

Comments on the Evaluation Measurement and Verification (EM&V) Guidance for Demand-Side Energy Efficiency (EE) in the Clean Power Plan Published by the U.S. Environmental Protection Agency

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The National Association of Energy Service Companies (NAESCO) appreciates the opportunity to submit these comments.

Introduction to NAESCO

NAESCO is the leading national trade association of the energy services industry. NAESCO numbers among its members some of the world's leading energy services companies, including: ABM Energy, AECOM Energy, Ameresco, CM3 Building Solutions, Clark Energy Group, ClearEnergy Contracting, Climatec, ConEdison Solutions, Constellation New Energy, Control Technologies and Solutions, CTI Energy Services, Energy Solutions Professionals, Energy Systems Group, Entegriy, Excel Energy, GEM Energy, Harshaw Trane, Indoor Environmental Services, Honeywell, Johnson Controls, Lockheed Martin, McClure Energy, Navitas, NORESKO, Onsite Energy, Opterra Energy Services, Pepco Energy Services, Performance Services, Schneider Electric, Siemens Industry, Southland Industries, Synergy Companies, Trane, UCONS, Willdan, and Wendel Energy Services. Utility members include the New York Power Authority, Pacific Gas & Electric, and Southern California Edison.

During the past twenty years, NAESCO member companies have implemented several billion dollars worth of energy efficiency, demand response, renewable energy and distributed generation projects to California industrial, commercial, institutional and residential customers. Nationally, NAESCO member projects have produced:

- \$50 billion in projects paid from savings
- \$55 billion in savings – guaranteed and verified
- 400,000 person-years of direct employment
- \$35 billion of infrastructure improvements in public facilities
- 450 million tons of CO₂ savings at no additional cost

During this time, NAESCO has worked with the US DOE, ASHRAE, the CPUC and other parties to create and implement several generations of the International Performance Monitoring and Verification Protocol (IPMVP) and the Federal Energy Management Program (FEMP) Monitoring and Verification (M&V) Guidelines, experience which is relevant to our comments below. NAESCO has also participated in the California proceedings relating to program M&V and was for a decade a member of the New York State Energy Research and Development Authority (NYSERDA) Program Advisory Group, which was charged with reviewing and approving the

NYSDERDA EM&V reports and formally transmitted then to the New York Public Service Commission.

NAESCO Comment – Use Existing Conditions as the Savings Baseline

NAESCO respectfully requests that EPA re-consider its mandate that states use the Common Practice Baseline (CPB) as the the regulatory requirement to quantify savings.

We believe that using existing conditions as the baseline will better accomplish the goals of the CPP to reduce GHG in the most cost-effective way, because existing conditions are measureable by both project implementers and third-party evaluators, and savings calculation methodologies with existing conditions baselines are replicable in any state. Furthermore, existing conditions baselines allow EE programs and projects to use all of the capabilities of building energy management systems, which monitor, record and control existing conditions, not the local CPB, and can be used with the rapidly developing automated M&V systems.

NAESCO believes that, in contrast, using the CPB may undermine the value of EE. While a CPB may be useful in evaluating a ratepayer funded EE program to determine the energy savings attributable the program activities (and the incentives payable to the program manager), it is not appropriate for the CPP for several reasons.

First, using the local CPB as the basis for calculating the emissions reductions for EE means that the EPA is mandating a political, rather than a scientific, methodology for calculating energy savings and emissions reductions. The CPB does not measure what is actually in a building, but rather uses a construct of building codes, stipulated savings for some measures, regulatory orders and other factors that is the product political horse-trading. We suggest this is a shaky foundation for the CPP.

Second, using the local CPB as the savings baseline means that the same retrofit will have different savings values depending on the location rather than the physics of the retrofit. EE skeptics will point out these differences to state air regulators as indicators that EE is an inherently uncertain and unreliable resource, because the same retrofit measure can't produce one amount of savings in a state with a rigorous energy building code and several times that amount in a state that has an outdated code. The result is that EE may be significantly undervalued in the states where it is the most cost effective.

Third, the savings recognized in a retrofit that uses the local CPB as the baseline can be changed overnight by regulatory or legislative fiat, with no effect on the actual energy savings or emissions reductions produced by the retrofit.

For example, California recently enacted AB 802, which mandates that the state's EE program administrators recognize all of the savings produced by an EE project, not just the savings above the state CPB. The result of this change is that the calculated savings in ESCO projects bid into a Southern California Edison (SCE) locational resource program will jump by a factor of five or more. The legislature enacted AB 802 because maintaining the CPB would mean that SCE would be forced to procure more expensive and more polluting generation resources, rather than the readily available EE resource.

Another state could adjust its CPB the opposite way, by adopting a more stringent energy building code, significantly reducing the calculated energy savings and emissions reductions.

In perhaps the most extreme of unpredictability, California regulators have had a policy for years that mandates the “ex post” adjustment of the baseline by administrative order based on research conducted years after the completion of a program or project.

These changes in a state’s CPB do not change the actual emissions reduction produced by a program or project project, but make EE a significantly less predictable component of a state’s long-term compliance strategy.

Fourth, the use of the CPB injects unnecessary complexity and subjectivity into EE program and project EM&V. A quick review of the taxonomy of the California CPB indicates that a particular EE measure in a building can be classified as code baseline, dual baseline, replace on burnout, or repair indefinitely. Each classification results in a different savings calculation for the same retrofit for the same existing condition, and the classification assigned to a particular retrofit is a judgment call. In industrial facilities, the subjectivity is increased because the CPB is standard industry practice, not a written building code, which means that consultants literally research the current standard of efficiency of a particular piece of equipment on a case-by-case basis and then use the results of their research as the baseline.

Fifth, the use of the local CPB seems to be inconsistent with the methodology used by the EPA to calculate emissions reductions from other compliance strategies. In the final CPP rule, the EPA set the emissions targets for states based on national standards for emissions for each type of generating plant. The final rules rejected setting different standards for the same type of generating plant in different states, based on the vintage or technical characteristics of the local generating plants or the siting or other restrictions imposed by a state (*e.g.*, California’s prohibition of once-through cooling systems). NAESCO respectfully suggests that the EPA should apply this same consistency for EE.

Conclusion

NAESCO therefore urges EPA to modify its M&V guidance to replace the the Common Practice Baseline (CPB) with existing conditions as the appropriate baseline for EE programs and projects that are used by states to comply with the Clean Power Plan rule.

Respectfully submitted by,

A handwritten signature in black ink, appearing to read "Donald Gilligan", with a long horizontal flourish extending to the right.

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