“Business Drivers and the EnMS” Resource Sheet

*Use this Resource Sheet to understand the different types of business drivers. Think about energy, energy management and improved energy performance within the context of your organization and its current and future business priorities and needs. Capture the potential benefits and improvements and use them to develop the business case for EnMS implementation at your organization.*

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| **FINANCIAL BUSINESS DRIVERS and the EnMS** |
| Financial drivers are typically the key drivers for business success. The impact on financial drivers by the energy management system (EnMS) and improved efficiency will usually play a large role in system acceptance. These drivers should be identified and quantified to the extent possible to determine the potential impact on the organization’s financial health. Impacts can be verified or more accurately quantified during data collection and assessment activities.  Some examples of financial drivers related to energy and energy management issues include:   * Energy savings go right to the bottom line. Money that is not spent on energy is money that is kept in the business for other uses. Energy reductions lower operating costs and can reduce maintenance costs. Conversely, poor energy performance steals capital that could be spent on other business needs. * Energy reductions promote emissions reductions. Emission reductions promote reduced compliance requirements. Reduced compliance requirements promote reduced fees, penalties and reporting; and reduce the amount spent on chemicals, environmental controls, etc. * Financing, rebates and tax incentives are available for some improvements. * Energy management system openness reduces the risk profile for lenders. Lenders can be more favorable toward organizations that successfully utilize an energy management system and report on successes of improved conditions and reduced costs. * There is a positive impact on shareholder value. As energy reductions improve the bottom line, the company value improves, which in turn increases shareholder value. * As energy efficiency improves, costs are reduced and the organization becomes more competitive. * Reduced emissions from reduced consumption can allow an organization to participate in cap and trade for financial gain. * There are several risk factors that can be reduced by utilizing an energy management system.   + Energy price increases – As energy prices rise, there is less impact with reduced energy consumption.   + Greenhouse gas emission reductions – More emphasis is being placed on environmental impacts, and reduced emission levels will reduce these impacts. * Negative impacts on cash flow and business value – Increased utility prices and requirements to reduce emission levels will require more capital and decrease the value of the business. |
| **LEGAL BUSINESS DRIVERS and the EnMS** |
| Many of the energy issues that can impact legal business drivers are closely linked to environmental issues. Consequently, an effective EnMS can mitigate potential legal burdens associated with environmental issues. An EnMS helps an organization identify and coordinate the relevant legal issues and address compliance requirements.  Examples of legal issues relative to energy use and consumption that are currently or soon could be in effect include:   * Laws requiring the construction and operation of more energy efficient facilities are becoming more common. Building codes are incorporating energy efficiency requirements. * Government organizations are setting guidelines for energy performance. For example, the Energy Star Guidelines set by the U.S. Environmental Protection Agency and the Department of Energy. See <http://www.energystar.gov/> * EPA has issued the Final Mandatory Reporting of Greenhouse Gases Rule, a national registry that requires large emitters of heat-trapping gases to collect their greenhouse-gas data. Other rules are proposed. See <http://www.epa.gov/climatechange/emissions/ghgrulemaking.html> * Minimum energy performance standards (MEPS) that limit the maximum amount of energy that can be used by a product are mandatory for some products in some countries. * Trade association standards e.g. “ASHRAE Standard 90.1 -- Energy Standard for Buildings Except Low-Rise Residential Buildings” which provide requirements for energy efficient design of buildings. See <https://www.ashrae.org/resources--publications/bookstore/standard-90-1> * Various government regulations such as the Energy Independence and Security Act of 2007 and the Energy Policy Act of 2005 which provide various provisions, requirements and incentives relative to energy use and efficiency. See <http://www1.eere.energy.gov/femp/regulations/eisa.html> and <http://www.epa.gov/oust/fedlaws/publ_109-058.pdf>      * Energy taxes are frequently discussed and could be a future consideration. * Rules, regulations and policies for renewable energy that can have a positive or negative impact on company requirements are in place or proposed in various places. * Under International Climate Change Agreements, nations commit to reduction of greenhouse gases which has impacts on industry. Many communities are also adopting Climate Change Agreements. * The U.S. Environmental Protection Agency Clean Air Act establishes limits for air pollutants. See <http://www.epa.gov/air/caa/> * Cap and trade regulations that cap emission levels and allow more efficient companies to sell their credits to higher emitters could be an issue for companies. This is also a financial driver. See <http://www.epa.gov/captrade/basic-info.html> |
| **SOCIAL BUSINESS DRIVERS and the EnMS** |
| Social pressures can be as daunting as financial and legal issues for an organization. An EnMS can help address social issues as well as provide evidence of an organization’s efforts to do so. Many public concerns are related to environmental issues, but there are others that are important. Some of these may include:   * Climate change (e.g. emissions/carbon footprint/greenhouse gases) * Alternative energies (e.g. solar, wind, thermal, hydro, nuclear, biomass) * Natural resource depletion * Environmental stewardship * Energy conservation * Energy waste * Ethics, values, principles * Triple Bottom Line * Sustainability   Pressures can be exerted by local communities, trade associations, environmental groups, government entities and employees, just to name a few. An organization should identify the relevant issues and use their management system processes to minimize negative impacts and communicate the positive efforts being made to address them. |
| **EXTERNAL BUSINESS DRIVERS and the EnMS** |
| External drivers are typically outside the organization’s control. There are many external groups or stakeholders that could have an interest in the organization’s energy activities and help drive the organization’s direction. Their interest could be reflected through financial, legal or social drivers. The external groups that have or can have an impact on the organization can be identified, and appropriate procedures and communication channels installed to address the needs and interests of these groups relative to energy use and efficiency. An EnMS can help with addressing these needs and interests.  Some of the influencing groups could be:  **Stockholders** – Obviously, stockholders are interested in the profitability of the organization and in measures that reduce costs. They are also interested in the business operating legally and addressing relevant social issues, and they expect to be provided a measure of assurance of the business’ long term viability.  **Lenders** – Lenders want their money back with interest. An EnMS is a tool for the organization to address continual improvement thereby improving profits and efficiencies and enhancing long term existence.  **Customers** – Customers want the best return for their dollar. Reducing costs and improving efficiencies allow products and services to be offered at the lowest price with less waste, thus providing the best value to the customer and improving the organization’s competitiveness. The continual improvement component of an EnMS can help an organization improve efficiencies and reduce costs.  **Suppliers** – An efficient supply chain is important to competitiveness. An important component of supplier selection and maintenance is a commitment to continual improvement including energy efficiency. An EnMS can help with supplier selection. The presence of an EnMS would be one indication of a supplier’s commitment to energy efficiency improvement.  **Public** –The public in general as well as many public groups can be drivers for an organization’s operation. Both can provide pressure relative to emissions reduction, resource conservation, alternative fuels, and the like. Public utilities can impose requirements that must be addressed. An EnMS can help an organization address these issues and provide evidence of its efforts. Examples of public interested parties are:   * Neighbors * Community * Utilities * Schools * Environmental groups * Trade associations * Development organizations   **Government** – An EnMS can help an organization address existing regulations and plan for future government regulations. It provides the system to help the organization identify and address relevant government codes and laws. Some examples of governmental interested parties are:   * U.S. Department of Energy * U.S. Environmental Protection Agency * Department of Natural Resources * Building code enforcement offices * State Energy Office * International regulatory agencies |
| **INTERNAL BUSINESS DRIVERS and the EnMS** |
| There are also internal business drivers that impact an organization’s strategy and drive its business needs. Internal drivers are generally controlled by the organization and reflect the need of an internal stakeholder, but can be a response to an external driver. These drivers are identified to address internal needs and interests relative to energy use and efficiency.  Relevant internal drivers can include:  **Employee satisfaction** – Employees want to do a good job and operate in a good working environment. Improving energy efficiency makes the process more efficient and can result in an improved operating environment by reducing heat, exhaust and waste levels.  **Productivity** – As operations are improved and less energy is required, they become more productive. Productivity is output over input; as output increases or input decreases, productivity is improved. An improved working environment promotes higher employee morale, increased output relative to input, and improved operational control. Examples of energy efficiency changes that can result in improved productivity include:   * Efficient energy procurement practices * Improved capacity utilization * Process and equipment efficiency improvement * Fuel burning and utility equipment efficiency improvement * Combined heat and power * Waste heat recovery * Automated control systems * Monitoring equipment improvement * Reduced backup with better reliability * Improved employee environment   **Technology** – Advanced technologies are typically more energy efficient and may improve a process or operation. In addition to improving efficiency, advanced technologies can also result in improved operational flexibility and better control.  **Maintenance** – Regular maintenance is critical to maintaining equipment operating efficiency, which results in peak energy efficiency. It also promotes improved reliability, better schedule adherence, better utilization, and extended equipment life.  **Organization development goals** – Strategic goals by the organization to be the best, the first, the most efficient, the biggest producer, etc. drive the organization to include energy efficiency as a component of their management system. Financial, legal and social drivers all play into the organizational goals and the role energy efficiency plays in addressing those drivers should be addressed.  Identify the relevant internal drivers and determine how they interface with the organization’s energy management and energy performance. Use this information to support the business case for EnMS implementation. |