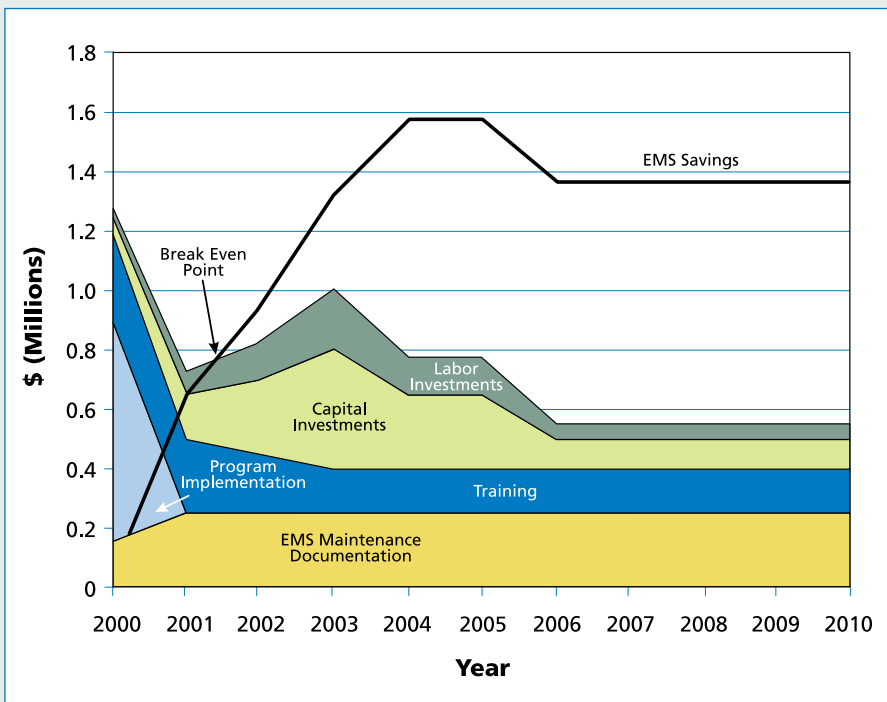


Making the Business Case for Environmental Management Systems

Many organizations have elements of an environmental management system (EMS), but it is not fully functional. Questions abound about making the business case to move to an EMS, but all can be distilled to one—*“How do the costs compare to the expected benefits?”*

There is a dearth of business case data from early EMS adopters. Companies that report some costs of implementation rarely quantify benefits. Unfortunately, anecdotal reports of cost savings and other benefits do not provide information about what it costs the organization to achieve those benefits.

EMS Program Costs



An EMS will require continuing costs over time for its maintenance and documentation after it has been initially implemented. Equally important is continuing training for facility personnel, taking into account staff rotation/turnover and changes in plant operations. Finally, additional investments requiring capital and labor outlays can greatly enhance the return on investment in an EMS, leading to an early break-even point.

A recent U.S. National Aeronautics & Space Administration (NASA) study established the gold standard for measuring EMS implementation costs.

NASA compiled implementation cost information at three centers piloting EMS, including estimates of in-house civil servant and contractor support. The costs range between \$111 and \$138 per capita with a range of hours spent from 1.3 to 2.3 per capita. NASA used this information to estimate the costs for its remaining centers to adopt EMS.

However, because NASA is required by an Executive Order to install EMS at all appropriate facilities, it was not necessary to estimate the EMS benefits in dollar terms and complete the standard business case. The dearth of benefits data continues.

There are two major categories of benefits from EMS: direct and indirect. The direct benefits represent

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the efficiency and effectiveness results of having a system for environmental management. Although these benefits may be significant, a greater payoff can be expected as an indirect result of EMS. The indirect benefits include savings related to better use of energy, water, and materials; reduced occupational safety and health costs; fewer compliance obligations; and less waste to treat or dispose. For the most part, these benefits require some additional investment.

The investment can be very worthwhile. Returns on such investments tend to have two-year paybacks and can generate savings of about \$3.50 for every dollar invested. These returns drive the savings and break-even points illustrated in the charts, to the right and on page 1.

Companies differ greatly in terms of what they require in a “business case” for EMS. Some companies simply seek an articulation of benefits and look for congruence with existing environmental policies and corporate goals. Other companies demand detailed financial projections. And many organizations fall between these two extremes.

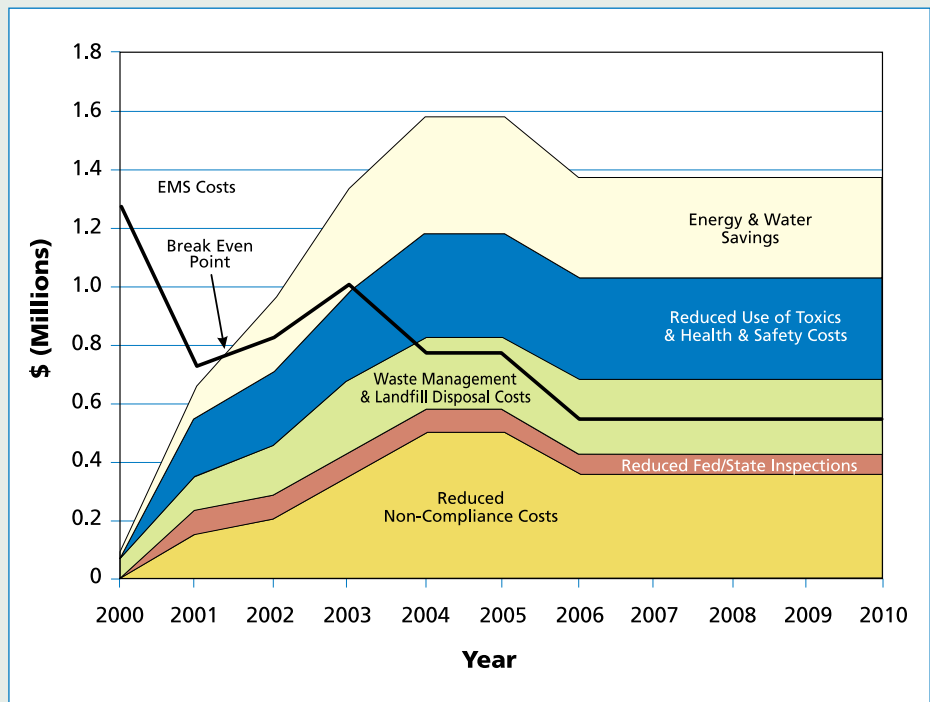
In deciding to advance to the next level in environmental management, it is important to understand the organization’s individual culture, environmental and business policies and goals, and its potential for realizing financial benefits from improved environmental management.

ICF Consulting developed a suite of tools for organizations contemplating an EMS, including one for scoring parameters (EMS

Business Case Evaluation Tool). A score between 40 and 50 indicates a strongly positive business case for EMS, while a score below 20 means that the business case for EMS is unclear. ICF Consulting’s spreadsheet tool can be used for more rigorous mapping of the direct and indirect costs and benefits of an EMS, as illustrated by the charts pictured.

For more information about ICF Consulting’s EMS capabilities, please visit www.icfconsulting.com.

EMS Program Savings



EMS costs can be outweighed by a variety of savings (and cost avoidance). For some facilities, reduced non-compliance costs will be a major contributor to the savings produced by an EMS; other facilities may realize value through reduced federal/state inspections, which can free up substantial staff time, even for facilities with excellent compliance. Major savings are likely from reduced quantities of waste to be managed and disposed, less use of toxins resulting in fewer health and safety costs, and savings from energy and water conservation.