

What is the Future of M&V? End Use Metering, Embedded M&V and Virtual Monitoring

Monday, October 6 | 8:30 – 11am | \$185

Instructors: Amit Kanungo and Lullit Getachew, Ph.D., DNV

This 2.5-hour workshop will provide practical strategies based on long experience to determine if end-use metering is the best available strategy for an evaluation issue, design a cost-effective approach to the evaluation challenge, and implement the approach effectively. Key components of the workshop include

- Examining a wide range of experimental designs,
- Exploring monitoring equipment options,
- Reviewing real-world M&V examples and various load monitoring methods including virtual monitoring techniques, and
- Discussing embedded evaluation techniques vs. traditional evaluation methods.

The workshop will emphasize the practical solution aspects of the process and the knowledge necessary for the successful implementation of a monitoring project.

Who is this workshop for?

The target audience includes energy efficiency managers, planners, policy makers, regulators, M&V professionals/consultants, engineers, researchers and academics interested in broader knowledge of how monitoring is used and applied in energy efficiency, baseline estimation and demand resource determination studies.

Why is this course valuable?

Workshop attendees will gain knowledge, skills and confidence necessary to effectively implement M&V plans, accurately quantify savings, and contribute to the success of energy efficiency projects. Attendees will leave with a solid understanding of how to identify, implement and evaluate a successful monitoring project.

About the Instructors



Amit Kanungo is a Senior Principal at DNV's Energy Systems group, a leading figure in demand-side resource customer engagement across various states in the US. With over 20 years of experience in technical consulting within the energy efficiency and renewable energy sectors, Amit has spent the last 18 years dedicated to energy evaluation, directing program and portfolio evaluations throughout the United States. His

expertise encompasses a wide range of demand-side issues, including resource planning, program design and delivery, implementation strategies, and rigorous evaluation methodologies. Amit leads DNV's Evaluation, Measurement, and Verification (EM&V) practice, a critical area in ensuring the accountability and effectiveness of energy efficiency programs. His current work focuses on key trends that are reshaping the field of Measurement and Verification including development of new M&V methodologies, integration of M&V with building management systems, data analytics, increase use of smart meters and building automation on M&V. He has been teaching Measurement and Verification workshops in International Energy Program Evaluation Conferences (IEPEC) M&V since 2013, contributing to the professional development of energy evaluation practitioners worldwide. Amit holds a master's degree in electrical engineering from California State University, San Francisco.



Dr. Lullit Getachew, Ph.D. is a seasoned Principal Consultant at DNV, bringing over 15 years of expertise to the field of energy efficiency and demand response. Her role encompasses managing and supporting energy evaluation projects through meticulous analysis, leading analytical teams, and effectively communicating findings through comprehensive reports and presentations. Her extensive background includes statistical benchmarking, measuring productivity growth in energy services, and conducting load forecasting and research. Dr. Getachew's proficiency extends to a wide range of analytical techniques, including modeling energy consumption, conducting peak demand analysis, designing experiments, developing baselines, performing data analytics, and characterizing customers. These skills have been instrumental in evaluating numerous behavioral programs, demonstrating her ability to assess the effectiveness of diverse energy-saving initiatives.