



Perspectives on the Installation and Use of Energy Monitoring in a Commissioning Program

Presented to the California Commissioning Collaborative

June 9th, 2011



Agenda

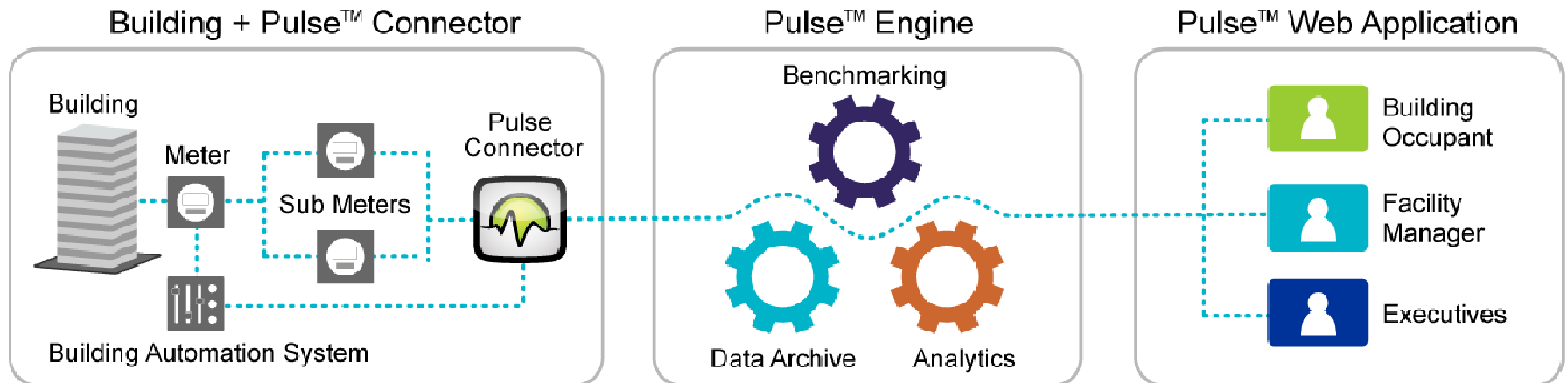
- Pulse Energy Overview
- C-Op Program Description
 - Overview
 - Customers
 - Progress to Date
- Lessons Learned: Our Experience as a Vendor

Pulse Energy Overview

- Real time energy management software
- Commercial building expertise
 - Goal: Enable persistent, verifiable savings
- One of five EMIS vendors in BC Hydro's Continuous Optimization program



Pulse Energy Overview (Cont'd)



- **Collect** Connector reads from meter, BAS, DDC, or other energy data sources
- **Analyze** Algorithms process historical data and correlate it to climatic and temporal variables
- **Communicate** Web-based energy visualization for occupants, operations and senior management

C-Op Program Description

Overview

Program

- Commercial offering in BC Hydro's PowerSmart initiative
- Launched in 2009
- Find and implement *operational* energy savings
- Build a framework for *continuous improvement*
- **Offer:** Funding for EMIS and RCx consulting

Customer Commitments

- Implement measures with 2 year simple payback
 - Cap at 25-30¢/ft²
- Respond to anomalies within 48 hours

C-Op Program Description

Customers & Requirements

- Existing commercial buildings
 - 50,000ft² and greater
 - Existing BAS
 - No major retrofits planned in next 2 years
- Key customers
 - School districts
 - Hospitals
 - Universities
 - Municipal
 - Large commercial





C-Op Program Description

Progress to Date

Program traction

- Over 80 customers; 450 buildings enrolled

Initial savings results

- 8% electricity
- 15% natural gas
- 10% total energy

Lessons Learned: Our Experience as a Vendor

- Everyone likes FREE stuff!
- The decision maker and the user are different people
- Our sales team successfully created buzz
- We developed multiple implementation solutions
- If you can't work with them ... work around them!
- Make it as easy as possible for the customer
- Electricity AND natural gas
- Make baselining as short as possible
- Provide coaching to participants

Thank you!



www.PulseEnergy.com