

Implementing Resource Acquisition and Market Transformation Best Practices to Optimize Market Change in Today's Efficiency Landscape

Meghan Bean, Northwest Energy Efficiency Alliance

Sarah Widder, Northwest Energy Efficiency Alliance

Chris Cardiel, Northwest Energy Efficiency Alliance

Richard Tonielli, Commonwealth Edison

Maddie Hansen-Connell, Center for Energy and Environment

Carl Nelson, Center for Energy and Environment

Jeff Mitchell, Resource Innovations

ABSTRACT

An increasing number of utilities and efficiency organizations have begun to add market transformation (MT) programs to their portfolios. In contrast with conventional resource acquisition (RA) efficiency programs, which focus on near-term savings achieved through discrete interventions, MT seeks to achieve structural, lasting changes to markets for efficient products and practices. The growth of MT in the efficiency sector represents a paradigm shift as administrators begin to explore complex, market-level interventions that require an evaluation approach designed to capture increased adoption across entire markets over many years.

The paper showcases experiences from organizations that are in the early years of MT implementation, as well as those that have been conducting MT for decades, providing a comprehensive view of distinct differences between RA and MT approaches across various activities and program lifecycle phases, including scanning, design, implementation, and evaluation. It discusses how RA and MT program approaches can work together toward shared outcomes to optimize and/or accelerate market change. Finally, the paper provides best practices to overcome some of the critical hurdles associated with achieving and measuring market effects with concrete examples from MT programs around the country and discusses practical implications for utilities, including guidance for developing MT frameworks and identifying areas where MT interventions and evaluation approaches can be beneficial within RA frameworks.

This paper provides insights for professionals looking to navigate the complexities of MT and RA programs to achieve savings in an increasingly crowded, complex, and cost-sensitive energy marketplace.

Introduction

The energy efficiency sector is undergoing a significant evolution as utilities and efficiency organizations seek innovative strategies to maximize the impact of their energy efficiency programs. Traditionally, resource acquisition (RA) initiatives have been the cornerstone of efficiency portfolios, delivering measurable, near-term energy savings through targeted interventions. However, due to the increasing complexity of achieving additional efficiency improvements, more programs are exploring how to complement their RA initiatives with market transformation (MT) efforts that focus on systemic, persistent market change.

This paper explores the interplay between RA and MT approaches, drawing on real-world experiences from organizations at various stages of developing and implementing an MT portfolio. By examining both administrators in the early years of their MT portfolios and those with a long-standing history in MT, the paper provides an in-depth perspective on the distinct regulatory frameworks, methodologies, and outcomes associated with successful MT implementation. Key program phases—including program design, implementation, and evaluation—are analyzed to highlight the unique challenges and opportunities presented by running RA and MT strategies in the same market concurrently.

In today's increasingly complex and competitive energy landscape, the integration of RA and MT best practices is essential for driving market change and achieving energy savings at scale. This paper delineates the differences between these approaches and demonstrates how they can be leveraged together to accelerate MT and optimize RA program outcomes. By presenting proven best practices and concrete examples from across the country, the paper offers actionable guidance for utilities and program administrators considering or implementing MT programs. It addresses common hurdles in measuring and achieving market effects and provides insights into developing robust MT frameworks that complement traditional RA activities.

Through this comprehensive examination, the paper aims to equip energy efficiency professionals with the knowledge and tools needed to navigate the evolving marketplace and design effective programs that deliver lasting value for customers and stakeholders alike.

Resource Acquisition + Market Transformation

Market transformation was first introduced as a concept in the early 1990's (Eckman, Benner, and Gordon 1992) as a program model meant to unlock significant, persistent energy efficiency improvements that would last beyond utility market interventions (York, Nadel, and Subramanian 2022). MT is defined as:

“A reduction in market barriers due to a market intervention, as evidenced by a set of market effects, that lasts after the intervention has been withdrawn, reduced, or changed” (Eto, Prael, and Schlegel 1996).

“A process whereby energy efficiency innovations are introduced into the marketplace and over time penetrate a large portion of the eligible market. Market transformation involves ongoing and lasting change, such that the market does not regress to lower levels of efficiency at some later time” (Geller and Nadel 1994).

A key feature of MT, distinct from RA, is its focus on persistence after the intervention. RA programs generally act to reduce incremental costs to enable customers to purchase more efficient equipment than they otherwise would have, thereby “buying” energy efficiency to negate the need for additional utility generation assets. This approach relies on the premise that the customer would have made a different, and less efficient, choice absent the incentive. Most RA programs are careful to measure and account for only the savings that are the result of direct program intervention. MT efforts, on the other hand, involve strategies aimed at reshaping the market in ways that endure long after the program ends and often involve work to influence mid- and upstream market actors, such as contractors, retailers, distributors, manufacturers, and

energy efficiency specification and standard-setting organizations such as ENERGY STAR® and the U.S. Department of Energy (DOE).

As discussed later in the paper, the evaluation approach typically applied to RA programs is not sufficient for evaluation of MT programs. Instead, robust and defensible MT evaluation relies on Theory-Based Evaluation (TBE) (Chen 1990; Weiss 1998) wherein “the subject of evaluation is an entire defined market rather than a program and its readily identifiable participants. MT evaluations tend to require numerous pieces of evidence that 1) change is occurring; and 2) the program is influential in causing that change” (ILSAG 2026, 133).

In order to understand their complementarity, it is first necessary to consider the ways in which RA and MT programs differ. Table 1 summarizes the core distinctions between RA and MT programs. An RA approach typically focuses on transactional, incentive-driven interventions (for example, rebates) focused on individual purchase decisions made by utility customers. Conversely, MT initiatives engage all parts of the market from manufacturers and regulators to midstream distributors and specifiers to end-users. MT programs apply a range of upstream interventions, including supply chain incentives, market awareness campaigns, market training and competency building, as well as the development and socialization of new rating metrics and voluntary specifications (for example, for products to receive an ENERGY STAR label) to differentiate energy efficient products. While RA programs may also include some marketing and training aspects, they are typically in service of driving uptake of the incentive opportunity. MT training efforts, on the other hand, are more often focused on raising awareness and increasing valuation of the efficiency opportunity in general.

In addition, due to their outsized impact on long-term market dynamics, building codes and appliance standards are often a core part of MT programs, proactively working toward updated requirements that “lock-in” cost effective savings by formalizing requirements for the manufacturing and installation of more efficient products. RA programs typically treat codes and standards reactively, updating baselines for savings attribution and perhaps providing compliance support for updated codes.

Table 1. Comparison of key attributes of RA and MT

Element	Resource Acquisition (RA)	Market Transformation (MT)
Primary Objective	Acquire short-term, cost-effective savings	Achieve long-term structural market change
Market Focus	End-users, program participants	Entire value chain, market ecosystem
Interventions	Incentives, direct installs, rebates	Supply chain initiatives, education and training, workforce development, rating development, voluntary specification and federal standard influence
Codes & Standards Role	Limited role (compliance support)	Core strategy (evidence generation and market preparation)
Evaluation	Direct measure-based savings	Market effects, adoption trends, persistence

Time Horizon (Influence & Cost-Effectiveness)	1–3 years	5–15+ years
--	-----------	-------------

The fundamentally different nature of RA and MT initiatives also changes the timeframe of expected investment and resulting energy savings and how initiatives are evaluated. RA programs are typically focused on cost-effective, immediate savings that can be easily quantified within a portfolio cycle (1–3 years), whereas MT programs require a long-term, data-driven approach that tracks market change over years to decades and are intended to last even after an MT program officially concludes due to the momentum and inertia of market interventions (York, Nadel, and Subramanian 2022; Taylor, Trombley, and Reinaud 2012). MT reshapes entire markets so that efficient products become the default choice. This approach aligns with diffusion-of-innovation theory (Rogers 1995), which explains how new products and practices spread gradually through consumer groups until reaching a tipping point of widespread acceptance. Early efforts require higher initial investment to establish the conditions for enduring, compounding energy and cost savings as early investments lead to longer-term effects and the market transforms (Figure 1).

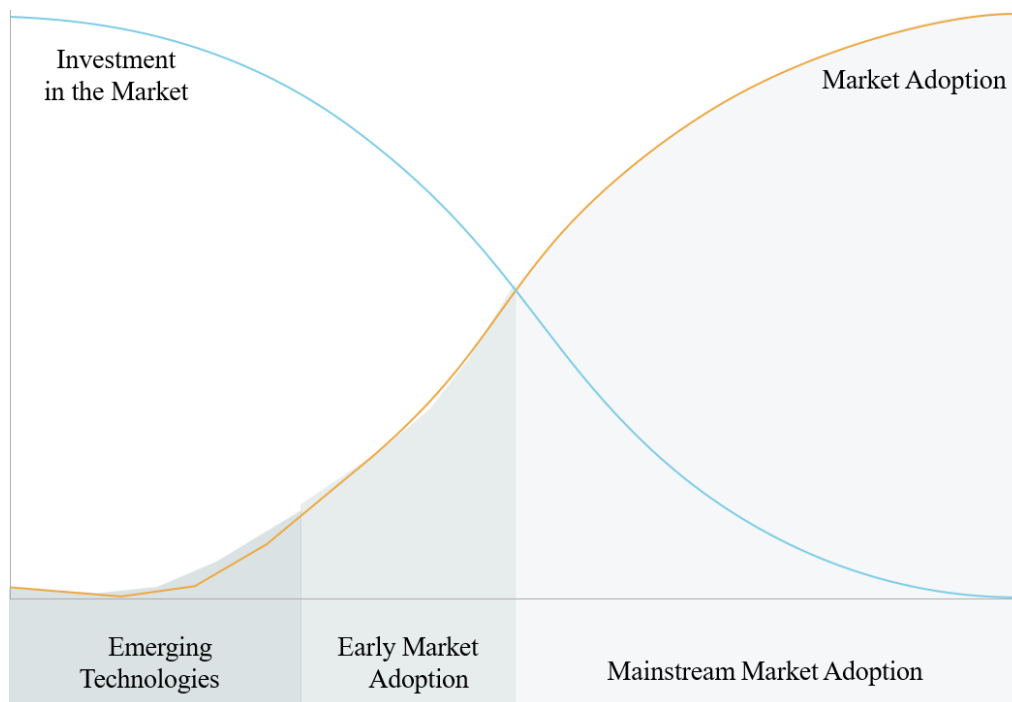


Figure 1. Depiction of decreasing financial investment in MT programs and increasing market adoption of targeted energy efficient units over time. *Source:* Adapted from NEEA internal documentation.

Market Transformation Programs Examined in this Paper

Northwest Energy Efficiency Alliance (NEEA)

The Northwest Energy Efficiency Alliance (NEEA) is a regional energy efficiency organization founded in 1993 and based in Portland, Oregon, representing a coalition of over 140 utilities and efficiency organizations. Through MT activities implemented across a portfolio of 20+ electric, natural gas, and dual-fuel programs supplemented by additional special project efforts, NEEA and its partners work to catalyze the most efficient use of energy in its four-state region (Idaho, Oregon, Montana, and Washington). NEEA's portfolio includes programs of varying maturity, from those still being readied for active market intervention (for example, NEEA's Efficient Commercial & Industrial Fans program, which seeks to make lasting changes to the market by increasing awareness of and confidence in efficient fan equipment) to those with a longstanding presence in the market (for example, the Heat Pump Water Heaters program, which has been actively engaged since 2005, encouraging manufacturers to develop products that address installation challenges and increasing awareness among market actors and end-users; NEEA 2025a). In addition to the leadership and direction provided by its Board of Directors, NEEA receives technical and programmatic guidance from sector-specific coordinating committees, its Cost-Effectiveness and Evaluation Advisory Committee, and others.

To evaluate its progress toward sustained MT, NEEA employs an evaluation framework prioritizing a “preponderance of evidence” approach rooted in TBE whereby each program identifies short-, medium-, and long-term intended outcomes, with nearly all outcomes including multiple observable market progress indicators (MPIs). The primary purposes of this evaluation framework are to: (1) illustrate the underlying program logic intended to accelerate adoption of more energy-efficient technologies, (2) establish metrics that collectively gauge progress in alignment with the hypothesized program logic, and (3) field theory-driven evaluations to track market progress and support ongoing program management. While NEEA is exclusively focused on MT as its approach to supporting energy efficiency in the Northwest, the organization engages closely with regional utilities to ensure its MT efforts are complementary to rather than duplicative of or at odds with RA programs. As part of its MT work, NEEA provides funders with estimates of energy savings, both historical and forward-looking, based on NEEA's long-term engagement in markets. This savings reporting is grounded in an accounting approach designed to avoid double counting energy savings for concurrent RA and MT programs.

Commonwealth Edison (ComEd)

Founded in 1907, ComEd is an investor-owned electric energy transmission and distribution utility serving over four million customers in northern Illinois. ComEd's energy efficiency programs are established through state legislation, the most recent being the Clean and Reliable Grid Affordability Act signed into law in January 2026. In alignment with such legislation, ComEd collects funds through customer bills to be used on energy efficiency programs. The utility has offered RA programs since 2008; their efforts were expanded to include MT initiatives in 2020 following engagement with an Illinois workgroup including NEEA, the Midwest Energy Efficiency Alliance, and other MT thought leaders (LeZaks et al. 2024). By the end of 2025, ComEd had paid out more than \$2.5 billion in energy efficiency incentives, resulting in customer bill savings of over \$13 billion.

The Illinois Technical Reference Manual (TRM) (ILSAG 2026b) includes a specific section dedicated to MT that lays out the framework for evaluation of utility MT programs in the state. Additionally, the TRM specifies that all Energy Efficiency programs (including ComEd's MT efforts) be submitted to a third-party evaluator for analysis of program performance and reporting of results to the Illinois Commerce Commission. The types of information reported in the evaluation process vary across MT programs based on each program's unique characteristics; ComEd works collaboratively with their third-party evaluator during the development of MT initiatives to establish evaluation plans facilitating the measurement of program impact, including addressing situations in which MT and RA programs overlap.

Center for Energy and Environment (CEE)

The Center for Energy and Environment (CEE) is a nonprofit organization founded in 1988 and dedicated to the mission of discovering and deploying the most effective energy solutions that strengthen the economy and improve the environment. The organization's MT program branch, the Efficient Technology Accelerator (ETA), was established in 2023 and currently includes five initiatives (Air Source Heat Pumps, High-Performance Windows, Next-Generation Rooftop Units [RTUs], Luminaire-Level Lighting Controls, and Codes and Standards Advancement) (ETA 2025a). The ETA is written into Minnesota Statutes, funded by regional utilities, and administered and primarily regulated by the Minnesota Department of Commerce. The ETA is implemented by CEE and receives guidance from a robust set of advisory committees (coordinating committee, evaluation committee, emerging tech committee, and market strategy committees) comprised of funding utilities, state agencies, NEEA staff, and other market actors. The ETA's MT efforts involve close coordination with program managers from funding utilities, both via market strategy committees and through regular initiative-specific check-ins, as well as regular portfolio-level meetings with representatives from all utilities.

Each MT initiative works to develop program theories and an evaluation framework in the initial steps of a stage gate process to approve new initiatives. This includes conducting a Market Characterization study to understand barriers, opportunities, and market dynamics; creating a logic model and MT strategy documentation; and developing an Energy Savings and Market Evaluation Plan to outline savings calculations and MPIS. Once a program is launched in the market, market research and evaluation are conducted through a combination of in-house and third-party studies on a regular cadence to both evaluate and inform adaptive management of program strategy. The results of these studies are made public and shared with ETA stakeholders, market actors, and the general public to disseminate key insights. All MT programs also include a robust multi-stage savings calculation and cost-benefit analysis process, with results made publicly available through an annual regulatory filing.

California Market Transformation Administrator (CalMTA)

The California Market Transformation Administrator (CalMTA) was established in 2022 by the California Public Utilities Commission (CPUC) via Decision 19-12-021 (California Public Utilities Commission 2019), with the mission of creating a portfolio of market-level initiatives for the State that work to deliver cost-effective energy efficiency and reduce greenhouse gas emissions. CalMTA is funded by ratepayers through California's investor-owned utilities and is administered by Resource Innovations. All of the organization's MT programs must apply for and receive CPUC approval through a process that includes a transparent public

review and comment process. Given the recency of its establishment, CalMTA's program portfolio is still growing, with two approved programs (Room Heat Pumps and Induction Cooking) and several others in development or pending approval (Commercial RTUs, Commercial Replacement and Attachment Window Solutions, Residential Heat Pump Water Heating, Foodservice Water Heating, and the Commercial Building Efficiency Accelerator).

CalMTA works closely with and seeks input from the concurrently established Market Transformation Advisory Board (MTAB; CalMTA 2026) on the development and implementation of these and any future MT initiatives. To ensure rigorous and consistent evaluation of their MT efforts, CalMTA established an MT Initiative Evaluation Framework laying out the purposes, principles, and approaches intended to guide the organization's studies (CalMTA 2024). Additionally, California requires that MT programs develop a plan to minimize redundancy with RA programs in overlapping geographies. CalMTA engages RA programs to identify points of potential overlap with in-development MT programs and define an approach that will: (1) limit consumer and market confusion, (2) enhance the ability of programs to achieve their goals, (3) overcome barriers to a program serving a unique market segment, and (4) ensure effective use of program and CalMTA resources by aligning activities.

Benefits of Conducting RA and MT Work in the Same Markets

This section outlines the benefits associated with offering RA and MT programs in the same market simultaneously. Each of the organizations examined in this paper offer MT programs that complement existing utility RA programs, operating within unique regulatory and funding frameworks. For example, ComEd and NEEA both participate in the national ENERGY STAR Retail Products Platform (ESRPP) program, which they operate and evaluate under MT frameworks. This program provides incentives to retailers for sales of qualified consumer goods such as refrigerators, clothes washers, and clothes dryers. At the same time, ComEd and utilities within NEEA's region operate RA programs that provide incentives or rebates to consumers for purchases of efficient products supported through ESRPP. In California, CalMTA's room heat pump initiative is engaging manufacturers on technical improvements to these products to best meet California market needs, and it is pursuing national specifications and ENERGY STAR certification in partnership with the Consortium for Energy Efficiency. At the same time, some utilities in California run RA programs that offer consumer rebates for purchases of room heat pumps. In Minnesota, CEE implements an Air Source Heat Pump (ASHP) MT program that "works with market actors to establish heat pumps as the preferred option when upgrading heating and cooling systems" (ETA 2025b) in a market where utilities also support consumer uptake of these products through their RA programs. Some of the ETA's unique interventions include supporting contractor "champions" through training and certifications, establishment of a preferred contractor network, and resources to support contractor business development; organizing and supporting a marketing cohort of local government and other organizations to promote ASHPs; and direct engagement with distributors and manufacturers to encourage stocking and promotion of efficient products and align on desired equipment specifications.

Working at Multiple Market Levels Unlocks More Comprehensive and Durable Change

MT activities often improve the performance of RA programs by increasing product availability, contractor familiarity, and customer readiness. In turn, RA participation validates MT efforts by demonstrating near-term sales movement and reinforcing upstream commitments.

When RA and MT operate concurrently in the same market, programs can influence the entire supply chain—from manufacturers and distributors to contractors and end-use customers—rather than acting on only one part of the value chain at a time. MT efforts focused on midstream levers (for example, influencing retailer stocking and assortment or providing trainings to distributors and installers) help expand product availability and trade ally capability, while RA incentives stimulate consumer uptake. Together, these interventions reduce friction along the adoption pathway and accelerate the shift toward efficient technologies. CalMTA’s alignment with utility RA programs seeks to ensure upstream signals and customer-facing offers reinforce each other to encourage growth in demand for efficient products from both upstream market actors and consumers to create greater leverage with manufacturers.

Shared Research and Coordination on Market Outreach Reduces Cost and Respondent Fatigue and Strengthens Market Knowledge

RA and MT programs can benefit from pooling market research, customer insights, market relationships, and data pipelines (for example, point-of-sale or shipment data). CalMTA co-funds research with RA program administrators, creating cost efficiencies and providing stronger evidence for both immediate savings claims and long-term MT. In the Northwest, NEEA collaborates actively with utilities and other organizations offering efficiency programs and conducting research in the region, such as Energy Trust of Oregon and the Bonneville Power Administration. This ensures that organizations are not needlessly duplicating effort or over-taxing the same respondent populations. CEE’s Air Source Heat Pump “State of the Market” (ETA 2025b) research also demonstrates this mutual lift: utilities distributed a consumer survey through their rebate programs, increasing response rates and yielding more representative results that helped both CEE’s MT program and the utilities’ RA programs refine messaging and better understand customer experiences and barriers.

An RA + MT Approach Expands Opportunities to Maximize Efficiency as a Resource

Together, RA and MT can create a pipeline of future savings—by preparing the market, building workforce capacity, and supporting codes and standards—while delivering measurable near-term performance. This combined strategy also helps portfolios adapt to changing conditions, shifting emphasis between RA and MT based on cost-effectiveness, maturity of the measure, and market readiness. ComEd’s experience with ESRPP illustrated that running MT-style midstream interventions (specifically, incentives to retailers for sales of qualified consumer products) alongside traditional RA approaches (point of sale rebates to customers) helped the utility understand which pathways were more cost-effective and enabled program managers and other stakeholders to work through how best to reduce overlap in the programs’ reach. In addition, MT programs focused on codes and standards interventions often create a robust and leading policy environment due to: (1) direct and intentional engagement in the codes and standards landscape, (2) the development of robust data to support code developments, and (3) a systemic and long-term view of success in codes and standards interventions.

Challenges of Conducting RA and MT Work in the Same Markets

Launching an MT portfolio can be challenging, particularly in states or regions that do not have or are in the process of developing a framework for evaluating MT savings. Further,

adding an MT program to a market with existing RA programs can create friction. This section details challenges faced by the four organizations examined in this paper.

Moving from an RA-only Framework to a Framework that Enables MT Savings Requires a Significant Mindset Shift

RA emphasizes short-term, quantifiable savings, while MT requires long-term investment and acceptance of market indicators that serve as precursors to savings. RA evaluation often involves assessing the connection between specific program dollars to purchases of individual units. Stakeholders who are used to the RA evaluation framework may, at first, find it difficult to accept widely used MT evaluation approaches that rely on the assessment of a preponderance of evidence to demonstrate influence across multiple metrics rather than direct attribution of dollars to savings. Because many MT interventions, such as incentives for national retailers and engagement in voluntary specification and federal standard update processes, are more impactful when they are supported by multiple regions, states, and/or organizations rather than by a single entity, NEEA has supported work to develop MT frameworks in Illinois, Minnesota, California, and other states. These efforts increase support for and the effectiveness of MT interventions, enabling NEEA to bring greater value back to the Northwest. In each instance it takes months, if not years, of ongoing trainings, group discussions, and one-on-one coaching to familiarize stakeholders with MT theory, implementation, and evaluation and to help stakeholders and evaluators get comfortable with this considerable and meaningful shift beyond conventional RA evaluation and to look beyond immediate savings to value MT as a long-term investment. As more and more states and regions develop frameworks for claiming MT savings, more program administrators, stakeholders, and evaluators will be exposed to MT principles and there will be more examples of impactful, cost-effective MT programs generating reliable savings.

Conventional Cost-Effectiveness Frameworks Do Not Capture the Full Benefit of MT

Conventional cost-effectiveness frameworks reflect RA program design and prioritize short-term savings; they are not set up to tolerate the higher short-term investment and longer-term savings horizon implicit in MT program design (depicted in Figure 1). The RA evaluation approach may also undervalue the long-term, structural benefits of MT. Similarly, organizations may find it challenging to evaluate concurrent RA and MT programs using the same planning horizon. Until a state or region fully aligns on a framework, proponents will struggle to get buy-in for MT work. For example, ComEd has found it challenging to include the high up-front costs and long-term savings forecasts associated with MT work, and the uncertainties associated with those forecasts, in portfolio planning exercises historically built around RA.

Stakeholders May Fear “Cannibalization” or Double-Counting of Savings

If stakeholders do not have a clear understanding of how RA and MT programs complement one another to increase the size of the “pie” of potential savings, RA and MT activities can appear to compete for the same savings, creating tension when near-term savings dominate portfolio performance expectations. At the very least, stakeholders may not recognize how MT activities increase participation in RA programs, or they may be concerned about double-counting or under-crediting program influence. ComEd experienced this challenge with both ESRPP and its energy code advancement work. For example, careful coordination with

evaluators was needed to develop trust and credibility in the evaluation process and ensure that RA incentive programs and the ESRPP MT effort did not make overlapping savings claims.

All of the organizations examined in this paper have set up processes for transparently documenting utility savings and subtracting them from MT-reported savings to ensure that double-counting does not occur. NEEA conducts an annual survey of its funding utilities, for example, to document the number of incentives these organizations provided for products that are supported by NEEA MT programs. Figure 2 depicts how NEEA tracks uptake of energy efficiency units supported by its MT programs. First, NEEA uses market data to document actual sales of units (the black line) and subtracts the Natural Market Baseline (represented by the blue line).¹ The remainder represents the “co-created” influence of NEEA and its funding utilities/efficiency organizations (the dark and light green shaded sections combined). From there, NEEA uses data from the funder survey to subtract out units claimed by RA programs (the light green section), leaving only units supported by NEEA’s MT efforts (the dark green section). ComEd, CEE, and CalMTA all use similar approaches modeled after NEEA’s.

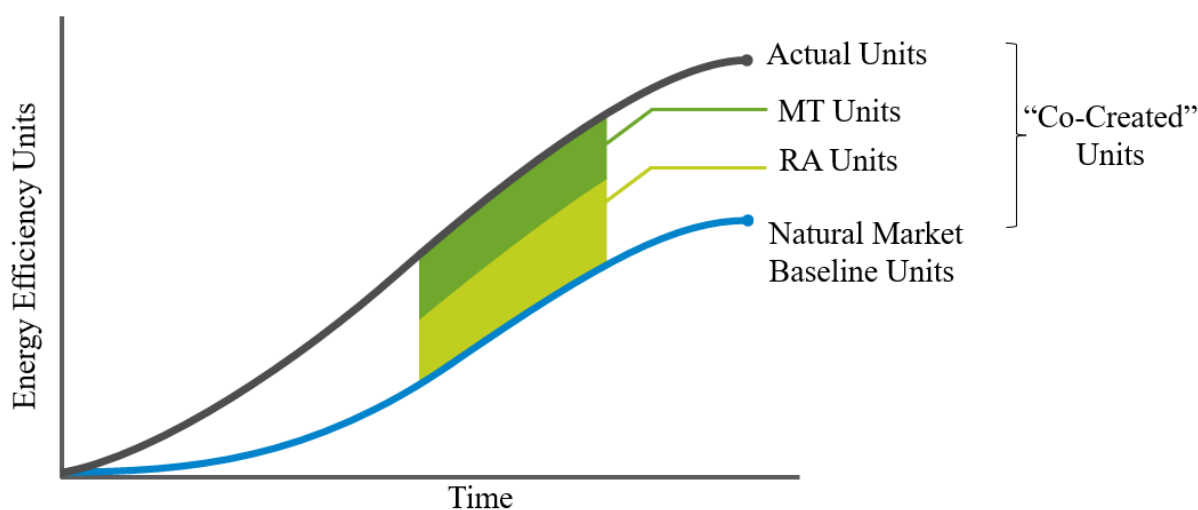


Figure 2. Depiction of NEEA’s approach to determining uptake of energy efficient products supported by funder RA programs versus a NEEA MT program. *Source:* Adapted from NEEA internal documentation.

Uncoordinated Messaging Risks Market Confusion

If programs operating in the same market are not aligned and actively coordinating, they may create confusion among customers, trade allies, and/or supply-chain actors, diluting rather than amplifying influence. For example, inconsistent messaging, unaligned eligibility requirements or qualified product lists (QPLs), or competing incentives can confuse targeted populations or create frustration or negativity toward the product, which can limit the desired uptake of the more efficient product or practice. CEE notes that RA and MT initiatives operating in Minnesota often interact with the same contractors and end users. To reduce the risk of market confusion, they have established regular, coordinated communication with utilities to ensure that

¹ The Natural Market Baseline (NMB) is a forecast of the future market if utilities and other efficiency organizations, including MT program administrators, had not intervened in the market. NMBs can be developed using a variety of sources, including market data, proxy data, or quantitative modeling. Typically, the baseline assumes some adoption of the targeted product over time absent program intervention (ILSAG 2026).

their programs are working together rather than against one another. NEEA engages funders through regular sector-specific coordinating committees to talk through overlapping efforts, and the organization publishes regular newsletters to ensure that key stakeholders are informed about its programmatic and research and evaluation activities.

Best Practices for Conducting RA + MT Work in the Same Markets

As more program administrators execute MT strategies, a growing body of experience is emerging that demonstrates what it takes to manage this work effectively within the same market as existing RA programs. While RA and MT differ in objectives, time horizons, and evaluation methods, the organizations examined in this paper have found that the two can reinforce one another when designed and implemented with intention. The following best practices synthesize lessons from these organizations and offer a roadmap for structuring governance, aligning interventions, engaging stakeholders, and evaluating progress in ways that maximize the strengths of both RA and MT approaches while minimizing overlap and confusion. This section is organized to provide best practice recommendations for three separate stages—regulatory framework development, portfolio development and implementation, and evaluation—and ends with a call to action regarding the importance of national collaboration on MT efforts.

Regulatory Framework Development

Create a separate regulatory framework for MT that values the approach’s long-term investment and savings horizon. To fully realize the benefits of MT, states/regions should adopt regulatory frameworks that are separate from the structures used for RA programs, which emphasize short-term, directly attributable, and easily quantifiable savings. Because MT requires sustained investment over a longer time horizon, it relies on evaluation of market indicators that serve as precursors to eventual savings. Persisting within RA-oriented regulatory structures forces MT programs into a mold that is fundamentally misaligned with their goals, leading to undervaluation of long-term benefits and overly narrow expectations for attribution. A dedicated MT regulatory framework should also explicitly recognize that MT initiatives operate by influencing multiple actors and market conditions rather than driving single-purchase decisions. States/regions developing MT frameworks should incorporate TBE methods and establish expectations that meaningful market change requires coordinated, multi-year efforts.

CEE and CalMTA, and to a certain extent NEEA, operate in regions that have separate regulatory frameworks for MT and RA—that is, a separate budget, separate objectives and rules, and a separate administrator. This helps to mitigate the pressure to prioritize short-term savings and allocate resources towards achieving short term goals. In Minnesota, policymakers set up, in statute, a separate framework for MT programs. This included establishing a statewide MT program with a separate budget and administrator, long-term goals, and a separate evaluation process. California’s framework is similar to Minnesota’s and specifically calls out the need to coordinate with RA programs to minimize redundancy and market confusion. In Minnesota, this separate framework has not hindered collaboration efforts between MT and RA programs. Ongoing communication and collaboration have helped to better align RA program specifications across multiple utility territories and support broader MT goals to reduce market confusion and align stocking practices. As ETA has started to claim savings, utilities RA programs increasingly see the value that MT initiatives can bring to their overall portfolio.

State/regions developing MT frameworks should also consider implementing portfolio-level cost-effectiveness criteria that capture the lifetime of the initiative. California's approach, which was modeled off of NEEA's, for example, stipulates that "there will not be an individual threshold benefit-cost ratio that MTIs must pass initially; rather, the expected cost-effectiveness of each MTI will be considered in selection of the MTI portfolio. CalMTA must manage the cost-effectiveness of the market transformation portfolio, with an eye toward increasing cost-effectiveness of the entire portfolio over the long term" (California Public Utilities Commission 2019). Further, California's timeframe of forecasted costs and benefits for MT extends to the lifetime of the initiative, rather than just the program funding period (CalMTA 2024).

Engage regulators and stakeholders early and often. Building an understanding of MT theory, design principles, implementation, and evaluation methods requires sustained education and support, especially for stakeholders who are steeped in conventional RA program approaches. CEE found that having established MT best practices and a visible example in NEEA gave Minnesota regulators confidence in approving MT approaches. Illinois and California also engaged staff from NEEA to support the development of their MT frameworks and early implementation, enabling them to capitalize on lessons learned through decades of work in the Northwest. In California, CalMTA staff found that initial briefings with key RA program administrators to begin socializing MT concepts, regular meetings to solicit feedback on evolving MTIs at key milestones, and transparent sharing of MTI documents through MTAB meetings and a formal public comment process helped mitigate confusion and conflict.

Establish an approach for tracking RA savings to avoid double-counting. Administrators interested in conducting and reporting savings associated with MT programs should establish a transparent, feasible, and sustainable approach for documenting savings generated by RA programs operating in the same markets, such as NEEA's annual funder survey. This will streamline evaluation efforts, ensure the same savings are not counted twice, and build confidence in MT as a complement, rather than a competitor, to existing RA programs.

Portfolio Development & Implementation

Pair long-term investments with near-term payoffs to build momentum. NEEA runs a portfolio of 20+ programs, primarily in the residential and commercial sectors. At any given time, NEEA is supporting programs in the early stages of development along with programs that are well-established. This enables NEEA to balance the risks and rewards of pursuing new products and strategies while reaping the benefits of programs that have been in the market long enough that they are achieving long-term outcomes and the associated energy savings. CEE's initial starter portfolio, on the other hand, was developed to deliver early savings and build stakeholder confidence in MT. Over time, CEE's early programs will mature, creating greater portfolio-level stability and enabling the organization to expand into new markets.

Support portfolio-level risk management with stage-gated MT planning. NEEA, CEE, and CalMTA implement similar, stage-gated Initiative Lifecycle (ILC) processes that provide a framework for assessing MT program investments. As shown in Figure 3, this process enables thoughtful management of programs from identifying and defining opportunities for efficiency advancement, developing and testing a program model, launching at scale, and exiting a market once evaluation metrics indicate that transformation will continue without active intervention.

ComEd also implements a research and development-to-portfolio transition model that tests MT programs in a pilot phase. Only after an MT initiative demonstrates positive results and an acceptable degree of predictability of market impact through the evaluation process is the initiative incorporated into portfolio planning. This proof-of-concept approach helps balance the uncertainty introduced by including MT within RA-dominated budgets.



Figure 3. NEEA's Initiative Lifecycle (ILC) process. *Source:* NEEA internal documentation.

Evaluation

Use theory-driven, evidence-based methods to assess MT influence. NEEA, ComEd, CEE, and CalMTA all use evaluation frameworks that draw from the same TBE principles, including:

- Foundational market characterization research to document barriers to efficient product adoption, key market actors and the drivers for their decision-making regarding the product(s) of interest, and market intelligence to inform savings estimation
- Development of a logic model to document: barriers to adoption; activities expected to help the market overcome those barriers; the outputs of those activities; short-, medium- and long-term market outcomes that are expected to occur if the program logic is correct and the activities are effective; and MPIS that measure progress on each outcome
- Regular evaluations (typically conducted every one to two years) to measure market progress and support adaptive program management
- Development of rigorous counterfactual baselines (what the market would have looked like absent the intervention) to which actual market uptake will be compared

While there are nuanced differences between each organization's approach due to its regulatory framework, funding model, and other factors, the fact that more and more states and regions have gone through the machinations of developing an MT framework and have aligned on the same principles demonstrates the credibility of this theory-driven approach to documenting influence.

Document collaborative and indirect influence. MT initiatives often seek to influence multiple levels of a complex market, and evaluation cannot rely on the direct tracking of funding dollars to program activities to measure discreet outcomes. Further, MT influence requires collaboration with many other organizations. NEEA's building energy code influence work, for example, involves collaboration with a wide range of state, regional, and national entities. NEEA and ComEd have found that effective evaluation of building energy code influence requires an approach capable of capturing indirect effects and upstream influence that does not require administrators to disentangle the separate influence of every contributing organization but, instead, acknowledges that collaboration is an effective and necessary strategy. CEE has also

established a code evaluation approach that does not require evaluators to separate out the discrete influence of individual collaborators.

Use transparent, publicly available reporting to build credibility. All four organizations examined in this paper share evaluation results publicly on their websites and engage stakeholders regularly through multiple outlets to share knowledge, solicit input on evaluation challenges or proposed changes, and build trust and confidence in reported energy savings. NEEA and CEE, for example, each meet quarterly with evaluation-related advisory committees to present key findings from recently completed market progress evaluation reports and share the rationale for and solicit input on updates to savings-related assumptions.

The Importance of National Collaboration

This paper focuses on learnings from the Northwest (Idaho, Montana, Oregon, and Washington), Illinois, Minnesota, and California. Importantly, the MT work conducted by NEEA, ComEd, CEE, and CalMTA is not happening in isolation. As discussed below, MT efforts are often much more effective and impactful when they are conducted in collaboration with extra-regional partners. Administrators, states, or regions interested in beginning MT work should actively pursue relationships with other organizations from across the country that offer MT programs or can partner to support an individual intervention. As noted above, pointing to the established successes of other MT administrators can build trust and confidence among stakeholders when a state or region begins to discuss the value of adding an MT framework to their portfolio.

The benefits of collaboration go well beyond the initial stages of MT work, however. Many common MT strategies are much more effective with greater scale and geographic reach. Programs that seek to influence national retailers and manufacturers, for example, are likely to be much more effective when supported by multiple administrators across the country, which can increase the pool of available incentives and demonstrates wide-reaching buy-in. Consumer products retailers participating in the ESRPP program, for example, shared with evaluators that they pay close attention to the number of sponsors participating in the program and to the available pool of incentive dollars. Evaluators noted that “the program’s influence would grow with increased market coverage and incentive budgets” (NEEA 2021). Further, efforts to influence federal standards and voluntary specifications (for example, ENERGY STAR specifications)—two strategies to “lock in” greater market acceptance of an energy efficient product or practice—can be much more effective when states/regions pool their data to demonstrate that trends in adoption or other key metrics cross multiple parts of the country.

Conclusion

Together, RA and MT approaches can accelerate adoption in the near term while building the structural conditions required for sustained, cost-effective energy efficiency. Across the Northwest, Illinois, Minnesota, and California, experience shows that coordinated RA + MT portfolios can deliver deeper savings, reduce long-term costs, and prepare markets for codes, standards, and emerging technologies. When supported by clear regulatory frameworks, robust evaluation methods, and ongoing stakeholder collaboration, RA and MT efforts reinforce each other and drive more durable and equitable market change.

References

- CPUC (California Public Utilities Commission). Decision 19-12-021 December 5, 2019. “Order Instituting Rulemaking Concerning Energy Efficiency Rolling Portfolios, Policies, Programs, Evaluation, and Related Issues.” Date of issuance December 12, 2019.
docs.cpuc.ca.gov/PublishedDocs/Published/G000/M321/K507/321507615.PDF.
- CalMTA (California Market Transformation Administrator). 2024. *Market Transformation Initiative Evaluation Framework*. Half Moon Bay, CA: CalMTA. calmta.org/wp-content/uploads/2025/04/Market-Transformation-Evaluation-Framework-FINAL.pdf.
- CalMTA (California Market Transformation Administrator). *Advisory Board*. Accessed March 11, 2026. calmta.org/advisory-board/.
- Chen, H.-T. 1990. *Theory-Driven Evaluations*. Thousand Oaks, CA: Sage Publications.
- Eckman, T., N. Benner, and F. Gordon. 1992. “It’s 2002: Do You Know Where Your Demand Side Management Policies and Programs Are?” Proceedings of the 1992 ACEEE Summer Study on Energy Efficiency in Buildings 5: 1-17. Washington, DC: ACEEE.
aceee.org/files/proceedings/1992/data/papers/SS92_Panel5_Paper02.pdf.
- ETA (Efficient Technology Accelerator). 2025a. *2024 Annual Report*. Minneapolis, MN: Center for Energy and the Environment. etamn.org/sites/default/files/research-papers/ETA%202024%20Annual%20Report.pdf.
- ETA (Efficient Technology Accelerator). 2025b. *ASHP State of the Market Report*. Minneapolis, MN: Center for Energy and the Environment. mncee.org/sites/default/files/report-files/ASHP%20State%20of%20the%20Market%20FINAL.pdf.
- Eto, J., R. Pahl, and J. Schlegel. 1996. A Scoping Study on Energy-Efficiency Market Transformation by California Utility DSM Programs. Prepared by Berkeley Lab. Washington, DC: DOE. emp.lbl.gov/publications/scoping-study-energy-efficiency.
- Geller, H., and S. Nadel. 1994. “Market Transformation Strategies to Promote End-Use Energy Efficiency.” Annual Review of Energy and the Environment 19: 301–46. aceee.org/research-report/e941.
- ILSAG (Illinois Energy Efficiency Stakeholder Advisory Group). 2026. *2026 Illinois Statewide Technical Reference Manual for Energy Efficiency Version 14.0, Volume 4: Cross-Cutting Measures and Attachments*. www.ilsag.info/wp-content/uploads/IL-TRM_Effective_010126_v14.0_Vol_4_X-Cutting_Measures_and_Attach_0919025_FINAL.pdf.
- LeZaks, J., D. Streit, R. Tonielli, A. Lindburg, M. Liput, and M. Koolbeck. 2024. *A Win-Win Strategy: Municipality and Utility Partnership on Advanced Building Policy Market Transformation*. Washington, DC: ACEEE.
aceee.org/sites/default/files/proceedings/ssb24/assets/attachments/20240722160751922_820b1c8e-f63b-4604-a4e1-3fa186bbadc0.pdf.

- NEEA (Northwest Energy Efficiency Alliance). 2021. *Retail Product Portfolio Market Progress Evaluation Report #1*. Portland, OR: NEEA. [neea.org/wp-content/uploads/2025/03/RPP-MPER-1.pdf](https://www.neea.org/wp-content/uploads/2025/03/RPP-MPER-1.pdf).
- NEEA (Northwest Energy Efficiency Alliance). 2025a. *Cycle 2 (2025-2029) Strategic & Business Plans*. Portland, OR: NEEA. [neea.org/wp-content/uploads/2025/03/NEEA-2025-2029-Strategic-and-Business-Plans.pdf](https://www.neea.org/wp-content/uploads/2025/03/NEEA-2025-2029-Strategic-and-Business-Plans.pdf).
- NEEA (Northwest Energy Efficiency Alliance). 2025b. *2026 Operations Plan*. Portland, OR: NEEA. [neea.org/resource/2026-operations-plan](https://www.neea.org/resource/2026-operations-plan).
- Rogers, E. M. 1995. *Diffusion of innovations* (4th ed.). New York: Free Press.
- Taylor, B., D. Trombley, Julia Reinaud. 2012. “Energy Efficiency Resource Acquisition Program Models in North America.” Institute for Industrial Productivity. [iel26.pdf](#).
- Weiss, C. H. 1998. *Evaluation Methods for Studying Programs and Policies, 2nd Edition*. Upper Saddle River, NJ: Prentice Hall.
- York, D., S. Nadel, and S. Subramanian. 2022. U.S. and International Experience with Market Transformation. Washington D.C.: American Council for an Energy-Efficient Economy. www.aceee.org/sites/default/files/pdfs/market_transformation_6-13-22.pdf.