. Failure to reply to a request for consent shall in no case be understood as tacit authorisation for the use thereof.

Any reference to standards compliance, performance or functionality mentioned on this document should be validated and confirmed by Schneider Electric before implementation on specific projects.

© Schneider Electric



EcoStruxure

Cloud-Hosted Power Management

November 8th, 2022

Life Is On

Schneider
Electric

Digital adoption in inflection

6x

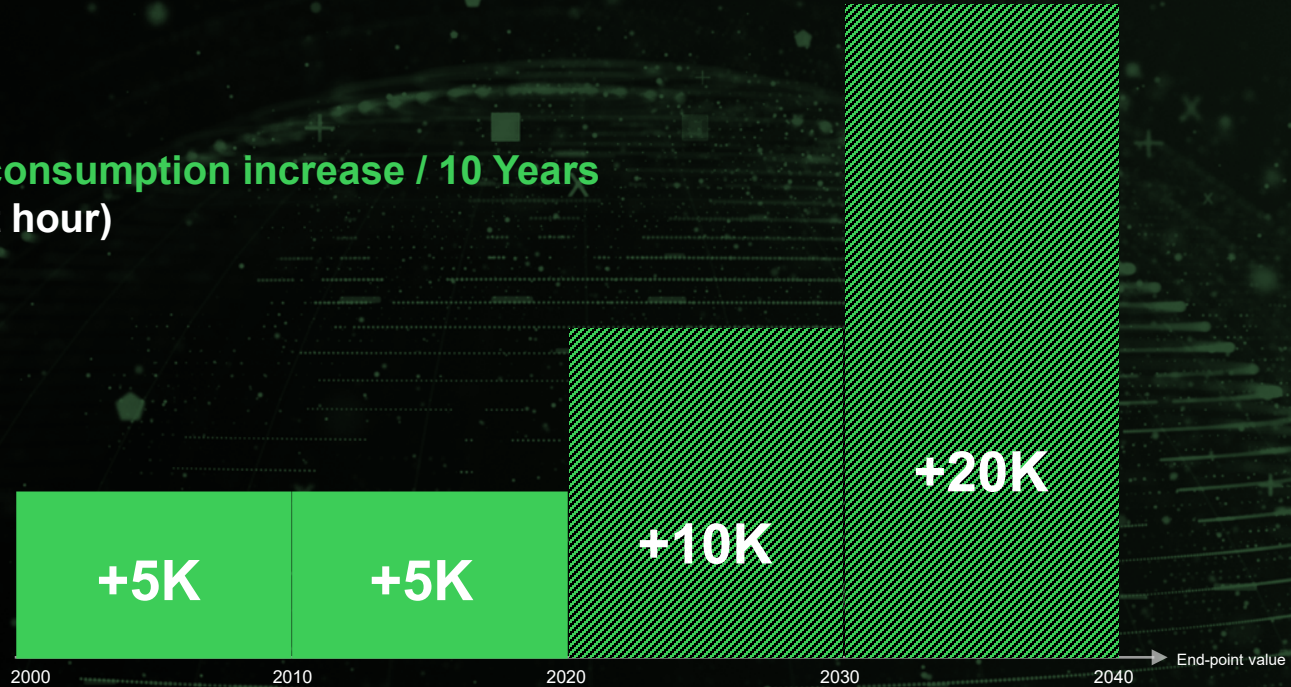
Growth in number of IoT
devices, 2020 - 2030

140x

Growth IP Traffic (EB/y)
2020-2040

Electricity in inflection, doubling every 10 years

Electric consumption increase / 10 Years
(Terawatt hour)



Based on 1.5-compliant scenario (Back to 2050 report), Growth occurring across all regions, not only mature economies (NAM, EU) - shift from previous, all numbers are top-down estimates and rounded up

Energy Efficiency

Savings

Electrification

Decarbonization

Efficiency

for a Sustainable Future

Process Efficiency

Sustainability

Asset Performance

Productivity

Continuity

There are alternatives to look at the challenges

But you can't manage what you're not monitoring!



CAPEX Limitations

impose **untapped efficiencies** in the facility and a significant cost of opportunity.



Changing optics is key to break the cycle and **benefit from digital technologies** without the burden of **upfront investment**.



Overused Equipment

and lack of visibility put at **risk** not only efficiency but also the **safety of people**, the **facility** and the **business**.



Emergencies & Downtime

are a **heavy cost** for any facility plus the **downtime** that takes to recover.

Cloud Hosted Power Management

What is it?

- ❑ Hosted, managed and maintained cloud EMS (powered by PME) interfacing with on premise devices.
- ❑ Focusing on customers with limited resources or need to outsource IoT management.
- ❑ Annual subscription-based SaaS.
- ❑ Delivers a personalized power & energy management system web interface
 - Dashboards and reports for energy management
 - Real-time alarm management
 - Real-time electrical monitoring
- ❑ 2 Primary offers
 - Web Portal Power Management
 - Dedicated Power Management



Web Portal Power Management

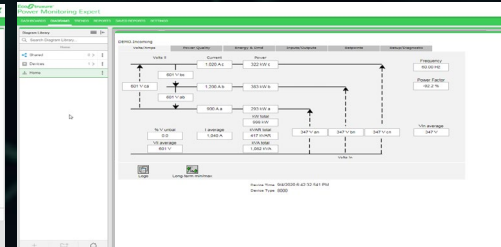
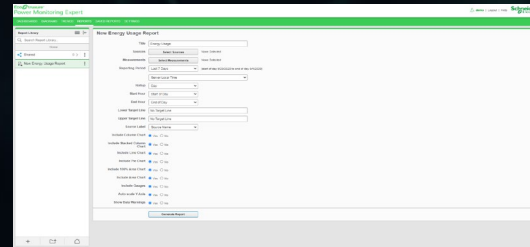
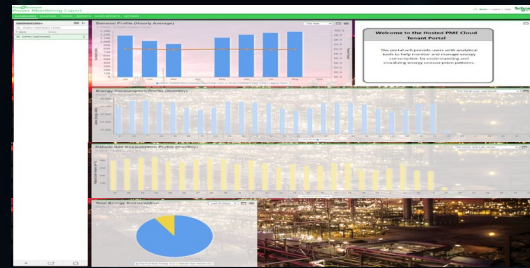
- ❑ Multi-tenant portal where multiple customers are integrated into a single hosted PME environment.
- ❑ Affordable solution for customers with basic energy analysis requirements.
- ❑ Tier subscription pricing based on source type (basic meter, High-end / PQ meter, etc.)
- ❑ Access to Energy analysis module.
- ❑ Users are limited to standard user rights (operation).



What's included

Hosted Web Portal PME

- ❑ Access to the latest PME version for 2 users
- ❑ Connection to devices at one single aggregation point (per site)
- ❑ Configuration per **standard Web Portal PME** scope to give the user a web interface with
- ❑ System Backup (for easy/fast recovery)
- ❑ User orientation training
- ❑ Standard+ technical support (CCC + PMO/DPAC)



➤ Dashboards

- Demand and power factor
- Energy consumption
- WAGES (if available)

➤ Diagrams

- Standard TVD diagram
- Meter/Device template

➤ Alarms

➤ Reports

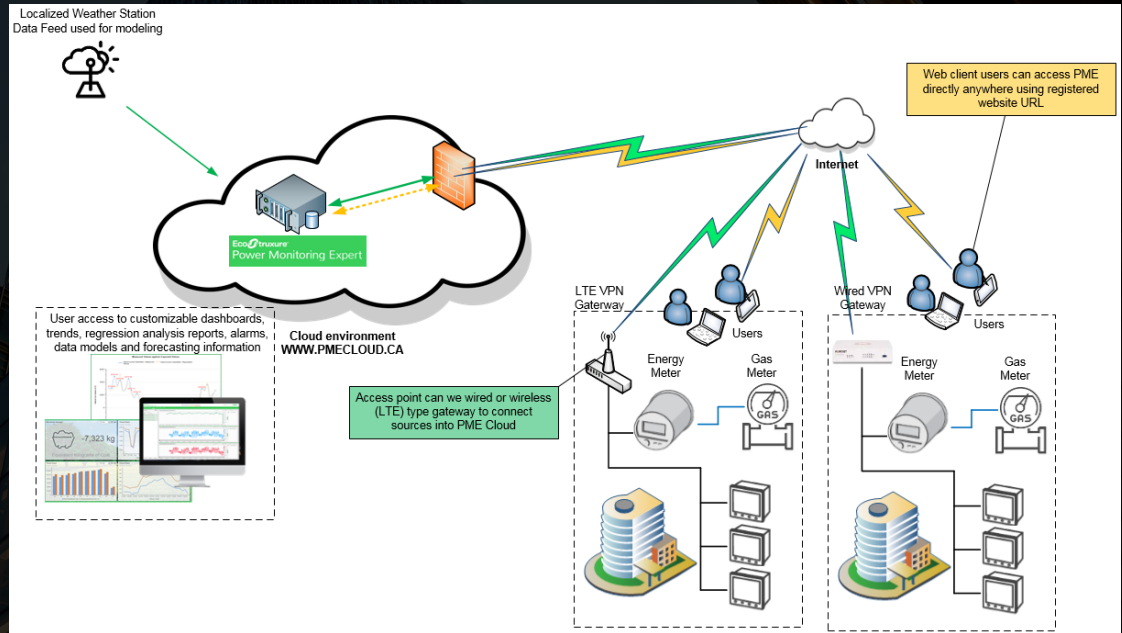
- Energy Usage Report
- Tool to create more reports

➤ Trends

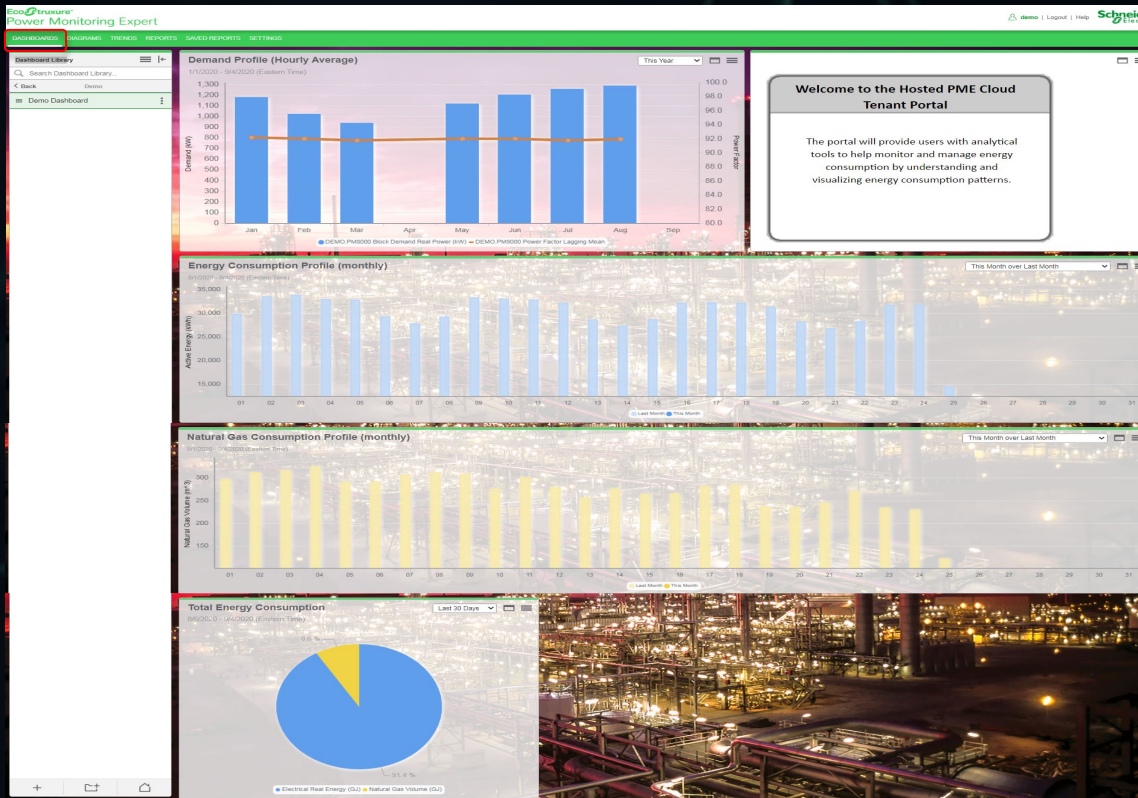
- Voltage Average
- Total Real Power kW
- Power Factor
- Tools to add/modify variables

Web Portal - System Architecture

- ❑ On-premise meters installed
- ❑ Device integrated via VPN gateway (wired or wireless option available)
- ❑ System access via Web portal
- ❑ Energy Analysis reporting module only available

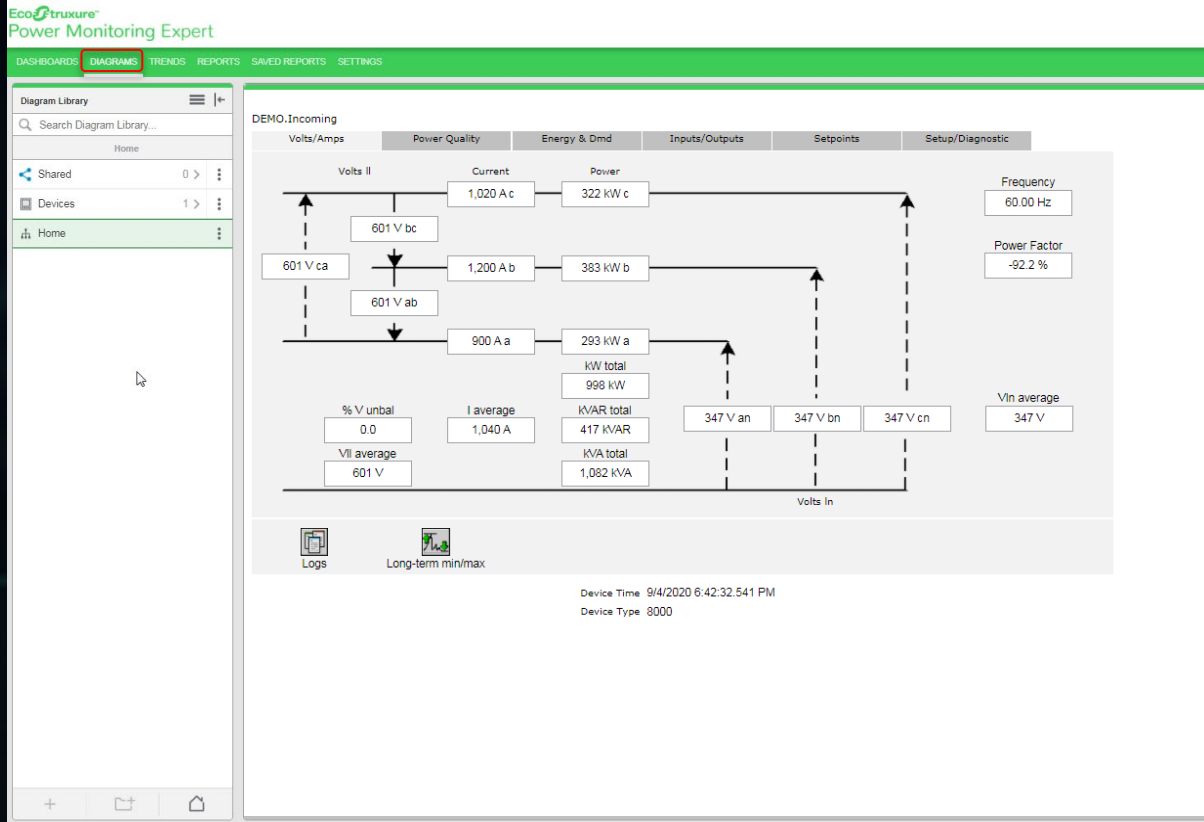


Web Portal - Dashboards



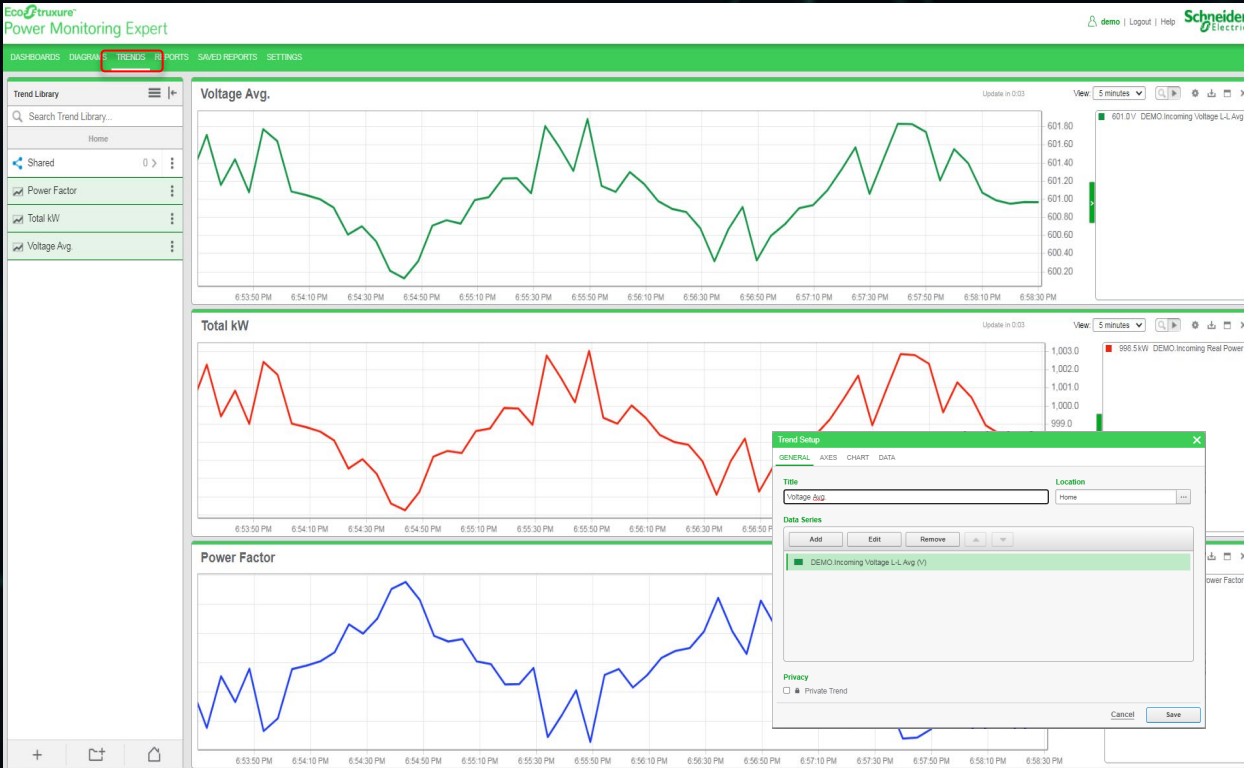
- Demand and power factor hourly average (time period adjustable).
- Energy consumption in kW with 2 timeframe comparison (different set of time periods, last 24h, last 7 days, specific days, weeks, months, etc.)
- Gas, Water, Air and Steam Consumption (If available) in m³ with 3 timeframe comparison.
- Total Energy consumption – Pie chart for all energy sources monitored with time period selectable.
- Possibility to add more dashboards using default gadgets

Web Portal - Diagrams



- Standard TVD Diagram
- Meter/Device template
 - Volts / Amps
 - Power Quality
 - Energy & demand
 - I/O status
 - Set up / Diagnostic

Web Portal - Trends



Standard Trends Views with selectable time window.

- Voltage Average
- Total Real Power kW
- Power Factor
- Tools to add/modify variables

Web Portal - Reports

The screenshot displays the EcoStruxure Power Monitoring Expert web portal interface. The top navigation bar includes 'DASHBOARDS', 'DIAGRAMS', 'TRENDS', 'REPORTS', 'SHARED REPORTS', and 'SETTINGS'. The 'REPORTS' section is active, showing a 'Report Library' on the left and a 'New Energy Usage Report' configuration form on the right. The configuration form includes fields for Title, Sources, Measurements, Reporting Period, Rollup, Start Hour, End Hour, Lower Target Line, Upper Target Line, Source Label, and various chart options (Column, Stacked Column, Line, Pie, Area, Gauges, Auto-scale Y-Axis, Show Data Warnings). A 'Generate Report' button is at the bottom of the form. An 'Add Report - Report Template Selection' dialog box is open, showing a search bar and a list of report templates: '100 ms Report', 'Calendar Trend Month Report', and 'Calendar Trend Week Report'. Each template has a 'Report help' link.

➤ Configured Report Energy Usage



Energy Usage Report example

➤ Tool to configure other reports

Dedicate Power Management

- ❑ Dedicated PME instance for single customer hosted in CLOUD environment
- ❑ More customizable environment to configure the application based on customer needs
 - Alarming
 - Visualizations
 - Custom logic
- ❑ Add-on to all PME modules (PQ, billing, capacity management, etc.)
- ❑ Fixed annual subscription OPEX costs to host and CAPEX for initial commissioning
- ❑ User orientation training, documentation & standard technical support
- ❑ Web Client access with add-on option for Engineering Client
- ❑ Access to all web management tools to modify PME environment for Supervisor user profile.



What's included

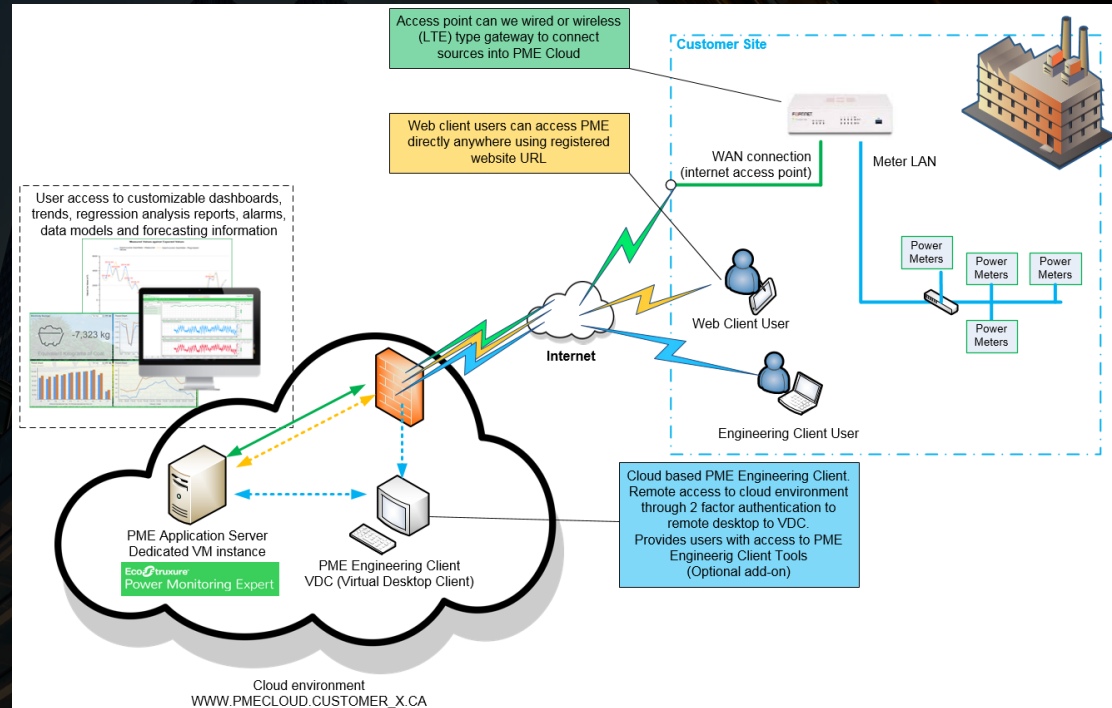
Dedicated hosted PME VM

- ❑ Installation of software and database in a cloud environment
- ❑ Updates to latest PME version available.
- ❑ 2 Web client licenses
- ❑ Connection to meters at one single aggregation point
- ❑ Configuration per **standard dedicated** scope to give the user a web interface to personalized:
 - Dashboards
 - Trends
 - Reports
 - Alarms
- ❑ System Backup (for easy/fast recovery)
- ❑ User orientation training
- ❑ Standard+ technical support (CCC + PMO/DPAC)



Dedicated - System Architecture

- ❑ On-premise meters installed
- ❑ Device integrated via VPN gateway (wired or wireless option available)
- ❑ Web Client access via URL
- ❑ Optional Engineering client
- ❑ PME modules optional for dedicated VM instance.



Cloud hosted Power Management Benefits

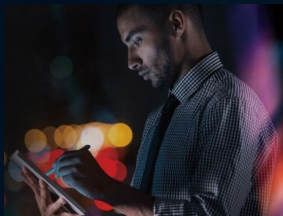
- ❑ Get access to energy management system and **gain efficiency at your facility.**
- ❑ **Resources are focus on efficient operation,** no need to be involved on managing the system.
- ❑ **Minimal concerns about hardware availability** or obsolescence management.
- ❑ **Remove burden on CAPEX.**
- ❑ **Access to the latest PME** version and features.
- ❑ System **backups and restores are managed.**
- ❑ **Minimal customer IT group involvement** necessary beyond getting access to devices.
- ❑ **Cybersecurity for the system is secured at our end.** Customer still need to manage CS policies.
- ❑ **No dedicated IT equipment onsite** required.



Deployed Web Portal – Atlantics Canada



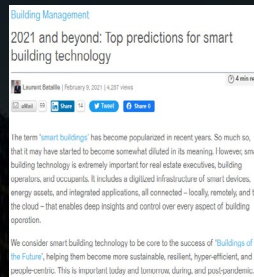
Learn more about Buildings of the future on SE.com



[Cloud Hosted Power Management](#)

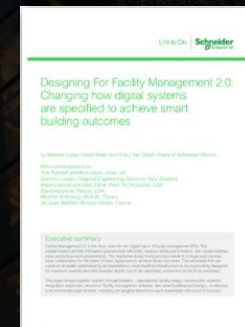


[Design Guide for Large Buildings & Critical Facilities](#)



[Blog series](#)

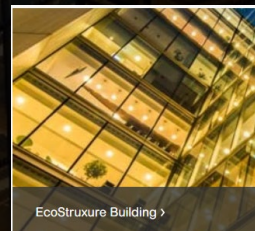
[2021 and beyond: Top predictions for smart building technology](#)



[Designing for Facility Management 2.0: Changing how digital systems are specified to achieve smart building outcomes](#)



[Contact us!](#)



[Buildings of the Future](#)
Life is On | Schneider Electric

Life Is On

Schneider
Electric