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THE PUBLIC ADVOCATES OFFICE'S COMMENTS ON OCTOBER 30-31, 2019 APPROACHES FOR ASSESSING ENERGY EFFICIENCY POTENTIAL & GOALS WORKSHOP

R.13-11-005
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Submitted by	Organization	Date Submitted
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I. INTRODUCTION

The Public Advocates Office at the California Public Utilities Commission (Cal Advocates) submits the following informal comments in response to the October 30 and 31, 2019 Energy Division workshop, *Approaches for Assessing Energy Efficiency Potential & Goals* (Workshop). In the discussion below, the Public Advocates Office responds to three of the six policy questions posed by Energy Division Staff in the email following the Workshop addressing the next round of the Energy Efficiency Potential and Goals Study[1] and makes the following recommendations:

[1] Email to service list R.13-11-005 from Cody Rudolph, Energy Division (Nov 19, 2019).

- Optimization of energy efficiency (EE) in the integrated resource planning (IRP) process should be the top priority for the 2021 Potentials and Goals Study.
- The Commission should uphold cost-effectiveness requirements to maintain a focus on the least-cost path to California's climate goals.
- The Commission should use the IRP EE optimization to develop a more informed EE budget.
- The 2021 Potential and Goals Study should aim to provide an accurate and realistic estimate of available efficiency savings and should provide data to inform program design.

II. COMMENTS ON POLICY QUESTIONS POSED BY ENERGY DIVISION

A. Question 1: What should be the primary objectives of the Potential and Goals study?

The Potential and Goals Study assesses EE potential in alternative scenarios based on different policies, measures, and market responses.[2] The primary objectives of the 2021 Potential and Goals Study should be to (1) develop an accurate and realistic estimate of how much energy consumption and peak demand can be reduced through ratepayer-funded efficiency programs in California's major investor-owned utilities' (IOUs) territories, and (2) to inform program design by providing an informative description of where EE savings are available, by geography (e.g., utility territories and climate zones), customer sector, and end-use or technology group.[3]

To achieve the first objective, the Commission should ensure that incentive measures are not duplicative of savings achieved through codes and standards. The Commission should also update savings estimates and cost data for all measures, based on the best available data. In addition, the Commission should adopt a Total Resource Cost test cost-effectiveness threshold that is high enough to ensure ratepayers savings and account for non-resource costs.

[2] 2019 Energy Efficiency Potential and Goals Study, p. 2. See D.19-08-034, Attachment A.

[3] 2019 Energy Efficiency Potential and Goals Study, p. 1.

To achieve the second objective, the Commission should work to refine the geographical specificity of the Potential and Goals study by creating different measure descriptions for at least two or three climate types, if not for all 17 climate zones. The Commission should also refine the Potential and Goals study by separating the public sector from the commercial sector.

B. Question 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?

The top priority for the 2021 Potentials and Goals Study should be to enable the IRP process to optimize EE as a candidate resource. The Potential and Goals Study should be scoped, designed, and timed to provide data that can feed into the 2021 IRP cycle.

Currently the IRP considers EE as a "baseline" load modifying resource, meaning EE is input into the model as a set value that reduces the baseline load.[4] Optimization of EE would mean redefining EE as bundled supply curves that can be fed into IRP models, resulting in models that can compare EE measures to all supply-side resources and select EE measure bundles that contribute to a least-cost path to the state's greenhouse gas (GHG) goals subject to other IRP constraints.[5]

In the IRP process, the RESOLVE (Renewable Energy Solutions) capacity expansion model selects the lowest-cost resources that can reliably serve the load while meeting California's climate and environmental goals. A bundle of EE measures would be deemed "optimal' when the RESOLVE model finds that bundle to be part of the lowest-cost set of resources (compared to other potential resources) to serve load at a

[4] Navigant IRP Technical Analysis: Considerations for Integrating Energy Efficiency into California's Integrated Resource Plan-Final Draft, 2018, pp. 3.

[5] Navigant IRP Technical Analysis: Considerations for Integrating Energy Efficiency into California's Integrated Resource Plan-Final Draft. 2018, pp. 3.

particular time in the forecast.[6] IRP optimization can produce a more accurate estimate of how much EE should be procured to best meet the state's energy needs and climate goals in comparison to the current approach (which relies on cost-effectiveness thresholds and the Potential and Goals Study to determine budgets).[7]

Because of the diverse set of EE technologies and resources, the IRP model must make simplifications in order to input EE into the model. This is done by creating "bundles" of similar EE measures that can then be used in the IRP model. The IRP incorporates all load-modifying EE and candidate EE bundles that are identified in the Potential and Goals Study.[8] Weighted average levelized cost, market potential, and hourly load profile are input into the IRP model for each bundle.[9] Each bundle can then be assessed based on its cost and system benefits to provide a more accurate procurement representation than portfolio-based cost effectiveness.[10] The IRP optimization model is then run and selects the optimal EE resources bundles when optimizing from all resources to meet the state's GHG and reliability goals at the least cost.[11]

The 2018 Energy Division Staff Proposal for Incorporating Energy Efficiency into the SB 350 Integrated Resource Planning Process (Staff White Paper) used 26 bundles of EE measures. However, developing a larger number of bundles would allow for better optimization and selection of EE resources. The Commission should determine how many bundles of EE measures the RESOLVE model can feasibly process. Then, the 2021

[6] Navigant IRP Technical Analysis: Considerations for Integrating Energy Efficiency into California's Integrated Resource Plan-Final Draft. 2018, pp. 15.

[7] The Public Advocates Office's Comments on Staff Proposal for Incorporating Energy Efficiency into The SB 350 Integrated Resource Planning Process, October 31, 2018.

[8] EE IRP Energy Division White Paper, p. 23.

[9] Navigant IRP Technical Analysis: Considerations for Integrating Energy Efficiency into California's Integrated Resource Plan-Final Draft, p. 7.

[10] 2019 Navigant Energy Efficiency Potential and Goals Study.

[11] EE IRP Energy Division White Paper, p. 23.

Potential and Goals Study should seek to develop clearly defined bundles of EE measures with similar characteristics, including load shape, costs, sector, and end-use.[12]

C. Question 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?

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

Statute directs the Commission to pursue the least-cost path to decarbonizing California's energy sector.[13] The Commission should consider EE in the broader context of the state's climate and decarbonization goals, and using the IRP model to optimize EE provides this broader context.[14] Specifically, the Commission should adjust EE budgets based on the results of the IRP EE optimization because the IRP model shows the most cost-effective path to meet the state's environmental and reliability goals.

Optimizing EE investments through the IRP process will help keep rates affordable, which supports decarbonization efforts. Recent California statutes demonstrate that achieving the state's decarbonization goals will require many customers choosing to electrify their buildings and vehicles.[15] The success of these efforts depends significantly on electricity prices: higher electricity prices reduce demand for decarbonization programs.

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[12] For the 2018 Staff White Paper, Navigant used supply curves generated from different bundle approaches to see which would best match the disaggregated measures supply curve. Navigant found that using 26 bundles that measures group hierarchically based first on sector, then end use, and lastly levelized costs is the most accurate approach. See Navigant IRP Technical Analysis: Considerations for Integrating Energy Efficiency into California's Integrated Resource Plan-Final Draft, pp. 9-11.

[13] Public Utilities Code Section 454.51(b).

[14] PU Code §454.52 (establishing the IRP process and explicitly identifying EE as a resource to be considered, as an alternative to supply-side resources, in meeting the goals of IRP).

[15] See, e.g., Senate Bill 350, Ch. 547, Stats. 2015 (establishing clean energy, clean air, and greenhouse gas reduction goals via, among other things, transportation electrification); Assembly Bill 1082, Ch. 637, Stats. 2017 (transportation electrification pilots for schools and educational facilities); Assembly Bill 1083, Ch. 638, Stats. 2017 (transportation electrification for pilots at state parks and beaches); Senate Bill 1477, Ch. 378, Stats. 2018 (building decarbonization); Assembly Bill 3232, Ch. 373, Stats 2018 (building decarbonization).

Customers have already seen significant rate increases, and more are on the way. The increases to electric rates are a serious threat to decarbonization. Therefore, it is important to streamline or trim programs that do not deliver value. In the EE sector, recent cost-effectiveness showings indicate that it may be appropriate to allow budgets to decline. As the Commission recently recognized in D.19-08-034, the reduced availability of EE is a sign of policy success.[16] Reducing EE budgets to the level indicated by IRP modeling will help ensure that EE programs support the state's overall clean energy goals.

[16] D.19-08-034, p. 6.