



Assessing Influence of Market Transformation Programs Through Theory Based Evaluation

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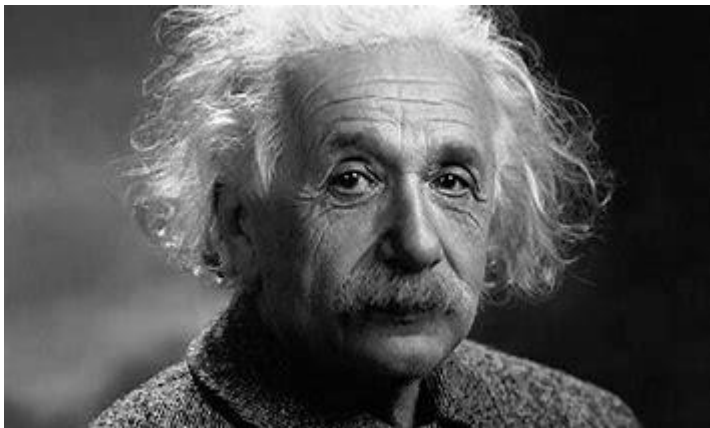
Why are we here?

Big picture hypothesis (*my theory*):

- Traditional EE program models increasingly challenged to deliver cost-effective net energy savings
- Market Transformation offers an alternative approach more aligned with market dynamics and focused on permanent, sustainable increases in efficiency outcomes
- *If MT is a desirable alternative*, then what is needed to support Market Transformation in Illinois?



Some Famous People Said...



“How many angels
can dance on the
head of a pin?”

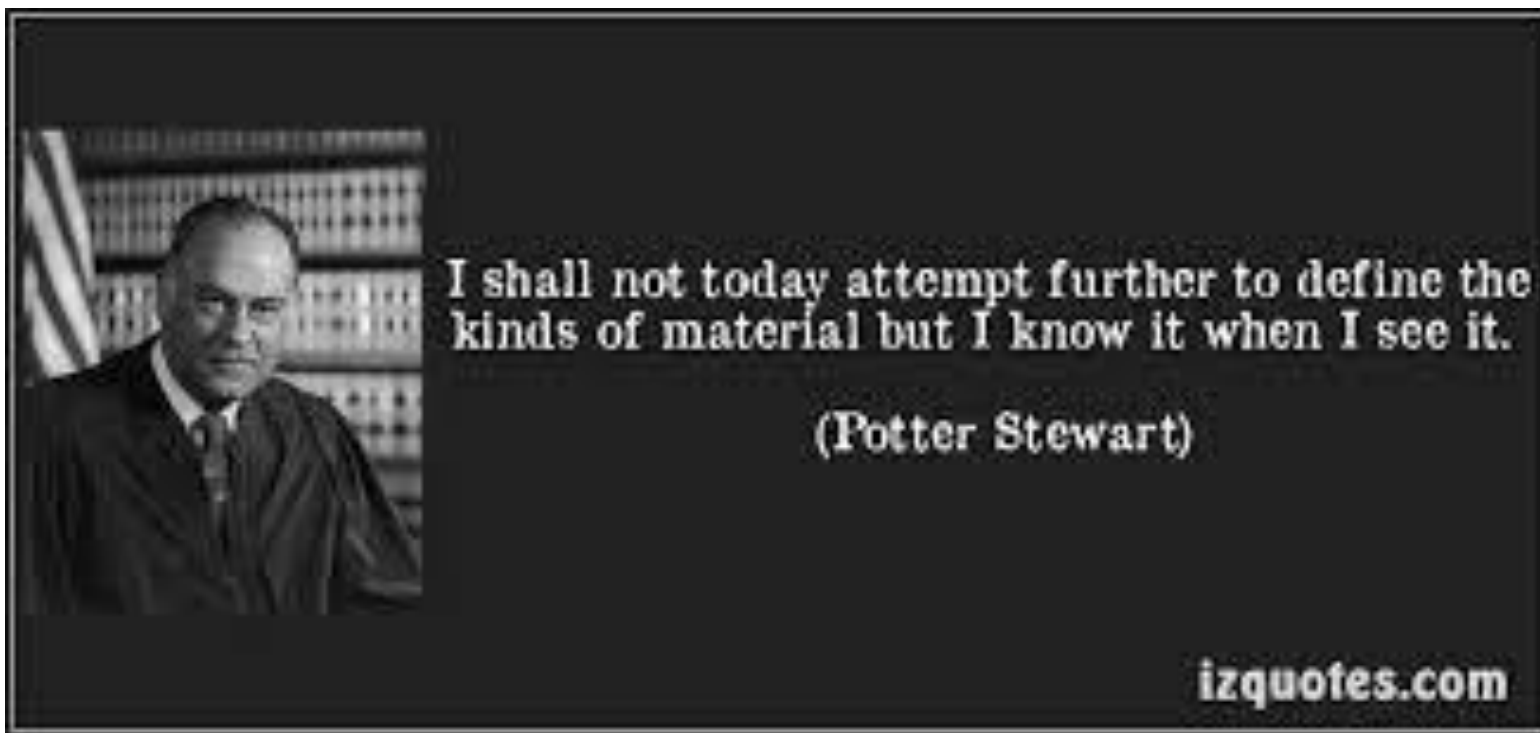


“I can tell you how many or
I could tell you if they’re
dancing but not whether or
not they are angels.”

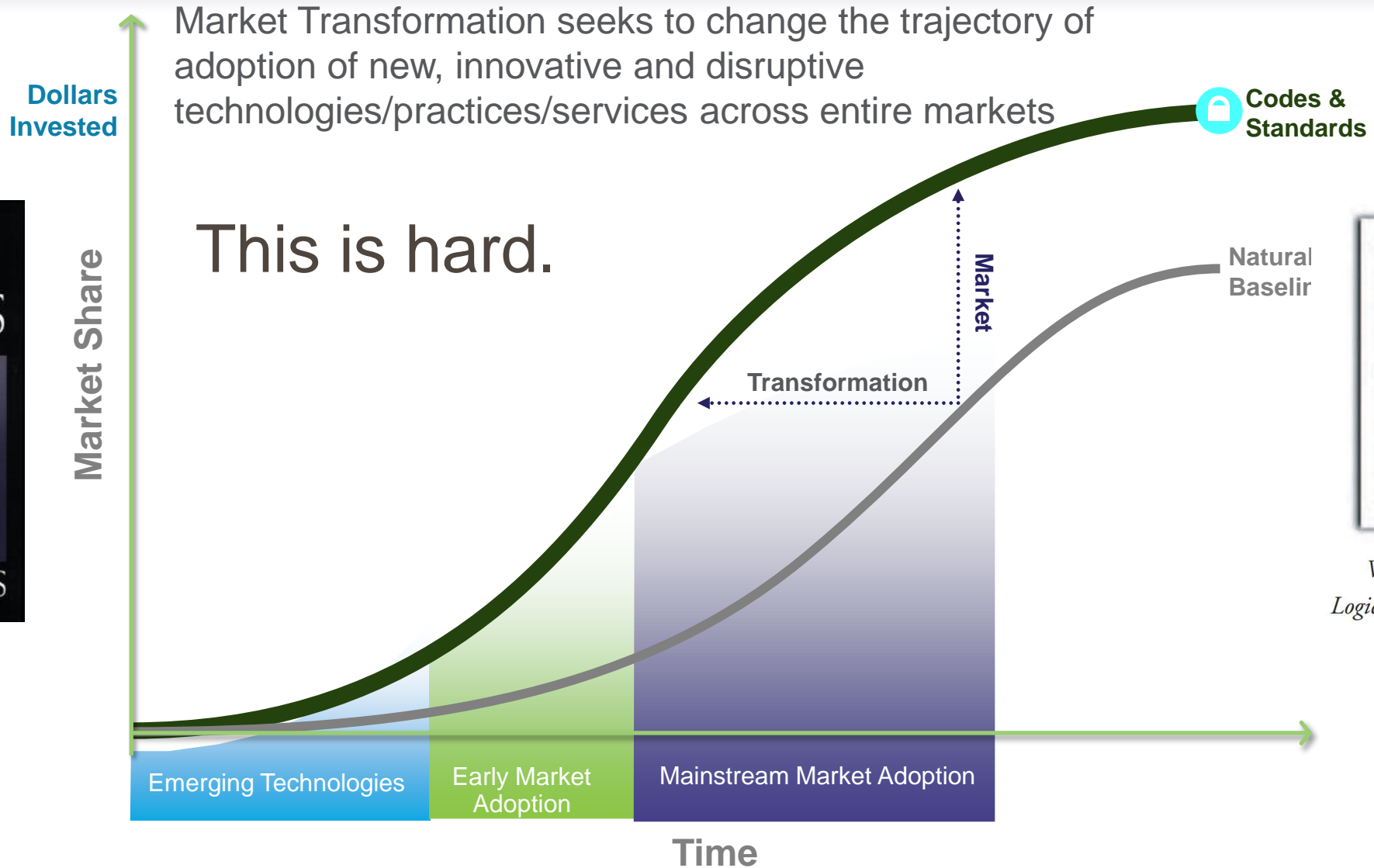
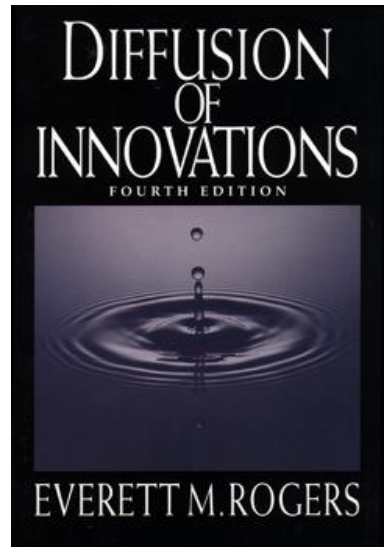
Disclaimer: Real people; not real quotes



Some Famous People Said....

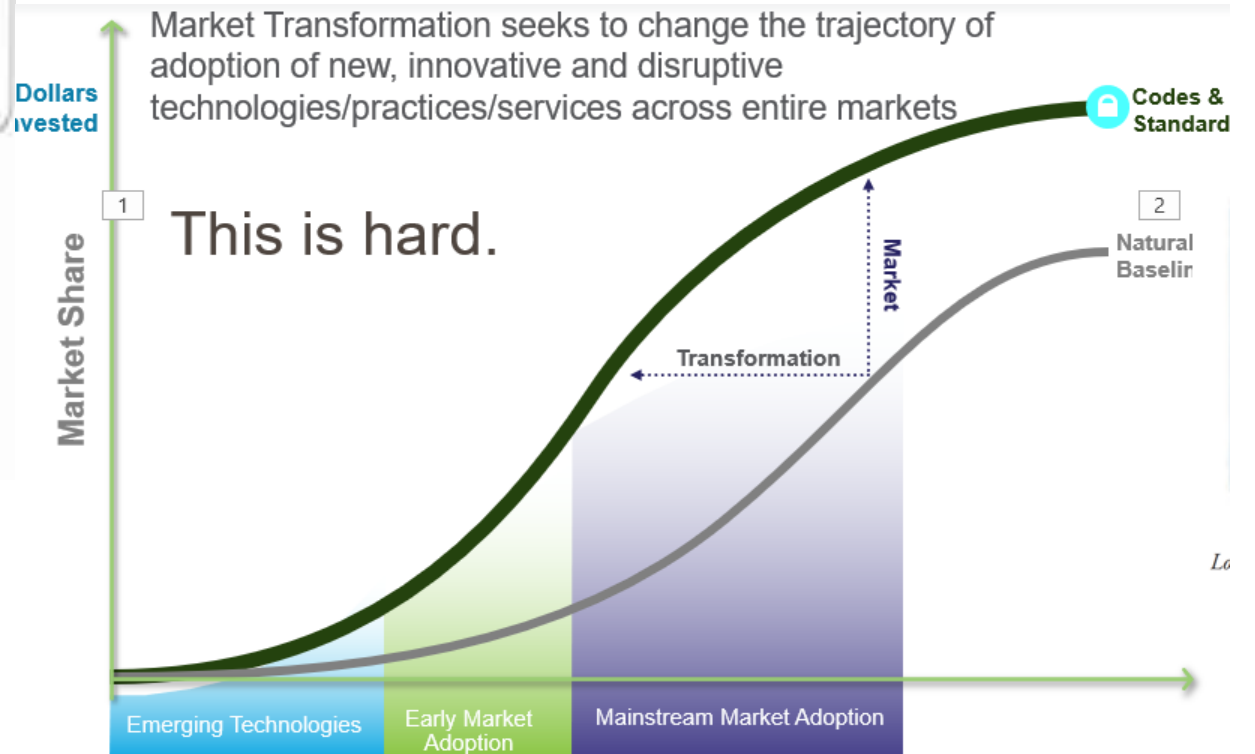
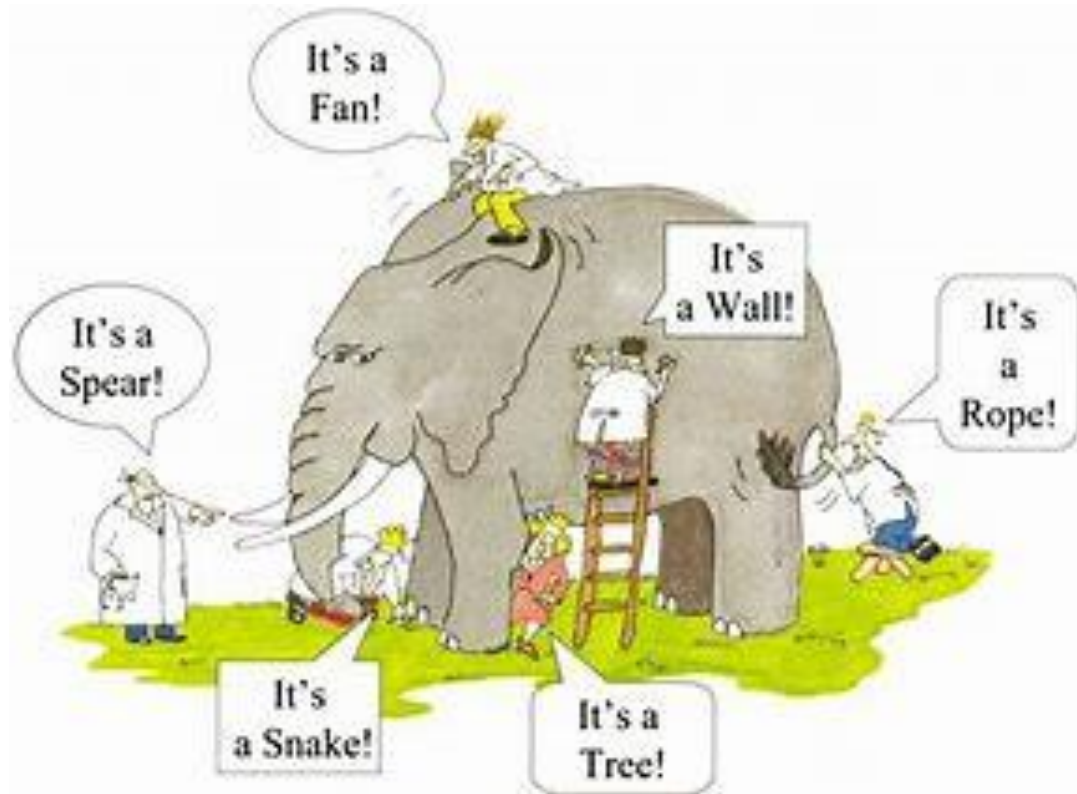


Why Theory Based Programs (and evaluation)?



W.K. Kellogg Foundation
Logic Model Development Guide

Context is so important





Review: Key Elements of Market Transformation (MT)

Program design and evaluation

- Program design and implementation based on (MT) theory developed for each specific EE market opportunity
- MT theory built off market characterization and baseline data collection; documentation of barriers and opportunities
- MT theory documented in Logic Model that sets up hypothesis of IF>THEN for each major component; Intervention strategies, outputs, and near, mid and long-term outcomes. Logic model revisions as market adoption progresses.
- Interim Market Progress Indicators (MPIs) provide near-term measurement confirming hypothesis of specific elements of MT logic; evaluated annually or as events allow.
- Measurement of MPIs occurs in parallel with program implementation and feeds-back into program implementation and design changes as needed. Continuous improvement model for implementation.



Key Elements of Market Transformation (MT) Program design and evaluation from TRM Attachment C

- Counterfactual Baseline: All market adoption that is **not** influenced through rate-payer funded MT and local acquisition programs is captured in *natural market baseline (NMB)*
- All other market adoption above NMB is assumed to be the result of rate-payer influence via implementation of both MT and RA programs
- Net MT savings: RA program counted savings (net of free-ridership) are deducted from above NMB savings
- *“This (Net above NMB) is the MT version of “attribution” and no further adjustment for free riders is needed.”*
- Additional attribution factors may be pursued for other reasons *“for example if policy makers or stakeholders wish to building in some conservatism”*
- *“Such further adjustments for attribution could be either deemed up front, negotiated after the fact, or determined by an oversight agency such as a regulatory commission.”*



More context (from TRM Attachment C)

- “More often than not, there is too much elapsed time over the lifecycle of a market transformation initiative and too many other market forces at work for a quantitative attribution score to be meaningful. So instead, market transformation paints a qualitative case as to whether the initiative was generally successful in causing the intended market changes.”
- “It simply means that net savings for MT initiatives will be significantly less certain by nature than those for pure RA programs.”
- “Successful incorporation of MT initiatives into a program portfolio that is dominated by resource acquisition programs generally requires that stakeholders accept these methodological differences between the two program approaches, and the fact that with MT initiatives, attribution can typically only be established qualitatively”



More context (from TRM Attachment C)

- “The MT framework requires both validation of the MT initiative logic and an evaluation of program implementation and progress towards specific market progress indicators before savings can be estimated.”
- “A preponderance of evidence approach, **rather than proof** is most often required. It is important to note that “preponderance of evidence” **does not require that all indicators show overwhelming evidence of programmatic influence, but rather that multiple indicators show consistent direction**. This information can be qualitative (based on in-depth interviews or observational data collection) or quantitative (based on market share or production data)

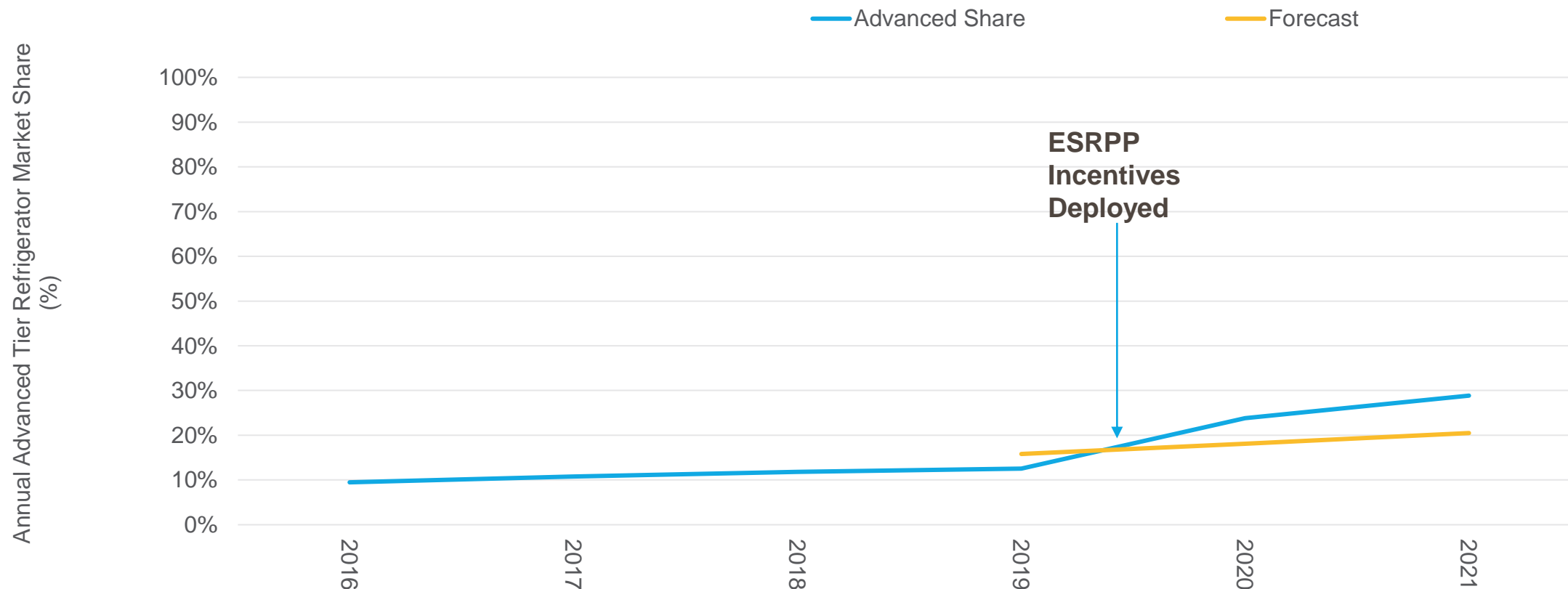


Example: ESRPP Evaluation of Market Progress

- Guidehouse Evaluation of ESRPP:
 - *3 out of 10 MPIs for ESRPP were evaluated;*
 - *2 were found to be supportive of program theory; evidence for one was found to be “inconclusive”*
 - *“Guidehouse found that evidence for MPI V yielded inconclusive findings regarding if the ESRPP program is making progress as a MT program to increase the sale of efficient clothes washers and refrigerators in select U.S. states.”*
 - *“The evaluation team did not have access to detailed quantitative data on retailer’s stocking and marketing decisions nor the program’s influence on these decisions that could be used to measure changes to MPI V.”*

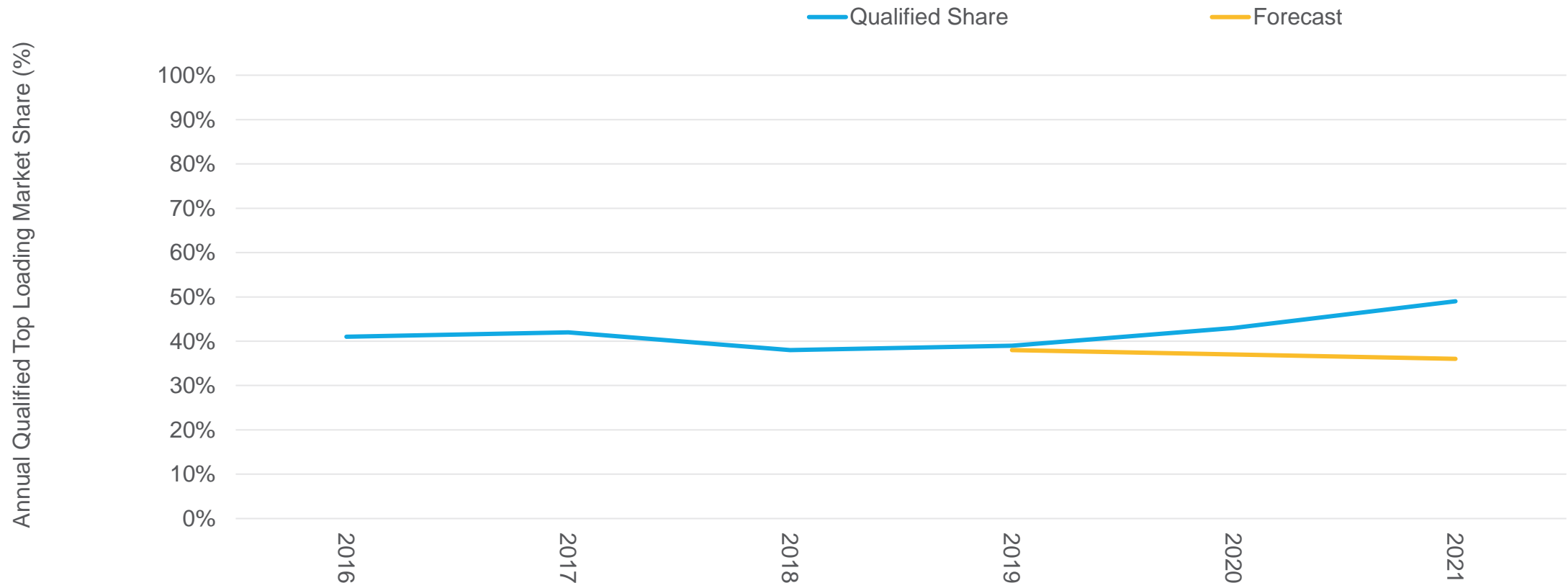


Actual Data: Advanced Tier Refrigerator Market Share (Energy Star ET Award)





ESRPP Qualified Top-Load Washers





Key Observations and Questions:

- Not all MPIs are directly observable/quantifiable
- Not all MPIs are assessable in a specific evaluation time window (e.g. federal standards influence)
- ESRPP as a program is not the same as individual products each of which have their own market theory and Logic
- Preponderance of evidence in legal proceedings simply >50% of evidence; i.e. more likely than not that hypothesis is true
- What is the default position? Attachment C infers MT program receives attribution for net savings above NMB *unless* policy or stakeholder concerns arise. This creates significant uncertainty.



Key Observations and Questions (continued):

- Preponderance of evidence in legal proceedings simply $>50\%$ of evidence; i.e. more likely than not that hypothesis is true
- What is the default position? If MT logic model and MPIs are accepted and evaluated: unless more than 50% point in the wrong direction is MT initiative allowed to be credited with all net savings above NMB?
- What are the policy or stakeholder issues/concerns that would drive the need for additional attribution factors?
- Is utility involvement in MT programs an important goal for Illinois? If so, what is actually needed for support? Is CPAS credit the only tool to encourage MT in Illinois?



Questions?