

## **EPA Launches Automated Benchmarking Initiative: Energy Service Providers Offer ENERGY STAR<sup>®</sup> Ratings to Customers**

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### **ABSTRACT**

This paper will inform the AESP membership regarding the status of an EPA program that allows the EPA energy performance rating system for buildings to be delivered through third-party service providers. In addition to information on the launch of this initiative, this paper will describe how and why some of the larger and most predominant energy service providers are using this capability to attract customers and expand the breadth of their engagements. It will also profile end users and market transformation programs that exemplify a shift in the energy services paradigm so that portfolio-wide perspectives emerge as the most desirable approach for progressive customers and providers.

### **AUTOMATED BENCHMARKING INITIATIVE LAUNCHED, SEPTEMBER 2005**

In September of 2005, EPA launched an initiative through the ENERGY STAR program that invites commercial energy information and bill handling service providers to incorporate EPA's energy performance rating system into their product offerings. Because these vendors already track portfolio-wide energy usage and costs, hosting the EPA rating allows their customers to receive, automatically and over the web, monthly benchmarks for their entire built portfolios without entering any data. To date, 18 companies have participated in a two-year pilot to bring this business-to-government-to-business service to the marketplace. During this pilot program, standardized data schemas and web services protocols were utilized to successfully deliver over 100,000 ratings to customers of these participating vendors. These vendors are also ENERGY STAR partners and very motivated to integrate the EPA rating into their performance tracking environment.

Service providers that host the EPA national energy performance rating system apply the following process on a monthly basis:

1. Energy and building characteristics information, from energy bills, on-site metering, or building instrumentation is aggregated for a customer's building portfolio.
2. Monthly energy consumption and other building data required for benchmarking each building is put into an Extensible Markup Language (XML) schema and passed over the Internet via web services to EPA servers where the benchmarking calculation occurs.
3. EPA's system checks the incoming XML data for errors, calculates ratings, and posts results in XML format, along with potential ENERGY STAR label eligibility and weather normalized energy intensity, to be retrieved by the host through a web services call.
4. The host uses the data retrieved from EPA to populate the web interfaces they offer to customers, where energy and cost performance over time are tracked. Most hosts have creatively integrated the EPA rating so that performance benchmarking compliments other more conventional performance metrics.

Because the EPA rating is automatically initiated with every billing cycle under this approach, ENERGY STAR partners that have committed to benchmarking their entire portfolio do not have to enter energy data to receive new benchmarks on a monthly basis. With portfolio sizes of over 1,000 buildings, this allows large companies that could not previously take advantage of the EPA rating to fully integrate it with their existing energy management programs. For those customers that have manually entered data using Portfolio Manager, the online ENERGY STAR benchmarking and energy tracking tool, existing data can be transferred to the host for integration in their customer's account. In order for ENERGY STAR partners to apply for building-specific and organizational recognition, Portfolio Manager accounts are also set up for all customers.

The following companies offer EPA's energy performance rating and links to ENERGY STAR as a part of their commercial energy information services:

- Avista Advantage - Ed Schlect, 509-329-7602, [www.avistaadvantage.com](http://www.avistaadvantage.com), 86,645 building ratings delivered.
- Cadence Network - Mark Duffer, 513-763-3106, [www.cadencenet.com](http://www.cadencenet.com), 4,477 ratings delivered.
- Ei3 - Spencer Cramer, [scramer@ei3.com](mailto:scramer@ei3.com), [www.ei3.com](http://www.ei3.com), 2,206 ratings delivered.
- Energard - Kelly Scace, 425-881-3451, [www.energard.com](http://www.energard.com), 1,154 ratings delivered.
- Save More Resources - Renee Rodgers, 970-255-9786 x224, [www.savemorerresources.com](http://www.savemorerresources.com) , 537 ratings delivered.

These companies were motivated to add this capability as a low cost way to add an unbiased, credible, turnkey benchmark to their service, and to gain brand alignment with ENERGY STAR. Through its ENERGY STAR Buildings Partnership Program, EPA also brings more than 2,000 organizations who have committed to benchmark their building portfolios as perspective customers to these automated service providers. As energy information service companies specifically focused on large portfolio customers, these providers will market the EPA rating as a way to find, track, and recognize energy saving opportunities and successes within their customers' portfolios.

## **PORTFOLIO-WIDE INFORMATION CHANGES ENERGY SERVICES PARADIGM**

### ***ENERGY INFORMATION AND BILL HANDLING SERVICES***

Tools and services for tracking building energy cost and performance have been available in the US for decades, starting with desktop tools for watching single building energy performance over time. This initial model has migrated into control system functionality that allows a variety of performance indicators to be tracked over time and web-based tools that allow owners and managers of large portfolios of buildings to centrally track and manage performance over time for hundreds or thousands of sites. These portfolio-oriented services are becoming increasingly sophisticated, using optical scanning and direct utility or meter data feeds to improve the process of collecting and aggregating monthly energy and energy cost data. At the same time, leading nationwide portfolio owners are seeing

the direct benefits of watching their entire portfolio's performance over the web. Beyond savings in utility bill errors corrected, which can typically offers annual savings several times the cost of a bill handling service, these companies are putting portfolio-wide energy and billing information at the center of efforts to track, improve, and reward performance improvement.

### ***DEREGULATION'S AFTERMATH***

It has been a number of years since the promise of deregulation was driving utility decision making. The energy information and bill handling industry suffered as a number of utilities developed, aggressively marketed, and then abandoned performance tracking systems intended to offer a post-deregulation competitive advantage. Some customers abandoned their interest in performance tracking rather than reassemble data for a new vendor. Other customers were soured by the operational issues that plagued these utility systems that were rushed to market on unrealistically short development and testing cycles. Enough time has now passed for the surviving energy information and bill handling services to have built impressive track records for high profile national accounts.

Utilities have retrenched to focus on key accounts, which offer the least cost option for outreach per kW or amount of energy consumed. These accounts are also seen as the most desirable (yet vulnerable) should deregulation plans move forward. The result of this focus is that some utilities are interested in the concept of helping key accounts track performance across what are usually portfolios of similar buildings. This opens up the opportunity for utilities to vertically integrate towards their customers by outsourcing to existing proven vendors (since many utilities remember the challenge of bringing new tools to market). The ability to offer the ENERGY STAR rating should be an advantage as these deals continue to be considered and executed.

### ***UTILITY COST INCREASES TO OUTPACE INFLATION***

The US history of watching energy performance can be divided into three major phases: 1) first, availability issues brought to light during the early 1970s oil embargo motivated reduced consumption and conservation; 2) environmental issues such as air pollution and the potential for global warming drove efforts to encourage efficiency that would decrease environmental impacts; and, 3) recent cost spikes, price volatility, and the promise of even more dramatic increases are driving energy performance tracking. This shift to a cost focus will likely result in more companies motivated to track and improve cost performance across their entire portfolios in a consistent and methodical manner. Bill handling services should become more popular as the first defense against uncontrolled energy spending, making performance benchmarking using the EPA rating a perfect fit within these environments.

### **INDUSTRY LEADERS ARE DEFINING CUSTOMER EXPECTATIONS**

Several companies are either leading or facilitating the movement to address portfolio-wide opportunities to track energy performance and automatically provide benchmarking. The following companies are examples of how diverse this movement is and how a portfolio-view can change the definition of success for service providers.

## ***AVISTA ADVANTAGE***

AVISTA has been in the bill handling business longer than most, surviving the deregulation era and recently growing at over 30% per year. They serve over 350 clients, most well known corporate or public sector names, with over 160,000 sites served. The ratio of sites per customer gives a clear indication of how critical an automated benchmarking solution was to ENERGY STAR, as well as the possibility that sophisticated portfolio owners, those using these tracking systems, may not be inclined to respond to the single-building, capital projects model that still dominates the energy services marketplace.

AVISTA won the 2005 Partner of the Year Award from ENERGY STAR as a result of their aggressive assistance and ratings application during the pilot initiative for the automated benchmarking initiative. In 2006, they will deliver tens of thousands of ratings to their customer base, particularly grocery and hospitality, and will enjoy a distinct advantage in selling services to committed ENERGY STAR partners.

## ***SERVIDYNE***

Servidyne used the EPA rating to benchmark over 100 million square feet of buildings in 2004. They were one of the first energy service companies to understand how to leverage the ENERGY STAR offering to better serve their clients, and, as a result, have been selected as ENERGY STAR Partner of the Year for five years running.

Servidyne has been steadily moving toward the integration of web-based energy information tools to compliment its energy services engagements. They have not hesitated to market and implement services which show portfolio-wide benefits associated with eliminating operational inefficiencies. This may explain a customer base that includes many of the major property management companies. Servidyne is integrating the EPA rating into their Checkmate<sup>®</sup> web-based tool to better serve this portfolio-oriented customer base and to streamline their long standing application of benchmarking for comparative energy performance.

## ***JOHNSON CONTROLS***

Johnson Controls Inc. (JCI) has offered options for benchmarking performance for years, viewing comparative performance as critical to making decisions regarding single building upgrade investment. Their related commitment to data collection has both helped them develop benchmarking approaches and helped support customers that want a comparative view of multiple buildings.

JCI now offers a bill handling service, which is an interesting compliment to their traditional offerings. Their decision to include the EPA rating will increase their ability to assist ENERGY STAR partners in gaining recognition and will allow them to better market this new capability to potential customers that have committed to benchmarking their portfolio using the EPA rating.

## ***FOOD LION***

Food Lion has been recognized consistently by ENERGY STAR for their sustained excellence in addressing portfolio-wide performance. They have certified more than 400 of their stores as ENERGY STAR, and improved the performance of their portfolio by 33 percent over the past 3 1/2 years, proving that over 1,000 grocery stores can be simultaneously improved and that their approach to building operation can match their commitment to customers...low costs in all cases. Since 2000, Food Lion has saved 2.29 trillion BTUs, preventing 1.5 billion pounds of CO<sub>2</sub>. These facts were carefully communicated to shareholders and other stakeholders to show Food Lion's corporate social responsibility.

Food Lion's exemplary performance is, in part, due to their aggressive use of bill handling services. Food Lion assisted ENERGY STAR in moving automated benchmarking forward by being the first major national corporation to specify the EPA rating in a request for proposal for bill handling services. As a result, their relationship with AVISTA Advantage gained a new dimension that has allowed Food Lion to more easily use the EPA rating to gain recognition for their continuous performance improvements.

## ***SAVE MORE RESOURCES (SMR)***

In 2004 and 2005, Save More Resources offered the automated EPA rating to the Gresham-Barlow School District in Oregon as part of their existing utility data management program. This enabled the school district to document the fact that they raised the performance of 60% of their portfolio above the 75<sup>th</sup> percentile level recognized by ENERGY STAR and earning them the ENERGY STAR Leader Award (described below). Their attention to energy costs saved the equivalent of approximately 21 teaching positions.

Save More Resources provides two versions of its Utility Manager (UM) software. UM Server is a server based application for large organizations with hundreds of sites and UM Pro operates on Microsoft Access and MSDE to serve clients with a smaller number of sites. This range of software platforms allows SMR to serve both large multi-site retail clients as well as school districts, municipalities, and small companies who have traditionally been difficult to penetrate at the portfolio level. SMR's flexibility to work with organizations of almost any size ensures that utility data management and automated benchmarking will be increasingly utilized across all the markets served by ENERGY STAR.

## **ENERGY STAR SUPPORTS AND REWARDS PORTFOLIO-WIDE ACHIEVEMENT**

Guidance, tools, and recognition associated with organizational portfolio energy efficiency are shaping the questions building owners ask as they select options for reducing energy costs or showing corporate social responsibility. Here are some notable offerings that will increase focus on energy information and bill handling services that allow users to comparatively benchmark building performance.

## ***THE FINANCIAL VALUE CALCULATOR (FVC)***

The Financial Value Calculator (FVC) is a tool that allows service providers and portfolio owners to calculate the financial benefits associated with reducing energy use across their entire portfolio of

buildings. In addition to the conventional criteria used to evaluate energy efficiency upgrades (payback, internal rate of return, net present value), the FVC calculates the earnings per share and shareholder value equivalents of energy cost savings at a corporate level. This type of output can be very surprising for C-level decision makers that have viewed energy costs as fixed or insignificant. Being able to speak in terms of shareholder and stakeholder value is also an excellent way to frame the value of engagements that extend beyond single building upgrade benefits. Two facts drive interest in this tool:

- Publicly held corporations increasingly view energy as an opportunity to show both operational and environmental excellence. Setting goals and reporting achievements in terms that stakeholders understand can get the attention of the board room or the financial media.
- Aggressive and progressive service providers are interested in working with clients that have many buildings, rather than selling and delivering single building projects. Being able to speak in terms of portfolio-wide opportunity is the only way to achieve larger, longer term engagements that involve many buildings.

In both cases, the unique analytical approach offered by the FVC can change the nature of the discussion associated with energy savings so that portfolio-wide performance tracking and benchmarking become essential assets in achieving and documenting savings.

### ***ENERGY STAR LEADERS***

EPA designates ENERGY STAR Leaders based on documented improvement in EPA's energy performance rating system. Partners achieving energy efficiency improvements of 10, 20, or 30 points above their own organization-wide baseline, or an average rating of 75 or better for their entire portfolio, qualify for Leaders recognition. For large portfolios, both setting a performance baseline and tracking a portfolio of buildings as their ratings improve over time can only be done effectively using automated benchmarking services.

EPA highlights on the ENERGY STAR Web site as they qualify for each improvement milestone. In 2005, EPA recognized 18 organizations as ENERGY STAR Leaders for achieving significant energy savings and leading their fields in responding to the agency's ENERGY STAR Building Challenge.

### ***THE ENERGY STAR CHALLENGE***

The ENERGY STAR Challenge calls on businesses and institutions across the country to take the right steps to identify the many buildings where financially attractive improvements can reduce energy use by 10% or more, and to make the improvements now through proven methods such as low-cost building tune-ups, lighting upgrades, and replacement of old equipment. EPA estimates that if each building owner took on this challenge, by 2015 Americans would reduce greenhouse gas emissions by more than 20 MMTCE, equivalent to the emissions from 15 million vehicles, while saving about \$10 billion.

The ENERGY STAR Challenge is promoting three important actions:

- Use the EPA energy performance rating system to benchmark and track building performance.

- Establish efficiency improvement goals. An efficiency improvement goal of 10% or greater should be established for a portfolio of buildings as a whole or for as many buildings as possible.
- Make improvements. EPA recognizes businesses and organizations that make improvements to their buildings and share their results.

Obviously, energy information and bill handling services which include the EPA rating facilitate the most efficient and effective options for participating in the ENERGY STAR Challenge.

### ***US GREEN BUILDINGS COUNCIL***

The success of LEED for New Construction has led to LEED for Existing Buildings, which, for motivated companies, raises the question of how to address environmental issues across an entire portfolio. At the request of its members, US Green Building Council is developing an offering for organizational portfolios. The ENERGY STAR rating has become an important metric for LEED initiatives, and energy remains the aspect of a “green” project that, if handled carefully, provides “investment grade” opportunities and a story of energy cost savings and pollution prevention that gets more dramatic every year. The placement of the rating in commercial tracking environments that support portfolio-wide decision making will allow organizations that commit to portfolio-wide “green” ideals to ensure that energy performance goals are realistic and achieved over time.

### **EXPECTATIONS FOR 2006**

Having delivered over 100,000 ratings during the pilot for the automated benchmarking initiative, EPA has high hopes as the both number of hosts and their customers using this services grows. It is also anticipated that more traditional energy service providers will see the value of teaming with energy information or bill handling providers so that their services can be sold at the portfolio level. This shift will correspond to an increase in large national portfolio holders that are seeking the type of consistent, portfolio-wide solutions that are gaining recognition from ENERGY STAR.