IPMVP® PROTOCOLS
IPMVP® TRAININGS
IPMVP® CERTIFICATIONS

2024
The home of the IPMVP®

A 20-year-old non-profit corporation

Led by volunteers around the world

VISION
Create a world that has confidence in energy efficiency as a reliable and sustainable energy resource.

MISSION
Ensure that the savings and impact of energy efficiency and sustainability projects are determined through appropriate measurement and verification.
DEVELOPMENT WORK PLAN – IPMVP AND APPLICATION GUIDES

1996

1997
International Performance Measurement and Verification Protocol (IPMVP)

IPMVP 2002
IPMVP 2007
IPMVP 2012
IPMVP 2016

2004
2009
2014
2022

2002
2007
2012
2016

IPMVP 2004
IPMVP 2009
IPMVP 2014
IPMVP 2022

IEEFP 2009
IEEFP 2022

International Performance Measurement and Verification Protocol (IPMVP®)
Core Concepts

MARCH 2022
EVO 10000 - 1:2022
## DEVELOPMENT WORK PLAN – IPMVP AND APPLICATION GUIDES

### IPMVP

#### CORE CONCEPTS

- International Performance Measurement and Verification Protocol (IPMVP®)
- Core Concepts

### IPMVP

#### APPLICATION GUIDES

(Revisions and New Documents)

- Non-Routine Events and Adjustments
- M&V for Performance Contracting
- Evaluation, Measurement and Verification
- Uncertainty Assessment

- Advanced M&V
- M&V for Renewables, On-Site Generation, and Storage
- M&V for Water
- M&V and IPMVP Option D
- Demand Response / Flexibility
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<th>M&amp;V GENERAL &amp; INTRO</th>
<th>CERTIFICATION TRAINING</th>
<th>ISO AND IPMVP</th>
<th>ADVANCED M&amp;V COURSES</th>
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<tr>
<td>M&amp;V Awareness Webinar(s) (1 hour)</td>
<td>M&amp;V Fundamentals and IPMVP (2.5 days) + PMVA certification exam</td>
<td>ISO 50006 and the IPMVP (1 day)</td>
<td>Advanced Option D for M&amp;V Practitioners (3 days)</td>
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<td>Introduction to M&amp;V (1/2 - 1 day workshop)</td>
<td>M&amp;V Planning in Practice (2 days) + PMVE certification exam</td>
<td>ISO 50015 and the IPMVP (1 day)</td>
<td>Advanced Statistics / Regression (LINE) (3 sessions of 2 hours + homework)</td>
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<td>Introduction to M&amp;V Statistics (Self-taught on line 2-3 hours)</td>
<td>Investment Grade Audit (3 days) + CESV certification exam</td>
<td>ISO 50047 and the IPMVP (1 day)</td>
<td>Autocorrelation Functions (4 sessions of 2 hours each + homework)</td>
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<td>Introduction to Option D for Buildings Owners (1 day)</td>
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<td>M&amp;V and Metering (Duration TBD)</td>
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- OVER 30 APPROVED INSTRUCTORS AROUND THE WORLD
- DEPLOYMENT WITH A GLOBAL NETWORK OF TRAINING PARTNERS
- 15,000 TRAINEES IN THE PAST 15 YEARS IN 60 COUNTRIES
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**EVO’S M&V TRAINING PROGRAMS**

**M&V GENERAL & INTRO**
- M&V Awareness Webinar(s) (1 hour)
- Introduction to M&V (1/2 - 1 day workshop)
- Introduction to M&V Statistics (Self-taught on line 2-3 hours)
- Introduction to Option D for Buildings Owners (1 day)

**CERTIFICATION TRAINING**
- M&V Fundamentals and IPMVP (2.5 days) + PMVA certification exam
- M&V Planning in Practice (2 days) + PMVE certification exam
- Investment Grade Audit (3 days) + CESV certification exam

**ISO AND IPMVP**
- ISO 50006 and the IPMVP (1 day)
- ISO 50015 and the IPMVP (1 day)
- ISO 50047 and the IPMVP (1 day)

**ADVANCED M&V COURSES**
- Advanced Option D for M&V Practitioners (3 days)
- Advanced Statistics / Regression (LINE) (3 sessions of 2 hours + homework)
- Autocorrelation Functions (4 sessions of 2 hours each + homework)
- M&V and Metering (Duration TBD)
- Interactive Effects in EE Projects (1 day)
- Non-Routine Events and Adjustments (Duration TBD)
- Energy Efficiency Financing (2 days + exam)
**EVO’S M&V CERTIFICATION PROGRAMS**

**PMVA™**
PERFORMANCE MEASUREMENT AND VERIFICATION ANALYST

- Establishes the primary standard for individuals applying M&V concepts to energy efficiency projects.
- PMVAs typically work in an analyst role for ESCOs, public administration, utilities, and financial institutions.
- They have demonstrated M&V capabilities, including a good understanding of applying the IPMVP to determine savings.
- PMVAs could be building technologists, HVAC specialists, engineers, architects, economists, financial analysts, etc.
- Certification and re-certification criterium are based exclusively on M&V professional activities. (See the full program description for additional information).

**PMVE™**
PERFORMANCE MEASUREMENT AND VERIFICATION EXPERT

- Establishes the primary standard for individuals engaged in preparing or analyzing M&V Plans.
- PMVEs typically work as M&V experts and design, elaborate, and implement M&V plans for comprehensive and complex energy efficiency projects.
- PMVEs also work as consultants and project facilitators for facility managers and building owners.
- PMVEs work as senior M&V analysts for public administration, utilities, and financial institutions.
- PMVEs typically have advanced applied expertise in various aspects of M&V and are capable of preparing/challenging M&V plans and reports.
- Most PMVEs will hold a technical degree and have a solid understanding of various energy efficiency measures.
- Certification requires holding a PMVA or significant professional experience in the preparation of M&V plans
- Re-certification criterium are based exclusively on M&V professional activities, particularly the preparation or review of M&V plans. (See the full program description for additional information).
EVO’S M&V SUPPORT INFRASTRUCTURE

EVO’S PRODUCT AND TECHNICAL WORKING GROUP (PTWG)

GENERAL RESPONSIBILITIES
• Identify new products, certifications and training to address gaps from the Outreach and Market Development Working Group (OMDWG), committees & market
• Create criteria/processes for new products, certification and training development

EVO PRODUCT RESPONSIBILITIES
(Protocol and technical documents)
• Approve New EVO Products/Guidelines

▪ IPMVP Committee
▪ IEEFP Committee
▪ WGs and OTHERS
▪ TC-IPMVP Working Group

TRAINING RESPONSIBILITIES
• Approve Program Purpose & Content
• Approve Instructor Qualification, Mentoring and Certification Criteria
• Approve Training Partners

▪ M&V Fundamentals Committee
▪ IEEFP/Finance Committee
▪ Advance / Thematic Committee

TRAINING COMMITTEE
• Provides standard processes for mentoring of training programs, and for approval of training material from an educational perspective
• Run webinars and other educational activities for EVO subscribers
• Receives reports from the sub-committees

CERTIFICATION RESPONSIBILITIES
• Approve Required Competencies
• Approve Exam Content/Scoring Criteria
• Approve Certifying Bodies

▪ PMVA Committee
▪ PMVE Committee
▪ CESV Committee

Individual Committee/WG Activities:
• Identify/recommend new products
• Develop/update new/existing products, guidelines and other EVO materials
• Develop IEEFP country annexes (translations)

Individual Committee Activities:
• Develop/update training materials
• Manage instructor mentoring & approval
• Identify improvements to training material
• Recommend training partners

Individual Committee Activities:
• Prepare/Recommend Certification Materials
• Prepare/Update Exam & Scoring Scheme
• Manage Exam Process & Certifications
• Recommend Certifying Bodies

Committees
Responsibilities