THE FUTURE OF OPERATIONS AND ENERGY MANAGEMENT
1.0 Overview:

SiteWatch™ represents a breakthrough in Operations and Energy Management: a flexible, affordable monitoring and management service that enables you to view your equipment operation and energy-use continuously – at a level of detail you’ve never seen before.

In real-time, you can see the operating patterns of your machinery, as well as when and how much energy is being used - or wasted - in your facility by every pump, compressor, chiller, freezer or motor of any kind.

Once the data is captured, it’s analyzed and converted into graphs, reports and spreadsheets, which provide total insight into your operations - for decision makers in management, operations, facilities, finance and procurement.

And it does it at a fraction of the cost of earlier systems.

What does this mean to you? It means you can save money by...

a. Saving energy by optimizing machine performance and processes
b. Improving operator behavior and efficiency
c. Predicting machine failure before disaster strikes
d. Reducing downtime through automatic alerts
e. Making investment decisions with real data, not estimates, and verifying afterwards.
2.0 Ease of Installation

SiteWatch™ uses a new patented technology that replaces $1,000 energy meters with tiny wireless sensors that cost $50 apiece. Since the sensors are clip-on/clip-off, 100 sensors can be installed on 100 circuits in less than a day.

Once captured, the data is sent to the cloud to be analyzed and turned into actionable graphs, reports and spreadsheets showing precisely what’s happening in your facility at any time.
3.0 Comprehensive Hardware and Software Integration

SiteWatch™ features comprehensive hardware and software integration: the hardware is installed by our technicians (or by the client if desired). The sensors communicate with the Cloud via Wi-Fi or cellular service. Usage data is consolidated in the cloud, enabling detailed analysis of energy consumption, as well as data from BMSs or other systems.

Portfolio of Sensors & Meters:

SiteWatch sensors can accommodate circuits from 5 amps to several hundred amps.
4.0 Ease of Use / Flexible Data Reporting

Intuitive, flexible reports and alerts are delivered to your dashboard, laptop or mobile device.

Reports are quickly configurable:
- In the left-hand column, the user can select the equipment to be displayed
- The upper navigation bar controls the time period.
- Results can be exported with a click of the mouse.

Importantly, the user can also set up Alerts to warn if critical equipment is failing or operating outside its normal range. (See Page 12).
5.0 Examples of Reports and Alerts

5.1 Operating Inefficiencies

*This report, called a “Heat Map” shows when peak demand occurs – i.e. dark red blocks.*

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**Observations:**

1. This one-shift operation should have little or no usage during second and third shifts, but is showing some here (in green).
2. Erratic usage patterns from week to week – see red blocks in Week 2.

**Action:**

1. Install sensors to detect source of off-hours consumption.
2. Revise scheduling to reduce usage spikes during Peak Hours.

**Customer savings potential:** $65,000
5.2 Benchmarking Devices or Lines

Ranking cookers according to the amount of energy required to produce 100 lb. of product

- **Observations:** This report indicates significant disparity among cookers in a food preparation facility. The least-efficient cooker uses 10x the energy of the most efficient cooker to produce the same amount of finished product.

- **Action:** Calculate savings to replace least effective units

- **Customer savings potential:** $172,000 per year for nine least efficient units
5.3 Financial Management

Calculations of simple payback and IRR for investment in various energy reduction technologies. Measurement and Verification – for new investments in energy-saving equipment or technologies.

- **Observations:** Benchmarked All 4 Bag Houses. Motor #1 Consumes Almost 2X Energy Compared to Other Motors.
- **Action:** Fix, Upgrade or Leave Alone?
- **Customer savings potential:** 100,000 kWh +
5.4 Multi-Variable Analysis

A powerful tool for overlaying multiple variables on a graph. In this case, compressor #2 normally handles the base-load, while the 75hp back-up compressor is the most efficient. Using the back-up compressor for a week instead of compressor #2 reduced energy-use by about 50%.

- **Observations**: Backup Compressor produced at the same level using 50% less kWh.
- **Action**: Overlaid Production Schedules & Verified Data with Facility Engineers.
- **Customer savings potential**: 432,120 kWh / Year ($43,212)
5.5 Equipment Failure Alert and Prevention

A failing motor will typically begin to draw more power for a while before it fails completely. If your alert is set 5% above or below ‘normal’ power draw, it can give you early-warning of developing problems in time to fix them before disaster strikes.

- **Observation:** At 04:50 in the morning the Purified Water Circulation Pump Tripped, dropping the power consumed by the system below the configured ‘Alert’ level.
- **Action:** The ‘Alert’ level triggered an automatic e-mail to be sent, as well as SMS text message.
6.0 Pricing

The **SiteWatch Pilot Program** is installed in your facility with no upfront cost: the economic model is Monitoring-as-a-Service (MaaS):

- No upfront payment
- A modest monthly charge based on the installed hardware
- 24-month contract with mutually agreed performance goals

With no upfront cost, capital budgeting is not required, and the entire system can be funded out of the Operating Budget.

A typical Pilot Program comprises:

- Strategy and Scoping by our Engineering Team
- 50 sensors and 4-5 bridges as required
- Installation Supervision by our Engineering Team
- Training of Client Personnel
- 24 months of Technical Support
- Ongoing oversight and recommendations from our Engineering Team

Based on the configuration above, the monthly fee is less than $800 per month. At the conclusion of the initial 24-month term, the fees drop below $450 per month.

**Call Us Today for a No-Obligation Conversation**

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