



A STRATEGY FOR INTEGRATING MARKET TRANSFORMATION SAVINGS INTO RESOURCE ACQUISITION PORTFOLIOS

HOW TO SQUEEZE THE MOST SAVINGS
OUT OF UTILITY/PROGRAM
ADMINISTRATOR EFFORTS

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ACEEE MARKET TRANSFORMATION
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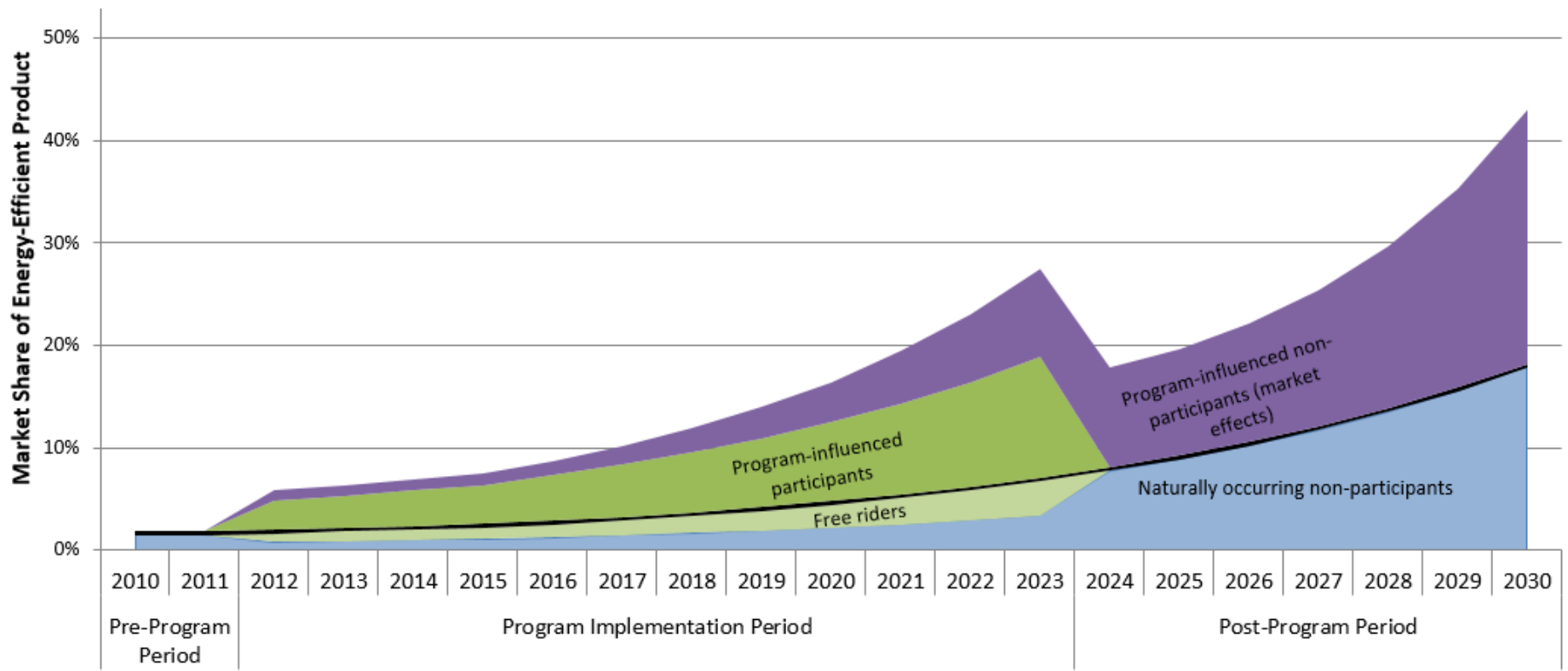
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AGENDA

- Differences between Resource Acquisition vs. Strategic Market Transformation
- How to design, implement, and evaluate a market transformation approach.
- Strategies for incorporating market transformation savings into a resource acquisition portfolio.

VIEW OF THE DYNAMICS AS MT OCCURS

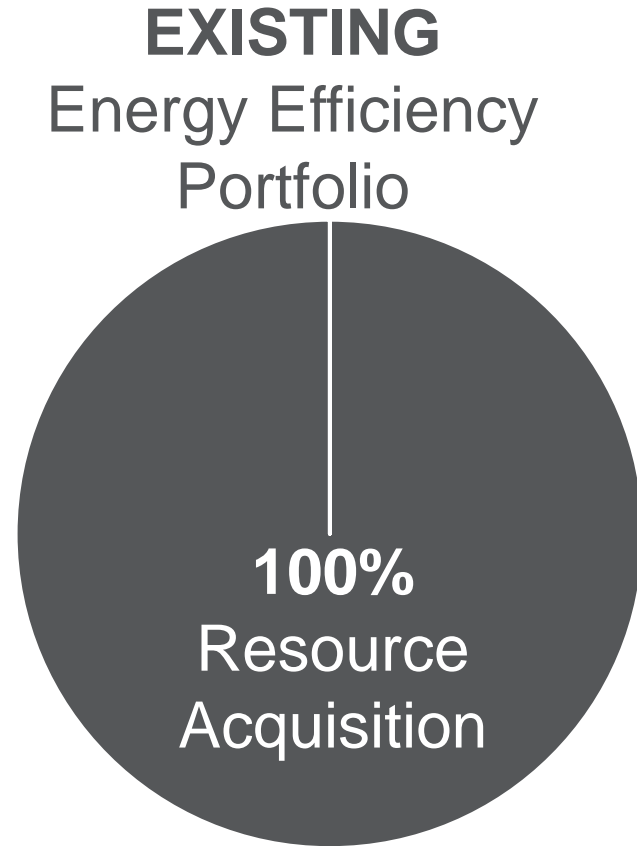
In the chart below, green shaded areas indicate program-tracked savings, and the black line indicates the baseline (i.e. natural occurring activity)



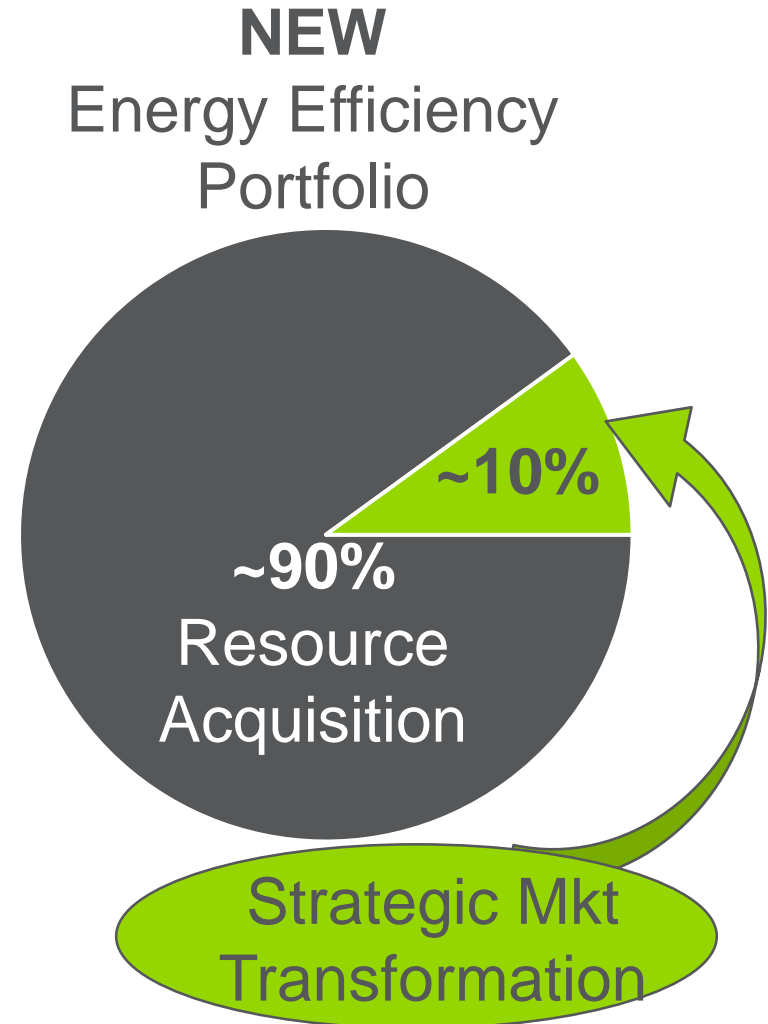
STRATEGIC MARKET TRANSFORMATION IS RESOURCE ACQUISITION ON STEROIDS

	Resource Acquisition	Market Transformation
Approach	<ul style="list-style-type: none"> • Save energy per participant or installation 	<ul style="list-style-type: none"> • Save energy by mobilizing widespread market adoption
End-User Characteristics	<ul style="list-style-type: none"> • Participants/Enrollees are known and recruited directly 	<ul style="list-style-type: none"> • Adopters are not generally known
Savings Estimation	<ul style="list-style-type: none"> • Summation of site-by-site savings 	<ul style="list-style-type: none"> • Modeled savings based on “deemed” or average savings, extrapolated to the market
Implications	<ul style="list-style-type: none"> • All savings based on verified results • Success of program judged on annual savings • Logic model not required 	<ul style="list-style-type: none"> • Savings based on market projections and replicable techniques • Success based on long-term outcomes • Evaluated per a theory of change with indicators of market transformation

BROADENING PORTFOLIO VIEW OF CLAIMING SAVINGS



vs.



STRUCTURE FOR SUCCESSFUL SMT PORTFOLIO INITIATIVES*

Key Program Design, Performance Measurement & Evaluation Factors

Key Regulatory Policy Elements

Key Market Operating Factors, Drivers, and Characteristics



** Based on the experience and learnings of the Northwest Energy Efficiency Alliance (NEEA)*

REGULATORY/ DESIGN/ IMPLEMENTATION/ EM&V CONCEPT

- Create ***EE Portfolio Market Transformation Set-Aside Allocation*** to count toward compliance with existing EE resource standard
- Select **appropriate measures** deemed “ripe” for market transformation (MT) portfolio application
- Focus on strategic MT approaches based on a program’s/initiative’s market transforming life-cycle
- Measure initiative progress based on agreed upon Market Progress Indicators (MPIs)
- Measure savings based on modelled approach over the life of the effort, with regular true-ups based on field studies

STRATEGIC MARKET TRANSFORMATION INITIATIVE LIFECYCLE STAGES

**Early Initiative
Planning Period**

**Initiative Market
Implementation
Period**

**Initiative Transition
Period**

Ideation &
Concept
Development

Plan
Development

Market
Implementation

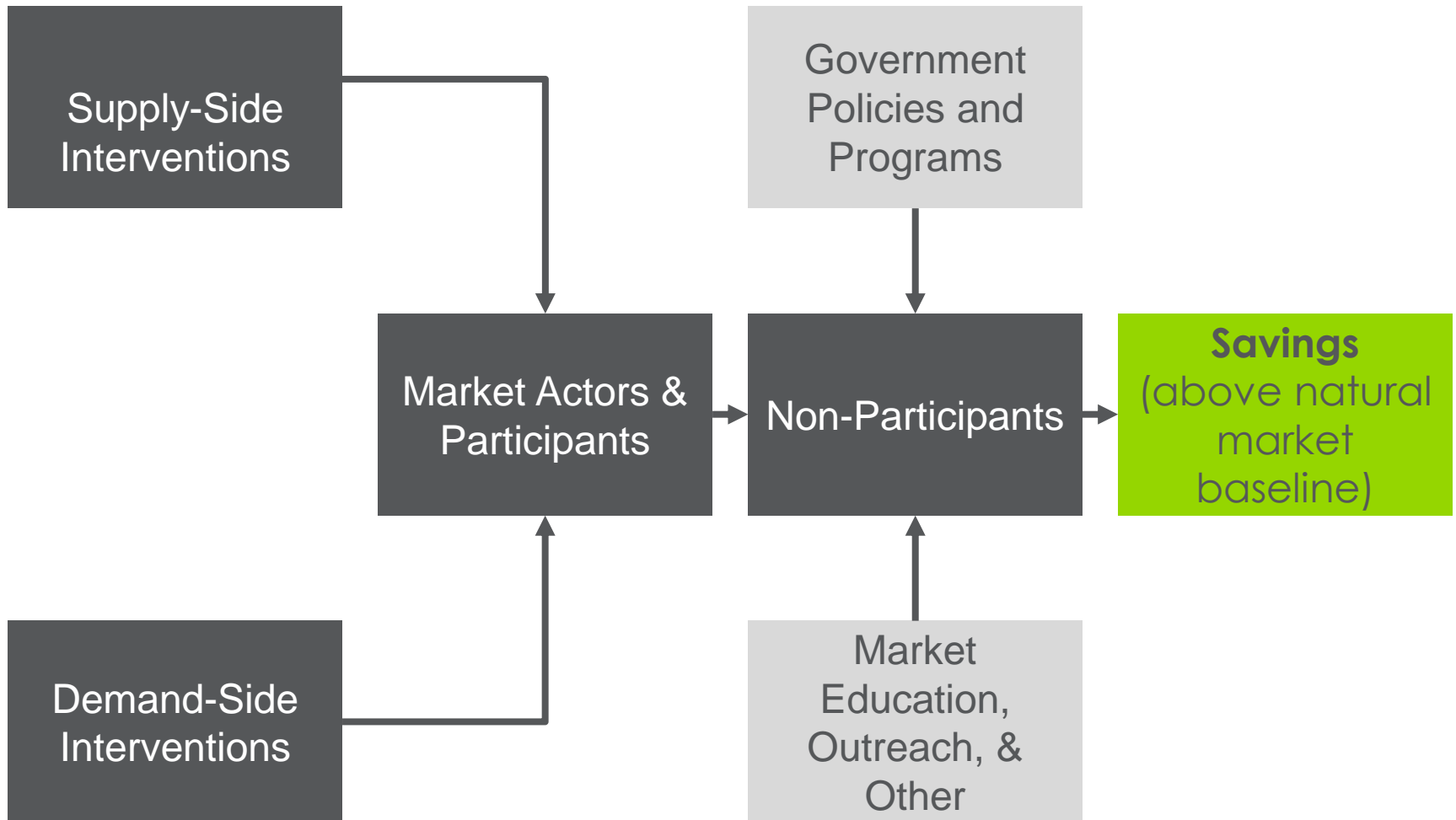
Evaluation
and Process

Market
Sustainability
Assessment

Transition to
Support Market
Momentum

STRATEGIC MARKET TRANSFORMATION

WHOLE MARKET SAVINGS



COMPONENTS OF A SUCCESSFUL SMT INITIATIVE EFFORT

Design Elements

- ❑ Barriers identification
- ❑ Program Theory and Logic Model
- ❑ Market Transformation Indicators (MTIs)
- ❑ Initiative Vision and Success Story
- ❑ Best Practice Market Interventions: Collaboration, Operations, and Planning
- ❑ Initiative Timing
- ❑ Governance and Long-Term Stakeholder Engagement

Business and Operations Plan Research

- ❑ Market Characterization and “Counterfactual” Baseline
- ❑ Unit Energy Savings (UES) and Evaluation Plan Framework
- ❑ Market Transformation “Cost-Benefit”
- ❑ Incentive Stepdown Approach

Evaluation Research

- ❑ Whole Market (Market Effects) Evaluation Plan
- ❑ Long-Term Monitoring and Tracking

Evaluation Research

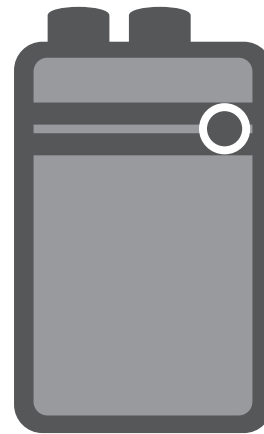
- ❑ Regulatory Policy Integration

CASE STUDY: SCOPING TO PREPARE REGULATORY DISCUSSION FOR INCORPORATING SMT SAVINGS

- Navigant used a two level scanning process that included a broad look at both electric and gas measures for SMT applicability
- Two residential water heating measures, currently undersubscribed in the utility's service area
- Key motivation: make it easy to start an initiative for market transformation by focusing on one sector and single end-use -- with potential impacts on the residential gas and electric service market



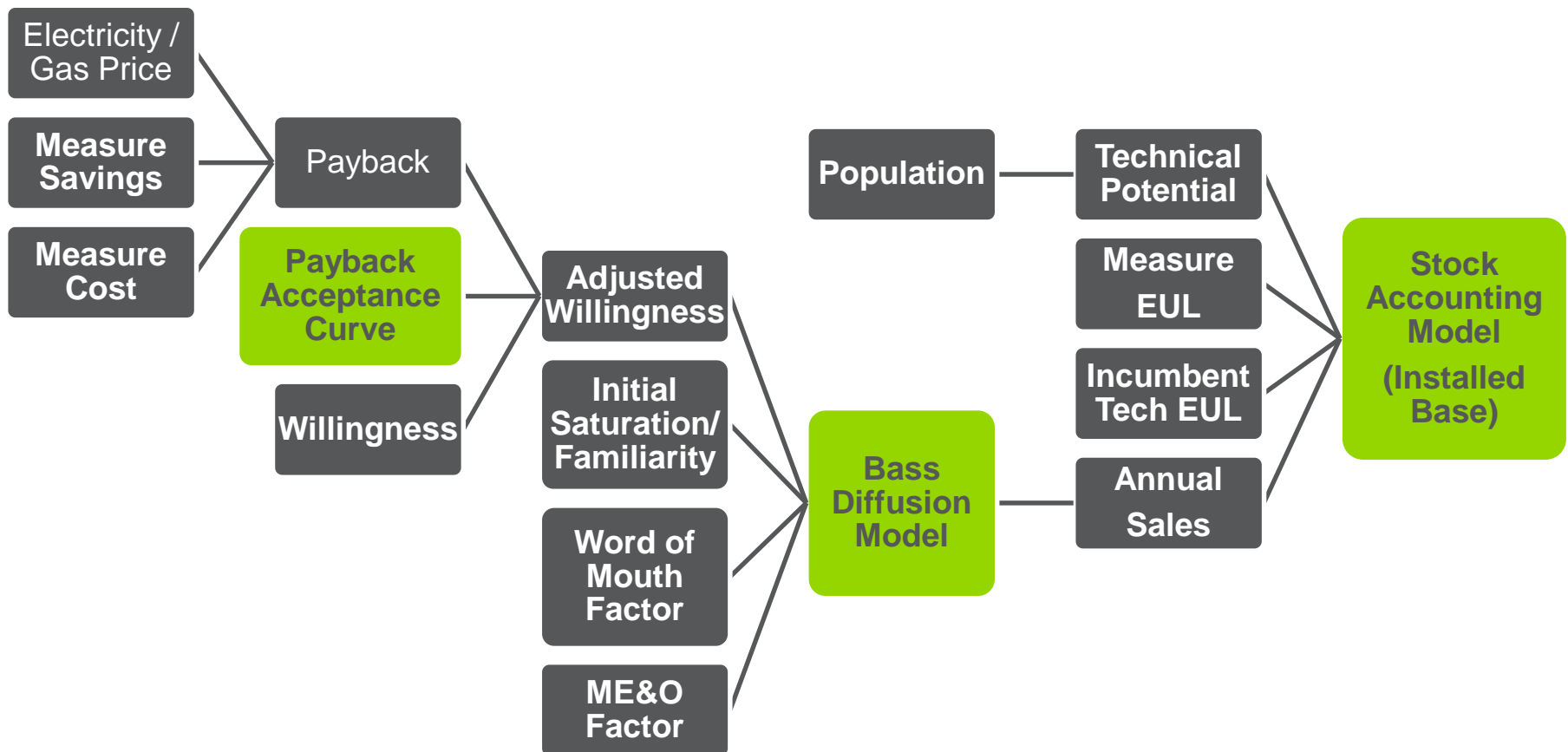
**Electric Heat
Pump Water
Heaters**



**Tankless
Water
Heaters**

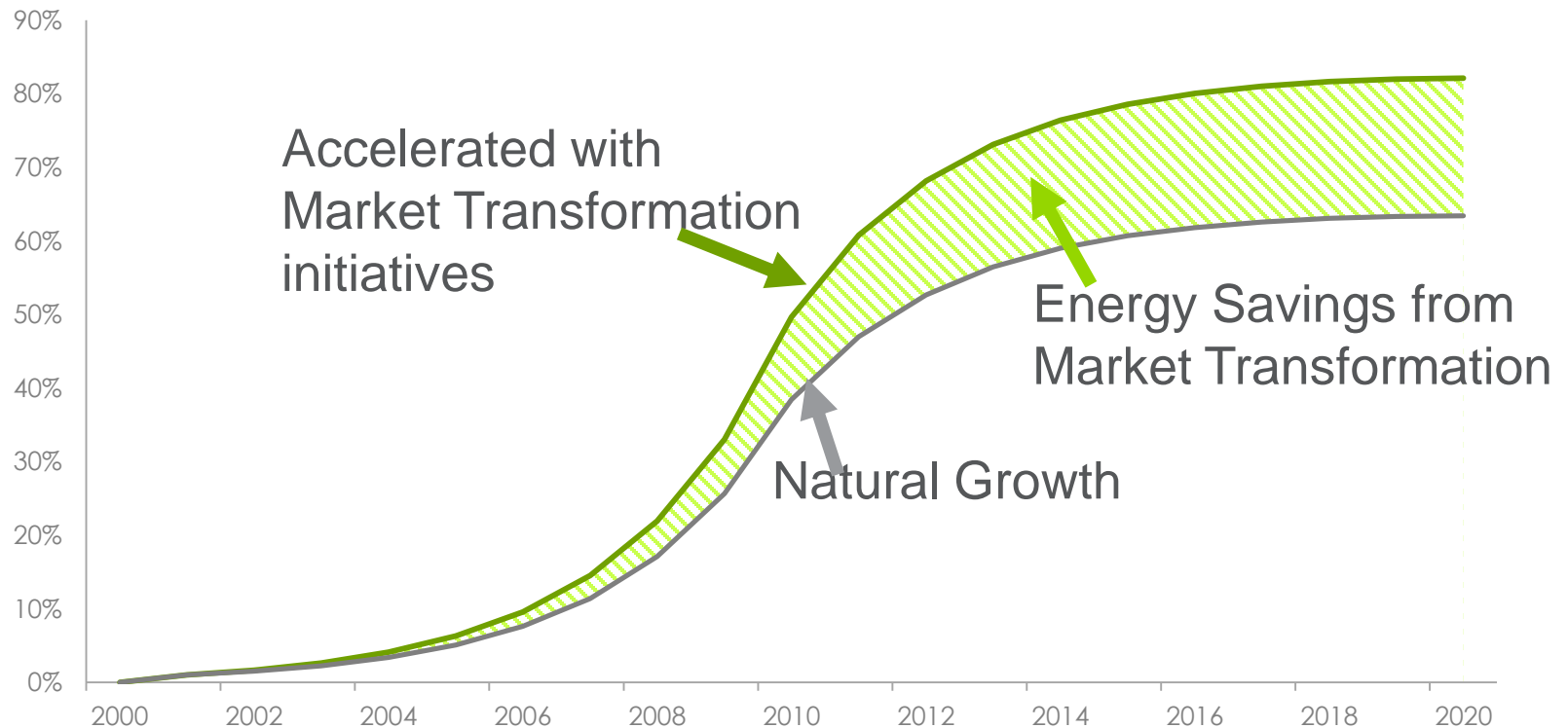
COUNTERFACTUAL BASELINE DEVELOPMENT

Data collected at the national level was used as a foundation for the models, which were then calibrated to available utility-specific data



ACCELERATE ADOPTION

Next steps should be to accelerate adoption by increasing awareness, broadening availability, and enhancing attractiveness to both suppliers and end-users



SMT INITIATIVE EVALUATION FRAMEWORK

Given the above, SMT Initiatives typically focus on two areas of market transformation evaluation

Program Theory

- ❑ Are logic model and market transformation indicators (MTIs) consistent?
- ❑ Assess MTIs for “evaluability” i.e., ability to collect needed data
- ❑ Evaluate structural change to supply-side (needs mkt characterization as baseline)
- ❑ Evaluate consumer demand and adoption/diffusion of measure(s)
- ❑ Are logic model initiative design elements present in the market
- ❑ Assess attribution of savings (i.e., net savings analysis) to initiative sponsor

Forecast and Modeled Estimates of Savings

- ❑ Update baseline assumptions
- ❑ Evaluate SMT initiative gross savings forecast and cost-effectiveness model
 - ❑ Market size assumptions
 - ❑ Unit Energy Savings rate (UES) estimates
 - ❑ Saturation assumptions and data
 - ❑ Life of measures assumptions
 - ❑ Cost of measure assumptions
- ❑ Evaluate in the field market savings/true-up model based on field evaluations
- ❑ Assess savings adoptions forecast and timeframes

CONCLUSIONS

- Regulatory and stakeholder alignment on “**whole market**” concept is critical
- Conduct market characterization study for needed elements
- Develop detailed implementation action plan based on logic model vetting with utility program staff and stakeholder input
- Develop and implement EM&V plan
- Launch market transformation initiatives
- Track progress and savings over time

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