

IMPROVING INDUSTRIAL ENERGY AUDIT ANALYSES

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ABSTRACT

A frequent criticism of energy audits is that they overestimate the savings potential available to the customer. This paper addresses several problem areas which can result in overly optimistic savings projections, and suggests ways to prevent mistakes.

Energy balance is the initial step a careful energy analyst should take when starting to evaluate the energy use at a facility. These balances allow one to determine what the largest energy users are in a facility, to find out whether all energy uses have been identified, and to check savings calculations by determining whether more savings have been identified than are actually achievable.

Some analysts use the average cost of electricity to calculate energy savings. This can give a false picture of the actual savings and may result in overly optimistic savings predictions. This paper discusses how to calculate the correct values from the electricity bills, and when to use these values. Finally, the authors discuss several common energy savings measures which are frequently recommended by energy auditors. Some of these may not actually save as much energy or decrease as expected, except in limited circumstances. Others have good energy saving potential but must be implemented carefully to avoid increasing energy use rather than decreasing it.