

Uncovering the Multi-Benefits of Home Upgrades Using Real-Time Continuous Evaluation

ATHENA BERTOLINO, SENIOR ASSOCIATE

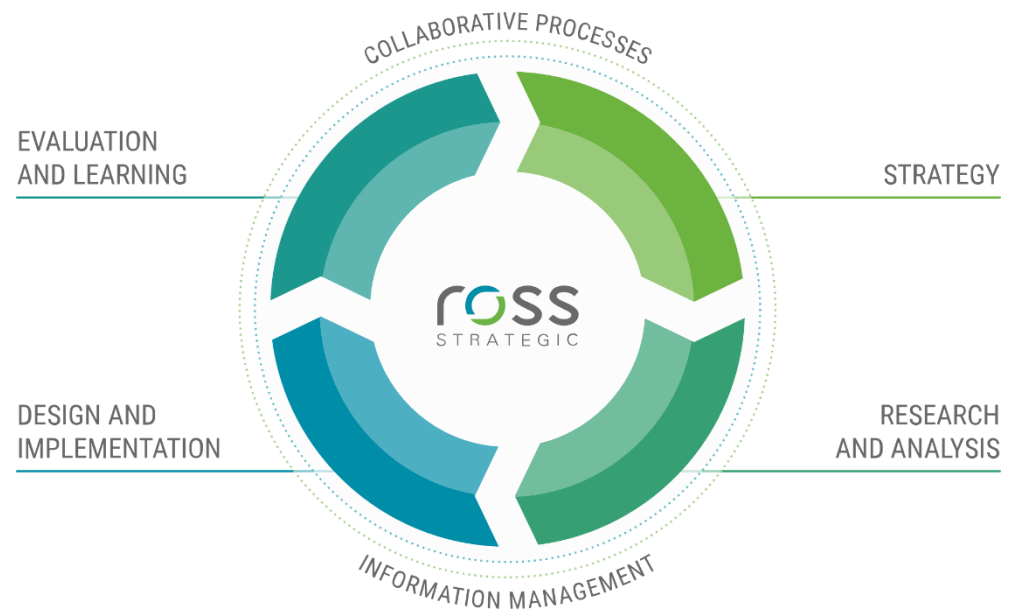
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Who We Are

- Small consulting firm based in Seattle, WA and Austin, TX
- Working at the nexus of the environment, health, and energy
- Federal, State & Local, Foundations, Non-Profit, and International
- Committed to integrating diversity, equity, and inclusion best practices



A New Approach to Energy Efficiency Program Evaluation

- Built on our unique implementation of evaluation principles
- Applied to the residential energy efficiency field
- Captured in Department of Energy's Better Buildings Residential Network [Toolkit: Evaluate and Learn As You Go To Strengthen Performance](#)

The image shows a multi-page document titled "Better Buildings Residential Network TOOLKIT: USING LEARNING TO STRENGTHEN EVALUATION". The document includes a table of contents, an introduction to the toolkit, and a diagram illustrating the relationship between evaluation and learning.

Better Buildings
U.S. DEPARTMENT OF ENERGY

Better Buildings Residential Network
TOOLKIT: USING LEARNING TO STRENGTHEN EVALUATION

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INCORPORATING LEARNING INTO EVALUATION TO IMPROVE PERFORMANCE

...programs wait to evaluate performance until the end of an initiative, when the results arrive too late to make meaningful changes. Unfortunately, this outcome is not a product of evaluations themselves, but rather a sequence of how we use and when we conduct them. Traditional program evaluations can be likened to a student's essay grade; a teacher may provide feedback that will improve performance on subsequent papers, but too late to improve that particular paper. Similarly, evaluation reports often provide the "grade" on whether or not a program was successful in meeting its goals after the fact.

...ever, critical steps exist between the first draft and a final grade: proofreading, external feedback, and editing. Similarly, a need exists for program evaluation and learning, stakeholder engagement, and improvement while a program is still in progress. The cycle of regularly-scheduled reflection and adaptation places programs in an active learning role, with the tools to improve operations and influence the trajectory of their efforts.

Is This Toolkit Important for Residential Energy Efficiency?

This toolkit is for use by residential energy efficiency programs to expand their understanding of how to use evaluations and to learn from their program performance. This toolkit provides resources to conduct meaningful, targeted evaluations mid-program, and a framework for using the insights gained to make adjustments and achieve greater impact. This toolkit does not discount the importance of traditional, independent evaluations which are often conducted retrospectively. Rather, the steps and framework provided below create a roadmap for energy efficiency programs to carry out frequent, targeted evaluations and incorporate refinements during program implementation (see Figure below). At its core, this toolkit is about making evaluations more nimble and adaptable by integrating learning so that programs can make adjustments more responsively, rapidly, and with greater overall program efficacy. |

EVALUATION

LEARNING

WHEN

WHAT

WHY

APPLICATION 2.0: FOR DATA?

ENERGY



How does this approach differ from traditional evaluation?

- Conducted **during a program or initiative**, not at the end
- **Targeted** to tackle specific components or challenges
- **Embeds learning** into the evaluation process
- Helps to surface **key strategic questions**

Benefits of this Approach

Strengthen

relationships with evaluators as it helps bridge the gap between day to day program performance and the longer evaluation cycle

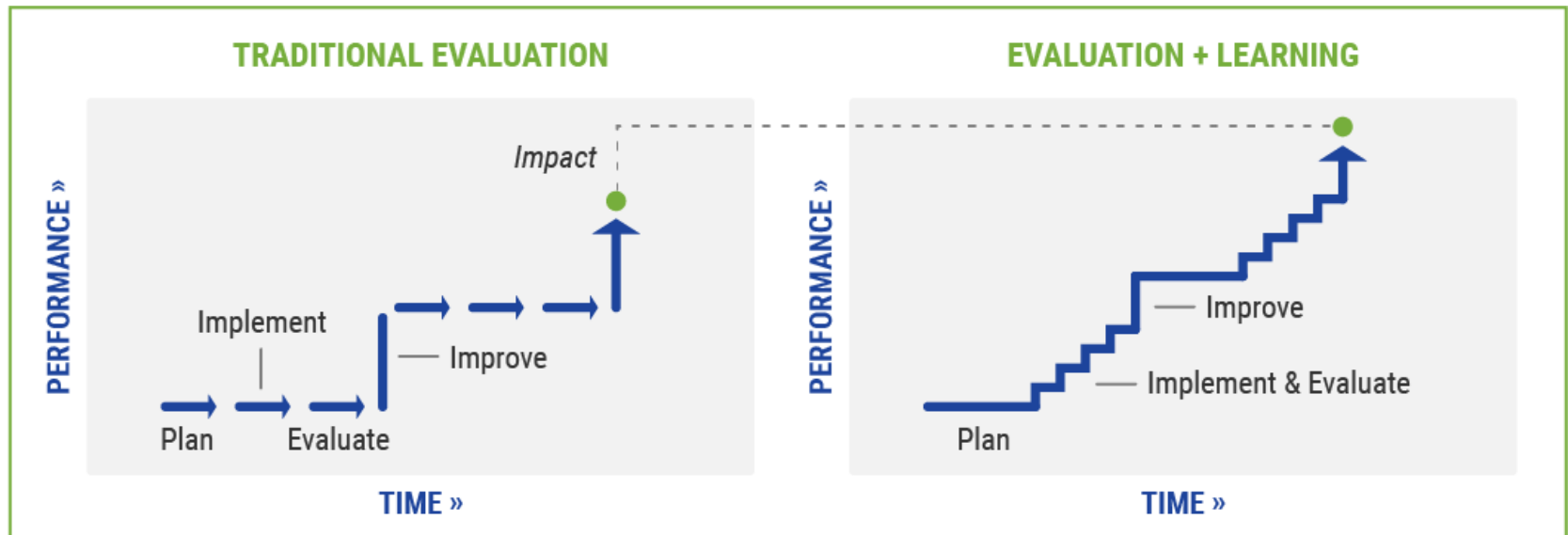
Identify

essential program components to measure by clarifying the goal of evaluation with a targeted framing question

Shorten

the timeframe from evaluation results to program improvements creating a more nimble and adaptable program

Achieve Greater Impact



Learning from Evaluation: A Roadmap for Improvement



What: Review Key Sources of Data

- Come to the discussion with all needed information
- Identify examples of success and failure, highlight defining moments, and compare stories

Goal: *Identify what worked and what did not based on the available facts; avoid providing interpretations of the “why” at this stage in the process.*



So What: Interpret Data and Results

- Mine the data and stories by highlighting what was similar, different, or surprising
- Ask, “So what does this mean?”
- Group similar information in categories

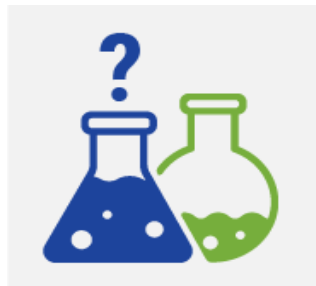
Goal: Identify patterns in the data and stories and develop insights based on those patterns.



Now What: Develop Your Hypotheses

- Transition from a retrospective conversation to thinking about the future
- Ask, “Given what we’ve learned, what will make us more successful in the future?”

***Goal:** Create testable hypotheses to create an actionable path forward for addressing your question and improving the likelihood of future success.*



What Next: Find Opportunities to Incorporate Improvements

- Identify opportunities to test hypotheses in the real world
- When possible, look at existing work or scheduled events to apply lessons learned to activity that is already planned
- Once hypothesis are implemented ask, “Did our solutions lead to our desired results?”

***Goal:** Create a cycle of continual improvement: constantly learning, reflecting, and strengthening of the program.*



This Framework Can....



Help define evaluation design, as well as use evaluation results to refine theory of change, business processes, strategic planning, and program implementation



Be used at many levels – project team, organization, cross-organization, coalitions, or as a backbone of a community of practice



Be conducted in 1 hour up to a 2-day retreat

Putting It Into Practice

Framing Question: How can our program better utilize potential health benefits from energy efficiency upgrades to encourage more homeowners to participate?

<p>30 Minutes: Look for Patterns</p> <p>What insights can we draw from this data?</p> <ul style="list-style-type: none">• What is similar, different, surprising?	<p>30 Minutes: Develop Hypotheses</p> <p>What would make us successful?</p> <ul style="list-style-type: none">• If [action], then [expected result]• What hypotheses are testable?
SO WHAT: INSIGHTS	NOW WHAT: HYPOTHESES
WHAT: DATA	WHAT NEXT: OPPORTUNITIES
<p>30 Minutes: Share Stories</p> <p>What can we learn from our experiences?</p> <ul style="list-style-type: none">• Stories from past work• Facts vs. interpretation	<p>30 Minutes: Commit to Action</p> <p>What are our upcoming opportunities to test new ideas?</p> <ul style="list-style-type: none">• Event/Hypothesis/Action• Event/Hypothesis/Action



Key Takeaways

- In the fast-paced residential EE environment, programs must be nimble and adaptable
- Do not wait to learn, evaluate, and improve at the end of an initiative
- Integrating learning provides a mechanism for testing and measuring multiple-benefits of home upgrades
- It also allows for identifying and updating hypotheses around health outcomes

Thank You!

Athena Bertolino, Senior Associate

abertolino@rossstrategic.com