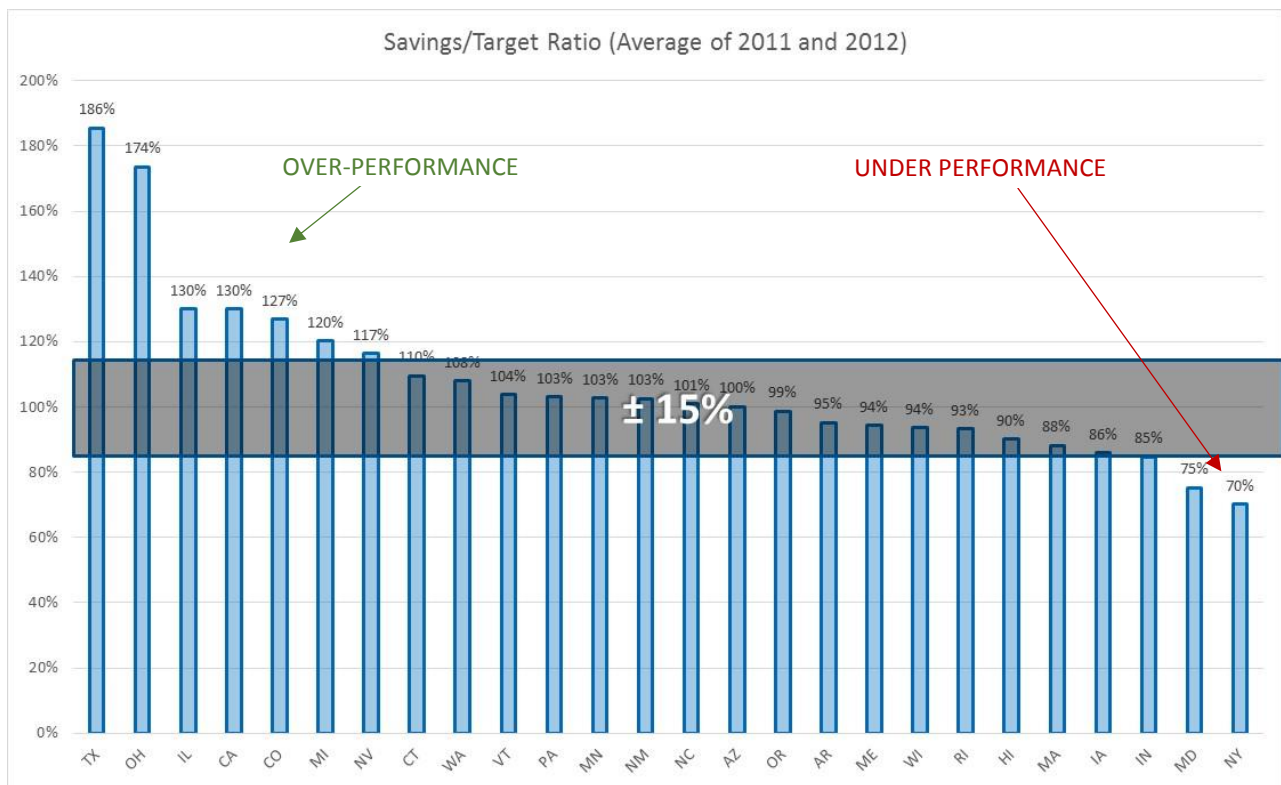


**Undertaking 133:** Dr. Higgin to review the ACEE report and provide a contextual commentary on the insight that might be gained from Appendix D found at page 69.

**Response:**

The chart below summarizes the information provided in Appendix D of the ACEE report. Specifically, this shows **average realized DSM savings over the two years covered by the report (2011 and 2012)**, expressed as a % of the planned savings for that same two-year period. The chart shows a range of +/-15%. The cases that fall below this range will be discussed below.



Uncertainty is a hallmark of nearly every energy system. With hydropower, for example, the specific amount of rainfall in a given year – and therefore of power generation – is difficult to predict with any certainty. There is, however, an expectation that rainfall will not deviate too largely *in a given year*, and that over the longer-term, that *average annual rainfall* will match more closely a utility’s planning assumptions.

The same is true for demand-side management options: in any given year, it can be expected that DSM will produce somewhat more or somewhat less savings than anticipated; however, performance from a planning perspective requires a multi-year view.

This multi-year view is taken in the vast majority of U.S. states. Indeed, the denominator used by ACEE to measure success is not actually the annual target – there rarely is one. Rather, ACEE used the *average annual value* associated with each state’s *multi-year targets*. This is an important distinction, as noted in the Transcript at 9572-3.

The chart indicates that among the 26 states that formed the study:

- 7 states exceeded their “equivalent annualized targets”, +/-15%
- 17 states met their “equivalent annualized targets”, +/-15%
- **2 states fell below their “equivalent annualized targets”, +/-15%**

The two states in question are New York and Maryland.

CAC Experts<sup>1</sup> indicate that a number of factors have influenced the results for these states:

- **NEW YORK:** While the ACEE provides annual values over *averaged* annual targets, this can be misleading in that it does not match with the state’s planning cycles. Rather, New York is operating under a 7-year energy saving plan (2008-2015). This is more specifically broken into an initial 3-year period, and a subsequent 4-year period.
  - *2008-2011 context:* The initial 3-year period was mired in broader market and regulatory issues, including confusion and uncertainty around who was responsible for DSM in the state. It is worth noting that New York includes a state agency (NYSERDA) with responsibility for DSM, several investor-owned utilities, and two state-owned utilities (including one now largely privatized), all with overlapping mandates and territories. By the time the first three-year period had come to an end, discussion over a new and clearer mechanism was still underway. Note that the first of ACEE’s 2 years of results, 2011, is also the last of this first three-year period.
  - *2012-2015 context:* The current 4-year period is off to a better start. By April of 2012, a new mechanism had been adopted (and applied retroactively to Jan. 1), with clarified roles, responsibilities, and allocation of targets. While the 2012 numbers as reported by ACEE (73%) are low, this is not entirely surprising, given the turmoil and uncertainty that reigned through the first third of the year. More importantly, however, rather than annual targets, the savings target for this second period is in fact a *cumulative* one: DSM performance metrics are based on results of the full four years, as are associated performance incentives.

The fact that the ACEE report divided the four-year goal by four to define theoretical performance on an annual basis is not unreasonable; however it does not reflect the reality of a multi-year target for which early results cover less than one year.

- **MARYLAND:** Similarly to New York, Maryland’s DSM targets run over three-year compliance periods. The previous compliance period covered 2009-2011, and the current one covers 2012-2014. As such, the values in the ACEE report include the 3<sup>rd</sup> year of the

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<sup>1</sup> P. Dunsky, Dunsky Energy Consulting

previous 3-year plan, and the first year of the current 3-year plan. Reported underperformance, while important, is only theoretical, as compliance with targets is only measured over a three-year period.

Broadly speaking, DSM has proven itself a reliable resource, which is why it is increasingly relied upon by power system planners.

### **Ontario Update**

The Ontario Energy Board Report<sup>2</sup> on 2011 and 2012 savings under the Current Minister's CDM Directive Indicate that the OPA 4 year Electricity CDM/DSM Program savings are on track relative to target.

#### 2011-2014 - Cumulative Savings<sup>3</sup>

##### **2011-2014 Cumulative Net Energy Savings (kWh)**

Consumer Program	760,068,720
Business Program	1,900,849,188
Industrial Program	142,444,055
Home Assistance Program	27,958,069
Pre-2011 Program Completed in 2011	999,114,485
Other	3,565,086
Adjustments to 2011 Results	72,254,152
<b>2011-2014 Total Cumulative Net Energy Savings (kWh)</b>	<b>3,906,253,755</b>

The cumulative 2011-2014 net energy (kWh) savings results are those energy savings that will continue to be in place and realize energy (kWh) savings over the course of the 2011-2014 term.

**Overall, this cumulative result, after 2 of 4 years of the program period, represents approximately 65% of the overall net energy (kWh) target of 6,000 GWh.**

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<sup>2</sup> Ontario Energy Board, *Conservation and Demand Management Report - 2012 Results*, Dec. 5

<sup>3</sup> Page 7