

[DRAFT -- Work in Progress]

This document describes two interrelated proposals on how to attribute energy savings that come from the intersection of a Market Transformation Initiative (MTI) and the traditional role of Codes and Standards (C&S) advocacy. The two solutions answer two distinct questions and can be implemented independently. But they will best achieve the Commission's objectives when implemented in concert.

The two questions are:

1. How can the attribution process be structured to best foster collaboration between the MTA and parties responsible for C&S Advocacy so as to maximize overall ratepayer benefits?
2. For the portion of attribution that must be determined by an independent evaluator – using a Delphi panel of industry experts – how should the existing evaluation protocols be expanded to properly credit important changes in market readiness that are fostered by an MTI?

Experience from the Northwest also drives this proposal. Specifically:

- A considerable portion of the expected energy savings from many MTIs will come from the planned benefits of helping to move a measure into code. Making the final savings allocation more predictable will afford the eventual MTA much needed certainty as to when it should move forward with a given MTI.¹
- Second, the success or failure of an MTI -- and the MTA in general -- in maximizing ratepayer benefits is highly dependent on the level of collaboration between efficiency programs. Developing an attribution mechanism that directly links existing programs with MTI efforts in terms of shared rewards will foster collaboration and be critical to success.

Establishing a transparent attribution process for the C&S savings that result from an MTI is critical to implement many aspects of Decision 19-12-01. For example, Conclusions of Law #30 states, "It is appropriate to set savings goals and other metrics for individual MTIs at the time they are initially approved by the Commission." In order to set reasonable goals for the MTI, the MTA must have a clear understanding of how a given MTI will be evaluated in the C&S impact evaluation process.

¹ As will be discussed further, the energy savings that will result from a given code measure cannot be known for sure, as that is dependent on both eventual code adoption and the independent evaluation of the projected energy savings. But greater certainty can be established for the share (or percentage) of the overall code savings that are attributable to the MTI.

1) Minimum Shared Savings will Foster Collaboration and Increase Ratepayers Benefits (Proposal B-2)

Rationale:

Collaboration between the MTA and the C&S Advocacy entity (collectively, “the Parties”) will be best promoted by pre-distributing a significant percentage of the final evaluated energy savings that are caused by moving a measure into code. This proposal builds off of a central piece of guidance in Decision 19-12-01:

*“ . . . we would like to avoid disputes over which initiative or program created the energy savings, **preferring to celebrate the victory without arguing over attribution.**”* (Decision pg. 73)

Using the classic “pie splitting” metaphor, this approach to allocation seeks to focus the efforts of the Parties on working together to expand the overall pie rather than focusing their efforts on making their individual portion of the pie as large as possible.

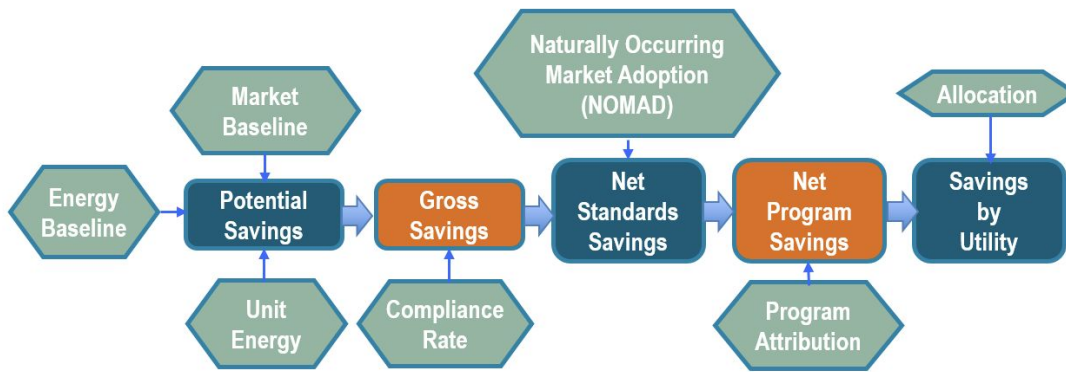
Leaving the whole of the attribution decision to the end-state discretion of the independent evaluators virtually invites “zero sum game” optimization by the Parties from the commencement of an MTI until the final impact evaluation is completed. This will be counterproductive for ratepayers and runs contrary to the Commission’s preference to “celebrate the victory without arguing over attribution.”

The proposed Minimum Shared Savings can be viewed, in a way, as a conscious decision to possibly sacrifice precision in the final attribution process in order to achieve greater collaboration and greater savings along the way. But it may not be a tradeoff at all, as the current standard attribution methodology – while conducted by experts – encompasses attribution steps that are highly subjective. Leaving the full attribution process until after code adoption also creates significant risk of over-valuing the final actions that moved a measure into code (i.e. code advocacy) when compared to MTI efforts that were perhaps more influential but occurred much earlier in time.

Minimum Shared Savings Methodology:

We are outlining two different methods for pre-allocating the attribution percentages. One is simpler, and the other more refined. They both have merit. Other methods might be proposed that achieve the same purpose.

These methods do not guarantee a minimum level of energy savings that will be granted to an MTI. The level of overall savings is dependent, first, on the measure being adopted into code. Second, it is dependent on the “Net Standard Savings”, as determined by the independent evaluator (see flow chart below). The Minimum Attribution Percentage will impact some combination of “Program Attribution” and “Allocation” in the traditional C&S evaluation process.



i. Sub-Option 1 - Minimum Shared Savings of 25% for MTI and 25% for C&S Advocacy

The first option would allocate 50% of the overall savings between an MTI and the team that conducted the related code advocacy. That 50% would, in turn, be divided in half, such that each party received a minimum 25% share. The remaining allocation would be based on the attribution assessment performed by the independent evaluator and its Delphi panel. If the independent evaluator decided that the C&S advocacy team deserved 15% of the energy savings, and the MTI deserved 85%, the Minimum Shared Savings would shift those values to be 25% and 75% respectively. (The Minimum Shared Savings might also be thought of as an “attribution backstop”.)



We believe that a Minimum Shared Savings value of 25% for both entities is prudent, but it could be higher or lower.

This method provides a number of benefits:

- It creates an inherent framework of shared benefits. Both parties benefit when either party increases overall energy savings. This will incentivize the parties to help each other increase the overall size of the energy saving pie.
- It provides greater certainty for the MTA as it seeks to forecast the savings for an MTI during the go / no-go phases of analysis. The MTA can ultimately launch more MTIs with Minimum Shared Savings, as the attribution boundary will minimize the number of MTIs that are halted due to uncertainties in the savings forecast.

ii. Sub-Option 2 - A Two Variable Approach to Minimum Shared Savings

If the 25% bounds proposed in Sub-Option 1 are too generalized, a matrix of attribution bounds could be developed that is based on two of the most important influence variables. The following example proposes the two variables of: 1) starting market saturation for a measure, and 2) total MTI investment in that measure.

These minimum bounds would be developed during MTA formation, with input from the MTA, code advocacy experts, and other stakeholders. Given that these variables will likely be central to a final attribution analysis, this path may require no additional work, merely moving the analysis to the front of the process instead of the end. The matrix approach would also provide far greater certainty during MTI planning and would minimize biases that are likely to occur in analyzing impacts only after completion of the code advocacy process.

Sample Minimum Shared Savings Table (values for illustration purposes only)

	Overall MTI Investment before Code Adoption			
Starting Market Saturation	<i>\$0-2 million</i>	<i>\$2-6 million</i>	<i>\$6-12 million</i>	<i>\$12 million+</i>
	<i>C&S % / MTI % Shared Minimum Saving</i>			
under 1%	20% / 30%	15% / 40%	10% / 60%	10% / 60%
1% - 4%	25% / 25%	20% / 35%	15% / 55%	10% / 50%
4% - 10%	30% / 20%	25% / 30%	20% / 50%	15% / 55%
10% - 20%	40% / 15%	30% / 25%	25% / 40%	20% / 45%
over 20%	50% / 10%	40% / 25%	30% / 30%	25% / 35%

2) The Ex Post Attribution Analysis should be Expanded to Put Market Transformation on an Equal Footing with Code Advocacy (Proposal B-1)

Under all current attribution proposals, the independent evaluator will determine a portion of the ex post savings that are to be distributed between a C&S advocacy team and an MTI. This proposal seeks to more explicitly weave the influence of Market Transformation efforts into the attribution analysis conducted by the independent evaluator.

The proposed amendments are based on the last finalized Impact Analysis of the IOU C&S Advocacy program: “California Statewide Codes and Standards Program Impact Evaluation Phase Two, Volume Two: 2013 Title 24, June 23, 2017” (CALMAC Study ID: CPU0170.01, hereinafter “Title 24, 2013 Impact Evaluation”)²

² http://www.calmac.org/publications/CPUC_CS_Volume_2_Report_FINAL_R1_06232017ES.pdf

The emerging problem is that the historic C&S attribution methodology is built solely around a code advocacy framework. Specifically, the methodology assesses attribution based on various factors that occur only after a given measure is ready to move into code. At that point, both market readiness and cost-effectiveness thresholds have been met. The revisions in this proposal expand the time period of analysis, looking back to the beginning of the MTI, when the ability of a given measure to meet various thresholds for code adoption were not yet clear.

i. Three Attribution Factors should be Added that Explicitly Evaluate the Influence of an MTI

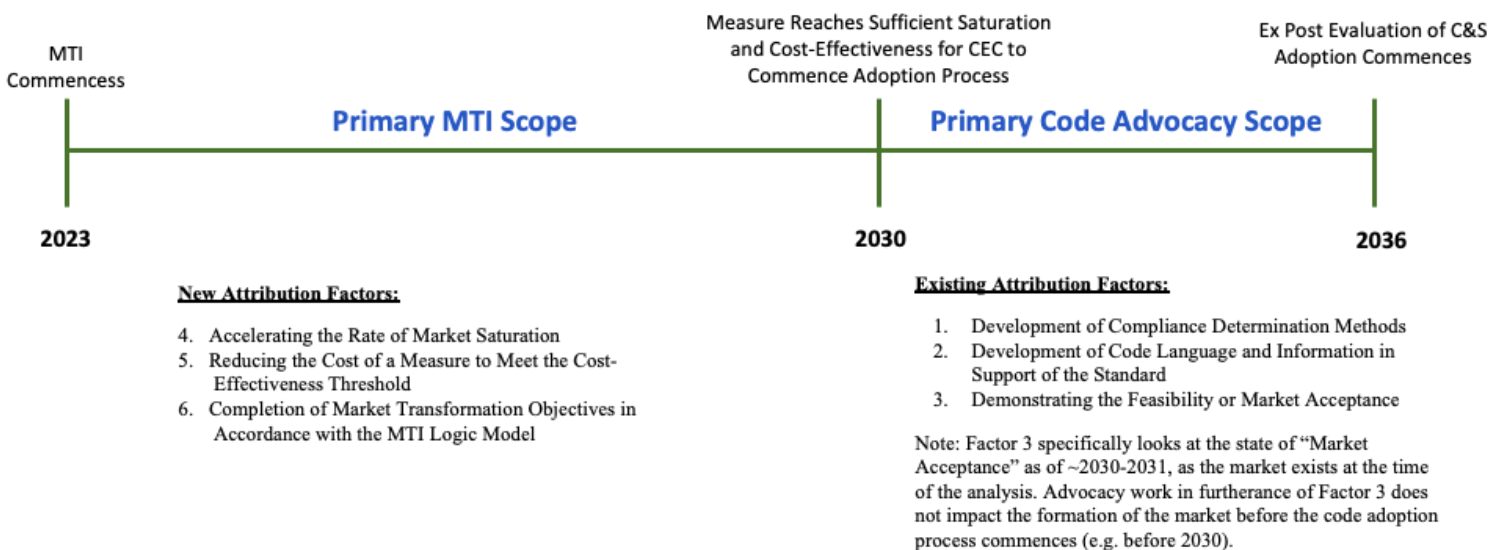
The historic attribution model lists three “Factors” that are evaluated to assess the influence of the IOU code advocacy efforts. The historic Factors are (“Title 24, 2013 Impact Evaluation”, pg. 58):

1. “The Development of Compliance Determination Methods and Other Special Analytic Techniques”
2. “The Development of Code Language and Technical, Scientific, and Economic Information in Support of the Standard”
3. “Demonstrating the Feasibility or Market Acceptance of Code Adoption”

We are proposing three new Attribution Factors that focus on the influence of an MTI:

4. “Accelerating the Rate of Market Saturation to Meet Market Acceptance Requirements”
5. “Reducing the Cost of a Measure to Meet the Cost-Effectiveness Thresholds for Regulatory Adoption”
6. “Completion of Market Transformation Objectives in Accordance with the MTI Logic Model”

A timeline outlining a sample analytical period for existing and new Attribution Factors is as follows:



Further explanation of the Attribution Factors:

“Accelerating the Rate of Market Saturation to Meet Market Acceptance Requirements”.

This Factor evaluates the work that the MTA completes to increase the uptake of an efficiency measure, thereby helping the CEC to demonstrate market readiness. If the measure would be unlikely to ever reach market readiness without the MTI, the Attribution Factor attributed to the MTI would be comparatively large. If the MTI accelerates adoption of a measure that might otherwise be adopted in later code updates, then the Attribution Factor attributed to the MTI would be more balanced.

“Reducing the Cost of a Measure to Help the Measure Meet Cost-Effectiveness Thresholds for Regulatory Adoption”

As an MTI helps a given efficiency measure increase its market saturation in California, the overall cost of the measure is likely to decrease. The performance level of the measure -- in terms of overall efficiency -- might also increase. Both of these factors will cause a steady improvement in the cost-effectiveness of the measure. This improved cost-effectiveness will help the Energy Commission show that adoption of the measure complies with the requirements of the Warren Alquist Act.

“Completion of Market Transformation Objectives in Accordance with the MTI Logic Model”

The means by which an MTI seeks to improve uptake of a given efficiency measure is represented in the MTI’s logic model. Assessing adherence to the MTI logic model and completion of the goals therein will provide a point-by-point analysis of how the MTI impacted eventual code adoption.

ii. The Weighting of MTI Measures in the Impact Evaluation should Consider a Broader Range of Variables

In the current attribution methodology, the existing three factors are weighted by percentages that collectively sum to 100%. The percentages are used to adjust the overall relevance of each Factor based on the Factor’s perceived importance in moving an efficiency measure towards final code adoption. A sample from the most recently completed impact analysis is shown in the “Weight” columns below (*“Title 24, 2013 Impact Evaluation”*, pg. 73):

Table 33. 2013 Title 24 Codes Attribution Scores and Weighting

2013 Title 24 Building Codes		Factor Score			Weight			Final Attribution Score
		Compliance	Technical	Feasibility	Compliance	Technical	Feasibility	
B34	Lighting-Alts.-New Measures	5%	60%	80%	15%	55%	30%	58%
B35	Lighting-Alts.-Existing Measures	5%	60%	80%	15%	55%	30%	58%
B36	Lighting-Egress Lighting Control	5%	85%	85%	5%	60%	35%	81%
B37	Lighting-MF Building Corridors	70%	65%	70%	25%	45%	30%	68%
B38	Lighting-Hotel Corridors	70%	65%	70%	25%	45%	30%	68%

With the proposed three new Factors added to the impact analysis process, three additional weighting values will be needed for those code measures (although only for those measures where an MTI materially advances the code adoption process). In those cases, the six weighting values will sum to 100%. In determining the weighting values, the independent

evaluator shall consider such factors as overall investment in the efficiency measure, the risk of the investment, etc.

If all Factor scores were 50% and the weights were evenly distributed across all 6 Factors, the Final Attribution Score for the C&S Advocacy efforts and the MTI would be 25% each, as shown:

Measure A	Factor Score						Weight						C&S Final Attribution Score	MTI Final Attribution Score
	C&S Focus			MTI Focus			C&S Focus			MTI Focus				
	Compliance	Technical	Feasibility	Saturation	Cost Effectiveness	MTI Logic Model	Compliance	Technical	Feasibility	Saturation	Cost Effectiveness	MTI Logic Model		
	50%	50%	50%	50%	50%	50%	16.6%	16.6%	16.6%	16.6%	16.6%	16.6%	25%	25%

3) Additional Notes

To clarify where the attribution analysis discussed above would be integrated into the traditional impact analysis flow chart, this proposal includes the following possible solution: First, the independent evaluator will determine the “Program Attribution” (second to last step) by assessing the combined impact of both C&S Advocacy and the MTI. The “Allocation” step (the final step) presently divides savings between the respective IOUs based on a fixed formula. The relative impact of an MTI and the C&S advocacy efforts would be added to the final “Allocation” step based on the “Final Attribution Score” for both programs. The final box of the standard evaluation methodology might be relabeled as “Savings by Ratepayer Program”. Or it might be more clear to add an additional step between “Net Program Savings” and “Savings by Utility” to implement the attribution process discussed herein.

