

Wrangling Market Effects in the Wild West of Heat Pump Interventions

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Background

Xcel Energy has launched a heat pump (HP) market transformation initiative in Colorado which includes a comprehensive set of market interventions designed to reduce market barriers and accelerate HP adoption. However, Xcel Energy is not alone in their efforts, as other market actors (e.g., state-level, county/city-level) are taking action through the provision of contractor training, customer awareness campaigns, additional incentives, and a variety of other market interventions.

Similar HP market transformation (MT) efforts have become an increasing focus for many states, particularly on accelerating residential HP market adoption and change. As policies push for beneficial electrification, utility programs are in a unique position to move away from traditional resource acquisition programs and towards MT interventions designed to remove market barriers. But how can a program know it is reducing those barriers and shifting the market when so many interventions from various different market actors are being deployed simultaneously?

Importance of this Work

Given the complexity of market interventions and incentive funding sources, how can we know whose interventions are most influential on the market? If the overall policy objectives are to coordinate efforts and maximize market growth, how important is it to know this with precision? Is the opportunity for stacked interventions spurring market growth or simply creating confusion for customers? These are the main questions we tackled when creating a longitudinal market effects evaluation framework and plan for this utility's HP initiative.

The resulting plan includes the elements critical to evaluating MT programs – a market baselining approach, a logic model, market progress indicators, and the data needed to assess market progress. We also provide a comprehensive market map displaying the relationship between all stakeholders and interveners. This market map will serve as the backbone to assess intervention effectiveness on the HP market, help answer critical attribution questions, and help to understand the potential effect of stacked interventions

In the wild west of stacked interventions, understanding attribution and market effects is paramount to designing and implementing cost-effective utility programs. This poster demonstrates how the evaluation framework helps create a process to assess how a utility's interventions shift the market, whether those effects can be parsed out from other market interventions, and ultimately, whether they need to be parsed out from other interventions at all.