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December 10, 2019

CEDMC Response to Request for Written Comments on 2021 Energy Efficiency Potential & Goals

The California Efficiency + Demand Management Council (the Council) appreciates the opportunity to provide these informal comments on methods and approaches that will inform the next Potential & Goals (P&G) study. Our comments address each of the questions posted by the Commission in an 11/19/2019 email sent to the service list in connection with proceeding R.13-11-005.

1. *What should be the primary objectives of the Potential and Goals study?*

It is apparent that the current method of P&G does not align with the State's clean energy policies. The goal-setting process does not lead us on a path to achieving the doubling goals set forth in SB350. In the Council's view, the primary objectives should be to set goals that are independent of the estimation of market potential. Instead, goals should be set more or less based on aspirational considerations. For example, it would be more appropriate to set the GWh and Therm savings goals based on what it would take to get to doubling energy efficiency (EE) by 2030. In fact, the CEC has already calculated those amounts for the state as a whole.[1] The goal-setting exercise for the CPUC could be more focused on determining the share of savings that would be attributed to the investor-owned utility (IOU) territories. This could be done based on a sales-weighted approach or historical savings-based approach.

[1] California Energy Commission, "California Energy Demand 2018-2030 Revised Forecast". April 19, 2018. Available at: https://efiling.energy.ca.gov/getdocument.aspx?tn=223244

Once goals are set, it is critical to determine the market potential that enables those goals to be achieved. Ideally, the market potential pool should be larger than the goals. In other words, there should be more than enough potential out there such that the goals set forth by the CPUC can be reasonably achieved. The CPUC typically sets policies which directly impact the goal-setting process and at times preclude achievement of market potential. It would therefore be best to completely revisit the way in which market potential is defined. Currently, the CPUC takes a very narrow interpretation of market potential as only being the EE resources that are over and above existing codes and/or industry standard practice. EE savings potential should take a broader perspective and look at the savings based on what is currently in the market (regardless of code or industry standard practice (ISP) levels) and then determine the savings based on going to the highest efficiency levels, of course while maintaining cost-effectiveness thresholds.

This so-called existing market conditions baseline would only apply in replacement and retrofit scenarios. New construction EE potential savings scenarios should continue to follow code baselines, as is currently practiced. It is our recommendation that the lead agency, the CEC, be responsible for determining the market potential for the state as a whole (IOU and POU territories). The CEC has the mandate of ensuring SB350 compliance and they are responsible for the IEPR statewide forecasts. It only makes sense that the CEC should be the lead agency for identifying the market potential. Then it would be up to the CPUC to ensure that IOUs/PAs are proposing cost-effective programs and implementation solutions aimed at achieving the goals. The IOUs/PAs would look to the potential study for guidance on which sectors/sectors and end-uses/measures would be most applicable for achieving the stated goals.

A Note about Applicable Measures

The Council wishes to express concerns that the potential for conservation voltage reduction (CVR) measures continue to not be included anywhere in the potential study. While we recognize that the CPUC's EE jurisdiction is only pertinent to end-use measures on the customer side of the meter, CVR could bring about significant cost-effective savings that are comprehensive (i.e., applicable across all sectors) and affordable for ratepayers. CVR has been used in the field for decades and is widely recognized as one of the most affordable and cost-effective approaches to

reducing electric consumption and demand. CVR is specifically identified in SB350 as an eligible measure to achieve energy savings. While CVR might not fit into the traditional EE program delivery construct, the CPUC should not limit the scope of the potential to pure behind-the-meter EE considerations. If future potential studies are to have meaning and relevance to California's clean energy policies, then it is imperative that all energy saving measures must be considered, including those that are delivered through front-of-the meter or distribution efficiency efforts, which are also regulated by the CPUC.

2. *Topic-specific considerations: Do you agree with the considerations discussed at the workshop regarding the issues below? Why or why not? Please propose specific methodological improvements if you feel any are needed. Please refer to the Navigant-produced abstracts including the methodological considerations, key questions and data needs described for each topic.*
    a. *Energy efficiency-demand response analysis*

The Council generally agrees with the integration approaches presented by Navigant during the October Workshop. However, the Council believes the concept of co-benefits between EE and DR programs needs to be explored in much greater detail. If the costs of combined measures/programs can be split between EE and DR, it will make both program types more cost-effective than if one or the other shouldered the entire burden itself.

b. *Fuel Substitution*

While it is difficult for the Council to comment on the fuel substitution (FS) goal-setting process since limited information was offered on this topic during the October Workshop, the Council is committed to working with the Commission as it develops methods and approaches that appropriately balance goal-setting of FS programs and measures vs. non-FS programs and measures. In the meantime, we would like to reiterate that the Council supports the Commission's overall efforts to ensure a robust yet equitable approach to FS program deployment. Overall, the Council wants the FS goal-setting process to affirm that third-party providers are essential to the deployment of viable and cutting-edge programs and technologies that ensures achievement of California's energy and climate goals. To that end, we would like to see more use of meter-based quantification of impacts

associated with FS programs and measures given the general trend toward these quantification approaches for other EE programs.

c. *Data and analysis for RENs and CCAs (including which items are critical to be included in the Potential and Goals Study itself).*

The Council has no comments at this time.

d. *Industrial and/or agricultural market sector characterization and analysis*

The Council believes that the Industrial Assessment Center data is insufficient for the purpose of determining industrial/agricultural market potential. The CPUC should explore using the Department of Energy's advanced manufacturing office (AMO) and the Better Plants Challenge to extract relevant data. Also, using historical programmatic accomplishments from other states will be a useful guide, particularly for states that don't have the same restrictive policies regarding custom projects and industry standard practice baselines that California currently has in place. Other possible data sources to explore include SKAGG, Energy Atlas, ISO 50001 audits, CA agricultural statistics, and the 2016 MASI studies conducted by the CA IOUs.

Further, the Council believes that all Industrial and agricultural potential should be developed from a market perspective, not a program perspective. Programs are merely the means by which to deliver what is potentially available from the market. As such, market potentials should err on the side of more inclusivity rather than less. Currently, the opposite is in place whereby the market potential is solely determined based on programmatic considerations. This is an erroneous method that continuously leads to an under-determination of potentials.

Finally, it is essential that the CPUC begin to recognize that the industrial and agricultural markets are fundamentally different than the mass markets when it comes to energy efficiency. While the CPUC determined that AB802 did not apply to these markets, it is nonetheless important to recognize that the principles of AB802 can and must be applicable to industrial and agricultural processes. In particular, existing market conditions must be used as the baseline for any replacement or retrofit situation. Customers don't necessarily consider ISP or highest efficiency when faced with an equipment replacement situation. They are more likely to put in

whatever is needed to quickly resume the production of their particular products. The normalized metered energy consumption (NMEC) approach for measuring and verifying savings using AMI data was intended to be a pathway that could apply broadly to the industrial and agricultural sectors. NMEC offers an alternative to the time-consuming and uncertain custom review process. Critically, to make NMEC successful for industrial and agricultural applications, it will be important for the CPUC to not discount or otherwise discourage viable projects vis-a-vis the current policies which lead to substantial discounting of savings and are discouraging to customers.

3. *Overall Methodology:*
    a. *What are the opportunities and challenges of a "top down" assessment of energy efficiency in comparison to the current "bottom up" widget-based approach? Please provide evidence to support your answer.*

The Council believes that the burden of supplying evidence regarding new methodological approaches must be with the CPUC and its consultants. With that said, we believe that there are substantial advantages to moving away from the current widget-based approach. First, staying at the level of measure granularity is not realistic since PAs are not bound to implement programs that strictly fall within the purview of the measures identified in the potential study. Second, taking a purely widget-based approach does not work for important sectors, such as industrial and agricultural where EE opportunities are typically so site-specific that the only option for these facilities is to put forward a group of measures that are one-offs and thus are more in line with custom projects. Third, the current widget-based models do not allow for dynamic market baselines that are constantly changing based on updated market characterizations. And finally, the widget-based approach does not align with AB802 and SB350 expectations of existing conditions baseline and changes in metered energy consumption as the default.

    b. *If staff were to consider using "top down" methods to assess energy efficiency savings potential, how could the study transition? Please identify areas/topics that could be incorporated in the 2021 study and areas/topics that may need further study and data collection.*

The Council believes that it is well within the scope and capability of its P&G study contractor to create a new top-down potential study modeling framework. One such framework could be adapted from potential studies in other jurisdictions where top-down methods are employed. For example, the Department of Energy's Office of Energy Efficiency and Renewable Energy has compiled a catalog of potential studies from numerous states and jurisdictions that could inform this effort [2] It is critical that the methods and calculations used be made transparent and accessible to ensure that all stakeholders can have visibility into the various methods used to come up with sector and end-use levels of potential.

c. *Are there process changes or any additional rule-setting the CPUC must consider in order to support this transition?*

The only process change that is touched on in our answer to question #1 is that the responsibility for conducting the market potential studies must lie with the CEC. Since they have the responsibility of developing the biannual IEPR forecast, along with overseeing the implementation of SB350.

d. *Please identify any specific data sources that should be considered for incorporation into future potential and goals studies, and explain the value of incorporating each data source, either in addition to or as a replacement to an existing data source.*

The CPUC should conduct more market characterization studies. To accomplish this, the Commission should consider reallocating EM&V funding toward more market characterizations. This can enable a less widget-focused approach and transition to a more holistic appraisal of potential.

4. *Energy Efficiency – Integrated Resource Planning Incorporation Opportunities:*
   a. *Should staff consider optimization of energy efficiency in the Integrated Resources Planning (IRP) process in the 2021 Potential and Goals study? If yes, how? If not, why not?*

No. The Council believes that more investigation is needed before fully integrating EE into the IRP process. Right now, EE stacks (or bundles) tend to

[2] U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Energy Efficiency Potential Studies Catalog. Available at: https://www.energy.gov/eere/slsc/energy-efficiency-potential-studies-catalog#catalog

fall out of the picture early on because the basis by which cost-effectiveness is assessed for EE measure bundles is not in line with how cost effectiveness is assessed for other resource stacks in the IRP analysis. EE bundles must be placed on a level playing field with other resources, with existing conditions baselines being used for all replacement and retrofit potential opportunities, cost effectiveness screening test changed to a Societal test perspective, and gross (vs. net) savings used as the basis for the contributing savings.

b. *The EE-IRP Staff Whitepaper identified areas where process modifications and further rule development may be necessary for optimization of energy efficiency in the IRP. Do you agree with staff's proposal? Why or why not?*

The Council is not prepared at this time to provide specific comments on the staff's proposal for optimization of EE in the IRP.

c. *What role should IRP optimization of energy efficiency resources play in the development of the Study and energy efficiency goal setting?*

It would be appropriate to step back and ask the question of whether EE for public purpose programs should even be considered for assessment in the IRP in the first place. EE is at the top of the loading order (still California's governing policy for EE resources). EE is at the top because there are a lot of reasons to prioritize EE due to the many benefits that go well beyond the current EE cost-effectiveness testing framework, which uses a total resource cost test. Furthermore, public purpose programs such as market transformation, emerging technologies, and needs-based efficiency (such as the Energy Savings Assistance (ESA) programs and other low-income assistance programs) should not be held to a strict standards set forth through the IRP process.

The EE categories that should be considered for integration with other resources would include EE interventions that are able to deliver grid-related benefits (such as meeting peak load reduction needs due to increasing duck curve issues) and local capacity/distribution issues. To that end, the Council recommends that the CPUC consider bifurcating the EE resource into two categories: (1) public purpose which is not subjected to a cost-effectiveness criteria and thus would not be applicable for IRP) and (2) grid needs (either at the system level or for meeting local capacity/distribution needs) which would be fully tested relative to other non-EE resources through the IRP

process. Indeed, we believe this is the direction that ED staff has proposed in its recent IRP white paper.[3]

5. *The Evolving Energy Efficiency Portfolio:*
    a. *What policy-level changes (if any) should the CPUC begin to consider related to energy efficiency goal setting, to best align energy efficiency programs with the needs of California's clean energy future?*

The CPUC should engage in cross-agency discussions with the CEC about shifting the responsibilities of conducting every other year EE potential and goal studies to the CEC. In that role, the CEC would conduct a statewide EE potential study that covers all of California (IOU and POU territories). Indeed, such a change may necessitate legislative action. The study would also drill down to show the potential for the IOU territories in particular. Further, the CEC should be responsible for setting EE goals that are in line with statewide doubling goals set forth in SB350. The CPUC could then identify how much of the potential and goals would be attributable to public purpose programs and how much would be in the category of grid relief (and subject to full IRP integration with other resources).

    b. *What processes should the CPUC use to explore these changes?*

The Council has no comments at this time.

6. *What other topics related to the Potential and Goals Study need consideration leading to the 2021 P&G Study, aside from those discussed at the October workshop and in the Navigant abstracts? Would you prioritize those topics above those discussed at the workshop? If yes, why?*

The Council has no further comments to offer at this time.

The Council Appreciates the opportunity to provide these comments, and looks forward to continued dialogue regarding the potential and goals study.

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[3] California Public Utilities Commission Energy Division Staff, "Proposal for Implementing Integrated Resource Planning at the CPUC", May 17, 2017. Available at: https://www.cpuc.ca.gov/WorkArea/DownloadAsset.aspx?id=6442453456