

## **Net vs gross savings discussion**

### **EUR Subcommittee, Action Item #5**

Ratepayer-funded energy efficiency programs are commonly subject to a process called evaluation, measurement, and verification (EM&V). EM&V consists of data collection and analysis that is used to understand the effects of efficiency projects and programs, in order to assess whether they are cost-effective and how they can be improved.

A key component of EM&V is assessment of the savings attributable to the program of interest, also known as net savings. Gross savings, in contrast, refers to any change in energy consumption resulting from the action participants take as part of the program, regardless of why they participated.<sup>1</sup> In other words, net savings takes into account factors such as free ridership and spillover, whereas gross savings does not. Free ridership refers to energy savings that would have occurred naturally, even without the efficiency program in question; spillover refers to energy savings that are induced by the program but without financial or technical assistance from the program.

Net savings are important for providing decision makers with an understanding of whether investment in an efficiency program is achieving savings that would not have otherwise occurred, and whether the program is cost-effective (that is, whether the benefits outweigh the costs). Gross savings, on the other hand, can be used by utilities for the purpose of load forecasting within the integrated resource planning process, since this forecasting is concerned only with what the load is expected to be and not

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<sup>1</sup> State and Local Energy Efficiency Action Network. 2012. *Energy Efficiency Program Impact Evaluation Guide*, p. 3-3. Prepared by Steven R. Schiller, Schiller Consulting, Inc., [www.seeaction.energy.gov](http://www.seeaction.energy.gov).

necessarily what caused customers to adopt an efficiency measure. In a 2014 study,

Comment [KS1]: Utility folks, is this accurate?

the American Council for an Energy-Efficient Economy reported that “when quantifying and reporting energy efficiency program savings,” 19 of 43 states surveyed (or 44%) responded that they use both net and gross savings, 15 states (35%) use net, and 9 states (21%) use gross.<sup>2</sup>

The numerical difference between a program’s net savings and gross savings varies by program. Using SCE&G as an example, the net and gross savings for the Home Energy Reports program in 2014 are identical, while for the Energy Star Lighting program in 2014, the net savings was 48,401 MWh and the gross savings was 58,314 MWh.

Program savings data can also be reported at the level of the customer meter, or at the generator. “At the meter” refers to the energy savings that participating customers experience. “At the generator” includes both the savings at the meter and the additional savings that accrue due to avoiding the line losses that occur when power is delivered to customers over transmission and distribution lines.

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<sup>2</sup> Additional study results provide “a more refined categorization of state approaches.” Kushler, M.; Nowak, S.; Witte, P. (January 2014). *Examining the Net Savings Issue: A National Survey of State Policies and Practices in the Evaluation of Ratepayer- Funded Energy Efficiency Programs*, p. 13. American Council for an Energy- Efficient Economy (ACEEE). Report Number U1401.