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Presentation Title: Refining the Vision: Improving the delivery of Real-time Impact Evaluations

Abstract: Among the biggest criticisms of impact evaluations by implementers is that they are not timely. Evaluations that go beyond low-rigor verification and include in-field measurement over time or use billing data are especially vulnerable to this charge. At the 2016 ACEEE Summer Study a paper was presented a novel approach to evaluation that focused on quick measurement and verification (M&V) efforts and fast feedback on measure performance and program delivery. The premise was that the traditional model of conducting evaluations 2-3 years after program implementation did not provide timely feedback and that this proposed “real-time” impact evaluation approach would help implementers improve their programs outcomes sooner rather than later. The real-time evaluation approach was used with a utility's Commercial and Industrial evaluation study and the conclusion was that the approach, though not without its challenges, was promising.

Since then, this real time strategy has been applied to a larger Commercial and Industrial Energy Efficiency program for a different client having a greater measure diversity and carrying both gas and electric measures. This application gave evaluators the opportunity to build on lessons learned and gain new insights on how to make the process work effectively in a different context.

This paper therefore seeks to report on:

1. How to provide fast feedback, even in an evaluation designed to include three months of performance monitoring at sites, through careful coordination of desk review and M&V activity on a quarterly basis.
2. Maintaining a cost-effective sampling approach by monitoring quarterly desk review and M&V results and adjusting sample design parameters (such as the error ratio, probability of selection), as is necessary, over the course of the evaluation in order to hit precision targets.
3. Improvements made to desk review and M&V strategies used in the original approach and how this positively affected the quality of the reported results. This includes supplementing desk reviews with a phone interview with the site contact to verify operating hours and other assumptions made in the vendor calculations. Also, by selecting sites for M&V based on project savings, stratum and the quality of information gleaned from the phone interview.
4. The establishment of a reporting framework that fosters an atmosphere of collaboration, as opposed to skepticism, between the evaluators, the utility and implementation contractors which yielded operational efficiencies and program improvement. A key aspect of making this work was to communicate early and clearly that interim results are tentative and subject to variation over the course of the study but are helpful in identify global issues hindering program success.
5. The challenges and risks faced in evaluation program management with this real-time approach and the tactics employed to overcome these challenges and mitigate risk. This includes coordinating M&V for seasonal measures, efficiently evaluating with sites that accommodate multiple projects occurring different interval over a year and coordinating consistent M&V activity across a large state in a cost-effective manner.