

ANNOUNCEMENT

India M&V and IPMVP Training Seminar

12 November, 2009



Venue:

ISHRAE Institute of Excellence

ISHRAE Bangalore Chapter

102, 2nd Floor, "Santa Clara", 2nd Main

Ashwini Layout, Intermediate Ring Road, 100 Feet Road

Koramangala, (Near Life Style)

Bangalore-560 047

The Alliance for an Energy Efficient Economy (AEEE) in association with Efficiency Valuation Organization (EVO),

the developer of the International Performance Measurement & Verifications Protocol (IPMVP), is pleased to conduct a one-day training seminar on Measurement and Verification (M&V)¹ and the implementation of IPMVP in Indian context. The training seminar is jointly organized by the AEEE in association with USAID's ECO-III project (through IRG and Alliance to Save Energy), and hosted by Indian Society of Heating, Refrigerating and Air Conditioning Engineers (ISHRAE) Bangalore Chapter on Thursday, 12th November 2009 (9.00 a.m. to 5.30 p.m.) at ISHRAE Institute of Excellence in Bangalore.

Based on proven practices and an established curriculum, this training seminar introduces M&V concepts, ideas and further reinforce these through real time projects case studies and practical exercises. The training has been designed to provide a conceptual understanding in Measurement & Verification (M&V) of energy and cost savings as a result of EE implementation for Engineers, Managers and Decision makers. It will also help non-technical persons in appreciating financial benefits of successfully implemented EE projects. The training seminar has been developed and presented by Certified EVO Trainers.

Objectives

This training seminar objective is to develop the understanding of energy efficiency professionals about importance of M&V, the range of methods, the existence of an international standard (unbiased yet technically rigorous approach) and the need for specific M&V design and reporting requirements for each project.

Training Seminar Overview

The first session will introduce the basic concepts of M&V and the latest version of IPMVP. The second session will cover the application of ideas introduced in the first session using the four IPMVP options. The training seminar will also have interactive participation case studies, introspection by sharing real time projects examples and experiences.

¹ Measurement & Verification (M&V) is the process of using measurements to reliably determine actual saving created within an individual facility by an energy management program (IPMVP Vol I, 2007, Section 9).

Morning Session:

Fundamentals of Measurements and Verification:

- Role of Energy Audits in setting baseline
- Overview-International Performance Measurement & Verification Protocol (IPMVP)
- IPMVP M&V options A, B, C, D (Partially Measured retrofit Isolation; Retrofit Isolation; Whole Facility; and Calibrated Simulation)
- Decision Making – How to Select M&V option
- Steps in Applying IPMVP's Options, especially Role of Stipulations in M&V
- Baseline adjustments – Non-Routine and Routine adjustments
- Baseline Period, Measurement Boundary
- Interactive effects between measures and how to avoid double counting for individual ECMs
- Contractual M&V protocol document

Afternoon Session:

- Risk /Responsibility Matrix-Allocating project risk and responsibility
- Carbon Emission Trading and M&V-Issues, Emission Factors, Correction Factors
- Role of M&V in Performance Contracts
- Sample M&V Plan and Annual Report outlines
- Third party M&V-Pros & Cons
- Comparison of M&V results and actual bills
- Examples -Variable Speed Drive, Boiler Efficiency, Pump Efficiency, Occupancy Sensors, Lighting M&V Plan
- EE Projects Performance Contract Bid Evaluation Criteria

Target Audience

The training seminar will enhance the knowledge of the EE project developers, implementers and practitioners, Carbon-reduction projects and CDM validators, Municipal/ULB engineers, and Certified Energy Auditors & Managers and those who want an in-depth understanding of M&V concepts and it's applicability -such as Financing agencies, Utilities (Demand Side Program managers and implementers), and large energy users (e.g., facility owners/managers), government officials and regulatory agencies.

Trainers

The trainers will share their invaluable lessons learned and best practices based on energy-efficiency projects in more than 50 countries with seminar participants.

Lead Trainer:

Mr. John D. Cowan- Chair of Efficiency Valuation Organization and President Environmental Interface Limited, Canada.

Sector-specific Trainer:

Mr. Pradeep Kumar- Sr. Technical Specialist, Alliance to Save Energy (ECO-III Project Partner)

Attendee Benefits

The value of this course is that it provides the introduction and background information for those seeking enhanced skills about how to implement M&V in their projects in a consistent and reliable manner. It will serve as a good introduction for those who want to take up the advanced Certified Performance Measurement and Verification Professional Program to become a qualified International M&V Trainers. (See www.evo-world.org). For the nontechnical / financial audience, it provides assurance that project implementers are providing a serious and legitimate service and helps them speak the language of energy efficiency.

In addition to the knowledge gained from the training, attendees will receive the following benefits:

- Printed copies of the seminar presentations
- Electronic copies of the latest Protocol Manual IPMVP additional benefits for the first 25 confirmed registrants
- Electronic copy Manual for Developing Municipal Energy Efficiency Projects
- Electronic copy of Building Energy Assessment Manual
- EVO Subscriber benefits for 1-year, including password protected access to EVO's Internet Discussion fora, subscriber news and online library for the first 25 registrants, worth \$100 (Rs. 5000). On completion of the training seminar participants will be given a Certificate of Participation.

Participation Fees

We cordially invite you to participate in the above training seminar. The all-inclusive fee for this training seminar is **Rs. 8,000** per participant, payable to "Alliance for an Energy Efficient Economy", at New Delhi. For 2 or more participants from one organization, discounted fees of **Rs. 7,500** per participant will be charged.

We request you to confirm your participation at your earliest possible opportunity by completing the attached Response Form and returning it to us by either:

Fax: 91-11-22 782 600/26 853 114

or

E-mail: MandVtraining.India@gmail.com; info@aeee.in

Venue

ISHRAE Institute of Excellence

ISHRAE Bangalore Chapter

102, 2nd Floor, "Santa Clara"

2nd Main, Ashwini Layout, Intermediate Ring Road

100 Feet Road, Koramangala, (Near Life Style)

Bangalore- 560 047

Contact at Venue / ISHRAE

Tel: 91-80-41 495 045/25 634 228

Registration

Mr. D. Chakrabarti/AEEE

Tel: 91-11-43 027 344

Mobile: 91-99 58 829 870

Mailing Address:

Alliance for an Energy Efficient Economy

101, Sagar Galaxy Commercial Complex

Mayur Vihar-II, New Delhi-110091

Tel: 91-11-43 027 344

Fax: 91-11-22 782 600/26 853 114

E-mail: MandVtraining.India@gmail.com; info@aeee.in

Website: www.aeee.in

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RESPONSE FORM

We are nominating the following person (s) to attend the Training Seminar.

Name	Designation
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

The DD/Cheque No. _____ dated _____ for Rs. _____ towards delegate fee drawn on Bank _____ payable at New Delhi, is enclosed.

Name : _____

Designation : _____

Organization : _____

Address : _____

Tel/ Fax : _____

Mobile : _____

E-mail : _____

Category	Delegate fee (INR)
One Delegate	8,000
Two or more from same Organization/Company (Fee per Delegate)	7,500
AEEE Member Companies (Fee per Delegate)	6,400

Note:

- Draft/Cheque in the name of *Alliance for an Energy Efficient Economy, New Delhi*.
- Advance Registration is essential.
- Delegate fee is non-refundable; however change in nomination/s is acceptable.

Complete the form and fax / mail to:

Alliance for an Energy Efficient Economy

101, Sagar Galaxy Commercial Complex

Mayur Vihar-II, New Delhi-110 091

Tel: 91-11-43 027 344, Fax: 91-11-22 782 600/26 853 114

E-mail: MandVtraining.India@gmail.com; info@aeee.in

Website: www.aeee.in

Organized by Alliance for an Energy Efficient Economy (AEEE) in association with USAID's ECO-III Project
(through International Resources Group and Alliance to Save Energy)

Hosted by ISHRAE Bangalore Chapter. Training conducted by Efficiency Valuation Organization (EVO)
the developer of the International Performance Measurement & Verifications Protocol (IPMVP)