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Abstract Title: Strategic Energy Management - Keys to Behavioral and Operational Change

Abstract Text:

This paper presents the results of an evaluation of Energy Trust of Oregon's Strategic Energy Management (SEM) initiative. Commercial SEM is designed to deliver comprehensive energy services to large, typically multi-site, customers through behavioral and operational changes, while also identifying potential capital projects. This paper addresses both process findings and an analysis of savings estimation techniques.   The evaluation sought to ensure that the initiative was achieving claimed savings at a reasonable cost and to provide feedback on program design and implementation. This meant both investigating the methods used to calculate savings and understanding how participants had incorporated energy saving policies and practices into their standard operating procedures. Key operational findings included:

•   SEM takes time if organizational changes are to be implemented. •   A cohort approach, using multiple workshops with representatives from 5-10 organizations, appears to be effective in engaging participants and encouraging behavioral and operational change. Issues identified relating to the savings methodology included: •   Standardized regression analysis techniques are an acceptable means to determine savings.   • When regression analyses are used, savings should be based on the operation immediately preceding program participation, whenever possible. •   Regression analyses should be clearly organized to present how operational changes result in reduced energy use. •   Linear extrapolation of limited data often induces significant error. Instead, these analyses can be supplemented with heating or cooling models to improve accuracy.   A subsequent analysis investigating potential approaches to standardizing savings estimation from SEM using regression methods will also be included in the proposed paper.