Framework for Estimating MT Savings

High-level Outline

Presentation to SAG NTG Working Group -- May 8, 2019
& SAG MT Savings Working Group – May 10, 2019

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Outline for MT Savings Framework Paper

- Purpose
  - Develop a framework for evaluating MT initiatives and estimating MT savings
    - Anticipate further development of unique protocols for individual initiatives as needed (not part of this project)
- Development
  - Based on best-practices nationwide
  - Review through SAG MT Saving Working Group (with presentations to the SAG NTG Working Group)
  - Summary included in the IL TRM by September 2019
  - Organized in two primary sections:
    - Section 1: Background/Context Information
    - Section 2: Estimating Savings

Section 1: Background and Context

Section 1: Background/Context

Illinois Context

- Future Energy Jobs Act (FEJA) brings MT to Utilities
- Utility Midwest MT Collaborative
  - Catalyzed by Nicor and ComEd – other utilities joining
  - First initiatives for review in Illinois are “legacy” programs: Building Operator Certification (BOC); Illinois Home Performance (IHP) and Codes
  - Other initiatives in the queue
  - MT Business Plan with Logic Model are key tools

Business Plan Content

Documents the strategy, assumptions and data at the time of launch

- Changes as knowledge of the market evolves

Contains

- Specified target market and description of product/service
- Logic Model – Theory of Change
  - Barriers; Opportunities; Activities/Interventions; Outputs; Market Outcomes; Ultimate Desired Impact
- Suggested Market Progress Indicators including: data collection/management plan; input from Evaluators
- Multi-year estimated budget; savings; other c-e parameters (e.g. lifetime)
- Other items as needed for that market or utility

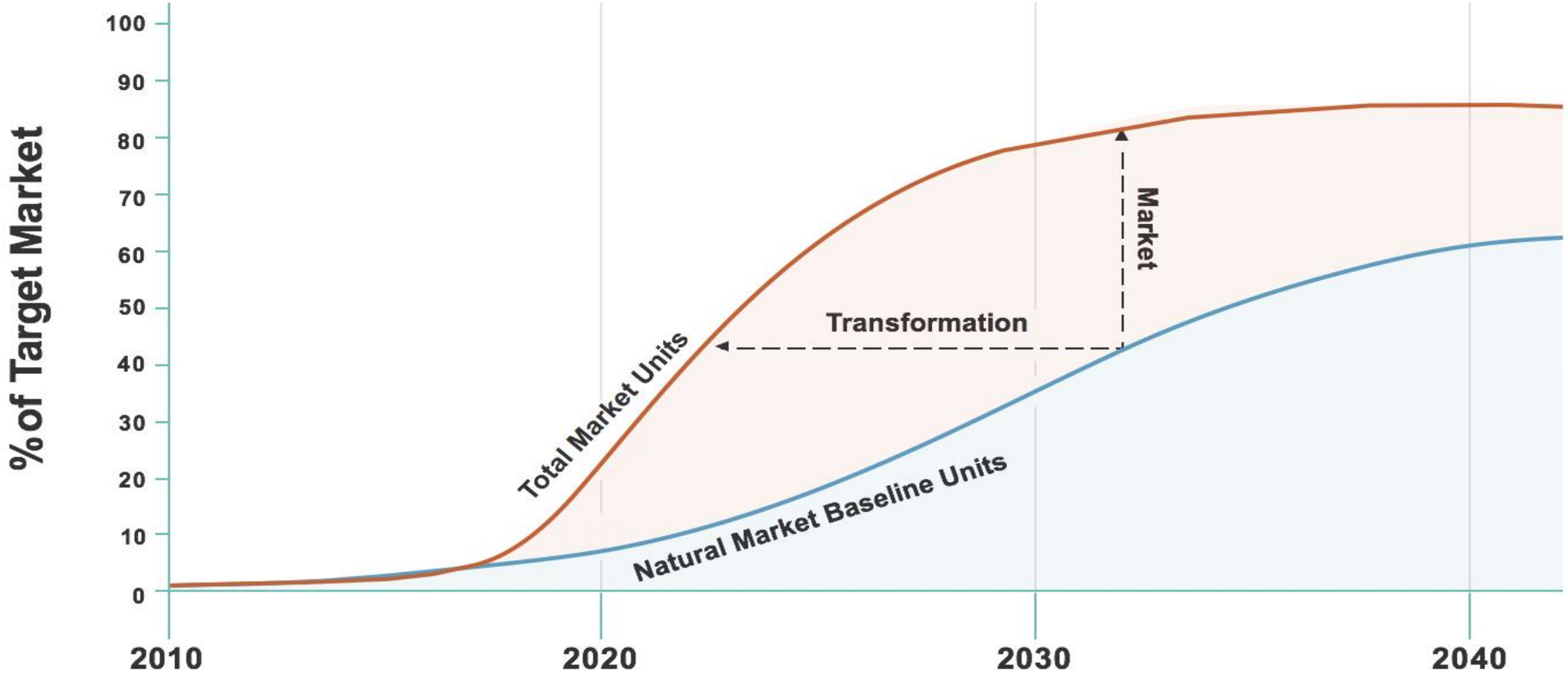
Section 1: Background/Context continued

Key Characteristics of Market Transformation

- Definition of MT
- Market transformation and resource acquisition
- MT as umbrella hypothesis for driving market change

Definition of Market Transformation

- Market Transformation (MT) is the strategic process of intervening in a market to create lasting change that results in the accelerated adoption of energy efficient products, services and practices.

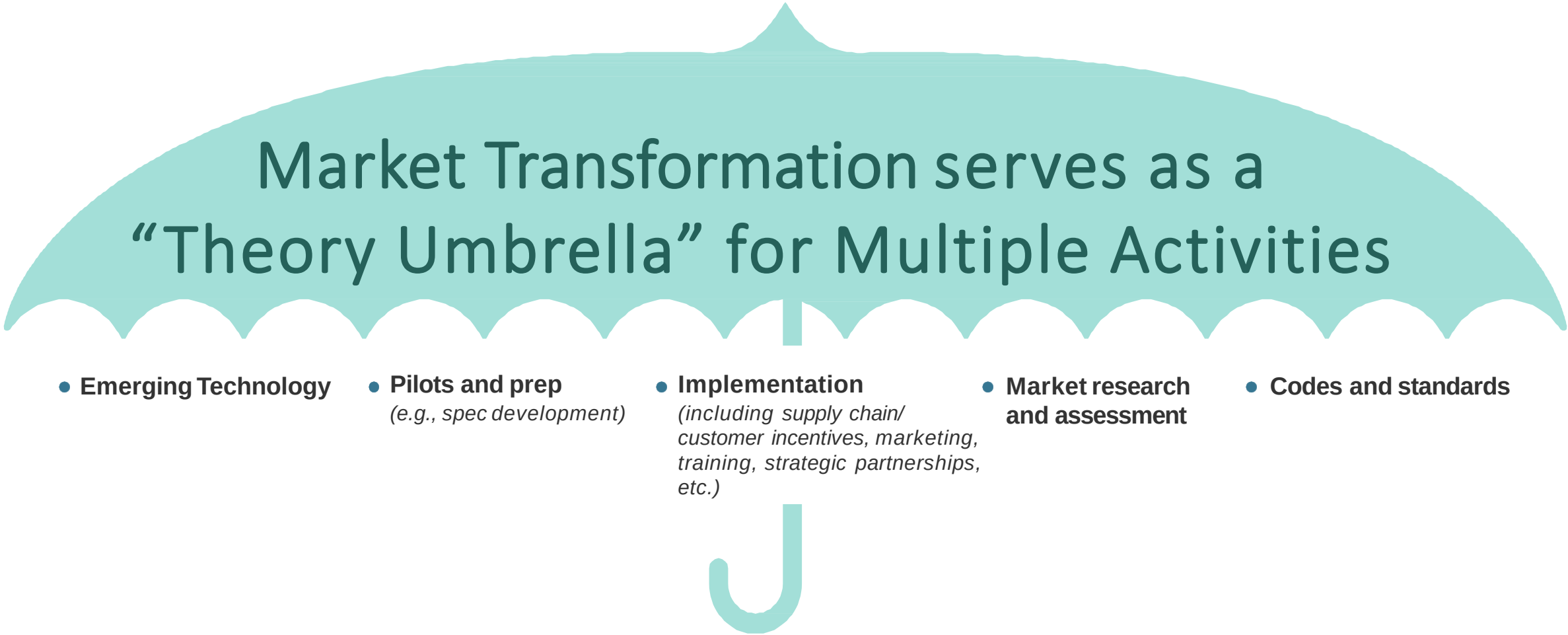


Section 1: Background/Context continued

Key Characteristics of Market Transformation

- Definition of MT
- Market transformation and resource acquisition
- MT as umbrella hypothesis for driving market change

Activities can be funded from multiple budgets within a utility (or with a partner)



Section 1: Background/Context continued

- Evaluation Approach: Theory-based Evaluation
- Differentiating Savings
  - Attribution – Separating units that resulted from the MT Initiative from what would have happened without utility intervention
  - Accounting—Separating savings from traditional programs and MT initiatives so there is no double counting
  - Allocation – separating savings among multiple service territories or organizations

Section 1: Background/Context continued

- Evaluation Products
    - "Market Progress Evaluation Reports" (MPER): developed on regular basis
        - Recurring efforts to understand the changing market
        - Track the market including "Market Progress Indicators" (MPI)
- What makes an MT Initiative Recognizable?
    - MT Business Plan developed in advance
        - Includes logic model
        - Clear intent to drive lasting market change in chosen market

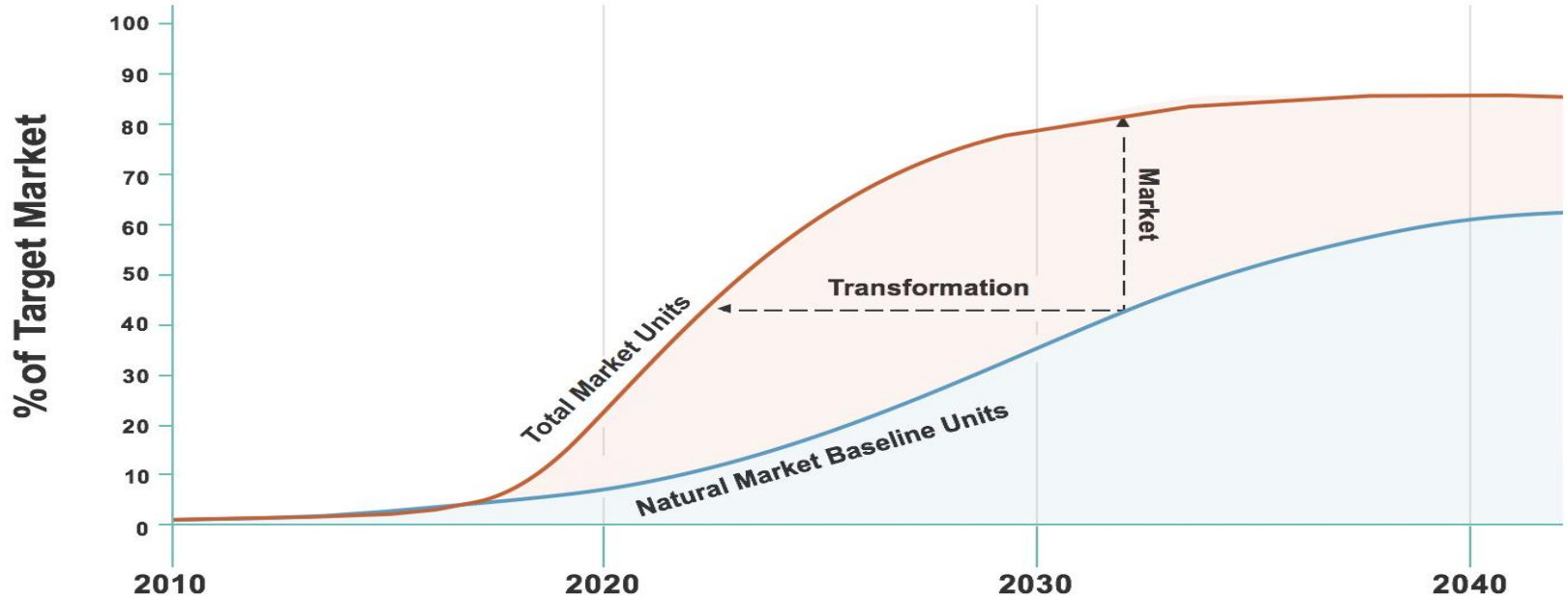
Section 2: Estimating Savings for MT Initiatives

Section 2: Estimating Savings for MT

Overall Framework for the Calculation

MT Savings = Unit Energy Savings (UES) x # MT Units

- *# MT Units = Total Market Units minus Natural Market Baseline Units;*
- *# MT Units are then adjusted for 'accounting' and 'allocation'*

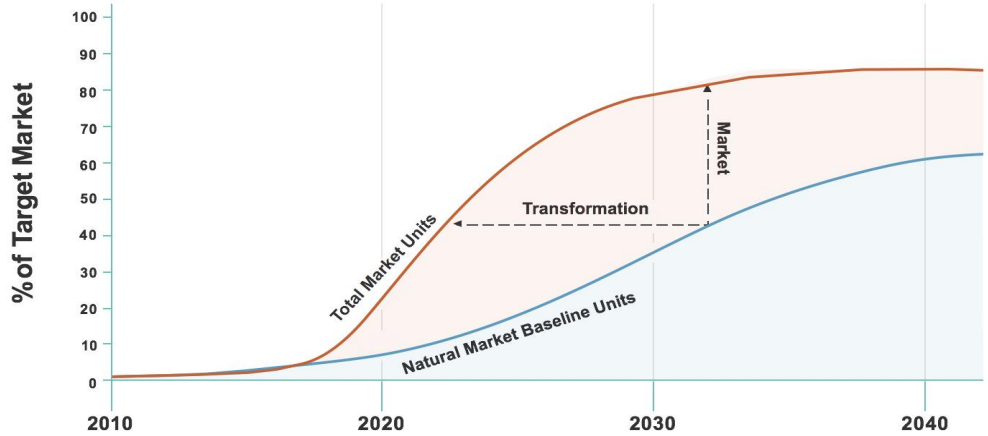


Section 2: Estimating Savings for MT

- Unit Energy Savings: Theory & Practice
  - Measured in kwh/unit; therms/unit, kW/unit
  - Pull from available sources:
    - TRM
    - Other program documents
    - Other states/regions, adjusted
  - Use proxy and improve estimate as initiative is developed

Section 2: Estimating Savings for MT

- Developing the number of Units associated with MT:
  - Total Market minus Natural Market Baseline; then differentiate the units
    - Theory & Practice
      - Reviewing Natural Market Baseline over time



  - Differentiate Units
    - Attribution –Natural Market Baseline is adoption without MT
    - Accounting – MT separate from RA
    - Allocation – Allocate to service territory or organization

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Section 2: Estimating Savings for MT

Deeper Dive on Codes and Standards

- Savings from Codes/standards Adoption
  - "Infrastructure"/support needed to facilitate code adoption
- Savings from enhancing code compliance
- Savings from "Stretch Codes"
- Lifetime of code adoption
- Code Implementation Ramp-up

Key Documents in Review (In process)

- Prahl and Keating papers for CA
- Summary of ComEd MT Summit best Practices
- Ridge, etc on RPP NTG ratios
- Ridge etc on Modifying CA Resource Acquisition B/C Ratio for MT
- Cadmus and E Code savings
- NMR – MA Methods for market effects
- IMT – ACEEE paper on credit for code programs
- NEEA presentation on Savings from MT to MW MT collaborative
- NY Dept Public Service: Metrics, Tracking and Performance Assessment Working Group on MT

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Appendices

- Glossary
- Outline of MT Business Plan
- References

Next Steps

- Comments welcome!
  - Due May 24
  - Send to Marci Sanders: Msanders@Resource-Innovations.com
  - Draft Paper will be circulated on June 11
  - Next call to discuss the draft paper is on June 14