



MANAGING YOUR ENERGY



ESC

ENVIRONMENTAL SYSTEMS CORPORATION
Design / Build & Maintenance of Controlled Environmental Systems

Savings Potential

- Small Simple Facilities 15 - 25%
- Larger Complex Facilities 25 – 50%
- Older Simple Facilities 30 – 60%
- Industrial Processes Varies

Sources of Energy Waste

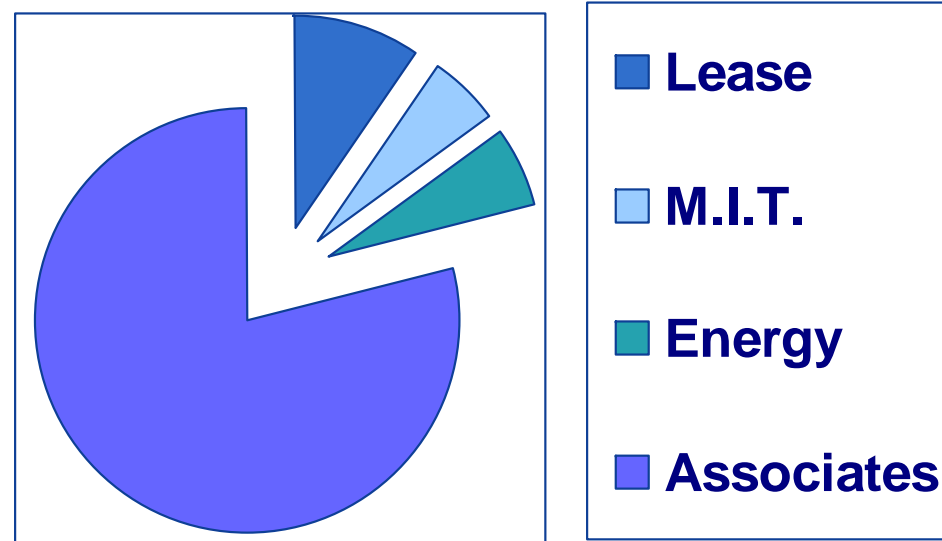
- Design or Initial Budget
- Building Construction
- Equipment Installation & Maintenance
- Practices of the Occupant
- Normal Wear & Aging
- Obsolescence
- Malfunctions

Energy Efficiency does not equal Discomfort

- A The common misconception that energy conservation must cause discomfort is one of the major obstacles to achieving energy efficiency in buildings.

Typical Office Energy Cost

- Typical Energy Cost to Office Expense Ratio
- Lease – 10%
- M.I.T. – 5%
- Energy – 6%
- Associates – 81%



Energy Cost

- As indicated by the preceding chart, the cost of the associates in an office usually far exceed the per square foot cost for the Space, Maintenance, Insurance & Taxes, and the Total Cost of Energy. To reduce the energy cost, while affecting associate performance, would be counter productive.

What is our Energy Cost?

- In order to identify the potential of energy management solutions, you must first know how much is being spent on energy.
- It is commonplace for financially responsible managers of large facilities to be generally unaware of their energy costs.

Energy Savings – Cost of Implementation = Profit

- The most compelling fact about energy cost savings that result from Energy Savings is that they go straight to the bottom line.

Energy Management

- The control of Energy Costs should be treated as a distinct business activity, on par with other business management control items.
- To do this will require the administration of all the items which affect utility costs to be measured as a separate cost centre.

Functions of Management

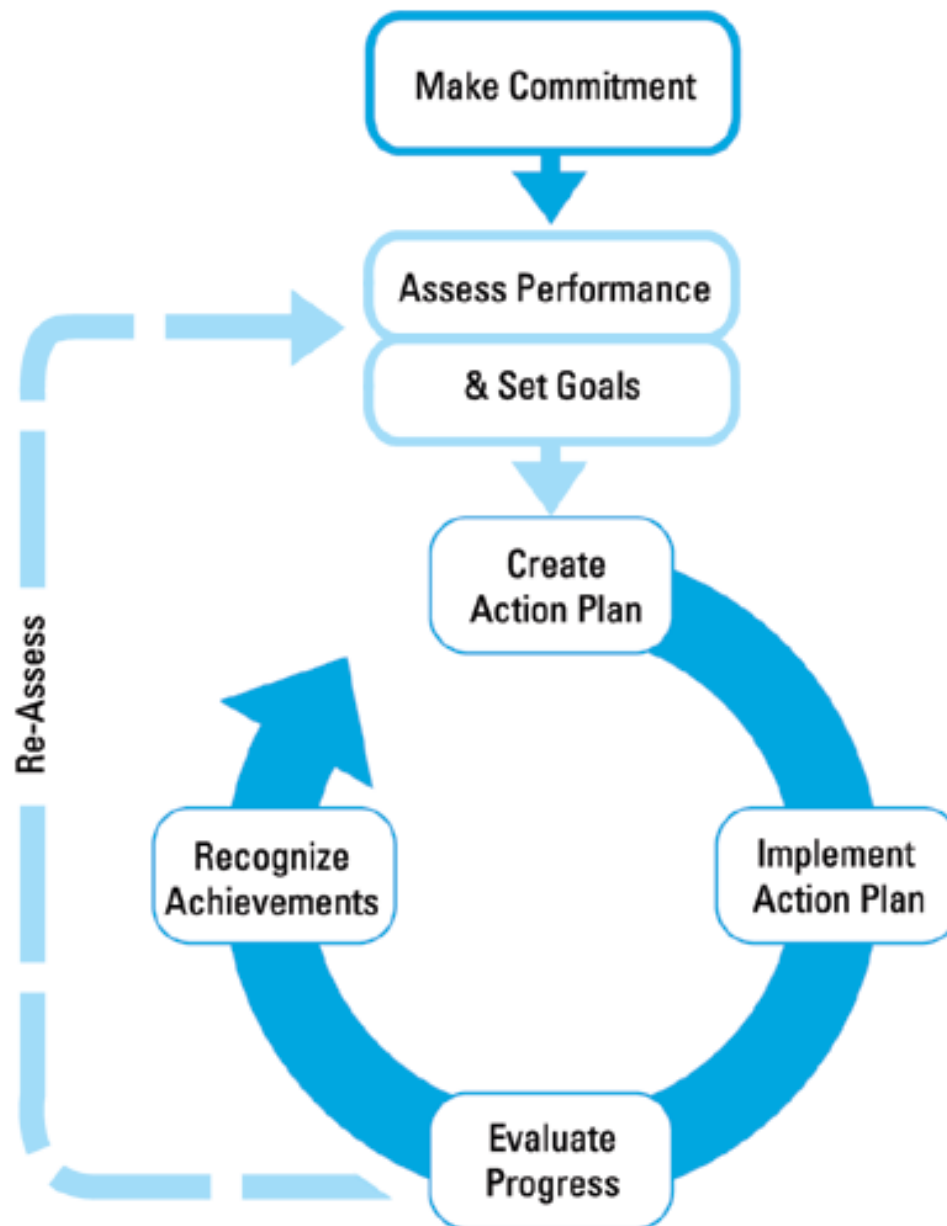
- Establish the Energy Cost “Profit Centre”.
- Authorize development of an Energy Management Plan.
- Allocate the necessary resources.
- Retain the necessary expertise.
- Provide a **ENERGY USE VISION** for the company.

- Implementation of the Corporate Energy Management Vision.
- Acquire the necessary resources.
- Budget Energy and Conservation costs.
- Maintain Conservation Measures
- Monitor & Report Energy Use, and Savings

How do we get started?

- Assemble Copies of a minimum 12 months utility invoices (24 is better).
- Assemble information on existing systems.
- Express a Management Commitment.
- Set Goals and ROI Criteria.

Energy Management Plan



Prioritize Resources

- The desirability of a measure must be balanced by the resources available to accomplish the measure.

Resources

- Management Attention.
- Skills In House or Out Sourced.
- Technical Ability In House or Out Sourced.
- Availability of Funds.
- Dedicate one Associate as the Corporate Energy Manager.

Establish a Single Consolidated Account for:

- Energy Costs
- Implementation Costs
- Maintenance & Monitoring Costs
- Financing Cost

Energy Management Plan

- Background Information, including details of systems, maintenance and service costs, age, breakdown history, and current energy costs.
- Associate Recommendations.
- Preliminary Plan of Action.

Identify Opportunities in Terms of:

- Rate of R.O.I.
- Additional Benefits
- Total Savings
- Initial Cost
- Liabilities
- Risk of failure
- Effect on Comfort or Production

Implement the Plan

- At this stage we have identified the opportunities and prioritized the resources required.
- This is where we implement the plan, and begin to realize savings.

Maintenance & Monitoring

- Once the Plan has been executed, the next step is to implement a maintenance and monitoring plan to ensure the results we have expected will happen.

Common Pitfalls

- Failure to have a plan.
- Gimmicks.
- Inadequate Management Attention.
- Selecting the wrong Energy Manager.
- Not Following Up.

How can ESC Assist?

- Preparation Assistance in the Energy Management Plan.
- Assist in Prioritization of Measures.
- Implementation of the Plan.
- Periodically re-inspect the facilities.
- Contribute to capital decisions.



For More Information Contact:



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