

Abstract #: 429

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Abstract Title: Behind the Curtain - The relationship between behavior and operational savings

Abstract Text:

There is significant potential for achieving deep energy savings from operational efficiency (OE) programs for commercial and industrial (C&I) facilities. OE encompasses operational and behavioral savings in the C&I sector, moving beyond equipment replacement to realize savings by optimizing equipment installation, use, maintenance, and replacement procedures. OE programs utilize a growing set of information technologies, analytic tools, control and monitoring hardware and services that help customers to understand how they use energy, and how to make low- or no-cost changes to their operations that will result in significant energy savings. Pilots across the US already show that OE programs can yield significant energy savings of 8 to 12% reduction relative to baseline energy use. Using empirical evidence from various OE-related programs and initiatives launched over the past decade, this paper will address five aspects of OE savings to better understand their relationship with behavioral initiatives, and the role of OE in grid management and greenhouse gas reduction initiatives, including:

1. How are OE savings defined within the context of 'behavioral' initiatives?
2. How are OE savings defined in terms of what is allowed and what is not allowed in various regulatory frameworks?
3. What are challenges in quantifying and forecasting OE savings?
4. How do OE-focused programs fit within the overall systems planning environment, including procurement planning and green-house gas management?
5. How can OE programs be categorized and what does the current industry portfolio of OE programs look like, including technology enabled OE (e.g. data analytics and low cost controls) and operator enabled OE (e.g. behavior and occupant training)?