

## Missouri Statewide Evaluation Measurement and Verification Protocols

### Introduction:

The Missouri Code of State Regulations establishes the following at 4 CSR 240-20.094(9)(B):

(B) State-Wide Collaborative.

1. Electric utilities and their stakeholders shall formally establish a state-wide advisory collaborative. The collaborative shall—

A. Develop statewide protocols for evaluation, measurement, and verification of energy efficiency savings, no later than December 31, 2018, and update those protocols annually thereafter;

B. Establish individual working groups to address the creation of the specific deliverables of the collaborative; and

C. Create a semi-annual forum for discussing and resolving statewide policy issues, wherein utilities may share lessons learned from demand-side program planning and implementation, and wherein stakeholders may provide input on how to implement the recommendations of the individual working groups;

D. Explore other opportunities.

2. Within sixty (60) days of the effective date of this rule, commission staff shall file, with the commission, a charter for the statewide advisory collaborative.

3. Collaborative meetings shall occur at least semi-annually. Additional meetings or conference calls will be scheduled as needed.

Staff shall schedule the meetings, provide notice of the meetings, and any interested persons may attend such meetings.

On December 29, 2017, the Missouri Energy Efficiency Advisory Collaborative (MEEAC) was established as required by 4 CSR 240-20.094(9)(B)1 and 2. A working group was established within MEEAC to address the requirement to develop statewide protocols for evaluation, measurement, and verification (EM&V); the working group currently includes representatives from the following organizations but is open to any interested persons:

- Missouri Public Service Commission Staff (Staff)
- Office of Public Council (OPC)
- Division of Energy
- Kansas City Power & Light/Greater Missouri Operations (KCP&L/GMO)
- Ameren Missouri

The EM&V working group has developed statewide EM&V protocols for use when assessing energy efficiency (EE) and demand response (DR) savings. The statewide EM&V protocols are to be used as a guide for conducting evaluation research for Missouri Energy Efficiency Investment Act (MEEIA) programs' EE and DR savings. The working group has met and discussed the multiple protocols that already exist, such as the Uniform Methods Project (UMP) that have been developed as part of a U.S. Department of Energy initiative. These protocols, which apply to EM&V, were qualitatively assessed for applicability and vintage. The working group ultimately settled on an approach for protocol selection, with an additional approach to use should no applicable protocols exist. The application of these protocols should be commensurate with the value of the research findings relative to the level of effort and cost involved in EM&V and generally proportionate to the impacts of the program(s) to the demand-side portfolio as a whole.

Although the protocols establish standardized methodologies for assessing savings associated with energy efficiency programs, the savings results that are ultimately observed within any specific service territory may differ from those achieved in other service territories. This may be due to differences in factors such as demographics, customer usage characteristics, and weather patterns. The protocols are designed to take these characteristics, and other pertinent characteristics, into account when determining savings of EE and DR programs.

### **Protocol Selection Methodology:**

The pool of Missouri EM&V protocols and the order of preference for selection of available and applicable EM&V protocols is:

1. **Uniform Methods Project (UMP).** *Vintage – Current.* The U.S. Department of Energy describes the establishment of the Uniform Methods Project as follows:

"... the U.S. Department of Energy Uniform Methods Project to bring consistency to energy savings calculations in U.S. energy efficiency programs. The U.S. Department of Energy (DOE) is developing a framework and a set of protocols for determining gross energy savings from energy efficiency measures and programs. The protocols represent a refinement of the body of knowledge supporting energy efficiency evaluation, measurement, and verification (EM&V) activities. They have been written by technical experts within the field and reviewed by industry experts. Current EM&V practice allows for multiple methods for calculating energy savings. These methods were developed to meet the needs of energy efficiency program administrators and regulators. Although they served their original objectives well, they have resulted in inconsistent and incomparable savings results - even for identical measures. The goal of the

Uniform Methods Project is to strengthen the credibility of energy savings determinations by improving EM&V, increasing the consistency and transparency of how energy savings are determined. "

2. **International Performance Measurement & Verification Protocol (IPMVP).** *Initial Vintage – 2002.* The IPMVP was the original source of protocols for EM&V and is updated by Efficiency Valuation Organization (EVO). The IPMVP, "... provides an overview of current best practice techniques available for verifying results of energy efficiency, water efficiency, and renewable energy projects."
3. **National Action Plan for Energy Efficiency (NAPEE).** *Vintage – 2007*  
The NAP EE, "... was a private-public initiative to create a sustainable, aggressive national commitment to energy efficiency through the collaborative efforts of gas and electric utilities, utility regulators, and other partner organizations."  
NAPEE's "Model Energy Efficiency Program Impact Evaluation Guide" supports the goals of NAPEE through, "... a structure and several model approaches for calculating energy, demand, and emissions savings resulting from facility (non-transportation) energy efficiency programs that are implemented by cities, states, utilities, companies, and similar entities. "
4. **State and Local Energy Efficiency Action Network (SEEAction).** *Vintage – Current*  
The Evaluation, Measurement, and Verification section of SEE Action, "... is the collection of approaches for determining and documenting energy and non-energy benefits resulting from end-use energy efficiency activities and programs."
5. The approach to follow, when no applicable protocol exists within the four (4) preferred EM&V protocol resources identified above, as well as when no protocol exists within the pool of statewide EM&V protocols, is to follow the process that is documented below to develop, document, and preserve an applicable protocol that does apply.

**Approach to Follow When No Applicable Protocols Exist:**

In the absence of an existing protocol for a given EM&V issue, the third-party utility EM&V contractor (Evaluator) will collaborate with the Missouri Public Service Commission Auditor (Auditor), other currently active third-party utility EM&V contractors and peer EM&V contractors, such as members of the International Energy Program Evaluation Conference (IEPEC). The Evaluator and Auditor will agree upon a protocol for addressing the EM&V issue at hand. Once a protocol has been agreed upon, the new protocol will be documented and added to the pool of Missouri EM&V protocols.

### **Filing of Statewide EM&V Protocols**

The following statewide EM&V protocol documents will be filed by Staff in File No. EW-2013-0519:

1. Initial statewide EM&V protocols;
2. Annual updates to the statewide EM&V protocols; and
3. Any EM&V protocols which are agreed upon by the Evaluator and Auditor when no applicable protocol exists within the four (4) preferred EM&V protocols.

### **Conclusion:**

This approach to addressing the requirement for establishing Missouri statewide EM&V protocols accomplishes positive outcomes as follows:

- 1) Ensures that the protocols that will be referenced and used are consistent with those used throughout the United States;
- 2) Drives protocol selection towards the U.S. Department of Energy's UMP, which comprises the most up-to-date versions of EM&V protocols that are being utilized; and,
- 3) Minimizes the additional costs and duplication of effort that would be associated with developing a set of protocols for Missouri.

### **Future Activities:**

This statewide protocols for EM&V will be reviewed for possible update annually, as required by the Missouri Code of State Regulations, 4 CSR 240-20.094(9)(B)1.A.