

ANNOUNCEMENT

India M&V and IPMVP Training

12 May, 2009



Venue:
Reliance Energy Management Institute
Jogeshwari Vikhroli Link Road,
Opp. Seepz North Gate No.3
Mumbai- 400 065

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 program on the measurement and verification (M&V)¹ and the implementation of IPMVP in Indian context. The program is jointly organized by the AEEE in association with USAID's ECO-III project (through IRG and Alliance to Save Energy), and Reliance Energy in Mumbai on Tuesday, 12 May 2009 (9.30 a.m. to 5.30 p.m.).

Based on proven practices and an established curriculum, these training program introduce concepts, ideas and further reinforce these through real time projects case studies and practical exercises.

The workshop 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 and managers. It will also help non-technical persons in appreciating financial implications of successfully implemented EE projects. The training program has been developed and presented by Certified EVO Trainers.

Objectives

This program objective is to develop the understanding of energy efficiency professionals about 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 for each project.

Training program 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 workshop will have interactive participation case studies, introspection by sharing real time projects examples/ experiences.

Morning Session:

- Fundamentals of Measurements and Verification
 - 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).

- 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
- M&V for improvement in Operation & Maintenance practices

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
- Operation and Maintenance – Impact on Savings/ Performance Guarantee

Case Studies based on practical application in municipal water supply systems, street lighting and Overview of M&V in Industrial & Buildings' Energy Efficiency projects will be included.

TARGET AUDIENCE

The programme will enhance the knowledge of the energy-efficient project developers, implementers and

practitioners, Carbon-reduction projects and CDM validators, Municipal/ULB engineers, and Certified Energy Auditors & Managers and those that want an in-depth understanding of M&V concepts-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. Pierre Langlois, Vice Chair of Efficiency Valuation Organization and President Econoler International, Canada

Sector-specific Trainers:

- Dr. Satish Kumar, Board Member, EVO and Chief of Party, ECO-III Project of USAID
- 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 non-technical / 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 Program participants will be given a Certificate of Participation.

Participation Fees

All-inclusive fee for this training program is Rs. 6,500 per participant (inclusive of service tax), payable to "Alliance for an Energy Efficient Economy", at New Delhi. For 2 or more participants from one organization, discounted fees of Rs. 5,500 per participant will be charged.

VENUE

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Mumbai-400 065

Contact at Venue / Reliance

Ms. Namrata Anavekar
namrata.anavekar@relianceada.com
Landline: 91-22-3009 9519, Mobile: 91-93 2395 0934

Registration:

Alliance for an Energy Efficient Economy

101 Sagar Galaxy Commercial Complex,
Mayur Vihar Phase-II, Delhi-110091

Tel: 91-11-4302 7344

Fax: 91-11-26 85 3114

Mobile: 91-99 5882 9870 (Mr. Chakrabarti)

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RESPONSE FORM

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

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

The DD/Cheque No. _____ dated _____ for Rs. _____ towards delegate fee drawn in favour of _____ payable at _____ is enclosed.

Name : _____

Designation : _____

Organization : _____

Address : _____

Tel : _____

Fax : _____

E-mail : _____

Category	Delegate fee (INR)
One Member	6500
Two or more	5500

- Delegate fee is inclusive of service tax.
- Delegate fee is non-refundable; however change in nomination (s) is acceptable.
- Prior registration is essential.

Complete the form and fax / mail to:

Alliance for an Energy Efficient Economy

101 Sagar Galaxy Commercial Complex,
Mayur Vihar Phase- II, Delhi, 110091

Fax: 91-11-26 85 3114

Email: MandVtraining.India@gmail.com, Koshy@aeee.in