The environmental perspective of mergers and acquisitions Part 3: facility energy efficiency – What is an energy audit and why do I need one?


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Are you thinking of growing your business? Pursuing a merger or an acquisition may be the best way to help your business grow quickly and easily. Aside from the obvious economic and legal tasks associated with mergers and acquisitions, there are some technical areas that need addressing and they can be the most important steps for a successful transaction.

This article is the third of three in a series explaining these technical areas. The three steps to a successful transaction include addressing:

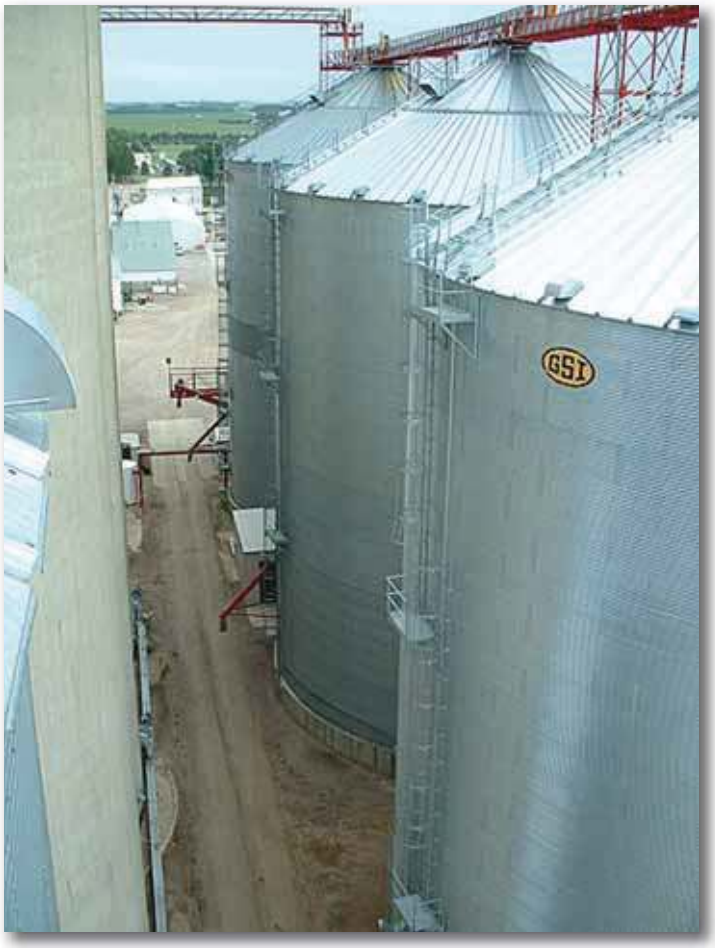
1. Environmental due diligence;
2. Compliance; and
3. Facility energy efficiency and condition evaluation.

Our first two articles covered the importance of environmental due diligence to evaluate real estate and environmental compliance audits to evaluate ongoing business operations.

Another critical component of the merger and acquisition process is knowing the facility's energy consumption and energy efficiency opportunities. Energy consumption costs can have a significant effect on the bottom line of a company, and given the rising costs of energy and the recent economic downturn, an energy audit helps determine how much this facility currently costs to operate, and where cost savings might be realized. Typically, we review 2 – 4 years of electricity and natural gas consumption data to determine the amount of energy used to run the facility. Once the overall consumption is known, the energy auditor looks more closely at the systems and processes, and then recommends specific opportunities for reduced energy consumption and cost. It is very common to identify energy-saving projects with a payback of less than two years, which then add directly to the bottom line.

Do I need an energy audit?

Facilities that consume a lot of energy relative to total operating costs should have an energy audit performed. Buildings with large amounts of ventilation, process heating or cooling equipment, or a building automation system (BAS) are prime candidates for energy audits. Smaller facilities can benefit too – simple changes such as turning off the HVAC fans at night saved one client more than $5,000 per year. An audit should nearly always be performed before investing in renewable energy options, because energy efficiency projects typically show a better return on investment.



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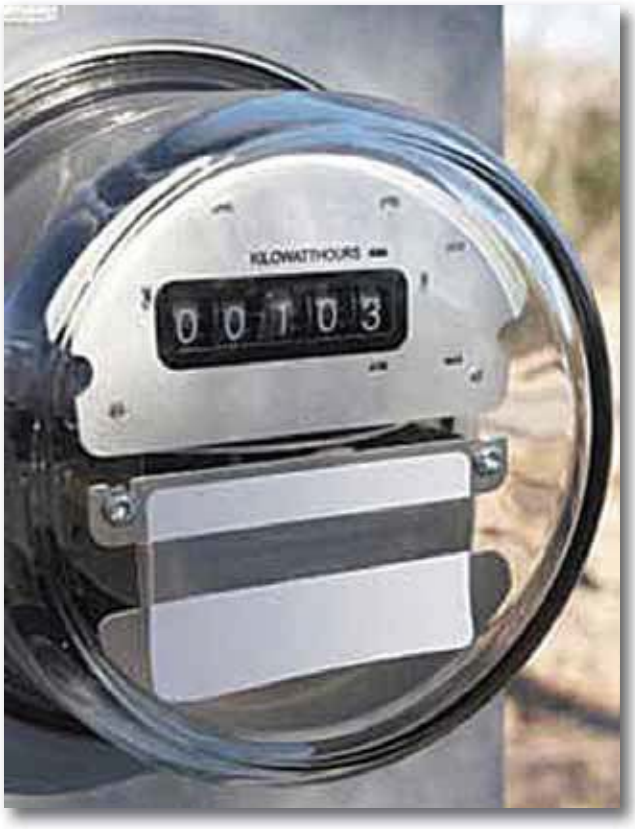

What is involved with an energy audit?

After reviewing the energy consumption data, the auditor conducts one-day site visit to evaluate the current condition of the energy-consuming systems, including HVAC, motors, pumps, and any process equipment. Particular attention is paid to simultaneous heating and cooling, equipment scheduling, combustion efficiency, HVAC and process system controls, and lighting. Typically one maintenance engineer from the facility helps to initially explain the facility's operations, but most of the work is performed independently without much time required by facility staff. The project deliverable is a report listing all of the opportunities uncovered, the methods for achieving the savings, the energy savings, the annual cost savings, estimated implementation cost, and simple payback.

Evaluating the energy use of facilities as part of an acquisition is a smart way to make sure the properties are cost-effective and to identify possible opportunities to make the business more profitable. By conducting energy audits early in the acquisition process, the cost of existing operations and future upgrades can be incorporated into the acquisition negotiations.

If you would like to learn more about potential environmental and energy aspects of mergers and acquisitions, please contact Tom Culp at SCS BT Squared, 608.216.7340 or tculp@scsengineers.com