

IT'S COMPLICATED: LONGITUDINAL EVALUATION OF MARKET TRANSFORMATION PROGRAMS IN A COMPLEX REGIONAL ENERGY ECOSYSTEM

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This poster presents an organizational and evaluative framework employed by a regional energy efficiency organization to (a) illustrate how a market transformation (MT) program is hypothesized to work and result in a sustained market change, (b) establish metrics that collectively gauge progress in overcoming identified market barriers or otherwise changing the market in alignment with the hypothesized program logic, and (c) field theory-driven "influence evaluations" on a regular cadence in service to both assessment of market influence and adaptive program management. This approach prioritizes the provision of a preponderance of evidence whereby each program identifies multiple short-, medium-, and long-term intended outcomes, with nearly all such outcomes including multiple observable indicators of market progress. Within this framework, a given program's set of metrics must, collectively, offer a compelling narrative regarding the organization's progress in transforming the market in question in the manner predicted by the program's logic model. During program evaluation planning, evaluators prioritize the development of metrics that are likely to be sustainable for the duration of the program's lifespan, with particular attention dedicated to the availability and stability of relevant data sources. Through repeated fielding of evaluations focused on established indicators, the organization has the ability to monitor progress towards the expected market outcomes defined in the logic model and suggest adaptive management responses on the basis of emergent findings.

The poster will both present this approach in general terms and outline a case study of one program's use of the framework, specifically focusing on the recently completed first Market Progress Evaluation Report (MPER) for the Northwest Energy Efficiency Alliance's (NEEA's) Extended Motor Products (XMP) pump and circulator program. Through this study, NEEA's third-party contractor reviewed and assessed the clarity and alignment of the program's guiding documentation, including the Program Logic Model, Market Transformation Theory, and Market Progress Indicators (MPIs). Following this review, ADM evaluated NEEA's first year of progress in transforming the regional pump and circulator market in the manner predicted by the Program Logic Model as measured by relevant MPIs. The study was conducted between January and November 2024, with information gathered via document review, interviews, and surveys.

Based on the results of these activities, the study suggests that the logic model aligns with the theory of change underlying the XMP program's work and that NEEA developed a reasonable and largely evaluable list of MPIs. The study indicates that XMP participants value and are actively engaged in the XMP program, and participants demonstrate notable differences in sales patterns compared with nonparticipants, particularly in regard to smart pump sales. Additionally, study findings confirmed that NEEA serves as a critical player in working to expand and increase federal performance standards for pumps and circulators. However, study findings suggest an inconsistent landscape of awareness and use of the Hydraulic Institute's Energy Rating (ER) Label for pumps and circulators among regional market actors and end users. To remedy this, the study recommends enhancing the value proposition of efficient pump products that carry the ER Label. Lastly, additional research may offer a better understanding of the population of clean-water pump and circulator specifiers, contractors, and project owners both related to this label and broader behaviors and perceptions.

Through the information shared in this poster session, we hope to both share our experiences implementing the evaluative framework outlined above and learn from our colleagues across the field regarding innovative methodologies they have explored for assessing sustained change brought about by energy efficiency programs in complex system settings. In addition to the poster itself, handouts will be made available highlighting key information and encouraging continued conversation following the conference with the goal of fostering ongoing methodological innovation and collaboration.