

## **Barriers for energy Efficiency**

**Title:**

Absence of alternative implementation strategies

**Category:**

Implementation Assistance

**Summary:**

The energy audit services do not cover the various implementation strategies. This in turn result in poor application method of implementation.

**Back ground:**

Reports resulting from an industrial audit regularly include a number of recommendations for energy savings. The recommendations normally calculate expected savings and evaluate the costs of implementation. Usually, one of two forms of implementation of a new practice or technology is recommended; either immediate implementation or incremental implementation where the items are changed out as they fail.

The actual options available to the manufacturer are often not that simple. These two methods often fail to consider such concerns as risk (real or perceived), comfort, the appropriate sizing and loading of equipment, availability of product, rebuilt products, time constraints, disposal costs, and economies of scale. Many times the barriers to implementation will not be obvious to the client until the project is well under way.

The various alternative strategies and considerations that an energy auditor can apply to a final report that hopefully will increase the likelihood that a recommendation will be seriously considered for implementation. The various types of implementation are:

- Cluster implementation,
- Prototype implementation,
- Contracted services, and scheduled obsolescence.

Cluster implementation recognizes that in many cases, where multiple units are involved, it is too costly to replace them either one at a time or the entire group at once. Costs are optimized when clusters of the units are replaced. E.g. replacement of lighting fixtures by energy-efficient fixtures.

Prototype implementation recognizes that often-technical risks prohibit change outs, especially when product flow would be affected. For example, installation of a motor controller in the production line of a rolling mill.

Contracted services focuses on the fact that manufacturers often have insufficient in-house expertise to perform corrective actions. Their resources are often already fully committed. Contracting improvements can be cost effective and allow the work to be done without impacting other projects.

Scheduled obsolescence looks at providing the manufacturer with information concerning the normal lifetime of various units and suggested planning for their replacement prior to the failure. A typical example would be motors which can be replaced by energy-efficient motors.

Energy auditors should mention the type of implementation that should be followed for every measure that is suggested.

**Lesson learnt:**

The success of any energy audit depends up on the implementation of measures and realization of the energy savings. It is very essential that appropriate method of implementation type should be suggested for sustaining the energy savings. This will enhance the success rate of energy audit measures.