

# Get a grip on energy costs.



## Effectively manage utility consumption and emissions with PUMA online monitoring tool.

### Managing Utilities - Consumption, Costs and Emissions

Electricity, fuel and water consumption can represent a substantial portion of an organization's operating costs. Left unchecked, utility costs can threaten financial health and eat away at profits - not to mention the environmental impact of Greenhouse Gas (GHG) emissions from excessive utility use. Energy Management is the process of minimizing utility consumption while maintaining optimal occupant comfort in buildings, and production rates in industry. Since "you can't manage what you don't measure," the monitoring and analysis of utility consumption and GHG emissions data is critical to any effective energy management program.

### What is Utility Accounting?

Also known as Energy Accounting or MT&R (Monitoring, Targeting and Reporting), Utility Accounting is a method of actively measuring and analyzing energy and utility consumption data on a regular basis, and using that information to inform and direct energy management efforts. At Prism, we know that energy and utilities are far from fixed expenses. Rather, they are variable costs over which organizations have a significant degree of control. Utility Accounting is a key tool in exercising that control.

### What is PUMA and what can it do for your organization?

PUMA (Prism Utility Monitoring & Analysis) is a proprietary Web-based Utility Accounting program, developed by Prism for its clients. Over the course of our 20-year history, we have seen far too many organizations consuming more energy and utilities than necessary because of the time and resource commitment required to maintain an effective Utility Accounting system. If they had a system in place at all, the information collected and presented often failed to effectively "tell the energy management story" to decision makers. With this in mind, we developed a system that is cost-effective, easy-to-use and which delivers clear, customized reports. PUMA also allows clients to receive energy accounting data and analysis on-line, 24/7 with no costly software required (As PUMA is an on-demand, "software as a service" program hosted on our own web-servers, no software installation or programming is necessary - an internet connection is all you need). Also, PUMA helps you interpret your most current data available to identify and correct problems sooner.

### Manage your utilities & GHG emissions.

Online Software as a Service.

**Benchmarking:** Track Utilities, Compare Sites, Consolidate Accounts

**Establish Baselines:** Regression Modeling, Multi variable Analysis

**Determine Savings:** Weather Normalization, Baseline Adjustments, CUSUM

**Monitoring and Reporting:** Regular feedback, Customizable Reports, Personalized Dashboard, Estimate budgets, Smarttool Upload

## PUMA's many features and benefits allow your organization to:

1. Overview year-to-date performance at a glance through a customizable dashboard.
2. Clearly identify utility spending and savings among multiple sites.
3. Establish target relationships, compare actual vs. target consumption, identify consumption irregularities (e.g. from leaks or equipment failure) in a given period or account, investigate and take action where necessary.
4. Analyze the drivers (weather, occupancy, time of year) and verify the "real savings" from retrofits or energy initiatives, by adjusting for weather or changes in production.
5. Establish an appropriate energy performance model (baseline) using linear regression.
6. Prioritize energy projects by identifying least efficient facilities.
7. Use innovative statistical tools like CUSUM analysis to identify changes in performance.
8. Easily generate customized reports (e.g. individual account/consolidated reports for groups of accounts, total and per unit area energy consumption, emission and cost, as well as various comparison reports for benchmarking and ranking sites or meters, graphical and tabular report options available in HTML, PDF and Excel, all with user-defined report formats and periods (e.g. monthly, quarterly, annual)).
9. Use custom fiscal calendars.
10. Motivate staff and management to increase their energy management efforts by providing feedback on the results of energy initiatives.
11. Budget more accurately based on forecasted levels of energy use.
12. Become "energy-savvy" and better able to shop for lower utility prices.
13. Evaluate the environmental impact of operations and report on emissions.
14. Fulfill regulated reporting requirements efficiently and effectively by communicating your needs to the PUMA development team (e.g. BC Government's SMARTTool upload spreadsheet is available on PUMA generated with your data).

## Why should you trust PUMA?

PUMA is supported by the extensive know-how of Prism Engineering, with its over 20 years of ongoing experience in energy management projects involving the regular use of Utility Accounting (including CUSUM analysis), and more than 10 staff members with in-depth knowledge of PUMA. The database system with which PUMA is integrated, has been used by facility managers, energy managers and consultants, performance contractors and energy engineers at universities, colleges, school districts, credit unions, corporations, and provincial and federal government agencies. Our client list includes BC Housing, British Columbia Institute of Technology, Department of Fisheries, Vancouver Island University, Langara College, University of Fraser Valley, City of North Vancouver, and VanCity Savings Credit Union, among many others.

## How much can you save by using PUMA?

We conservatively estimate that PUMA can save you between 4% and 6% on your utility costs. While results vary, several PUMA users have identified sufficient savings in their first months of using the program to cover its cost for the entire year.

## More than mere measurement.

PUMA helps to continuously improve upon your energy management program through the energy information feedback loop.

Through analysis, PUMA turns collected DATA into highly useful INFORMATION that can be acted on to produce energy saving RESULTS - The measurement of which leads to new DATA. And the Loop begins again.



## How can you learn more about PUMA?

To receive a customized proposal and arrange a personal demonstration of the program, please contact Prism Engineering at:

**604-298-4858** or [info@prismengineering.com](mailto:info@prismengineering.com)

[www.prismengineering.com](http://www.prismengineering.com)



*saving you energy*