

Market Transformation Savings Protocol Process Recommendation: August 23, 2022

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1 Overview and Purpose

1.1 Background and Objectives

In 2019, Attachment C of Illinois' Statewide Technical Review Manual (TRM) was introduced to the Illinois Stakeholder Advisory Group (IL SAG) to establish a formal framework and definition for calculating marketing transformation (MT) savings in Illinois. The final document was adopted into IL TRM v8.0. In subsequent IL SAG Market Transformation Savings Work Group (SAG MT) meetings, a MT savings protocol was defined, identifying specific outputs that would make up the components to calculate MT savings to a utility portfolio. However, the TRM did not provide a process or define a procedure to reach consensus on a MT savings protocol for a specific technology or process. The SAG MT Working Group provided limited guidance, outlined below. This document aims to:

- Formalize the MT process to streamline activities to reach consensus on MT Savings Protocols
- Define a set of recommended deliverables and work products that build to the final MT Savings Protocol
- Provide recommendations on the recommended order of operations by deliverables and work products
- Define a recommended set of activities and components
- Define the development of a dashboard to provide regular updates to the SAG MT participants

The process outlined in this document is a recommendation. This document is not meant to be a formal checklist, with a requirement to complete each step, but rather a recommendation of process to minimize the time necessary to reach consensus on the MT Savings Protocol by developing a foundation of information and agreement on the components of the MT Savings Protocol prior to utility implementation of a MT initiative.

2 MT Savings Protocol

Defined in the May 2020 SAG MT Working Group meeting and updated in the March 2021 SAG MT Working Group meeting, the MT Savings Protocol is the set of components necessary to calculate MT savings. These include, but are not limited to:

- Logic model
- Savings per unit
- Natural market baseline
- Total market unit data collection
- Service territory accounting
- Market progress indicators
- Duration of any MT savings credit

Stakeholders in the MT SAG Working Group expressed an interest in providing feedback on MT initiatives and the inputs listed above. The March 2021 SAG MT Working Group meeting outlined the process to reach and document consensus on MT Savings in the IL-TRM, which was defined as follows:

1. Review business plan + data/approach proposal for individual MT initiatives; discuss what information should be included in the IL-TRM (if any)
2. Circulate draft savings protocol to non-financially interested parties for review for comments (15 business days); schedule follow-up discussion, if needed
3. Submit final/consensus savings protocol(s) to IL-TRM Administrator for IL TRM v.10

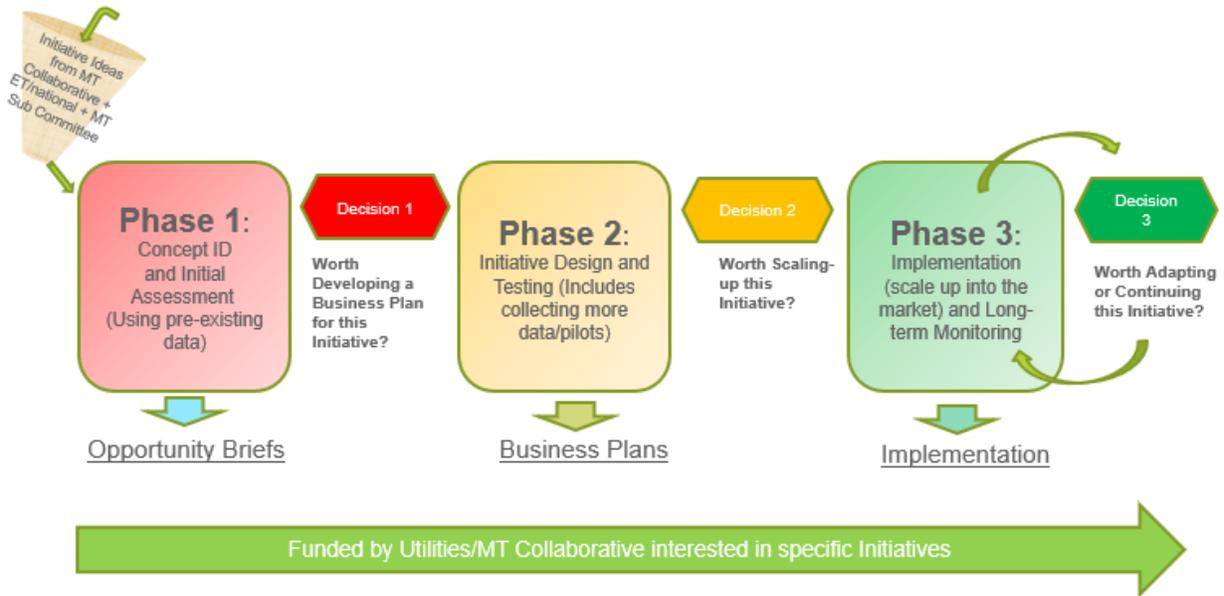
This process meets the needs of the annual IL-TRM review and update process.

3 MT Protocol Process Recommendation

3.1 MT Initiative Development Process and Phases

Utilities participating in the IL SAG MT Working Group presented the following figure (Figure 1) to provide an overview of the MT phases to move a potential MT initiative from concept to implementation. This MT Process document focuses on Phase 1 and Phase 2, and the recommended MT products to develop and reach consensus on the business plan and MT Savings Protocol.

Figure 1: MT Initiative Development Process and Products



This recommendation further segments Phase 1 and Phase 2 with specific recommended steps and associated activities to move individual MT initiatives through the process to develop all the necessary products to fulfill the MT Savings Protocol requirements. Table 1 below provides an overview of the recommended steps and activities in Phase 1 and Phase 2, along with identifying where SAG participants and the evaluators will be informed and opportunities for review. This process is grounded on market transformation best practices and building off of lessons learned in the SAG MT Working Group. The following sections will briefly describe the MT process steps and associated work products, and a recommendation on how the evaluators and MT SAG Working Group will interact with each step.

Table 1. Recommended MT Framework and Work Breakdown Structure

Phases		MT Process Steps	Work Product	Evaluator	SAG (MT Sub-Com /Sm Group)
Phase 1	Concept Development and Assessment	Identify internal MT ideas			
		External MT Idea Input	TBD	Input	Input - MT SC
		Gap analysis with existing data			
		MT Advancement recommendation	Development of MT Opportunity brief	Review	Review - MT SC
		Utility MT Progress Update to SAG	Presentation to SAG	Inform	Inform - MT SC
Phase 2	MT Strategy Development and Testing	Conduct market research	Market research reports		
		Draft MT theory - Initial Logic model	Initial Logic Model	Review	
		Draft intervention strategies		Review	
		Lab testing, pilots, field demos	Technology demo/pilot reports	Inform	
		Confirm savings per unit	if applicable, IL TRM Workpaper	Review	Review - SG / TAC
		Draft natural market baseline (NMB)	Draft NMB model	Review	
		Independent review of NMB	Evaluator memo	Review	Review - MT SC
		Draft evaluation methodology	Draft methodology summary	Review	
		Draft market progress indicators	MPI definitions (associated with LM)	Review	
		Revised market progress indicators	Revised MPIS	Review	
		Total market unit data collection	Data collection and measurement	Review	
		Service territory accounting	Service territory market effect allocation	Review	
		Develop theory based evaluation	MTI Evaluation Methodology/Protocol	Review	Review - MT SC
		Refine and finalize Logic Model	Final logic model	Review	Review - MT SC
		Duration of any MT savings credit	Memo	Review	Review - MT SC
		Utility MT Progress Update to SAG	Presentation to SAG	Inform	Inform - MT SC
		Draft Business Plan	Business Plan	Review	Review - MT SC
		MT Savings Protocol	Logic Model		Inform
	Natural Market Baseline			Inform	Inform - MT SC
	Savings Per Unit			Inform	Inform - MT SC
Theory based evaluation			Inform	Inform - MT SC	
Duration of any MT savings credit			Inform	Inform - MT SC	
Final SAG presentation			Inform	Inform - MT SC	
Business Plan: Complete			Inform	Inform - MT SC	
Phase 3 Implementation					

Definitions for Table 1.

MT SC	SAG MT Working Group / Sub Committee
SG	Smaller Group of SAG MT Working Group
TAC	Technical Advisory Committee
Input	New idea or concept development
Review	Review and comment (this can include multiple reviews to incorporate MT SC feedback. Utility status update will provide review details)
Inform	Update or informing of prior consensus
Advise	Provide advice, recommend, or confirming outputs

For each MT initiative, utilities will closely review with identified evaluators on defining their involvement related to the work products in the work breakdown structure and how they will best interact with the MT SAG Working Group. The role of the evaluator and the SAG group engagements highlighted in Table 1 will vary or may not apply for a process step depending on the MT initiative. This table is not limited to the interactions and groups identified. Depending on the MT initiative, Definitions for Table 1 can be expanded to provide added clarity on how the evaluators and MT SAG Working Group will interact with the steps.

3.1.1 Phase 1: Concept Development and Assessment

Phase 1 of the MT Initiative Development process consists of gathering and prioritizing MT ideas for consideration in the utility MT and energy efficiency portfolio. This phase gathers potential MT ideas from internal and external sources and assesses those ideas using existing information against overall portfolio goals, MT scoring criteria, and developing a formal recommendation for that MT idea to move onto the next stage or not.

An MT initiative starts with identifying technological/product ideas with high energy efficiency savings, and other non-energy impacts (NEI), all of which should hold market appeal, but despite that, have not significantly penetrated the market. An assessment of the market and technology using existing information will determine potential barriers, motivations, an estimate of market size, market potential and market trends, enabling the utility to decide on advancing the technology to the next MT initiative phase. The utility can develop an opportunity brief summarizing the assessment of the MT initiative and use this document to decide on whether to advance this MT initiative onto the next Phase.

The following sections provide an overview of the recommended MT process steps, with an example set of activities, and how the evaluator and MT SAG Working Group can engage.

Identify internal MT ideas

Work Product / Output	Evaluator	SAG
List of potential MT technologies or services for further analysis	N/A	N/A

External MT idea input

Work Product / Output	Evaluator	SAG
List of potential MT technologies or services for further analysis from external parties.	Submission of MT ideas, with analysis documentation of viability	Submission of MT ideas, with analysis documentation of viability

Gap analysis with existing data

Work Product / Output	Evaluator	SAG
Identification of knowledge gaps by comparing existing information against required content in the MT Savings protocol. Data source examples: <ul style="list-style-type: none"> • IL potential studies • TRM workpapers • DOE technical support documents • ET program results • ACEEE and other industry resources • other public MT actor reports (such as NEEA), and other public research reports • technology/market assessments from national laboratories, ASHRAE. 	N/A or provided with external MT idea input if applicable	N/A or provided with external MT idea input if applicable

MT Advancement Recommendation

Work Product / Output	Evaluator	SAG
Development of MT opportunity brief, outlining MT potential through public data, hypothesis of MT theory, and summary of existing data to MT screening criteria.	Inform	N/A or Review MT idea opportunity brief at SAG MT Working Group

Utility MT Progress Update to SAG

Work Product / Output	Evaluator	SAG
Presentation to SAG. Could also include updates to public dashboard (optional). Further information on dashboard in section 3.3.1	Inform of utility updates on Phase 1 ideas	Inform of utility updates on Phase 1 ideas

3.1.2 Phase 2: MT Strategy Development and Testing

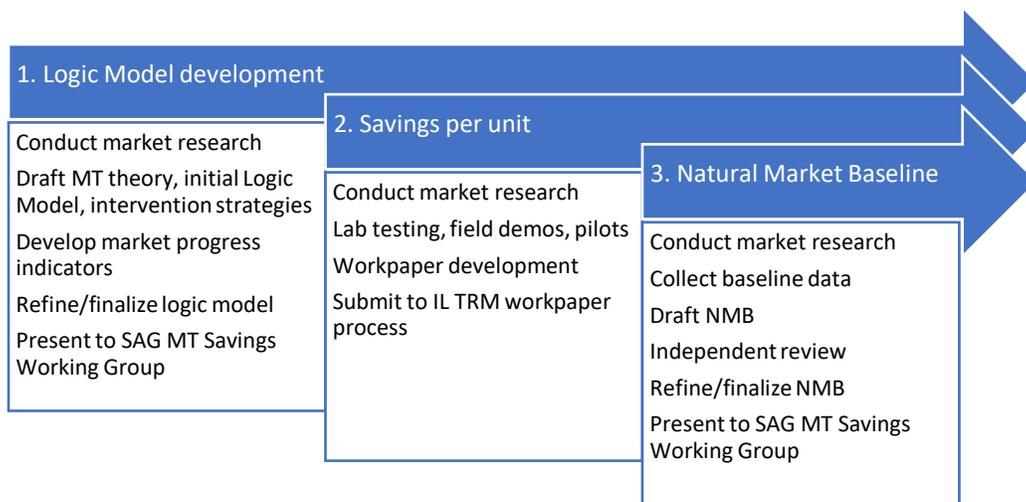
Phase 2 of the MT Initiative Development process consists of committing resources to fill in identified knowledge gaps in order to complete relevant sections of the MT business plan. These activities include conducting market

research, laboratory and/or field testing, developing workpapers, and other activities to test market strategies and the MT theory. The MT initiative logic model is developed in this stage, and the MT theory is confirmed and expanded upon. Market progress indicators are co-developed with evaluators to define how to measure progress, including identification of potential data sources. Phase 2 is where the evaluation methodology is determined with input from evaluators and stakeholders. Outputs from the Phase 2 process build to the MT initiative business plan, which documents the funding utility’s MT intent. Key components of the plan are defined in section 3.1 of IL TRM Vol 4 Cross Cutting Measures and Attachments, summarized here:

1. Target market and product defined
2. End-state transformation goal set
3. Logic model complete
 - a. Clear intervention points
 - b. Identified leverage points
 - c. Clear exit strategy
4. Savings estimated
 - a. Method and data defined
 - b. Natural Market Baseline (NMB) set
 - c. Savings per unit defined
5. Evaluation methodology defined
 - a. Data requirements identified
 - b. Market progress indicators set
 - c. Evaluation approach clear
6. Clear intervention strategies defined
 - a. Interaction with other programs

The MT process steps are recommended to be developed in a general order, with information from previous steps providing data and confirming assumptions into subsequent components. The following two set of activities are grouped into tranches and are recommended to be done in sequential order to confirm inputs and minimize dispute around final MT Savings Protocol components, as the components would reach consensus in an earlier stage. This document acknowledges that some activities can be done in parallel, and that not all MT initiatives are equivalent, and not all process steps may be necessary to reach consensus.

Figure 2. First Tier of Key MT Process Components



Logic model development incorporates several MT process steps from table 1. The steps included are as follows:

Conducting Market Research

Work Product / Output	Evaluator	SAG
Market research to test and confirm market strategies and assumptions. Build knowledge base necessary to develop subsequent components of the Business Plan.	N/A	N/A

Draft MT Theory – Initial Logic Model

Work Product / Output	Evaluator	SAG
Document MT theory through draft Logic Model, leveraging existing information and funded market research	Review Logic Model, providing feedback on program theory	N/A

Draft Intervention Strategies

Work Product / Output	Evaluator	SAG
Define intervention strategies aligned with logic model and MT theory	Review intervention strategies with feedback focused on evaluation considerations	N/A

Develop Market Progress Indicators (MPI)

Work Product / Output	Evaluator	SAG
Develop relevant MPIs and methodologies to measure, including potential data sources, and frequency of measurement and evaluation.	Review MPIs for relevance to logic model and MT theory, provide feedback on methodology to measure progress, frequency of measurement and evaluation.	N/A

Refine and Finalize Logic Model

Work Product / Output	Evaluator	SAG
Develop revised logic model and associated MPIs, including definitions and methodologies for measurement	Review revised logic model	Review revised logic model

Confirm savings per unit incorporates several MT process steps from table 1. The steps included are as follows:

Lab Testing, Pilots, and Field Demonstrations

Work Product / Output	Evaluator	SAG
If necessary: conduct required lab testing, pilots, and/or field demonstrations to confirm technology energy savings, applicability, and learn any lessons on end user experience and installation considerations from final reports.	Inform through final reports.	N/A

Develop Savings Per Unit

Work Product / Output	Evaluator	SAG
If applicable – develop IL TRM workpaper for inclusion into IL TRM to document savings per unit.	Review, or Review through TAC process	Review, or Review through TAC process

Natural Market Baseline (NMB) incorporates several MT process steps from table 1. The steps included are as follows:

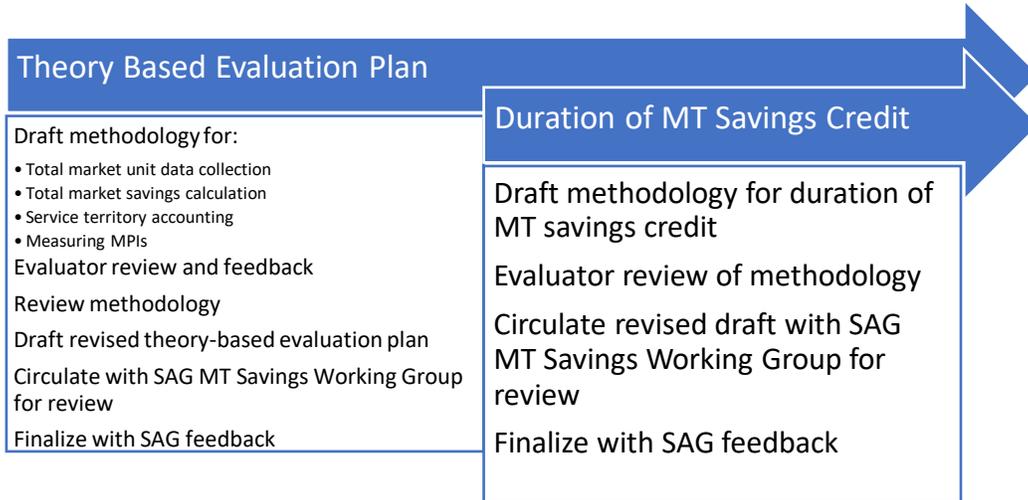
Draft Natural Market Baseline

Work Product / Output	Evaluator	SAG
Draft NMB documenting methodology, data sources, and assumptions. Includes recommendation on frequency of updates	Review and provide comments on methodology, data sources, and assumptions	N/A

Independent Review of Natural Market Baseline

Work Product / Output	Evaluator	SAG
Memo from independent evaluator providing recommendations and NMB. Utility documentation of adjustments to draft NMB based on recommendations.	Review, provided advice and feedback on NMB.	Review of draft revised NMB, memo.

Figure 3. Second Tier of Key MT Process Components



Theory Based Evaluation Plan incorporates several MT process steps from table 1. The steps included are as follows:

Draft Evaluation Methodology

Work Product / Output	Evaluator	SAG
Based on previous findings and the final logic model, develop methodology for evaluating: <ul style="list-style-type: none"> • Total market unit data collection • Total market savings calculation • Service territory accounting • Measuring MPIs 	Review or Inform of progress and methodology recommendations	N/A

Develop Preliminary Evaluation Plan

Work Product / Output	Evaluator	SAG
Input to MT initiative evaluation plan based off existing MT initiative components, such as logic model, NMB, MPIs., and recommended frequency of evaluation.	Review evaluation plan to confirm reasonableness and appropriate methodologies to reach consensus.	Review and provide feedback on evaluation plan to reach consensus.

Duration of any MT Savings Credit contains just one process step, defined below.

Duration of any MT Savings Credit

Work Product / Output	Evaluator	SAG
Develop methodology and recommendation for duration of MT savings credit and document in memo.	Review methodology for reasonableness and provide feedback to finalize	Review memo and provide feedback to finalize

The remaining process steps are defined below to formally move an MT initiative to the SAG for the formal review of the MT Savings Protocol and to document consensus.

Approval to Bring to SAG (optional)

Work Product / Output	Evaluator	SAG
Formal documentation of utility intent to advance the MT idea	N/A	N/A

Utility MT Progress Update to SAG

Work Product / Output	Evaluator	SAG
<p>Presentation to SAG. Could also include updates to public dashboard (optional). Further information on dashboard in section 3.3.1</p> <p>Not required to occur at conclusion of MT development, can occur more frequently</p>	Inform of utility updates on Phase 2 activities	Inform of utility updates on Phase 2 activities

Develop MT Business Plan

Work Product / Output	Evaluator	SAG
Leveraging previous components, outputs, and data, develop MT business plan in alignment with section 3.1 of IL TRM Vol 4 Cross Cutting Measures and Attachments	Review or Inform MT business plan	Review or Inform MT business plan

3.2 Documentation of MT Savings Protocol Consensus

The final step in the MT process is the formal documentation of consensus on the MT Savings Protocol, consisting of the:

- Final logic model

- Natural market baseline
- Theory based evaluation plan, including:
 - Service territory accounting
 - Market progress indicators (aligned with logic model)
 - Total market unit data collection methodology and sources
- Duration of any MT savings credit

By incorporating SAG and evaluator input and review during the development of these components, formal consensus should be a simple process, as any issues would be addressed earlier in the development process. For example, alignment on the logic model and MPIs should provide clarity and transparency to the development of the theory-based evaluation plan, minimizing a potential lengthy review and input process and parties would be familiar with the approach and plan. The recommendation is to present the final components at a quarterly SAG MT Working Group meeting.

3.3 Reporting and Documentation

3.3.1 MT Status Dashboard

This document recommends developing a simple dashboard, to be hosted by the SAG facilitator on the SAG website, outlining utility specific MT initiative and where they are along this MT process. The dashboard would be updated quarterly in advance of regularly scheduled SAG MT Working Group meetings. Nicor Gas developed an example dashboard for consideration below in Figure 4.

Figure 4. Nicor Gas Example MT Dashboard

Phases		MT Process Steps	Advanced Windows (Thin Triple Window)	Codes	Secondary Glazing Systems
Phase 1	Concept Development and Assessment	Identify internal MT ideas	Stage complete	Stage complete	Stage complete
		External MT Idea Input	N/A	N/A	N/A
		Gap analysis with existing data	Stage complete	Stage complete	Stage complete
		MT Advancement recommendation	Stage complete	N/A	Stage complete
		Nicor Gas approval to move forward	Stage complete	Stage complete	Stage complete
		Utility MT Progress Update to SAG	N/A	N/A	N/A
Phase 2	MT Strategy Development and Testing	Conduct market research	Underway	Stage complete	Underway
		Draft MT theory - Initial Logic model	Stage complete	Underway	Not started
		Draft intervention strategies	Underway	Underway	Not started
		Lab testing, pilots, field demos	Stage complete	N/A	Not started
		Confirm savings per unit	Stage complete	Underway	Underway
		Draft natural market baseline (NMB)	Underway	Underway	Not started
		Independent review of NMB	Not started	Not started	Not started
		Draft evaluation methodology	Not started	Awaiting MT SC review	Not started
		Develop market progress indicators	Not started	Not started	Not started
		Total market unit data collection	Not started	Not started	Not started
		Service territory accounting	Not started	Not started	Not started
		Develop theory based evaluation	Not started	Underway	Not started
		Refine and finalize Logic Model	Not started	Not started	Not started
		Duration of any MT savings credit	Not started	Not started	Not started
	Approval to bring to SAG	Not started	Not started	Not started	
	Utility MT Progress Update to SAG	N/A	N/A	N/A	
	Draft Business Plan	Not started	Not started	Not started	
	MT Savings Protocol	Logic Model	In Process	In Process	Not started
		Natural Market Baseline	In Process	Underway	Not started
		Savings Per Unit	Published	Underway	Not started
Theory based evaluation		Not started	Awaiting MT SC review	Not started	
Duration of any MT savings credit		Not started	Not started	Not started	
Final SAG presentation		Not started	Not started	Not started	
Business Plan: Complete		Not started	Not started	Not started	

Status

Stage complete
Published
Underway
In Process
Ready for MT SC
Awaiting evaluator review
Awaiting MT SC review
Awaiting TAC Review
Awaiting SG Review
Evaluator Comment Review
MT SC Comment Review
N/A
Not started

3.3.2 MT Savings Protocol Consensus

Documentation of MT Savings Protocol consensus should be hosted on the SAG website in a formal document. Formal documentation could be a memo stating the date of MT Savings Protocol presentation and discussion and acknowledgement of evaluator and/or the MT SAG Working Group.

The IL-TRM can include reference to individual MT initiative Savings Protocols during the annual update process, pointing to the SAG website where relevant documentation is hosted, minimizing significant additions and edits to the TMR proper.

4 Appendix A: Glossary of Terms

Consensus – agreement between MT SAG Working Group and funding utilities on the methodologies and process for estimating savings from a MT initiative, as defined in the MT Savings Protocol documents.

Logic Model – a graphic depiction of the shared relationships among the activities, outputs, and outcomes of a program. The theory of change should be visible in the logic model.

Market – an actual or nominal place where forces of demand and supply operate, and where buyers and sellers interact (directly or through intermediaries) to trade goods, services or contracts or instruments, for money or barter.

Market Progress Indicator (MPI) – A measurement of market progress for a specific indicator of an element of MT theory described in the program logic that defines the associate barrier/opportunity/intervention strategy and anticipated outcomes from successful implementation. [Note that regional differences exist in how these indicators are labeled, including the term Market Indicator. The specific term is less important than the fact that the indicator refers to activities occurring within the market, rather than within the program, and that they will likely include long-term indicators that can take years to emerge.]

Market Transformation (MT) - 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.

MT Business Plan - A document embodying the strategy, data and assumptions about the MT initiative at the time of launch. It includes a description of the efficiency opportunity, targeted markets, assessment of barriers and opportunities, intervention strategies, near, mid and long-term market outcomes, market progress indicators and key energy savings estimation assumptions.

Natural Market Baseline Savings – The estimated energy savings computed based on a market adoption rate forecast of what would have happened without any utility funded interventions that may include both MT and RA programs as well as enabling infrastructure support. The forecast of Natural Market Baseline is generally established before the start of the MT initiative but may be revised periodically.

Service Territory Accounting – The process of allocating energy savings from MT programs to multiple sponsors of an MT initiative that operates across multiple sponsoring utilities; e.g. at a state or multiple state regional level.

Total Market Savings – The estimated energy savings computed based on all market adoption above and beyond the adoption rate at the start of the MT initiative.