California Energy Efficiency Industry Council

Moving Efficiency Forward

February 11, 2016

Dina S. Mackin, Energy Efficiency Planning
California Public Utilities Commission
505 Van Ness Avenue
San Francisco, California 94102
VIA EMAIL: Dina.Mackin@cpuc.ca.gov

RE: Informal Comments on Existing Conditions Baseline and Normalized Metered Energy Consumption workshops

Dear Ms. Mackin:

I. Introduction

The California Energy Efficiency Industry Council (Efficiency Council) appreciates this opportunity to provide comments to the California Public Utilities Commission (Commission) regarding implementation of AB 802 relative to existing conditions baseline (ECB) and normalized metered energy consumption (NMEC) following the January 26th and 27th workshops.

The Efficiency Council is a statewide trade association of non-utility companies that provide energy efficiency services and products in California. Our member businesses employ many thousands of Californians throughout the state. Member companies include implementation and evaluation experts, energy service companies, engineering and architecture firms, contractors, financing experts, workforce training entities, and manufacturers of energy efficiency products and equipment. The Efficiency Council's mission is to support energy efficiency and demand response policies and programs for all Californians to create sustainable jobs, long-term economic vitality, stable and reasonably priced energy systems, and environmental improvements.

The Efficiency Council appreciates this opportunity to comment on the implementation of ECB and NMEC as authorized by AB 802 (Williams). These comments are provided as a foundation from which to build implementation of AB 802 and we welcome the opportunity to work with the Commission to more fully consider and develop these concepts. We're excited about the evolutionary direction of using ECB and NMEC to

calculate savings because it will enhance the integrity of energy efficiency programs and the reliability of those savings. If implemented correctly ECB and NMEC could facilitate the move to scale that the current paradigm has not achieved.

II. AB 802 and SB 350 Provide Opportunity for New Efficiency Paradigm

We recognize that the legislative requirement in AB 802 to allow an ECB as established by NMEC for existing buildings presents a unique challenge to the Commission to ensure that any rules established assure that ratepayers obtain a good value for their investments. We suggest that this challenge can be met by using this opportunity to recast the class of efficiency resources defined by the NMEC baseline to be true "energy resources" that compete head-to-head with other resource categories in utility procurements. This could be achieved by first focusing on energy efficiency resources that are metered, measured, have real-time M&V, are specific with respect to time and location on the grid, and, most importantly, are valued and priced by dynamic market conditions that will vary over time. With this as the vision, the class of projects and programs that use existing conditions as baseline and are measured at the meter truly become "energy efficiency as a resource" for the grid.

The need to consider how to move energy efficiency toward a procurement-type model is especially important in light of SB 350, which requires doubling of energy efficiency savings by 2030 and requires that the Commission move towards an integrated resource planning framework. As Commission staff has proposed, integrated resource planning will require optimization of resource categories, including efficiency, based on common cost-effectiveness metrics. Rather than defer this work to some later phase, SB 350 requires that the Commission consider how to align rules in energy efficiency with activities afoot in other proceedings so that energy efficiency resources can compete with other resources in wholesale energy and capacity markets.

Ratepayers currently pay the full costs of procuring energy resources in bilateral procurement contracts, and year-ahead, month-ahead, day-ahead, 15-minute, and real-time capacity and energy markets. The value of these energy resources is being actively priced in the market by resource type, time of year/day, and location. These prices are being tracked closely (in fact in real-time at over 5000 pricing nodes statewide[1]). As a result there exists the opportunity to utilize these markets to establish the price for preferred energy efficiency resources – such as those stipulated under AB 802 and measured via NMEC – to set the value to ratepayers (and the utilities) of these resources. By establishing market prices for such energy efficiency resources that reflect actual grid capacity and resource constraints, ratepayers have the opportunity through this new class of efficiency

[1] See http://www.caiso.com/pages/pricemaps.aspx, for example.

resources to invest in targeted efficiency investments that are less costly and more environmentally beneficial than infrastructure upgrades or increased capacity and generation.

In order for energy efficiency resources to be on par with traditional energy resources, they must be metered and specific with regard to amount, time, and location. Like other resources, they must have real-time telemetry to verify their impact on the grid. With the framework of required "real-time M&V" required by AB 802, this time and location specificity and real-time telemetry requirement can be met allowing a valuation framework to be set in terms of time, location, and measured impacts of these resources. The Commission can opt to move in a stepwise manner to this new market-based evaluation/pricing framework, for example by setting pricing for this class of resources on an annual or periodic basis, with prices set based on last year's wholesale prices by time of year and location on the grid with a potential premium adder to reflect the loading order preference of preferred resources. Data gathered by real-time M&V of actual projects, together with prices paid, could then be used to evaluate and refine the pricing scheme for future years or tranches. By alternating periods of fixed pay-for-performance (by location/time of year) with evaluation and subsequent re-pricing for the next period, a reliable schema can be developed for tying the pricing of these NMEC-measured energy efficiency preferred resources to analogous wholesale market resource prices. This could be a first step in moving toward a full market mechanism.

We recognize the full vision of moving a large portion of the portfolio to the new paradigm will take significant discussion among all the parties. But we wanted to start by describing the beginnings of that vision in these informal comments. The Efficiency Council would be happy to work with parties to develop a more comprehensive proposal regarding how efficiency could be moved toward a procurement model for further stakeholder consideration.

III. Across-the-Board Application of AB 802

Establishing the foundation for a new paradigm for energy efficiency in the marketplace cannot initially replace the current energy efficiency portfolio approach. To enhance portfolio programs and achieve state goals in the near term, as well as lay the foundation for a growing resource-based approach to energy efficiency, we offer these comments:

- Portfolios utilizing ECB and NMEC should address a broad audience and include all customer types, including industrial, as discussed further below. This is consistent with trying to make the size of the efficiency resource bigger, which both AB 802 and SB 350 envisioned.

- ECB and NMEC are new tools for which broad guidelines should be established that provide sufficient guidance to program administrators (PAs) so they can design programs in the new business plans utilizing ECB and NMEC. The legislation generally endorses ECB and NMEC across the board, and we would like to see the Commission apply ECB and NMEC to as many efficiency activities as feasible. However, we understand that in the current policy context there may be some portions of the portfolio to which ECB and NMEC do not reasonably apply. But even in some of these cases, with creative thinking, there may be opportunities to leverage NMEC and the PAs should be free to investigate these opportunities. The challenge for the Commission is to create reasonable rules/principles so PAs will know where to put which programs and how to design or/redesign programs to work in the new paradigm.

- We strongly support the Commission in moving toward standardized measurement approaches. A future is evolving where resources will be valued for where and when they show up on the grid. Energy efficiency and demand response need to be able to be measured effectively by their impact on the grid – and the paramount issue to make that happen is a standardized measurement procedure.

- The CPUC workshops demonstrated that there are methods and technologies already available to capture NMEC impacts (e.g. LBNL's work) in a precise, transparent and repeatable way (using weather normalization). We strongly believe these methods provide a technical foundation for scaling energy efficiency in line with AB 802.

  We support IPMVP as one basis for a standardized measurement approach where it is applicable, and believe that Attachment A to the HOPPs decision is a good starting point. Due to the diverse nature of end-uses and the type of projects which get implemented, we support utilizing Option B (Retrofit Isolation) if sub-metering is preferred and Option C (Whole Building) for a whole building approach along with the normalizing parameters to adequately address AB 802 requirements and to serve the diverse market and projects while still conforming to normalized metering. We note however, that for some sectors (likely residential) IPMVP may not be the best tool to derive NMEC on an aggregation of buildings.

- The Efficiency Council would also like to urge the Commission to carefully distinguish between EM&V (evaluation) and M&V as it proceeds. We believe there has already been some confusion. In our comments here, we are using the word "evaluation" to reflect that category of adjustments that affect accounting issues between the CPUC and the PAs such as free-ridership, overlap of codes and standards savings, and spillover. These adjustments apply to whole program

assessments, but they should not apply to customer-specific savings in the context of NMEC. Evaluation adjustments are used between the CPUC and their regulated entities to ensure the cost-effective use of ratepayer dollars in moving the bar beyond naturally-occurring savings.

On the other hand, measurement and verification (M&V) typically applies specifically to the customer site (in the case of large commercial and industrial), or to either individual or aggregated residential and small commercial buildings. Savings would be based on the NMEC for that customer site or aggregation of sites, without typical evaluation adjustments. We believe that AB 802 intended to facilitate the use of ECB and NMEC partly to have savings make sense to the *customer*. The customer does not understand, or need to know, about ratepayer adjustments. We do not intend to have the two activities intentionally arrive at different outcomes, but we believe separating the two activities to think through how to apply ECB and NMEC will help. We also acknowledge that PAs may need to adjust customer incentive rates considering the fact that not all NMEC from ECB savings may be claimable (i.e. per-unit incentives would likely be set lower under an NMEC program model).

- AB 802 permits financial incentives for energy usage reductions "resulting from the adoption of a measure or installation of equipment required . . . to existing buildings to bring them into conformity with, or exceed, the requirements of Title 24 . . . ." While AB 802 does not define "building," Title 24 does. Accordingly, ECB should extend to all buildings, including industrial facilities and structures, that qualify as buildings as defined in Title 24.

  Title 24, Section 6, which governs building energy efficiency standards, defines "building" to mean "any structure or space covered by Section 100.0 of the Building Energy Efficiency Standards."[2] Section 100, in turn, states that Part 6 applies to all buildings: "[T]hat are of Occupancy Group A, B, E, F, H, M, R, S, or U; and . . . for which an application for a building permit or renewal of an existing permit is filed (or is required by law to be filed) on or after the effective date of the provisions, or which are constructed by a government agency; and . . . are: unconditioned; or indirectly or directly conditioned . . . ."[3]

  Category H, the "High-Hazard Group . . . includes, among others, the use of a building or structure . . . that involves the manufacturing, processing, generation or storage of materials that constitute a physical or health hazard," (see Section 307). Group U,

[2] California Energy Code, Section 100.1
[3] California Energy Code, Section 100.0(a), page 1 of attachment.

the "Utility and Miscellaneous Group," includes "[b]uildings and structures of an accessory character and miscellaneous structures not classified in any specific occupancy." (Section 307) Examples include: tanks, towers, and retaining walls. (See id.)

"Buildings", therefore, includes any structure that has or requires a building permit, including industrial facilities and structures.

Finally, ECB should extend to industrial facilities simply as a matter of policy. Given the aggressive goals of SB 350, ECB should be extended to the largest possible population of end-uses.

- The Commission should utilize the California Technical Forum (CalTF) as these new approaches are implemented. If there are adjustments made to key measurement methods or baseline interpretations, those adjustments should be made in an open public forum with transparency. The CalTF is just such a forum.

Thank you for this opportunity to comment and your consideration of our issues. We look forward to the next step in the process.

Respectfully submitted,

/s/

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