



TenStep Supplemental Paper

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Eco-Efficiency - The Basics

Eco-efficiency advocates the creation of goods and services while reducing the resource consumption, waste and pollution associated with them. The World Business Council for Sustainable Development (WBCSD) describes eco-efficiency as a management philosophy of doing more with less. In practice, eco-efficiency is achieved through the pursuit of three core objectives:

1. Increasing product or service value
2. Reducing the consumption of resources
3. Reducing the impact on nature

Implementing eco-efficiency

Organizations are implementing eco-efficiency at the following levels:

- **Eco-efficient processes.** Employment of eco-efficient processes can help organizations reduce the cost of production and operation. They also minimize consumption of raw materials, waste generation and pollution. Existing processes can be re-engineered to improve their eco-efficiency.
- **Recycling by-products.** Cooperation between companies provides them the opportunity to create value from their own waste products. A by-product that appears useless to one company could be a valuable resource for another. Synergizing by-products thus leads to zero-waste while offering related cost benefits.
- **Creating innovative products.** By implementing better ecological design rules, one can create products with improved functionality. Such products are generally cheaper to produce, simpler in design and easier to recycle. Eco-innovation not only helps save money, but also creates new and more profitable business opportunities.
- **Eco-efficient markets.** Today, customer needs are being met in a more material and energy-intensive way, but being eco-efficient can help companies cater to customer needs more effectively.

Success factors for eco-efficiency include:

- Reduce material consumption in goods produced and services rendered.
- Reduce energy consumption in goods.
- Minimize toxic waste generation.
- Increase recyclability of materials.
- Increase sustainable use of renewable resources.
- Maximize service intensity of goods.



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Reaping the Benefits

Eco-efficiency offers a number of practical benefits for businesses, including:

- Reduced costs through more efficient use of energy and materials
- Reduced risk and liability by "designing out" the need for toxic substances
- Increased revenue by developing innovative products and increasing market share
- Enhanced brand image through marketing and communicating your improvement efforts
- Increased productivity and employee morale through closer alignment of company values with employees' personal values
- Improved environmental performance by reducing toxic emissions and increasing the recovery and reuse of "waste" material

A commitment to eco-efficiency throughout the various divisions, departments and functions of one's business is required to achieve these benefits. The return on investment is achievable benefits in all areas of business:

- **Management.** Viewing your company's activities through an eco-efficient lens can reveal hidden costs and unexploited opportunities. Better information supports better decisions, which can lead to a competitive advantage in the marketplace.
- **Design and development.** Reducing the material and energy intensity required by your products and services and increasing product durability results in cost savings for one's business and customers.
- **Purchasing.** Working with other business functions to reduce hazardous and/or toxic materials used in processes and facilities reduces costs associated with employee health and safety and waste disposal.
- **Accounting.** Tracking the costs and benefits of managing environmental impacts and improvements results in more informed decision-making and strategic planning.
- **Marketing and Communications.** Updating customers, stakeholders and investors with productivity improvements and innovations improves brand image and helps attract new customers and financing.
- **Production and Distribution.** Optimizing the use of materials and resources, minimizing waste, and offering remanufacturing/refurbishing services provides cost-savings opportunities and open new markets.
- **Facilities Management.** Implementing recycling programs and improving building efficiency and site management processes motivates employees and improves the company's image while reducing operational costs.

Corporations, long accused of trying to make profits at the expense of the environment, now have a chance to prove that they can actively participate in the clean and green movement. Eco-efficiency will no longer be an exercise in public relations; it will be an



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integral part of doing business.