ENERGY STAR® Has New Resources to Help Manufacturers Achieve High Energy Performance

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ABSTRACT

From personal electronic devices to homes and office buildings, ENERGY STAR® is a recognized symbol of high quality energy performance which enables consumers, homebuyers, and businesses to make informed energy decisions. Now, the U.S. Environmental Protection Agency (EPA), within the construct of ENERGY STAR, is extending the benefits to manufacturers in new and meaningful ways. Through the development of tools and technical resources specifically targeting manufacturing companies, ENERGY STAR provides a means for these businesses to understand and achieve excellence in energy performance by reinforcing the link between energy, financial, and environmental performance.

Discussed are the enhanced program offerings as well as two new tools under development that illustrate the impact of energy consumption on financial performance. The first tool permits an assessment of current energy performance, or benchmarks it, at a plant level normalizing for such variables as product type, annual plant hours, plant capacity, annual product value, number of employees, and location. Use of this tool and the information it provides as a means to assess, track and provide targets for plant energy performance is examined. The second tool seeks to elevate the consideration of energy use to an executive level within an organization by calculating financial energy indices specific to individual companies and industrial sectors. These indices relate a business' energy use to such factors as net operating income, value of sales, net income, and so forth. Corporate executives, Wall Street analysts, and energy managers are the intended users of these ratios. Improvements to the ENERGY STAR program include greater networking among participants in the partnership and more opportunities for recognition of their achievements.

With the new tools and program enhancements, manufacturers are equipped with valuable and credible information from which more informed and progressive energy performance decisions can be made. Further, these businesses, now, may do their part to demonstrate that protection of the environment is good for business.

ENERGY STAR - Not Just for Products Anymore

ENERGY STAR, a symbol of energy efficiency, is a unique partnership between industry and government. From personal electronic devices to major appliances and even homes and commercial buildings, the ENERGY STAR label is a recognized symbol of high quality energy performance that enables consumers, homebuyers, and businesses to make informed energy decisions.

A number of major manufacturers are the very makers of electronic products that bear the ENERGY STAR label. But, do manufacturers realize that ENERGY STAR is a means for

reinforcing the link between energy, financial, and environmental performance within their own operations? Considering that many companies experience tight profit margins, do they understand that it can help them to be more competitive and profitable? They should. For several years now, ENERGY STAR has offered a variety of ways for them to reinforce this link. One prominent means is high-quality, energy-efficient products and equipment that save money and protect the environment. Use of this equipment, in place of that which is less efficient, is a good investment - one that can outperform other types of common investments.

Recognizing that a great deal of energy is used inefficiently in commercial and industrial building spaces and industrial operations, ENERGY STAR encourages private companies to pursue cost-effective, energy performance measures in their buildings and industrial operations by implementing a proven energy management strategy. This strategy provides organizations an ordered approach to ensure energy is managed logically, resources are allocated, and a system for evaluating improvement is maintained. Inclusive of best management principles and practices that are known and used by industry, the strategy encourages companies to make an organizational commitment to the continuous improvement of their energy performance. Fundamental to realizing this commitment is the design of a central corporate policy for energy performance. This policy is best supported if a company's executive officers are involved in making the commitment. From the policy comes the appointment of an energy director with the authority to make energy performance a reality for the company. Likely, a team of other professionals within the organization will be needed to develop a workable plan to implement the strategy. Corporate issuance and support of the policy helps to make sure the human and monetary resources are allocated for accomplishing goals.

The next step in the strategy is to make a determination of the organization's current energy performance. ENERGY STAR encourages the measurement, tracking and benchmarking of this performance and offers tools for doing so. Understanding its energy-using operations, an organization is able to take the steps to develop and implement a plan to improve energy performance in all of its facilities and operations. ENERGY STAR encourages organizations to make use of its tools and indices in implementing the plan by providing access to all through the Internet. These tools directly support the role of energy management.

If these principles seem familiar, they should. Good management of energy is no different from that of managing quality and environmental systems. The basic principles of the International Organization for Standardization (ISO) are familiar to industry and benefit small and large companies alike.

Companies are encouraged to communicate their success within and outside the organization. Effective communication systems reinforce the value of good energy management and the high performance that results therefrom. ENERGY STAR offers support in communicating these successes. In review, the strategic steps to energy performance include:

* an organizational commitment to continuous improvement of energy performance,
* measurement, tracking and benchmarking of energy,
* development and implementation of a plan to improve performance, and,
* education of the staff and public about the partnership with ENERGY STAR.

New Tools Encourage Better Energy Performance for Manufacturers

The strategy promoted by ENERGY STAR is made stronger by specific management tools. To encourage energy performance across the different operations of a manufacturing company, ENERGY STAR offers tools for benchmarking energy performance in office spaces and is developing similar ones for plant energy. Benchmarking empowers a company to understand the baseline energy needs of its facilities and operations, set goals for future energy performance, and assists in prioritizing how and where improvements can be made.

ENERGY STAR provides energy performance targets that companies can strive to meet in their benchmarking efforts. For office spaces, building energy consumption is assessed on a scale of 1 to 100. Office facilities that score 75 or greater and maintain an indoor environment that conforms to industry standards can qualify for the ENERGY STAR label. Labeled buildings are among the top 25 percent nationwide in terms of energy performance.

Targets for plant energy performance are now in development. These benchmarks will be based on similar concepts to those used for office spaces. Considering variables such as product type, annual plant hours, plant capacity, location, and so forth, EPA will calculate a benchmark that is reflective of an achievable level of energy performance in the United States. These benchmarks will be assigned by industry sector as defined at a four digit standard industrial classification (SIC). As with the buildings benchmarks, the plant benchmarking tool will be available through an internet-based medium.

In addition to plant energy benchmarks, exploratory work is underway to define best practice plants based on an assessment of an industrial sector's overall productivity. Such benchmarking will permit differentiation within an industry based on plant sizes, levels of employment, material inputs, and output mixes. This productivity-based benchmark will inform corporate managers about best practice energy performance and other factors included within the productivity measure.

Benchmarking energy performance is one way of assessing improvement in an organization. Such a benchmark is most relevant to energy and plant managers in the operation of an energy program. ENERGY STAR seeks to elevate energy awareness to the executive levels of a company. Certainly, the initial commitment of an executive officer to continuous improvement in energy performance is vital; however, maintaining that officer's attention to energy management requires commitment to organizational review and assessment. ENERGY STAR offers another form of benchmarking relevant to an executive's concerns, energy performance indices. The indices are offered for industrial sectors based on a four digit SIC code. These indices are reflective of energy purchases for a sector compared to such denominators as net operating income, value of sales, and so forth. The energy performance indices enable a company to determine how its business is performing on a quarterly basis and where it individually ranks in relation to the industry. The energy indices provide new insight to corporate managers on the value of energy performance and create a bridge between energy managers and the corporate managers by providing performance measures based on financial figures that are commonly tracked.

Improving upon ENERGY STAR's Other Successful Elements - Networking and Recognition

Repeatedly, EPA is told that one value of partnership programs is the networking opportunity these programs offer to participants. ENERGY STAR is expanding the occasions for such networking in the upcoming year. Both industrial sector-based and cross-sectoral focuses will be offered. These networking meetings will provide a supportive setting for companies to gain new information, share strategies for success, and brainstorm problems encountered in their efforts to improve energy performance. In the case of sector-based meetings, additional technical support is planned in the form of sector studies that address specific energy reduction techniques available to the sector along with cost-related information for such opportunities.

A job well done deserves praise and recognition. EPA appreciates this and is expanding the number of opportunities for reward. As a partnership of industry and government, the opportunity for EPA to applaud the positive steps a partner company makes is an exciting prospect. The first and foremost form of recognition is the label for buildings. As with the label for products, the building label signifies to customers, clients, and the public that an organization receiving the award is concerned about its own energy performance and the environment and has taken steps to improve each. Further recognition is offered in the form of the annual ENERGY STAR awards. Work is now underway to determine additional forms of recognition that would benefit partners.

The Ranks of ENERGY STAR

Within the industrial sector, well over 600 companies have taken the step of becoming partners. Included are organizations representing such sectors as food, chemicals, pharmaceuticals, steel, auto and aircraft assembly, petroleum refining, apparel, cement, pulp and paper, electronics and semiconductors. These partner companies are world-class in their commitment to protect the environment and effectively manage the energy they use. They understand the benefit of energy performance to their businesses and take the steps to ensure that their operations continue to perform as efficiently as possible all the while shining as partners with ENERGY STAR. EPA applauds the efforts these leaders make and welcomes any new companies to join the ranks of ENERGY STAR. Companies may find additional information about ENERGY STAR on the web site at www.energystar.gov.

References

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