

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Concerning  
Energy Efficiency Rolling Portfolios, Policies,  
Programs, Evaluation, and Related Issues.

---

Rulemaking 13-11-005  
(Filed November 14,2013)

**NORTHWEST ENERGY EFFICIENCY ALLIANCE COMMENTS ON  
ADMINISTRATIVE LAW JUDGE’S RULING SEEKING COMMENT ON  
MARKET TRANSFORMATION STAFF PROPOSAL**

JEFF HARRIS  
Chief Market Transformation Officer  
Northwest Energy Efficiency Alliance  
NORTHWEST ENERGY EFFICIENCY ALLIANCE  
421 SW Sixth Avenue, Suite 600  
Portland, Oregon 97204  
503.688.5400 | Fax 503.688.5447 | [neea.org](http://neea.org)  
[jharris@neea.org](mailto:jharris@neea.org)

October 4, 2018

October 4, 2018



Julie Fitch, Administrative Law Judge  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102

RE: Rulemaking 13-11-005; Market Transformation Staff Proposal

The Northwest Energy Efficiency Alliance (NEEA) welcomes the opportunity to provide comments on the Draft Staff Proposal for Energy Efficiency Market Transformation dated August 28, 2018.

NEEA is a non-profit organization working to effect market transformation in the Northwest region through the acceleration and adoption of energy-efficient products, services and practices. NEEA is an alliance of more than 140 Northwest utilities and energy efficiency organizations working on behalf of more than 13 million energy consumers. Since 1997, NEEA and its partners have saved enough energy to power more than 900,000 homes each year.

We have been fortunate to partner with California utilities and institutions on individual market transformation programs. We are pleased to see California now working towards a more robust, systematic approach to market transformation at a statewide level. We welcome the opportunity to share learnings from more than two decades of market transformation work in the Northwest.

We commend California Public Utility Commission (CPUC) staff for crafting the Draft Proposal and are supportive of the overall intent and direction. We understand that the context for this proposal includes many other policy directives and mandates that must be considered and accommodated. We also recognize the importance and unique role of the CPUC in regulatory oversight of appropriate and prudent use of ratepayer funds for energy efficiency programs.

In our experience, market transformation involves interventions in markets that are dynamic and rapidly changing. This requires innovation and adaptive management of programs that can be challenging; both from an operational standpoint as well as from a regulatory oversight perspective. We believe that the staff proposal is a good first step in this direction and offer some suggestions from lessons learned in the Northwest. We are also happy to provide additional input as needed.

We have attached some high-level comments as well as detailed responses to the questions in the draft. Thank you for the opportunity to comment.

A handwritten signature in blue ink that reads "Andrew Grassell".

Andrew Grassell  
Chair, NEEA Board of Directors

A handwritten signature in blue ink that reads "Susan E. Stratton".

Susan Stratton  
Executive Director

# Northwest Energy Efficiency Alliance Comments on Administrative Law Judge's Ruling Seeking Comment On Market Transformation Staff Proposal

October 4, 2019

## Overall Comments

The Northwest Energy Efficiency Alliance (NEEA) believes that the Draft Proposal represents a significant step forward in structuring a productive and supportive framework for market transformation in California. We believe that it builds effectively on prior work in California<sup>1</sup> and addresses key issues identified in that work.

***Market Transformation is part of a larger eco-system of programs seeking to increase energy efficiency.*** Our own experience supports the staff proposal conclusion that there are some energy efficiency opportunities that are better suited for a market transformation program than others and that market transformation programs are only one of a diverse set of approaches to advancing energy efficiency in California. We would also note that, in our experience, market adoption can be accelerated more effectively when resource acquisition programs are coordinated with market transformation efforts. When done well, synergistic results can occur as the combined program efforts simultaneously remove market barriers and build market demand. Market transformation works most effectively when supported by robust market data and partnerships with market actors. These other elements do not have to exist inside the market transformation program but are necessary for overall success.

***Market Transformation requires a policy framework tailored to the unique needs of market transformation programs.*** We also applaud the staff proposal recognition of the need for a new framework to support market transformation programs. Markets are dynamic, and therefore programs designed to intervene and leverage market forces will need to be flexible and adaptable. The existing policy frameworks for resource acquisition programs have proved challenging when applied to market transformation programs. In particular, market transformation programs must be implemented and evaluated with a long-term view of success that recognizes a time-difference between program

---

<sup>1</sup> *Building a Policy Framework to Support Energy Efficiency Market Transformation in California.* December 9, 2014, by Ralph Prahl and Ken Keating, Consultants to Energy Division, California Public Utilities Commission. Edited by Cathy Fogel and other Energy Division Staff.

investment and energy savings returns. Our experience suggests that an average program life for a successful market transformation effort is roughly ten years with the majority of savings impacts following that.

***Market Transformation involves intervention in markets that are dynamic with associated significant risks.*** In our experience, the most successful market transformation programs involve innovative approaches to intervening in markets where the main driving forces are outside of our control. This innovation can involve significant risk. Many markets are also highly dynamic and require flexibility and adaptability in program design. We also want to commend the staff proposal for recognizing this need for flexibility as well as the inherent risks associated with market transformation programs. Creating appropriate systems for addressing the risks while allowing flexible program implementation is one of the largest challenges to achieving success in market transformation.

## **Proposal Comments**

NEEA offers the following comments as over-arching considerations for a successful launch of market transformation in California:

1. Overall vision of a transformed market The staff proposal links to the authorizing language in SB 350 which seeks to double energy efficiency savings by 2030. The language of SB 350 could be used to create a vision statement of what a transformed market would look like. Starting with this clear vision would help guide the design of all the other structures and processes to achieve that vision. In the language of SB 350, each market transformation program could be designed with a goal of doubling the energy efficiency potential and accelerated timing of the achievement of that goal. If embraced by the market transformation program design, it would set the stage for collaboration with all other programs and actors that may assist in achieving the goal.
2. Integration with emerging technology programs and Codes and Standards efforts If market transformation is indeed a tool to deliver the goals of SB 350, then in our experience integration with emerging technologies and codes and standards efforts is an essential element for success. At its best, market transformation works directly with innovators to bring new efficiency opportunities

forward and offers a clear path to market scale through codes and standards. Market Transformation will also bring consideration of accelerated code and standard adoption into the earliest planning stages of strategy development. We believe that the staff proposal will be much more likely to achieve the goals of SB 350 if there is an explicit link to existing or future emerging technologies and codes and standards efforts connected directly to the market transformation program.

In particular, there needs to be a way for market transformation programs to be able to take some credit for the savings achieved when a new code or standard takes effect. Many of NEEA’s market transformation programs are designed to directly target a change in codes or standards as the end point to our MT efforts. Without the ability to count some portion of the savings that accrue following code or standard adoption, many of our programs would be challenged to be cost-effective. Further, inability to count savings sends from codes and standards inadvertently incents “holding on” to voluntary activities and delay moving towards codes and standards adoption in direct contradiction to the goals of SB 350.

3. Stage-gate processes and mitigation In our experience, a stage-gate process that defines a structured implementation with increasing steps of resource commitment as uncertainties are reduced is a prudent approach to mitigate risk. The staff proposal takes a step in this direction by separating the planning of market transformation from the implementation under an “Accord”. Based on our experience, we would suggest that the elements proposed for a successful commitment under the Accord could be better served by being preceded by a development stage that has greater flexibility and risk with less resource commitment. In our process, this would translate to the stage we call “product and market testing”. This “testing” stage is a critical step in developing market interventions that are grounded in real market experience within a limited scope and scale before committing full resources. Figure 1 below illustrates the relative sequence of these stages with emerging technology and codes and standards using NEEA’s initiative life-cycle.

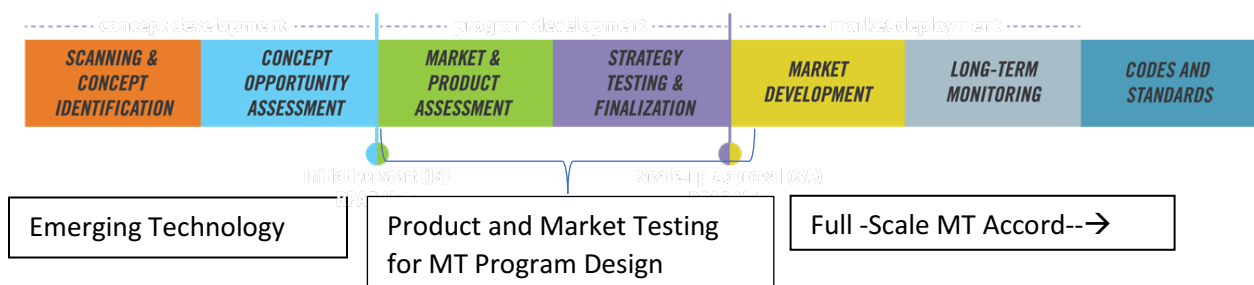


Figure 1. Stage Gate Processes – Staff Proposal compared to NEEA ILC

We believe that this additional stage could be initiated following the market transformation development plan described in Section 4 of the staff proposal. In our own work, this allows for a learn-by-doing approach to design of the MT program. It also gates the commitment of full-scale resources until the items described in Section 4.2 MT Accord can be more reliably documented based on actual experience and data. During this stage, we often limit the testing to specific geographic or sub-market to reduce uncertainty for variables that we will address later at full scale. As an example, in California pilot testing could be restricted geographically to a single Program Administrator's (PA's) service territory to ease issues of coordination with resource acquisition programs.

4. Market Transformation Portfolio Management: Encouraging Innovation, Mitigating Risk It is difficult for an individual program to balance the need for innovation and the risk that comes with it against the needs for more certainty in near-term progress and value delivery. In our experience, it is important to have an over-arching management process and advisory structure that can view all the programs as a combined portfolio. This provides the ability to look across the portfolio and manage for an appropriate balance of key portfolio metrics. Just as a financial portfolio helps to manage risk through a diversity of investments, a portfolio of market transformation programs can balance more risky, innovative opportunities against less-risky, reliable value delivery opportunities. It can also balance early-stage development programs with fresh new emerging technologies against programs that are moving into the final stages of code adoption. We see a suggestion in the proposal for a Market Transformation Advisory Board as well as review of individual MT programs by the California Energy Efficiency Coordinating Council (CAECC). While we do not have an opinion about a particular organization serving either function, we encourage the CPUC to further develop these ideas and consider how individual program review and portfolio management could work together to provide the appropriate outcomes for both individual programs and the statewide portfolio.

5. Interaction with Resource Acquisition (RA) Programs and Phase III requirements for third party and statewide administration We recognize the complexity that these other mandates and requirements place on the market transformation programs. We would only add that, in our experience, when these efforts are coordinated with clear understanding of the market barriers and opportunities addressed by either program set, there can be synergistic effects and rapid market acceleration. That said, collaboration across programs is some of the hardest work in market transformation; yet, it is often the most critical. We applaud the out-of-the-box thinking in the staff proposal regarding ways (such as fixed net-to-gross adjustments) to reward RA programs that actively choose to coordinate with MT programs in the same market. We would encourage ways to reward the RA programs for accelerating market adoption all the way to the end state of the MT program, including codes and standards. We believe that sharing the success by all programs that contributed to MT is one productive way to encourage collaboration.

## **NEEA's Responses to Specific CPUC Questions**

1. What are the best characteristics of the market transformation framework in the Staff Proposal? What attributes are the most valuable and should be retained?

NEEA is encouraged by the staged approach described in the staff proposal, which acknowledges the level of pre-intervention research and planning that typically underlie successful market transformation interventions. As noted in our overarching comments above, we suggest opportunities to add a “learn-by-doing” stage that involves actual market engagement prior to the formal launch of a full-scale “Accord”. We believe this would help programs get to market faster and build to scale on actual market data rather than just planning assumptions. That said, the overall staged framework is consistent with the best practices NEEA has developed to guide market transformation work in the Northwest.

NEEA believes the staff proposal appropriately recognizes the need for a long-term, stable support system for market transformation programs embodied in the proposal in the described

“Accord”. A key component of the success of market transformation in the Northwest has been the steady, long-term commitment and support of the funders of NEEA as well as the regulatory bodies that have oversight of the utilities and program administrators.

NEEA agrees that initiative level CPUC-led evaluations are not indicated. Market transformation initiatives require unique evaluation products that blend market and process evaluation and focus on measuring indicators of market progress. These are best managed by the PA involved given the dynamic nature of some markets and the rapid adaptation that can occur (particularly in the first two years).

NEEA agrees that the cost effectiveness of market transformation programs should be based on a longer timeframe of achieving incremental progress in the target market that supports estimates of energy savings based on overarching, structural shifts in the total market consistent with the logic and indicators established for each initiative.

NEEA agrees that the baseline forecast removes the need for Net-To-Gross analyses. Savings in excess of the forecast baseline are the program-attributable energy savings, or net savings.

NEEA appreciates the recognition of the need for coordination with resource acquisition programs. As noted above, this is an area that is difficult to navigate but offers substantial benefits if successful. We also applaud the creative thinking around incentives (e.g. fixed net-to-gross ratios) for RA programs that commit to coordination with MT programs.

2. Do you agree with the staff recommendation to begin the development of market transformation initiatives initially separately from the business plan portfolios? Why or why not?

NEEA is not involved in the business plan portfolio process and thus have limited opinions on this question. We have seen PAs in other states review their portfolios for programs that could benefit from a “market transformation overlay” whereby expected program activities are



augmented with more transformative interventions—typically upstream activities linked to the program outcomes through a logic model that supports investment in market transformation. This can occur at any point but could involve contract adjustments for the selected program.

3. Do you agree with the budget limit of \$12 million per PA for operations outside of the business plan portfolios suggested in the Staff Proposal? Why or why not?

The staff proposal allocates a maximum budget of \$12 million for each PA to fund the initial tranche of market transformation initiatives. We are unable to determine the time frame of the “initial tranche” and thus are unable to assess the adequacy of this funding. To provide more certainty in what the \$12 million is expected to cover, we recommend staff consider setting an annual budget target per proposed initiative, or a maximum total for all initiatives over a set period of time (we recommend five years). This funding can then be allocated strategically based on the merits of a given program proposal rather than setting the PAs up to compete with each other for their respective funding allocation or spreading the funding too thin.

For a sense of comparison, NEEA is currently managing a portfolio of 16 electric market transformation programs of which 8 are in full-scale market development with an overall budget of \$168 Million/5-year funding cycle. This budget includes all stages of market transformation (emerging technologies and codes and standards) as well as market research and evaluation. For comparison, we would note that California markets are roughly three times the size of the Northwest.

4. Should there be a limit to the time period for how long market transformation initiatives may operate outside of the business plans before being integrated with the overall portfolio? If so, what is your proposed time limit? Explain your rationale.

NEEA does not have specific opinions on integration with the business plan. However, we encourage staff to provide a consistent level of funding for market transformation for a

minimum five-year period. We have found that interacting directly with the supply chain for specific products or services requires scale and certainty. NEEA operates on a five-year business cycle, which provides a predictable level of funding and allows the organization to approach key market actors with an ability to make solid commitments.

5. Do you support the Staff Proposal elements with respect to cost-effectiveness? Why or why not? Describe in detail any changes you would suggest.

We support the acknowledgement of the longer timeline for calculating savings and cost effectiveness. In the Northwest, we assess MT program over a 20-year “program life” by looking at all societal benefits compared to all societal costs including both market transformation and resource acquisition program operating costs.

The staff proposal includes a proposed schedule of expected progress toward cost effectiveness based on milestones. In our own work we often forecast that, as scale grows, the per unit cost of efficiency should decline in real terms. This enables MT programs targeting efficiency opportunities that may not be cost-effective in the early stages of market development but that could be upon achievement of a certain market scale milestones. We suggest that this schedule of progress towards cost-effectiveness could be used as a tool to assess progress but should not substitute for a periodic full review of all assumptions, data and forecasts used in the 20-year (or other appropriate long-term) view of benefits and costs assessment.

6. Do you support the concept identified in the Staff Proposal for Market Transformation Accords? Why or why not? Describe in detail your suggested improvements.

The framework of the Accord reflects a thoughtful approach to minimizing risk through extensive planning, research, validation, and establishment of metrics. We agree that some level of formal agreement and documentation is required prior to full-scale deployment of a

market transformation initiative. We also believe that it will be important to have formalized documentation of contractual arrangements across participating PAs.

NEEA encourages CPUC staff to consider ways to simplify or sequence the information expected in the Accord. Currently, the Accords require 21 types of information, many of which would ideally be in hand prior to expending resources on market intervention. In NEEA's experience, many of the items listed are difficult to obtain with a great deal of certainty prior to some level of market engagement.

NEEA suggests breaking the proposed list into those required prior to a market test or pilot, and those required prior to full market scale up. For example, it is reasonable to have a defined target market and clear definition of the technologies/behaviors/sectors/applications prior to market intervention (at a test or pilot phase), however assessments of market drivers and barriers are often enhanced by market intelligence obtained through true market engagement and learning.

As noted earlier, NEEA suggests the addition of a "product/market test" phase prior to the formalization of an accord. This would allow market engagement early in the process that would in turn allow "firming" of assumptions and strategies that will later be embodied in the Accord.

7. The Staff Proposal includes an allocation of funding for market transformation planning efforts. In some cases, such planning efforts may fail to produce a workable Market Transformation Accord. Should spending on such planning efforts be subject to separate budget caps or time limitations? If so, what should those limits be and why?

NEEA is not well enough informed about the overall structure of current mechanisms for funding such planning in California to make a confident recommendation here.

However, if the CPUC were to adopt a “product/market testing” phase, there are likely to be substantive costs attributable to the planning, implementation and evaluation of this additional phase. In our own work, these costs are accounted for as part of the overall programmatic costs of transforming the market. In our own work, we limit the scope of these activities and focus on measurement and testing. The costs for those activities are a function of the size of the efficiency opportunity, the market data needed for scale-up and the number of representative variations to be tested.

If successful in testing and acquiring data, the “product/planning” phase will both accelerate and potentially lower the cost of full-scale MT program implementation envisioned in the Accord. NEEA believes it is reasonable to include the “product/planning” phase costs in the “Accord” costs for recovery and cost-effectiveness assessment.

8. Do you agree with the Staff Proposal’s recommendations with respect to the interaction with statewide and third-party program requirements in the business plan portfolios? Why or why not?

NEEA recognizes the complexities of the interactions with these other statewide mandates and policies but do not have sufficient understanding of the full ramifications to provide specific recommendations. As noted earlier, we will state that MT programs can be more effective in accelerating market adoption when operating in coordination with resource acquisition programs.

9. Do you support the Staff Proposal recommendation for how to conduct evaluation, measurement, and verification on market transformation initiatives? Why or why not?

NEEA agrees that the activities should be designed to monitor market developments and gather feedback. We generally frame our focus as market progress rather than program effectiveness

to better reflect the nature of the program. Effective MT interventions are dependent on larger market shifts.

NEEA agrees that the four bullets listed are the correct items to focus on:

1. Monitor market developments and update forecast baseline projection;
2. Validate and refine program theory and logic models;
3. Gather data and report leading market indicators and initiative milestones; and
4. Examine program processes and gather feedback to refine implementation strategies

These four items are the key components of Market Progress Evaluation Reports (MPERs), the primary tool that NEEA uses to document evaluation work on an annual basis. NEEA expects that the evaluation process described in the staff proposal will be an effective mechanism for updating forecast baseline projections and perhaps adjusting market progress indicators (MPIs). We recommend Staff consider whether evaluation findings, PA response, and subsequent program adaptation would be sufficient to avoid a lengthy advice letter process for programmatic change.

NEEA agrees that the CPUC staff do not need to plan for initiative-level CPUC led evaluation. NEEA further agrees that the contemplated portfolio-wide evaluation focused on lessons learned, best practices and recommendations for potential adjustments to the MT portfolio management process may be warranted in the future to enable a systematic review of the CA MT portfolio. However, we expect that the rapid adaptation and portfolio improvement expected in the first few years of this effort mean that this effort should likely not occur before 2022/2023. At that point, CPUC could review entire portfolio progress through meta-analysis and summary of initiative specific reports. This would be sufficient to capture statewide lessons learned and recommendations for effective oversight going forward.

MT program evaluation does not fit neatly into classic “impact” or “process” evaluation categories. NEEA has found the MPER to be an effective solution to the impact/process dichotomy. It’s a blend of process and market evaluation activities and is focused on estimating

progress on key market indicators. It must be timely and can include interim deliverables documenting results on key questions (such as training effectiveness, market share, disruptive opportunities, or revisions to key savings assumptions.) Energy savings impacts are a secondary calculation informed by the market progress research. As the program evolves, we expect increasingly rigorous estimation of the savings potential and market potential. Early in the program we estimate potential in rough terms to enable progress and market testing.

#### 10. Comment on the Staff Proposal's discussion of milestone-based performance assessments.

The long-term nature of market transformation requires establishment of interim indicators of progress towards longer-term goals. In our own work, NEEA uses milestones derived from market progress indicators and market transformation program logic to support an assessment of program success and inform decision-making.

The CPUC staff proposal envisions milestones that are measured in terms of energy savings and setting up pre-determined rewards or "off-ramps" based on meeting or missing these milestones.

In NEEA's experience, there are several flaws in this approach:

- 1) In market transformation programs, the focus should be on assessing progress towards barrier removal or opportunity capture that then *results* in estimated energy savings impacts. A focus on energy savings as a milestone can lead to inadvertent decisions that can be at odds with market transformation logic. In our own work we have seen that an over-focus on energy savings can perpetuate spending in tactics that are no longer needed for barrier removal but provide short-term boosts in energy savings results. For example, temporary price reductions can be an effective way to assess the long-term price points for manufacturers to commit to scale that will ultimately sustain the lowered price. However, if price reductions are extended too long, manufacturers or supply chain actors will begin to

expect these mid and upstream incentives and will not commit to appropriate cost-reduction measures or investments required to get to scale. Then when the incentives are removed, and the real product costs are passed forward to consumers, markets can collapse or significantly backslide.

- 2) Energy savings impacts from market transformation can vary for many reasons unrelated to success in market transformation. For example, new construction markets are highly variable depending on the overall economy, inventory of existing housing, etc. Market transformation programs in new construction might be very successful in overcoming barriers within the market at the exact same time that the total volume of new construction housing is dropping in sales volume due to unrelated market factors. With a milestone focused on energy savings, a program that achieves very high market penetration during an economic downturn would be deemed a failure simply because the absolute energy savings were lower than forecasted at the start of the program when market sales were high.
  
- 3) Markets are dynamic and multi-dimensional. Establishing a “go, no-go” milestone based on a one-dimensional measurement of energy savings ignores the complexities and interactions of the barriers and opportunities within the markets. This over-simplification could lead to an exit from a market right before a major shift in markets would yield significant savings. In the new construction example above, a focus on energy savings would trigger an exit during a downturn despite significant market adoption. When the economy recovers, and construction volumes increase, the surviving market actors would prefer to bring their efficient practices to the revitalized market but may not have the trained workforce to deliver the energy savings potential since the MT program is no longer available.

In our experience, a decision to stop, continue forward or adapt is more appropriately made based on a holistic view of the market transformation program and the long-term market outlook. In the Northwest, we conduct an annual review of each program that includes

recommendations from third party evaluators on the critical dimensions of the program including the long-term viability of the energy savings opportunity. If there has been a fundamental shift in the market and the current program cannot be changed to accommodate that shift or the energy savings potential no longer exists, then we will stop further investment in the program.

Similarly, on principal we agree that, ideally, the methods for tracking performance and energy savings be determined upfront and be clearly articulated—and that the protocols for determining energy savings can also be determined up front. However, this is not always realistic for programs at the currently envisioned Accord phase. The Accord is expected to include a detailed approach for making necessary adjustments to strategies or methods over time. This presumes we can predict all possible adjustments that might be required.

Lastly, if CPUC staff proposal adds the “product/market” testing phase, it will provide another “gate” to assess whether full-scale investment is justified. This phase enables the product testing, and development of preliminary logic model, market research, proposed baseline and data acquisition sufficient to conduct a market test or preliminary initiative development. At NEEA this is the phase where a great deal of learning and adaptation occurs. Programs in this phase are expected to learn rapidly and assemble many of the components envisioned in the Accord. Not all programs pass this second, more rigorous milestone and enter full market development. We believe this middle phase allows for a similar outcome and risk management as the milestone approach in the staff proposal but with the added benefit of enhancing the strength of full-scale Accord that manages to pass through the stage gate.

11. Do you support the Staff Proposal’s recommendations for the administrative aspects of management of the Initiatives, particularly in Section 5 on procedural approach? Why or why not?

NEEA do not have full understanding of the implications for the program steps as described but with that caveat these seem like reasonable steps to proceed by.



12. Are there other ways (besides those represented in the Staff Proposal) to engage and leverage stakeholder expertise effectively? If so, describe them.

In our experience, stakeholders that are not market actors are best engaged around attributes of the program and the portfolio of programs to determine if overall statewide objectives are included in the program objectives and are being met in operation. For example, if geographic equity is an important criterion, it is important to make sure that the stakeholders advising the effort are able to articulate the needs of the diverse geographic interests of the state and advise the program accordingly.

We also note that in our experience that it is important to consider stakeholders that are based outside our own geographic territory. For better or worse, most markets are national or global in scope and it has been important to consider how to engage stakeholders from these markets in your efforts.

13. Are there characteristics of market transformation initiatives that are not sufficiently embodied in the framework described in the Staff Proposal? If so, describe them and suggest ways these characteristics can be integrated into the framework or requirements.

Market transformation is inherently built on trusted relationships with market actors. In our experience, these relationships benefit substantially from stable, long-term interpersonal engagements both at the program level and at higher organizational levels. The stability and certainty of these relationships is as important to working with market actors as the stable funding commitments. While NEEA does not have a specific recommendation for the CPUC staff with regard to this dimension of successful market transformation programs, we encourage the CPUC staff to give some thought to how to encourage and possibly reward successful organizational structures that provide this stability.

14. Are there elements in the Staff Proposal that are missing or unclear? Describe.

As noted above, many of NEEA's most successful market transformation initiatives have included the entire product lifecycle from emerging technologies through market development to codes and standards. We recommend that staff clarify how ETP and C&S efforts are expected to link to and cooperate with the market transformation effort. Not every market transformation initiative includes critical components of the full spectrum, but those that do will best serve the objectives of the state if the continuum of resources and associated energy savings are used to guide decisions and analyses for market transformation. Given the current statewide administration for these two functions, we would recommend that the staff proposal consider how the PAs overseeing these functions could be incented to fully participate in the design, implementation and evaluation of market transformation programs.

15. Ultimately, do you recommend that the Commission adopt this framework, or a version of the framework with your suggested modifications described in answers to the above questions? Why or why not?

NEEA believes that there are many positive elements of this proposal that would serve the market transformation effort in California well. We have noted above where we think there are appropriate modifications for consideration by CPUC Staff. We welcome the opportunity to share our experience of over two decades implementing market transformation and look forward to continuing our partnership with California in your efforts to move forward with market transformation

16. Include any other comments or recommendations not covered by the above questions.

## Baseline Methods

Forecasting a market baseline always involves uncertainty and is among one of the most challenging components of planning to support market transformation. In our experience, there are a variety of approaches to establishing an acceptable market baseline forecast. For this reason, NEEA recommends dropping the word “require” from the discussion of using a Delphi panel to finalize estimates. Delphi panels can be effective in certain situations, but NEEA has found other methods can be more accurate and traceable than a Delphi process, particularly when the underlying market data is robust, there is another established process for reviewing all assumptions, or when a product is so nascent there is virtually no sales history on which to build a forecast. .. When Delphi panels are comprised of members that are too close to the development of the energy efficient product they tend to be overly optimistic about the adoption of the new technology, in some cases forecasting baseline adoption an initiative might not observe for many years (a Delphi panel assembled to support NEEA’s Super-Efficient Dryer initiative is a recent example).

In fact, the discussion of elements listed below as discussed in the staff proposal represent step-by-step forecast strategies that do not include Delphi. These are the key components of an initial market characterization, which should be included in the development planning process:

1. Define the market and document details of models and methods used to estimate market size and market share;
2. Divide total industry demand into its main components. Provide a description and evidence of the primary drivers of total demand and market share;
3. Forecast the drivers of demand in each segment and project how they are likely to change; and
4. Conduct sensitivity analyses to understand the most critical assumptions and gauge risks to the baseline forecast.

These steps are a robust approach to developing a forecast and could completely obviate the need for a Delphi. In situations where the baseline forecast is developed internally and is not informed by a Delphi, NEEA will obtain third party review and critique of assumptions and the

overall approach to the baseline. In this process, professional planners and those with experience in market analysis are asked to review all of the components of our baseline and provide recommendations for improvement that could include additional research to augment gaps in data.

In addition to obtaining third party review of our baseline documents, NEEA benefits from the professional, thoughtful review provided by the market analysis subcommittee of the Northwest Power and Conservation Council's Regional Technical Forum. This subcommittee provides another layer of review that can help ensure market assumptions are vetted by regional experts in market analysis and forecasting.

Lastly, we have found that technology or other market forecasts that are developed outside of the energy efficiency arena can provide documented sources of inference for the counter-factual baseline. The best example in our work is the Efficient TVs baseline that was derived from a manufacturer research firm that forecast market shares of different technologies dating back to the year before the market transformation program began. Forecasts developed to guide investment decisions can provide a compelling source of information about how a market is expected to grow.

### Market Data and FOIA Requirements

NEEA is concerned by the following sentence: "the MT Accord shall provide access to Commission staff all data and information pertaining to the market transformation initiative." In our experience, the single biggest challenge we can have is accessing detailed and robust market data to assess our progress and adjust our strategies. We are concerned that Freedom of Information Act (FOIA) requirements could reduce the ability of the PAs to partner with the supply chain, given that MT initiatives often negotiate access to sensitive manufacturing and sales data that needs to be held under a Non-Disclosure Agreement (NDA). This data has proved to be critical in both measurement of total market progress as well as providing insights for adaptive management.

## Supporting Infrastructure

NEEA would like to note that in the current market the remaining energy efficiency potential is no longer found in large single measures but in many smaller, more segmented opportunities. This makes it increasingly challenging to cost-effectively develop and implement programs to capture these opportunities. This means that for any given energy efficiency opportunity, program operational structures need to be scaled proportionately and be as efficient as possible. NEEA has evolved our practices to develop infrastructure elements that can efficiently support multiple MT programs. This “shared” supporting infrastructure can take many forms, but generally it includes the establishment and support for strategic partnerships with market actors and stakeholders, data collection and analysis structures, standardized financial and contractual agreements, and marketing platforms where appropriate. In NEEA’s perspective, the ENERGY STAR Retail Products Portfolio (ESRPP) is one example of how we are moving towards this shared infrastructure that supports multiple small opportunities in the consumer products market.

As noted earlier, NEEA’s use of a portfolio management approach to market transformation programs provides a way to look across programs and find opportunities to develop this shared supporting infrastructure. We would encourage the CPUC staff to think of ways to encourage a similar effort in California’s MT programs.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Jeff P. Harris". The signature is fluid and cursive, with the first name "Jeff" written in a stylized, overlapping manner.

JEFF HARRIS  
Chief Market Transformation Officer  
Northwest Energy Efficiency Alliance  
NORTHWEST ENERGY EFFICIENCY ALLIANCE  
421 SW Sixth Avenue, Suite 600  
Portland, Oregon 97204  
503.688.5400 | Fax 503.688.5447 | neea.org  
[jharris@neea.org](mailto:jharris@neea.org)