

Evaluating Commercial New Construction Programs: What Program Managers Should Know

Instructors: Jeffrey Ihnen and Michael Frischmann, Michaels Energy

Monday, August 7 | 8:30am – 12:30pm

\$75 | Includes 1 break

This 4-hour interactive, hands-on workshop will teach participants how to think about program evaluation when designing and implementing commercial new construction programs. As codes advance across the U.S., we anticipate that new construction programs will transition to outcome-based programs that rely on savings at the meter, with a metric of energy intensity by building type as the baseline. To be successful in this environment, and to achieve strides toward net zero building policies that some states are pursuing, requires a thorough understanding of how systems use energy. Efficient equipment alone matters less and less.

Understanding energy intensity of a facility often sheds light on why some participants experience greater energy savings than others. Building intensity is also an important factor for sampling design because of the great variation in energy use between commercial sites, even within the same industry group.

This workshop will be designed to provide opportunities for participants to work with a hypothetical dataset to learn techniques and practice methods. To facilitate interactions between participants, workgroups will be established for the break-out sessions. Ideally, we will be able to assign workgroups based on diverse backgrounds (design, management, evaluation) so that each has the benefit of differing experience.

This workshop will provide:

1. A primer on how buildings and building systems use energy including an introduction to building use data and how it can be used.
2. Instruction on how to benchmark energy intensity by building based on the appropriate factor(s) for computing energy intensity.
 - a. Break-out session to practice benchmarking.
3. Instruction on how to use the benchmarking results to inform sampling for evaluation.
 - a. Break-out session to practice sampling using building intensity benchmarks.
4. Instruction, with examples, on how to use building energy intensity benchmarking and evaluation results to inform program design and implementation adjustments for real and measurable savings.

Intended Audience: The primary audience for this workshop is intended to be those with an engineering or similar technical background. However, those without an engineering background but interest in this topic can benefit. Program managers, program design teams, and program evaluators will find this workshop useful and practical.

Learning Objectives: Participants will learn how building systems use energy along with the importance of building energy intensity data for program evaluation. Participants will leave the workshop with practical hands-on experience on how to use building energy data to inform program design and implementation.

About the Instructors:



Jeffrey Ihnen is the Chief Executive Officer for Michaels Energy. During his 21 years with the company, he has performed hundreds of energy audits, investment grade energy retrofit and retro-commissioning studies. He has been active in program evaluation management and planning since 1999. He leads product development and launch for core Michaels programs including commercial and industrial new construction and

retro-commissioning programs, and multiple spinoffs of these programs. He is also deeply involved with the company's, and professional industry organizations', marketing and strategic planning.



Michael Frischmann is the Director of Evaluation Engineering at Michaels Energy. Mr. Frischmann has seven years of experience in the energy efficiency industry including providing program technical support and conducting impact evaluations. Mr. Frischmann is experienced in every aspect of evaluation including evaluation work plan development, data collection management, individual project assessment, and stakeholder interaction facilitation.