

Energy Audits



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PROBLEM

Each year your company faces financial risk due to rising energy prices. This risk has an impact on the profitability of your business.

SOLUTION

An energy audit to identify potential cost savings.

O'Brien & Gere's multi-disciplined professionals can find energy savings in your new or existing facility. These savings may reside in electrical, mechanical (heating, ventilation, and air conditioning (HVAC), compressed air, boiler, and steam), utility/process, fuel procurement, controls, lighting, and maintenance systems.

As an added value, once the audit is complete, O'Brien & Gere can use internal resources to implement recommended energy-saving projects. This capability results in a seamless effort with one contact offering single-source responsibility and accountability.

Performance contracting, alternative financing, and a variety of project delivery methods can be tailored to meet individual client needs.

THE ENERGY AUDIT PROCESS

O'Brien & Gere's on-staff energy management credentials include the Certified Energy Manager (CEM) designation as accredited by the Association of Energy Engineers (AEE). AEE's certification programs are recognized by government agencies, such as the U.S. Department of Energy (DOE) and the U.S. Agency for International Development (USAID), and by corporations, utilities, and energy service companies.

The O'Brien & Gere audit professionals have backgrounds in a diverse mixture of engineering disciplines, including electrical, mechanical, and chemical engineering. Additionally, our team members have extensive knowledge in the major areas of plant energy use.

A typical O'Brien & Gere audit includes the following:

- Preliminary data collection of applicable systems
- Evaluation of each system's operational condition
- Analysis of economic alternatives
- Preparation of an energy audit report

HOW IN-DEPTH SHOULD YOUR AUDIT BE?

Auditing can be performed on various levels. O'Brien & Gere offers degrees of evaluation, including:

PRELIMINARY AUDIT PREPARATION

Before an audit, items such as acceptable payback rates, key projects, and vendor preferences are identified. Next, at least two years of energy consumption data are collected, including fuel (natural gas, fuel oil, etc.) and electricity usage. Data will be used to identify usage patterns, seasonal variations, and billing rate structures.

BASIC AUDIT

Also known as a walk-through site visit, a basic audit identifies low-cost and no-cost items. By benchmarking the facility with other similar facilities, the potential

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value of a detailed audit is evaluated.

DETAILED AUDIT

Historical energy consumption data is analyzed for opportunities such as cogeneration (combined heat and power), multi-fueling, on-site generation, peak shaving, and thermal storage. Furthermore, a detailed audit often contains engineering calculations, basic modeling, and comparisons of energy use to Best Practices standards.

ENERGY PRICES

Exemplified on the graphs to the right, energy costs vary and are not predictable. With the continuing acts of terrorism and conflicts in the Middle East, the uncertainty of supply and demand will remain with us for years to come.

OTHER BENEFITS FROM AUDITING

In addition to the potential dollar savings from an energy audit, the results may lead to environmental benefits such as greenhouse gas reductions, environmental credits, ISO (International Organization for Standardization) compliance, and goodwill from the community and regulators.

As companies continue to turn to ISO 14001 and other environmental initiatives, such as Renewable Portfolio Standards (RPS), greenhouse gas (GHG) emissions reduction validation, and green pricing programs, efficiency will be the key ingredient to saving time and money.

