

Energy Efficiency Question 16: *Have energy efficiency programs in Michigan or other jurisdictions addressed long-lifecycle programming such as interest rate buy-downs, home performance programs, industrial whole process programs, and deep savings programs for business customers?*

Executive summary

1. Michigan measures energy savings achieved by Energy Optimization program providers based on first year savings, as assigned in the Michigan Energy Measures Database (“MEMD”), regardless of the anticipated life span of the particular energy saving measure.
2. The most cost effective energy optimization programs are generally the same whether they are measured using first-year savings or long-term life cycle savings.

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The utility system resource cost test, also known as USRCT or UCT, is the method that Michigan energy optimization providers use to evaluate cost effectiveness, as directed in the law. (See Energy Efficiency Question 14 for the detailed discussion on UCT)

PA 295 Sec.73 – subsection (2) says “The commission shall not approve a proposed energy optimization plan unless the commission determines that the EO plan meets the utility system resource cost test and is reasonable and prudent...”

In Michigan, legislation directs Energy Optimization program providers to only use first year deemed savings when measuring performance against the standards. By design, providers will attempt to meet the standard requirements each year by optimizing spend against first year savings.

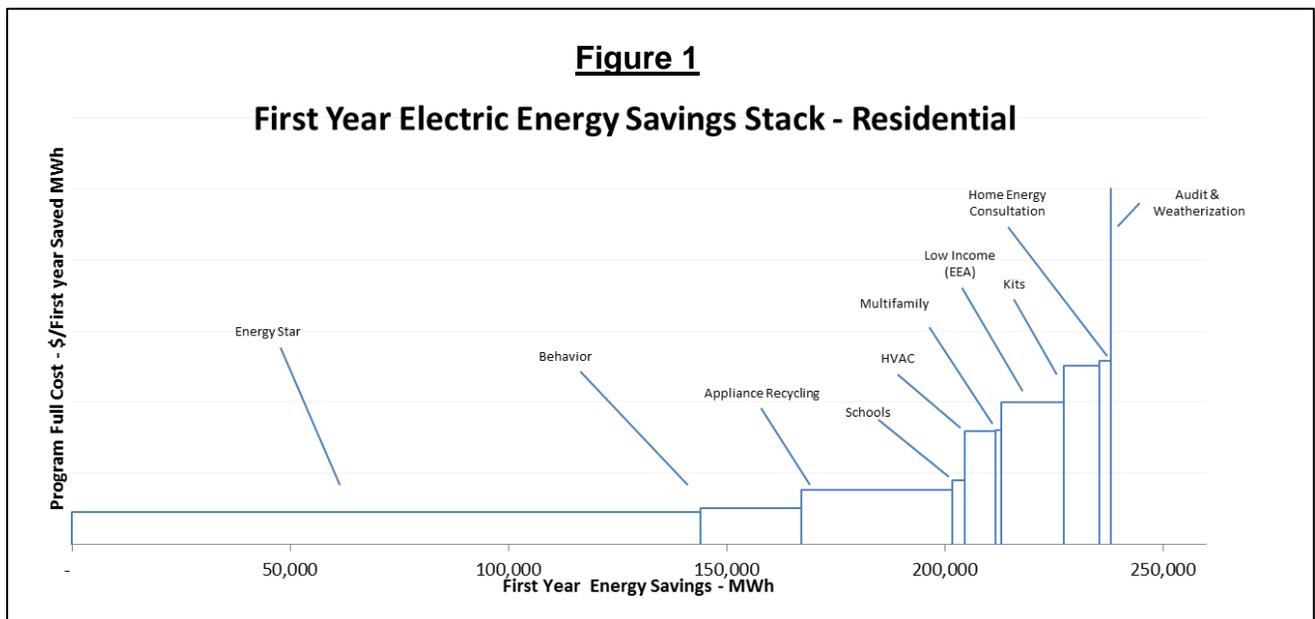
PA 295 Sec. 77 – subsection (4) says “Incremental energy savings under subsection (1) or (3) for the 2008-2009 biennium or any year thereafter shall be determined for a provider by adding the energy savings expected to be achieved during a 1-year period by energy optimization measures implemented during the 2008-2009 biennium or any year thereafter under any energy efficiency programs consistent with the provider’s energy efficiency plan.”

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2. The most cost effective energy optimization programs are generally the same whether they are measured using first-year savings or long-term life cycle savings.

DTE Energy includes long-lifecycle programming in its portfolio of energy optimization programs, such as weatherization for residential customers. Long-lifecycle programming is in general extremely expensive and therefore less cost effective based on our experience. However, by balancing the less cost effective long-lifecycle programs with more cost effective programs, such as energy efficient lighting, DTE Energy can offer a range of programs to meet the needs of customers while meeting the energy saving standard.

Figure 1 below, “First Year Electric Energy Savings Stack – Residential”, compares costs to first-year savings, with the most cost effective programs on the left and the least cost effective programs on the right. This shows that long-lifecycle programs like home energy consultation and weatherization are less cost effective (higher cost per MWh saved) in comparison to other programs in the portfolio.



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When compared based on lifetime savings, as shown in Figure 2 “Lifetime Electric Energy Savings Stack – Residential”, deep savings programs remain the most expensive options. In other words, changing measures based on first year savings to lifetime savings is unlikely to change how energy optimization providers build plans or operate.

However, increased focus on long-lifecycle programs could hinder other goals, like having broad customer participation, and could make the overall portfolio of energy optimization programs less cost-effective.

