

Plant Energy Performance Improvement Study

Service Description

Process energy usage is one of the largest and most controllable operating costs in most plants. In today's environment, an energy conservation program is essential to remaining competitive. Automation improvements provide some of the most effective and easily implemented energy conservation programs available.

A Plant Energy Performance Improvement Study is a proven methodology used to identify potential process energy savings and develop economically justified automation investment programs.

Studies are conducted by senior consultants with in-depth industry and process expertise and extensive experience in saving energy through enhanced automation.

Service Objectives

- Identify process energy savings that can be attained through enhanced automation
- Develop plans and project costs of possible automation investments
- Provide the business case and financial basis for project implementation

Typical Situations

- Interest in evaluating automation improvements toward reducing plant energy usage
- Wish to optimize energy usage or improve energy efficiency of targeted process units
- Need for assistance in defining an energy conservation automation investment program

Scope of Service

- Establishment of business, operations, and energy performance goals
- Review and audit of overall site energy balance for fuel, power, and steam
- Survey of current processes, systems, and process equipment
- Identification and quantification of energy savings that can be expected with improved automation
- Estimation of automation equipment, systems, and implementation costs ($\pm 50\%$)
- Development of a financial return-on-investment analysis
- Preparation of a multi-year energy conservation automation investment program

Deliverables

- Onsite consulting and formal assessment by a senior Emerson Process Management consultant
- Detailed report documenting results, analyses, project estimates, and recommendations
- Management presentation or meeting to review and discuss results and recommendations

Service Activities

- **Information gathering**—Prior to onsite work, an Emerson consultant will request and review a list of base plant, process, product, and systems information for preliminary analysis.
- **Business driver and site survey**—An evaluation of process operations, operating objectives, constraints, cost drivers, and existing automation performance will be conducted.
- **Opportunity identification**—An investigation to identify potential energy improvement sources and quantify projected economic gains will be performed.
- **Offsite analysis and report**—A detailed report to document results, analyses, automation plans, and recommendations will be generated.
- **Report transmittal and follow up**—A final report will be delivered and follow-up meeting scheduled to review and discuss the report.

Service Duration

A typical Plant Energy Performance Improvement Study can take one week onsite and one month for the completion of a final report. However, as each study will be customized to specific needs and situations, the duration will vary depending on scope and complexity.

Service Ordering

Please contact your local Emerson sales office to retain this service. Prior to order acceptance, Emerson will issue a written proposal for your review and approval to ensure that scope, deliverables, timing, and budget meet your needs and expectations.

For additional information, you can reach us at AAT@emersonprocess.com

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