

Overview

Whether you operate a commercial office building or campus, an industrial plant, a retail chain or shopping mall, an educational or healthcare facility, Vykon Energy Suite gives you tools to directly impact your bottom line.

Vykon Energy Suite® (VES) is an applications suite designed to help manage energy and facilities. Built on the Niagara Framework®, VES can gather data from diverse systems including utility meters, building automation systems, and mechanical & electrical systems, as it supports all common protocols including Modbus, BACnet, OPC, and LonWorks. In addition, users can import data from a variety of sources including CSV, HTML, XML, SQL and Oracle. There is no limit to the number of points that can be monitored. Beyond data gathering, VES provides building operators with a window into the energy usage across the portfolio with a web-based reporting suite.

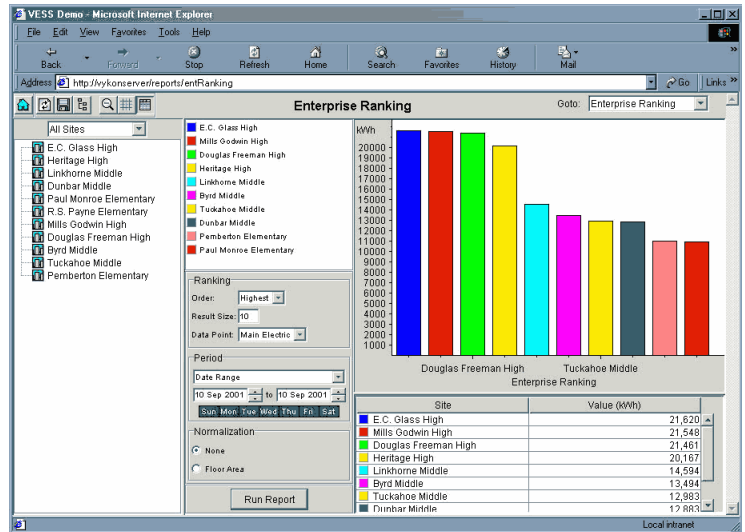
Reports

Two types of VES points can be licensed:

- Data points
- Meter points

Licensing data points allows the user to manipulate any type of data sets imported via Niagara such as temperature, electricity consumption, water usage etc. in order to analyse usage. Licensing meter points enables analysis of utility costs and is required for use of the cost reports such as Bill Reconciliation and What-if Analysis. Points can be re-used; by deleting the records imported from Niagara, and then re-allocating the point(s) to other parameters.

Energy Suite DATA SHEET



Features

- Easy to use, intuitive user interface
- Compare energy costs across large sites or multiple locations
- Access over the Internet / Intranet with a standard web browser
- Fast data processing, so even large reports display quickly
- Dynamic profiling allows for transitioning between reports without redefining set parameters
- Graphical zoom for more in-depth analysis
- Allows for aggregation of energy data “on the fly”
- Customisable Energy Portal Page and HTML frame support enables partners to develop own web reporting service
- Extensive data import capabilities allows non-Niagara sourced data to be analysed
- Localisation support provides quick translation into several languages
- Meets International Performance Measurement and Verification Protocol (IPMVP) guidelines
- Can normalise data according to any parameter

Applications

VES offers extensive reporting flexibility, allowing users to profile any data point over any period of time. Users can trend and analyse energy, temperatures, production, and other site data. Data can be normalised against various factors, and the regression analysis feature enables correlation of parameters. VES is fully browser-based and intuitive to use, making it easy to get the information when you need it, where you need it.

VES utilises a robust database which enables complex, multi-faceted computations to be made very rapidly. Hundreds of thousands of records from years of data can be presented in web-based reports within seconds.

VES Reports

Aggregation Analysis – Computes consumption and demand along with load factor for a point or group of points.

Average Daily Profile – Displays an average 24-hour period for any day or combination of days.

Enterprise Ranking – Ranks meters in the enterprise to identify the most and least efficient buildings.

Equipment Operation – Displays runtime and runtime percentage for digital points.

Exceptions – Allows users to compare data values versus a baseline or against a defined range of values.

Correlation – Performs statistical analysis to determine correlations, standard deviations, slope, regression line, and mean.

Point Trending – Enables graphical display of multiple data points, and reference to historical baseline data.

Spectrum Summary – Utilises pattern recognition to quickly identify anomalies with inconsistent patterns indicating a need for more detailed analysis.

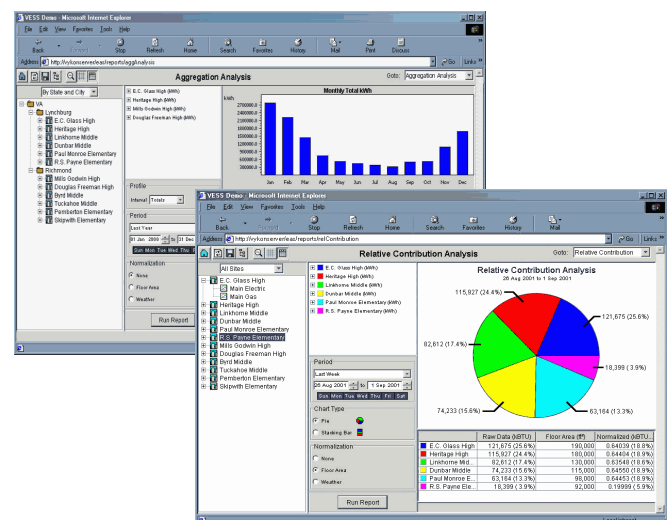
Functional Description

Energy Benefits

Users can analyse consumption, demand, and compute load factor with a click of the mouse. Meters can be aggregated and disaggregated on the fly to determine how underlying meters affect the total usage. VES allows different commodities to be converted to a common measurement unit to aggregate and compare dissimilar energy types. In addition to the flexible reporting capabilities, the reports normalise potentially confounding variables such as weather and floor area to see what energy would have been under “normal” circumstances. With the comprehensive base-lining features, users can compare energy usage against historical levels, enabling users to track the results of their conservation efforts.

Enterprise Benefits

VES provides sophisticated facility reporting to analyse production information, temperatures, chilled water, equipment status, and more. Users can determine correlations and perform other statistical analysis on buildings, equipment, and energy use. The exception report allows users to determine anomalies by comparing data values against a baseline or versus a user defined range. The equipment operation report allows users to compare runtime with runtime percentage information. VES provides a comprehensive M&V tool that meets International Performance Measurement and Verification Protocol (IPMVP) guidelines. The robust reporting capabilities make it the perfect tool for commissioning buildings and equipment.



Cost Reports

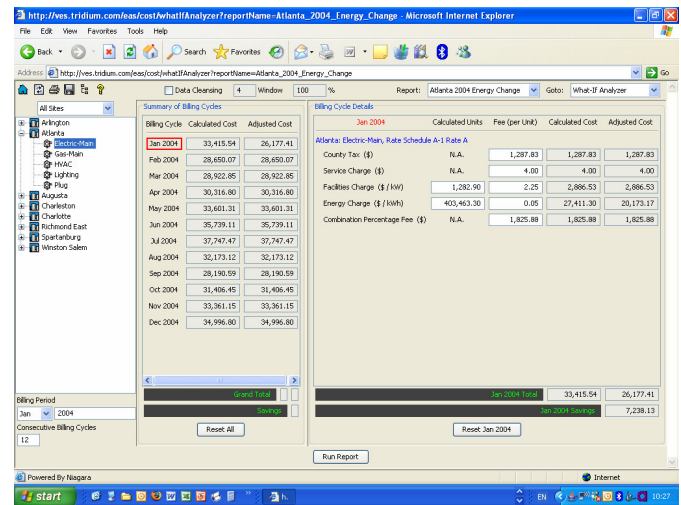
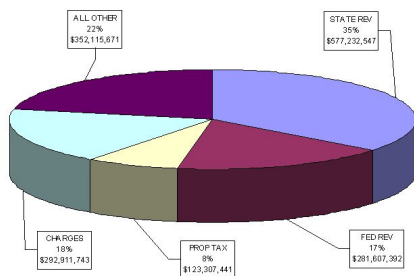
The VES cost reports provide a web-based reporting tool that takes the guesswork out of managing energy. Users can compare energy costs based on metered interval data and applicable rate structures so as to benchmark various sites, identify inefficiencies, implement changes, and measure results. VES empowers an organisation to proactively manage budgets, make accurate cost projections, and reduce energy costs.

Supply-side Benefits

The cost reports within VES simplify utility buying strategies. Users can compare different procurement strategies and rate structures without actually switching energy providers or rates. Energy managers can aggregate and disaggregate meters, try alternative rates, manipulate consumption and demand levels, and utilise a combination of rates on a single meter or group of meters. Users can compare actual costs to a predetermined budget with delta and variance from forecasts. The cost reports help take the risk out of energy procurement.

Demand-side Benefits

Identifying inefficiencies within or between buildings can be a daunting task. Relying on utility invoices and spreadsheets can be a monumental effort, especially when analysing multiple accounts or meters. Cost Profiler provides comprehensive capabilities through a web-browser. By analysing metered interval data, users can determine which sites have the highest costs, normalise for floor area and weather, and access "live" information. Cost Profiler helps identify and validate energy strategies at any time, from anywhere.



Features

- Access site utility cost data via any standard browser from anywhere
- Determine the effect of alternate procurement strategies without actually switching rates or providers
- Manipulate consumption levels to determine "what would happen" if efficiency projects were implemented
- Change peak demand levels and re-compute costs based on alternate peaks and consumption patterns
- Analyse the benefits of flattening loads by aggregating meters
- Works with Niagara so load shedding/shifting strategies can be implemented directly
- Comprehensive tariff coverage; Create-A-Rate™ tariff modeller can cope with any tariff structure, including complex seasonally adjusted maximum demand tariffs

Cost Reports

Invoice Reconciliation – Compare utility invoices to calculated values to identify billing errors. Users can establish a historical baseline with manually entered data from utility invoices.

Cost Contribution – Determine how meters – whether sub-meters within a building or main meters across an enterprise – contribute to the aggregate energy expense.

Cost Ranking – Rank meters to determine the most costly. Normalise data based on outside air temperature and floor area.

Budget Report - Users can enter budgets or use historically generated data, then compare against actual costs. Make projections for reporting periods before it's too late.

What-if Analyser – Enables prediction of future costs. Users can manipulate consumption patterns and demand levels to project savings from various strategies.

Rate Comparison - Analyse alternative rates and energy providers. Determine the effect of an energy strategy before you implement it!

Load Duration – Assess the likely impact of load management strategies on demand.

Rates Modeller

The foundation of Cost Profiler is Create-A-Rate™, a sophisticated rates modeller that will handle any rate type or component. Once a rate is added in Create-A-Rate, the thin client, web-based application provides fast and easy cost reporting using any standard browser. The What-If Analyser empowers the sophisticated energy manager to manipulate energy and rate variables to determine the affect on total costs, thereby determining project payback before making the investment.

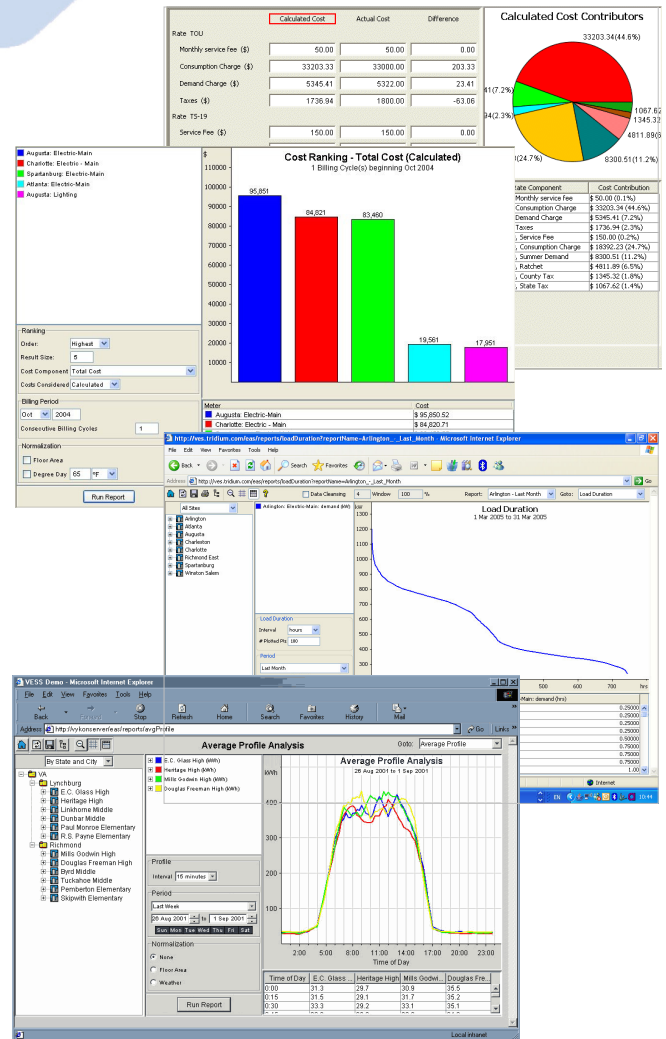
Vykon Facilities Analyst (VFA)

In order to allow partners and customers to deploy VES with a lower initial cost the VFA provides an entry level offering with 4 of the VES reports:

Point Trending, Average Profile, Equipment Operations, and Exceptions.

Additional Data points can be added but Meter points are not available with VFA.

Additional information about Tridium is available at www.tridium.com



How to Order VES

Runs on any Niagara AX Supervisor 3.0 or higher. There is also an R2 version which runs on Web Supervisor (call for details).

- First, order the VES Base, which includes 10 Data points and 2 Meter points (each Meter point also includes 2 Data points)
- Then order additional Data and/or Meter Points as required.

There are three versions of VES:

- Facilities Analyst – entry level version with 4 reports
- VES – full version with 15 reports
- VES Enterprise – full version for large applications

See price list for full details and product codes.

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