

# TEACHING THE OLD EVALUATION DOG NEW TRICKS

For 20 years, evaluation has been a key player in the success and growth of energy efficiency. It made sure that public money was indeed being used for public good. But as the industry has grown and sought to innovate, is evaluation helping or hindering progress?

Demand-side management (DSM) evaluation has created an impressive set of protocols and guidelines that ensure we produce consistent, accurate, and unbiased evaluations. But it has typically been a look in the rearview mirror, only showing us where we have been. Today, as the industry is trying to transform to survive and better serve customers, this perspective isn't conducive to exploring advancement and optimizing design. To help us move forward, evaluation has to evolve along with everything else — in a way that is productive and valuable, not limiting or punitive.

## Let's Stop Chasing our Tails

Many program designers and implementation teams point to evaluation (and even evaluators) as the bogeyman that haunts their innovation dreams, preventing them from breaking out of ruts and creating

never-before-seen success. This is both unfair and untrue. Of course, in some cases, the hesitancy of evaluators to support a novel program idea has stymied innovation. But the truth is that evaluation has also acted like a security blanket for many marginal and uncreative programs, allowing all DSM actors to get comfortable and get by repeating program models that breeze through evaluations no matter their quality, customer value, or how far they are past their prime.

## How Do We Teach the Dog to Wag the Tail?

In the past, evaluation has largely been the tail wagging the dog, but what if we turn that on its head? And what could we accomplish if we did? To do this, evaluation must be engaged earlier in the process, becoming involved as early as design and definitely before programs go to market. For emerging and pilot initiatives, evaluation can play a strong research and information support role during development and is integral in considering evaluability metrics. There's no better time to engage the evaluator than when programs are still puppies.



## What Are the New Tricks?

**Put people front and center.** By bringing development and formative evaluation in from the beginning, planners and designers can identify which segments to serve, with which solutions, and for how long. Rather than thinking in terms of how many products we can move into a home or business, shift to a more customer-centric model of engagement. To do this, it is critical that we leverage research to consider the best offerings and delivery strategies for different customers. Planning will have to be considered against segments and subsegments of the population and as a direct reflection of competitive market conditions. In effect, we will have to begin to plan programs like the rest of world plans and delivers products and services. In turn, evaluation should begin considering the influence of the intervention on the segments or market as a whole rather than trying to pinpoint how a blanket effort influenced an individual's unique decision-making.

**Deliver a suite of offerings, not silos of DSM widgets.** When forced to consider customer behavior as an ecosystem of choices and trade-offs against resource planning goals, teams will need to rethink how to approach DSM. Key questions emerge and must be taken very seriously, such as, "what do we go after first?" Evaluation can answer those questions. By examining the intersection of customer demand and resource requirements, we can help you determine whether to prioritize efficiency, renewables, or DR for a given set of customers, or overall. Or we may need to

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ask, "what is the best opportunity at this moment or for a given customer segment?" and target accordingly. To make this type of planning successful, the industry needs to understand opportunities within those segments and create the metrics of success. By engaging in the early stages, evaluation and evaluators can help define those metrics, make sure they are rigorous enough, and, ultimately, ensure they provide the right evidence that investments are returning a public good.

**Think of the lifetime value of a customer, not the lifetime value of a product.** With this thinking, we can start to reorient to the perspective of e-commerce sites, marketplaces, and major brands. We will have to ask, "what is the cost to serve this customer over time?" instead of, "what is the expected lifetime value we can expect from this widget?" This frame requires we rethink cost-effectiveness modeling from both the planning and evaluation perspective. It also forces us to think about exit strategies for products and services. We must ask, is this solution still serving our customers and our resource needs? If the answer is no, then customer- and market-friendly exit strategies will be critical to long-term success. Evaluation can light the path to turning off the lights on a program.

**Evaluators must look more like embedded Behavioral and Data Scientists.** Programs that run as single-measure offerings will face more and more scrutiny. As outcome-based evaluation grows, evaluators will have to look like, think like, and analyze data like Behavioral and Data Scientists, modeling longitudinal program engagements against both instantaneous and longer-term energy and demand effects. And evaluators will need to be embedded team members who act in close consultation with planners and designers to adapt and adjust targets and strategies as customers react in the market.

**Evaluation should align with the policy objectives.** Evaluation provides the insights to understand progress against the desired outcomes. Evaluators and program administrators working together can

## A NEW TRICK? Meter-Level Analysis Shifts the Way we Think about Success

Traditional energy efficiency evaluation has focused on estimating the effects of individual measures, allowing our industry to stack-up measure-based deemed savings like building blocks. In a world of endless potential additions, a given home or business can save, save, save without regard to interaction effects, and limits on the total energy efficiency potential of a building, and the elasticity of markets in comparison to rebate investments.

The introduction of behavioral and behavior-enabled technology programs began to chip away at this additive approach. This new program model requires that we use meter-level analytics to examine program effectiveness. This is a game changing way of thinking about the success of program design. Driven by a desire to realize greater AMI benefits and the increased visibility beyond the meter that comes with it, more and more regions are focusing on this method to support pay-for-performance programs.

identify and establish policy objective metrics, and the means for measuring progress against those metrics, as a foundation for their efforts. This is especially important when transitioning into new models.

### We Have to Herd the Cats, Too

We recognize that these changes are easy to propose but hard to execute without regulatory support. The good news: there is data supporting these shifts, and telling stories using data works at the regulatory level. It is incumbent upon us to proactively educate regulators about the changes in the market and the opportunities they bring to better serve the customer good. Instead of waiting for them to reach an “ah-ha” moment on their own, bring them the stories, the data, and the results to get them there now.

**Putting it into practice.** On page 47, we share an example where we put these principles to work supporting DTE Energy. To help bring their energy use monitoring app, Insight, to market, we used rigorous data and social science. As a multi-year partner developing customer- and savings-intelligence, our team helped DTE Energy develop a

sure-footed engagement, bring it to scale, and expand Insight’s suite of offerings in the home.

As advocates for the customer and the industry, ILLUME is not content to let sleeping dogs lie. Our multidisciplinary team of Engineers, Social Scientists, and Data Analysts recognize these shifts as a clear opportunity to consider the human aspects of DSM. We have Anthropologists collaborating with utilities and implementers to apply design-focused thinking to programs, both before inception and as they evolve. We have Data Scientists and customer experience experts working with home energy management software vendors to complete real-time evaluations and gather customer feedback. We are ready to address the challenges and embrace the opportunities inherent in helping evaluation evolve to better serve our industry’s needs now and in the future. ■

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