Efficiency Valuation Organization

RENEWABLES APPLICATION GUIDE

INTERNATIONAL PERFORMANCE MEASUREMENT AND VERIFICATION PROTOCOL

March 2017
EVO 10200 – 1:2017

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Efficiency Valuation Organization (EVO)

EVO is a non-profit organization whose products and services help people implement and invest in energy efficiency projects worldwide. **EVO´s Vision** is to create a world that has confidence in energy efficiency as a reliable and sustainable energy resource. **EVO´s Mission** is to ensure that the savings and impact of energy efficiency and sustainability projects are accurately measured and verified.

EVO Board of Directors

The International Performance Measurement and Verification Protocol (IPMVP®) is the leading international protocol for measurement and verification maintained by EVO. It is updated with the help of EVO's IPMVP Committee, a group of industry professionals who volunteer their time and for whom we are indebted for developing this edition of the *2016 IPMVP® Core Concepts*.

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Introduction to 2016 IPMVP Core Concepts Application Guides

The *2016 International Performance Measurement and Verification Protocol (IPMVP®) Core Concepts* defines basic terminology used in the Measurement and Verification (M&V) field and the general procedures to achieve reliable and cost-effective determination of savings. Verification of actual savings is performed relative to an M&V Plan for each project. The Core Concepts document is written for general application in measuring and verifying the performance of projects which improve energy or water efficiency in buildings and industrial plants.

The IPMVP Committee has undertaken the development and revision of several accompanying Application Guides. This document includes M&V options for renewable energy systems within the IPMVP framework, and includes examples and recommendations for specific applications. Renewable energy technologies include solar, wind, biomass, geothermal, small hydroelectric, ocean thermal, wave and tidal energy.

In the coming months, similar Application Guides will be published for:

- ***Statistics and Uncertainty.*** Describes methods to manage and quantify uncertainty due to random and systematic errors that result from quality of the measurement equipment, the measurement techniques, and the design sampling procedure.
- ***M&V Applications.*** Presents a variety of project types and discusses the key *M&V* design issues arising from the described situations. Each example shows just one IPMVP adherent *M&V* design, though there are numerous possible designs for any project.

If you have any questions regarding the information in these documents, please contact us at EVO.central@evo-world.org.

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