

PUBLIC UTILITIES COMMISSION505 VAN NESS AVENUE
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July 15, 2019

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Ratesetting

TO PARTIES OF RECORD IN RULEMAKING 13-11-005 :

This is the proposed decision of Administrative Law Judge Valerie Kao. Until and unless the Commission hears the item and votes to approve it, the proposed decision has no legal effect. This item may be heard, at the earliest, at the Commission's August 15, 2019 Business Meeting. To confirm when the item will be heard, please see the Business Meeting agenda, which is posted on the Commission's website 10 days before each Business Meeting.

Parties of record may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure.

The Commission may hold a Ratesetting Deliberative Meeting to consider this item in closed session in advance of the Business Meeting at which the item will be heard. In such event, notice of the Ratesetting Deliberative Meeting will appear in the Daily Calendar, which is posted on the Commission's website. If a Ratesetting Deliberative Meeting is scheduled, *ex parte* communications are prohibited pursuant to Rule 8.2(c)(4)(B).

/s/ MICHELLE COOKE for
Anne E. Simon
Chief Administrative Law Judge

AES:mph
Attachment

Decision PROPOSED DECISION OF ALJ KAO (Mailed 7/15/2019)

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

DECISION ADOPTING ENERGY EFFICIENCY GOALS FOR 2020 - 2030

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Attachment A-2019 Energy Efficiency Potential and Goals Study.

DECISION ADOPTING ENERGY EFFICIENCY GOALS FOR 2020 - 2030**Summary**

This decision adopts energy savings goals for ratepayer-funded energy efficiency program portfolios for 2020 – 2030 based on an assessment of market potential using the Total Resource Cost test.

1. Background

California Public Utilities Code Sections 454.55 and 454.56 require the California Public Utilities Commission (Commission or CPUC), in consultation with the California Energy Commission (CEC), to identify all potential achievable cost-effective electricity and natural gas efficiency savings and “establish efficiency targets” for electrical and gas corporations to achieve.¹ To this end, Commission staff manage the development of a study that provides the technical analysis for assessing the cost-effective energy savings potentially available in the State’s residential and commercial building stocks, residential and commercial equipment and processes, industrial sector, agricultural sector, mining sector, and streetlights. We use this study to set energy savings goals for the large investor owned utilities (IOUs);² these goals in turn inform the planning activities of the energy efficiency program administrators, Commission staff in integrated energy resource planning, and other State agencies, including the

¹ Cal. Pub. Util. Code § 454.55(a)(1): “The commission, in consultation with the Energy Commission, shall identify all potentially achievable cost-effective electricity efficiency savings and establish efficiency targets for an electrical corporation to achieve, pursuant to Section 454.5, consistent with the targets established pursuant to subdivision (c) of Section 25310 of the Public Resources Code.” Cal. Pub. Util. Code § 454.56: “(a) The commission, in consultation with the Energy Commission, shall identify all potentially achievable cost-effective natural gas efficiency savings and establish efficiency targets for the gas corporation to achieve, consistent with the targets established pursuant to subdivision (c) of Section 25310 of the Public Resources Code.”

² The large IOUs are Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company.

CEC, California Air Resources Board, and the California Independent System Operator.

Decision (D.) 15-10-028 established an approach to incorporating new information into required energy efficiency work products, such as the potential study, on a regular basis. The Commission last revised energy efficiency goals in D.17-09-025. The Commission needs to adopt goals for 2020 forward, and to incorporate new information that updates or modifies some of the inputs and approaches to estimating energy efficiency potential.

On May 1, 2019, the assigned administrative law judge issued a ruling inviting parties to comment on the initial draft of the 2019 potential study (draft potential study). On May 21, 2019, the California Efficiency + Demand Management Council (Council); the Association of Bay Area Governments on behalf of San Francisco Bay Area Regional Energy Network and County of Ventura on behalf of the Tri-County Regional Energy Network (BayREN and 3C-REN, jointly); Marin Clean Energy and City of Lancaster (MCE and Lancaster, jointly); Nest Labs, Inc.; the Natural Resources Defense Council (NRDC); Oracle Utilities (Oracle); Pacific Gas and Electric Company (PG&E); the Public Advocate's Office of the Public Utilities Commission (Cal Advocates); Small Business Utility Advocates; Southern California Edison Company (SCE); Southern California Gas Company (SoCalGas); San Diego Gas & Electric Company (SDG&E); the County of Los Angeles on behalf of Southern California Regional Energy Network (SoCalREN); and The Utility Reform Network (TURN) filed opening comments. On May 31, 2019, Oracle, PG&E, CalAdvocates, SCE, SoCalGas, and TURN filed reply comments.

1.1. Updates Reflected in the Potential Study

The draft potential study includes a number of updates. Among these are updates to the Database for Energy Efficiency Resources (DEER), which the Commission periodically revises to ensure consistency with existing and updated state and federal codes and standards, and thereby provide an accurate basis upon which energy efficiency programs should be designed.³ The draft potential study includes updated DEER values, including a change to how peak demand savings are calculated, pursuant to Resolution E-4952. With respect to energy efficiency potential, the most significant update included in Resolution E-4952 is to update the baseline for non-residential lighting measures to Light Emitting Diodes (LEDs), the effect of which is to significantly reduce savings potential relative to the potential study upon which D.17-09-025 adopted goals (2017 potential study). Also, in response to party comments on the draft potential study, Navigant Consulting, Inc. and its partners (the Navigant team)⁴ updated the baseline for residential lighting measures to LEDs, which also significantly reduced savings potential relative to the 2017 potential study. These reductions in energy savings potential are discussed in greater detail later in this decision.

The 2019 potential study also incorporates new or updated data, including:

- updated impact evaluation data for behavioral, retrocommissioning and operational (BROs) measures, which generally increases incremental first-year savings for these measures;
- new rebate program measures (smart connected power strips and connected LEDs), which increases residential

³ url: <http://www.deeresources.com/>

⁴ The Navigant team was selected by Commission staff to conduct the 2019 potential study.

savings potential but only marginally as a result of the updated LED baseline; and

- more recent program data from custom projects, which indicates a downward trend in industrial and agricultural custom project savings potential.

The 2019 potential study utilizes the version of the Commission's Avoided Cost Calculator that took effect in 2018 pursuant to Resolution E-4942, which updated certain data inputs.⁵ The earlier version of the Avoided Cost Calculator, which informed the 2017 potential study, reflected a lower estimate of the additional value of avoided greenhouse gas (GHG) emissions (commonly referred to as the "interim GHG adder" in Rulemaking (R.) 14-10-003). The higher avoided GHG emissions estimate in the 2018 update to the Avoided Cost Calculator had minimal impact on estimated savings potential.

The 2019 potential study also includes a bottom-up forecast of savings from the residential low-income sector, that is, based on measure-specific savings potential as opposed to using a more generalized per-household savings estimate, as was done in previous potential studies.

In response to party comments on the draft potential study, the Navigant team also adjusted savings from building benchmarking, in acknowledgment of the fact that Assembly Bill 802 (Stats. 2015, Chap. 590) requires public disclosure of building energy use benchmarking data, and program administrators generally cannot claim savings from mandated measures. The Navigant team also adjusted assumptions for several BROs programs, most prominently to acknowledge likely reductions in household penetration rates for home energy reports (HERs).

⁵ Resolution E-4942 *Adopts updates to the Avoided Cost Calculator for use in demand-side distributed energy resources cost-effectiveness analyses*, issued July 13, 2018.

Overall, the 2019 potential study shows a reduction in energy savings potential (relative to the 2017 potential study), in large part due to updating the baseline for both commercial and residential lighting measures to LEDs. Adopting goals based on reduced potential should not be interpreted as a reduction in our commitment to energy efficiency. Instead, we view this as the product of California's longstanding commitment to and actions to achieve energy savings, specifically our coordinated efforts to pursue impactful changes to building codes and appliance standards, which are supported by the utilities' codes and standards advocacy efforts. The energy savings from technologies that once needed program intervention are now occurring naturally, are part of an industry standard, and/or are being captured in current California codes and standards mandates. Although the lighting baseline update leaves fewer cost-effective savings for program administrators to pursue, it signifies progress for the State in that more efficient lighting technology is now the standard, which itself is a benefit of program administrators' efforts to date.

It is also worthwhile to note that savings from rebate programs are significantly lower than in past potential studies, while savings from BROs programs constitute a much greater proportion of energy efficiency potential than in previous studies. However, some BROs programs such as HERs have relatively short-lived savings (*i.e.*, one year), which will likely be a relevant concern for future studies.

2. Issues Before the Commission

Pursuant to Public Utilities Code Sections 454.55 and 454.56, we must adopt updated energy efficiency savings goals. The issue before us is which scenario from the 2019 potential study, or which set of energy efficiency goals, to adopt. In considering this issue, we also address specific issues raised by parties in their comments on the draft potential study.

As in D.17-09-025 and earlier decisions that considered and adopted energy efficiency goals, we aim to set goals that are realistic, which is why past decisions have primarily focused on market potential as opposed to technical or economic potential. Technical potential reflects the universe of potential savings that could be achieved if the most efficient, technically applicable opportunities were immediately adopted by all customers. Economic potential is the subset of technical potential that is determined to be cost-effective. Market potential reflects the subset of economic potential that we could expect customers to adopt “in response to specific levels of incentives and assumptions about policies, market influences, and barriers” and accounts for typical replacement.⁶

We also aim to set goals that are “aggressive yet achievable,”⁷ reflecting our intent to balance one objective, of providing reliable estimates for resource planning purposes, with another objective of pursuing all feasible, reliable and cost-effective energy efficiency opportunities.

⁶ See Attachment A (2019 Energy Efficiency Potential and Goals Study Final Public Report), at 9.

⁷ D.15-10-028 Decision Re Energy Efficiency Goals for 2016 and Beyond and Energy Efficiency Rolling Portfolio Mechanics, issued October 28, 2015 at 11-17; D.14-10-046 Decision Establishing Energy Efficiency Savings Goals and Approving 2015 Energy Efficiency Programs and Budgets (Concludes Phase I of R.13-11-005), issued October 24, 2014 at 15-16; D.12-05-015 Decision Providing Guidance on 2013-2014 Energy Efficiency Portfolios and 2012 Marketing, Education, and Outreach, issued May 8, 2012, at 81.

Finally, we are concerned with keeping goals stable with each two-year update, to the extent feasible, so as to minimize market disruption. Thus, while savings potential from specific measures or programs may change significantly from one study to the next, the Commission aims to set overall goals that do not deviate drastically from one study to the next.

3. Scenarios

As mentioned in the May 1, 2019 Ruling, the draft potential study included five scenarios on which to base our adoption of 2020 – 2030 goals. The May 1, 2019 Ruling asked parties to identify the most appropriate scenario – either in the draft potential study or an alternative recommendation – to inform 2020 – 2030 goals. The five scenarios are listed in Table ES-1 of the final draft of the potential study, included in this decision as Attachment A.

3.1. Parties' Positions

PG&E and SDG&E recommend using the Reference scenario, which sets a measure-level Total Resource Cost (TRC) screen of 1.0 for estimating economic potential. PG&E states the Reference scenario aligns with Commission policy of a 1.0 overall portfolio cost-effectiveness threshold. PG&E also expresses support for Alternative 2, which sets a measure-level TRC screen of 1.25, but recommends a more gradual transition to align with the various changes that will occur with the portfolios over the next few years, including the transition to third-party administration of at least 60 percent of portfolios and the requirement for portfolios to achieve a forecast TRC of 1.25 starting with the September 2022 annual budget advice letters. SDG&E states Alternatives 1 and 4, which both set a measure-level TRC screen of 0.85, do not accomplish the goal of achieving the most savings while providing value to ratepayers, and Alternative 3's "increased marketing strength" and "aggressive BROs adoption" assumptions are vague

and uninformative as to practical achievability. SDG&E comments further that Alternative 2 may increase value to ratepayers but constrains the amount of overall energy savings.

SoCalGas and NRDC recommend Alternative 1. SoCalGas states “a notable amount of gas measures fall in the range of 0.85 and 1.25,” although SoCalGas also acknowledges that a 0.85 TRC screen does not align with the Commission’s current requirements for forecasted portfolio cost-effectiveness.⁸ Noting the variability of savings potential, SoCalGas suggests a review of cost assumptions for the Agricultural, Industrial, Mining and Streetlighting sector measures “may be required to assure that measure-level cost-effectiveness results are correct.”⁹ SoCalGas does not support utilizing aggressive assumptions for BROs savings, and therefore does not consider either Alternatives 3 or 4 appropriate for setting goals. NRDC states Alternative 1 “represents a future through which utility programs maximize energy savings while (1) operating in a business-as-usual manner, and (2) maintaining a portfolio level cost-effectiveness ratio greater than 1.25,” and therefore best conforms to Public Utilities Code Sections 454.55 and 454.56.¹⁰

Cal Advocates recommends Alternative 2 because, Cal Advocates asserts, a TRC screen of 1.25 is consistent with stakeholder recommendations and with the Commission’s review criteria for annual budget advice letters.

⁸ *Comments of Southern California Gas Company (U 904 G) to Administrative Law Judge Kao’s Ruling Inviting Comments on Draft Potential and Goals Study*, filed May 21, 2019 (SoCalGas opening comments), at 2.

⁹ SoCalGas opening comments, at 2-3.

¹⁰ *Comments of the Natural Resources Defense Council (NRDC) on Administrative Law Judge’s Ruling Inviting Comments on Draft Potential and Goals Study*, filed May 21, 2019 (NRDC opening comments), at 7-8.

Cal Advocates notes the Commission “set a clear expectation that program administrators would submit annual budget advice letters with a forecast TRC ratio of 1.25 or higher.”¹¹ Cal Advocates argues against Alternatives 3 and 4, asserting the “aggressive” assumptions about participation in BRO programs and “broad” availability of financing programs are unrealistic.

Cal Advocates also asserts Energy Division ignored early stakeholder input, stating that all stakeholders that provided input on an early draft of the proposed scenarios either supported a screening threshold of at least 1.25 in the Reference scenario or did not comment on this issue. Cal Advocates states “Energy Division inexplicably and unilaterally decided to lower the screening threshold to 1.0” for the Reference scenario.¹²

SCE states that both the Reference and Alternative 2 scenarios are most appropriate to inform 2020-2030 goals, and Alternative 2 is “most reasonable and in-line with the Commission direction regarding providing a cost-effectiveness buffer to encourage the realization on an ex-post basis of cost-effective savings.”¹³ SCE further comments that an alternate scenario using the Program Administrator Cost (PAC) test “may provide valuable future planning insights to stakeholders.”¹⁴

TURN, in reply comments, supports the use of Alternative 2 in order to provide “breathing room” in the portfolios for non-resource programs, and to

¹¹ *Comments of the Public Advocates Office on Administrative Law Judge’s Ruling Inviting Comments on Draft Potential and Goals Study*, filed May 21, 2019 (Cal Advocates opening comments), at 12.

¹² Cal Advocates opening comments, at 6-7.

¹³ *Southern California Edison Company’s (U 338 E) Comments on Administrative Law Judge’s Ruling Inviting Comments on Draft Potential and Goals Study*, filed May 21, 2019 (SCE opening comments), at 2.

¹⁴ SCE opening comments, at 2-3.

provide a hedge against the risk that portfolios will achieve lower TRCs on an evaluated basis (relative to forecasted TRCs).

BayREN and 3C-REN recommend using either Alternative 3 or Alternative 4, which again use more aggressive assumptions for incentive levels and BROs and financing programs, because they provide the best opportunity for the IOUs to meet both the Commission's and the State's energy efficiency goals.

The Council does not support any of the five scenarios included in the draft potential study, asserting the study "is a stark departure from the findings of the 2017 CEC SB 350 Report" and therefore "dangerously undermin[es] the foundation of the savings needed to comply with SB 350."¹⁵ In order to achieve the goals of Senate Bill (SB) 350 (Stats. 2015, Chap. 547), the Council recommends including a modified PAC test in the draft potential study, "on a weighted basis with the TRC."¹⁶

3.2. Discussion

Before we address parties' comments, it is worthwhile to make clear the approach the draft potential study takes to develop an estimate of market potential. Every measure must "pass" a specified TRC screen in order to be included in the portfolio of economic potential. The IOUs and other energy efficiency program administrators, when developing their portfolios, may choose to include measures with a TRC below 1.0 as long as their overall portfolio TRC meets or exceeds 1.25 (or, until program year 2023, at least 1.0). Given a portfolio

¹⁵ *Opening Comments of the California Efficiency + Demand Management Council on Administrative Law Judge's Ruling Inviting Comments on the Draft Potential and Goals Study*, filed May 21, 2019 (Council opening comments), at 3.

¹⁶ Council opening comments, at 4.

with a significant portion of savings coming from drastically cost-beneficial measures (*e.g.*, TRC > 6.0), it is easier to include measures with lower TRCs and/or non-resource costs (*i.e.*, costs that do not directly produce energy savings) and still achieve a cost-effective portfolio. But given a portfolio in which the majority of savings come from measures with TRCs closer to 1.0, and all else equal, it may be more difficult for the program administrators to achieve cost-effective portfolios.

We also address Cal Advocates' allegation, that Energy Division ignored stakeholder input when it determined to change the TRC screen in the Reference case from 1.25 to 1.0, by making clear that any scenario is an option for the Commission to consider, and clearly Alternative 2 uses a TRC screen of 1.25 as Cal Advocates and NRDC recommended in their February 28, 2019 informal comments.¹⁷ The Reference scenario does not, by virtue of being identified as "Reference," occupy a higher priority relative to the other scenarios. As the draft potential study explains, the Reference scenario represents a "business as usual" approach, and in past potential studies we have historically set a lower TRC threshold, at the measure level, for purposes of estimating potential and setting goals, than for portfolio/annual budget approval purposes.

We first address Alternatives 3 and 4. We agree with parties that suggest the BROs and financing assumptions included in Alternatives 3 and 4 are overly

¹⁷ We also clarify that only Cal Advocates / NRDC's February 28, 2019 informal comments advocated for 1.25 as the threshold for the Reference scenario. SCE stated that both the Reference (TRC screen = 1.25) and Alternative 1 (TRC screen = 1.0) scenarios are consistent with Commission direction; the Reference scenario was appropriate for *program* goal setting; and SCE noted that Alternative 1 "may be appropriate for consideration for goal setting given the difference in setting [Cost Effectiveness Test] screens at a measure level vs. portfolio level." No other parties addressed the appropriate TRC screen for the Reference scenario.

aggressive and therefore not realistic, so we will not adopt either of these scenarios.

Among the three remaining scenarios in the 2019 potential study, the only difference is the TRC screen used for identifying measures to include in the portfolio of economic potential. We consider the Reference scenario (TRC screen of 1.0) to align most closely with our policy of adopting realistic and aggressive yet achievable goals. Our determination not to use a higher (1.25) or lower (0.85) TRC screen is explained further, in part, in response to parties' comments advocating for either of those scenarios.

Cal Advocates, SCE and TURN recommend setting a higher TRC screen (*i.e.*, 1.25) because the 2019 potential study does not account for non-resource costs, which the program administrators must include when calculating their portfolio TRCs for both budget approval and portfolio reporting purposes. Therefore the 2019 potential study, these parties suggest, is disconnected from reality and should use a higher TRC screen to adjust for this disconnect.

We decline to set a higher TRC screen for several reasons. First, past potential studies also have not accounted for non-resource costs. Second, setting a *measure-level* TRC screen of 1.25 is not a reasonable "fix" (for the disconnect with portfolio approval), because it assumes the cost of every single measure should be inflated by 25 percent in order to account for non-resource costs, when in reality non-resource program costs are not necessarily linked to distinct measures. Third, setting a *measure-level* TRC screen of 1.25 also conflicts with our statutory mandate to pursue all cost-effective energy efficiency, as this higher threshold would prevent measures with a TRC of 1.0 from being included in the portfolio of economic potential.

We acknowledge, however, that past portfolios of economic potential likely had a proportionately greater share of measures with TRCs that far exceeded 1.0. In the context of more savings coming from measures having a TRC closer to 1.0, we consider a TRC screen of 0.85 to be less reasonable than we had determined for previous potential studies. Further, while we do not agree that setting a higher TRC screen is an appropriate means to account for non-resource costs, it is reasonable to consider rational ways to account for non-resource costs in future potential studies. We encourage stakeholders to propose ways for the Commission to accurately account for non-resource costs when estimating economic potential of energy efficiency measures in future study scoping activities.

For reasons previously articulated in D.17-09-025,¹⁸ and as echoed in the reply comments of Cal Advocates, we do not agree with parties advocating or suggesting that the sole or primary intent of the Commission's energy efficiency goal-setting process should be to reach the so-called doubling goals set out by SB 350. SB 350 identifies multiple statewide initiatives that will contribute to this doubling goal, including savings from financing programs, publicly owned utility energy efficiency programs, codes and standards, behavior and market transformation, and savings from IOU ratepayer-funded programs. Related to this, we reiterate that savings from codes and standards play and will continue to play an increasingly important role in the State's efforts to achieve the goals of SB 350.

¹⁸ D.17-09-025 *Decision Adopting Energy Efficiency Goals for 2018 – 2030*, issued October 2, 2017, at 8-9 and 22-24; and *Reply Comments of the Public Advocates Office on Administrative Law Judge's Ruling Inviting Comments on Draft Potential and Goals Study*, filed May 31, 2019, at 4-6.

Finally, in response to comments regarding significant additional potential beyond the goals we adopt here, we remind parties that the goals we adopt in this decision establish a minimum amount of savings that the program administrators must achieve; nothing prevents program administrators from going beyond the goals we adopt in this decision, or that we have set in past decisions dating back to 2004. The program administrators can and should, where feasible, go beyond the goals we adopt; the utilities have, for over a decade now, had strong financial incentives to do just that.¹⁹

4. Potential in the Residential Low-Income Sector

The May 1, 2019 Ruling asked whether the Commission should adopt goals that include energy savings potential for the low-income sector. Most parties generally observe that the draft potential study's approach to estimating savings potential in the residential low-income sector more closely represents a technical or economic potential estimate, and further that this type of estimate is more appropriate than a market potential estimate, given the particular program rules and requirements of the Commission's Energy Savings Assistance (ESA) program.

4.1. Parties' Positions

SDG&E and SoCalGas contend the draft potential study's approach more appropriately captures technical or economic potential rather than market potential, because it does not account for decision factors that apply to the ESA program (as opposed to non-low-income energy efficiency programs). Similarly, PG&E notes the particular program requirements (*i.e.*, a required number of homes to be treated and Commission-approved program policies and

¹⁹ See, e.g., D.13-09-023 *Decision Adopting Efficiency Savings and Performance Incentive Mechanism*, issued September 11, 2013.

procedures) of the ESA program, which the draft potential study does not reflect, and SCE argues that using a “payback-based approach,” while appropriate for estimating adoption of energy efficiency measures, is misaligned with the structure of ESA programs, in which the measure cost to customers is typically zero. NRDC raises a similar point as SCE, and additionally recommends the Commission develop an estimate of statewide technical potential for low-income customers. Cal Advocates and TURN suggest a market potential approach is inappropriate for the residential low-income sector, and the Commission should instead estimate a technical potential for ESA; Cal Advocates also recommends development of a “program achievement potential” for ESA. These same parties recommend the Commission, in this proceeding, refrain from adopting energy efficiency goals applicable to the ESA program, and instead defer such consideration to a subsequent Commission proceeding associated with the large IOUs' applications for ESA and California Affordable Rates for Energy (CARE).²⁰

4.2. Discussion

We agree it is more appropriate for the Commission to consider whether and how to develop savings goals for the residential low-income sector in the consolidated ESA and CARE proceeding or its successor, as this issue is more clearly within scope of that proceeding and, as parties indicate, the Commission can better align any goals it adopts for the residential low-income sector with ESA program rules and requirements in that proceeding. The final draft of the 2019 potential study includes estimates of energy savings potential in the low-income sector, but they are not included in the energy efficiency goals we adopt

²⁰ The most recent consolidated ESA and CARE proceeding, Application 14-11-007 et al., was closed by D.19-06-022 *Decision Issuing Guidance to Investor-Owned Utilities for California Alternate Rates for Energy/Energy Savings Assistance Program Applications for 2021-2026 and Denying Petition for Modification*, issued June 28, 2019.

in this decision. The Commission may use the 2019 potential study as an informational input to future decisions in the consolidated ESA and CARE proceeding or its successor.

5. Home Energy Reports (HERs) Evaluations

The May 1, 2019 Ruling asks whether the Commission should continue to require ex-post evaluations of HERs programs that, over the past several years, have had consistently high impact evaluation results.

5.1. Parties' Positions

SoCalGas states its savings results for HERs from the third-party Movement and Verification (M&V) process are consistent with the "Impact Evaluation Report Home Energy Reports – Residential Program Year 2017," and therefore supports being able to claim savings from HERs based on the third-party M&V process rather than the Commission's ex-post evaluation. SCE agrees that past HERs impact evaluations have demonstrated consistently high evaluation results, and therefore encourages the Commission to consider removing the current requirement for ex-post evaluations. NRDC states the Commission should first ask its ex-ante team to determine whether reliable ex-ante savings can be determined through analysis of existing HERs evaluations. CEDMC agrees the past HERs evaluations warrant moving to a less stringent review process, but notes that program design could change with the shift to third-party implementation and technological change, and any dramatic change in program design requires an evaluation. Similar to CEDMC, Oracle supports removing the requirement but notes a caveat related to increasing third-party implementation. Oracle further notes that some analyses, specifically those conducted to measure jointly attributable savings, may or may not be conducted absent the utilities engaging with a consultant. Oracle elaborates on its support

for removing the HERs evaluation requirement to specify “the savings would continue to be measured via randomized controlled trials; however, the savings claims would be accepted by the Commission without the need for an independent evaluation to first validate the claims.”²¹

Several parties do not support removing the HERs evaluation requirement, and/or raise other concerns related to HERs savings. SDG&E, noting its expectation that HERs savings will diminish as an increasing number of residential customers take service on time of use rates and install solar and energy storage, does not explicitly support or oppose removing the HERs evaluation requirement, but recommends the Commission focus on persistence studies for HERs programs. PG&E does not support removing the HERs evaluation requirement, citing similar factors that Oracle identifies, as caveats for its support, to assert the Commission should continue requiring ex-post HERs evaluations.

5.2. Discussion

We acknowledge parties’ cautionary comments about potential changes to program design, however this does not necessarily conflict with a determination to remove the ex-post HERs evaluation requirement. Commission staff have, and should exercise, discretion in determining whether to conduct an evaluation of a given HERs program. In light of the consistently high impact evaluation results over the past several years, while also acknowledging the potential for changes to program design, we find reason to suspend the requirement for ex-post evaluations of HERs programs for three years unless the Commission reinstates this requirement via ruling (in this proceeding or a successor

²¹ *Comments of Oracle Utilities on Administrative Law Judge’s Ruling Inviting Comments on Draft Potential and Goals Study*, filed May 21, 2019 (Oracle opening comments), at 4.

proceeding), whichever occurs first. During the suspension, savings for HERs programs may be claimed on the basis of the third-party M&V process except where staff conducts an impact evaluation; staff will have discretion to conduct impact evaluations of HERs programs.

6. Technical Comments

Parties raised a number of issues relating to technical issues (e.g., the specific inputs or approaches used) in the draft potential study, in some cases referencing alternative data sources that, the parties suggest, are more accurate or otherwise superior. The final potential study, included in this decision as Attachment A, includes a section (Appendix I) that addresses each of these comments, and whether and how the Navigant team adjusted its analysis in response to each comment. The Navigant team incorporated updated data where feasible, however SDG&E's request to re-run the scenarios using the most recently adopted avoided cost values²² could not be accommodated because doing so would jeopardize our ability to adopt updated goals in the timeframe needed by the CEC for its load forecasting requirements.

²² D.19-05-019 *Decision Adopting Cost-Effectiveness Analysis Framework Policies for All Distributed Energy Resources*, issued May 21, 2019.

7. Overview of Energy Savings Goals

As previously stated, relative to the 2017 potential study, the 2019 potential study shows a decrease in potential energy efficiency savings from IOU rebate programs, largely due to savings from many lighting measures transitioning to code. While potential savings from BROs programs and codes and standards programs are increasing relative to the 2017 study, there is still an overall decrease in energy savings potential across all scenarios in the 2019 potential study, as illustrated in Figures 1 and 2 below. Note that both figures exclude low-income and codes and standards potential savings.

Figure 1. Electric Savings Potential by Scenario, Relative to Previous Study

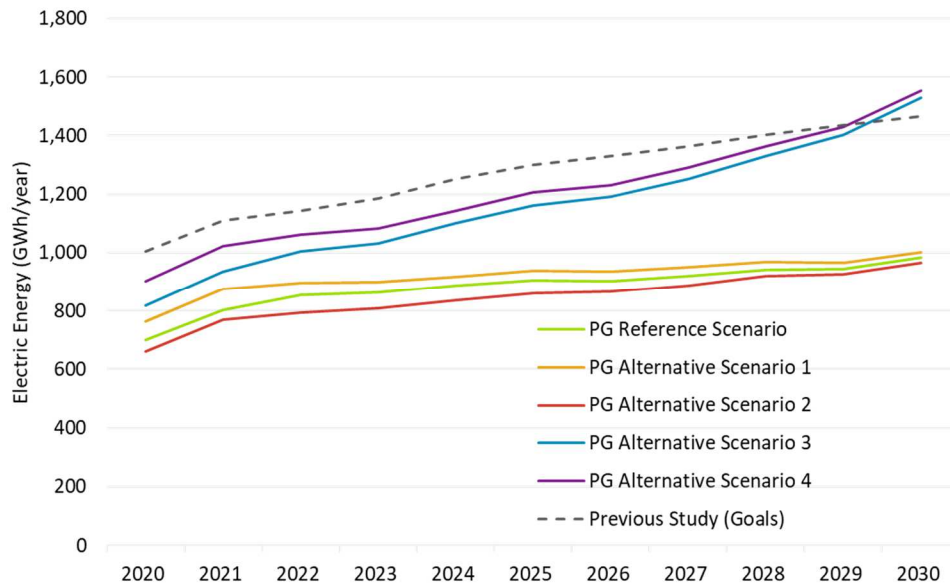
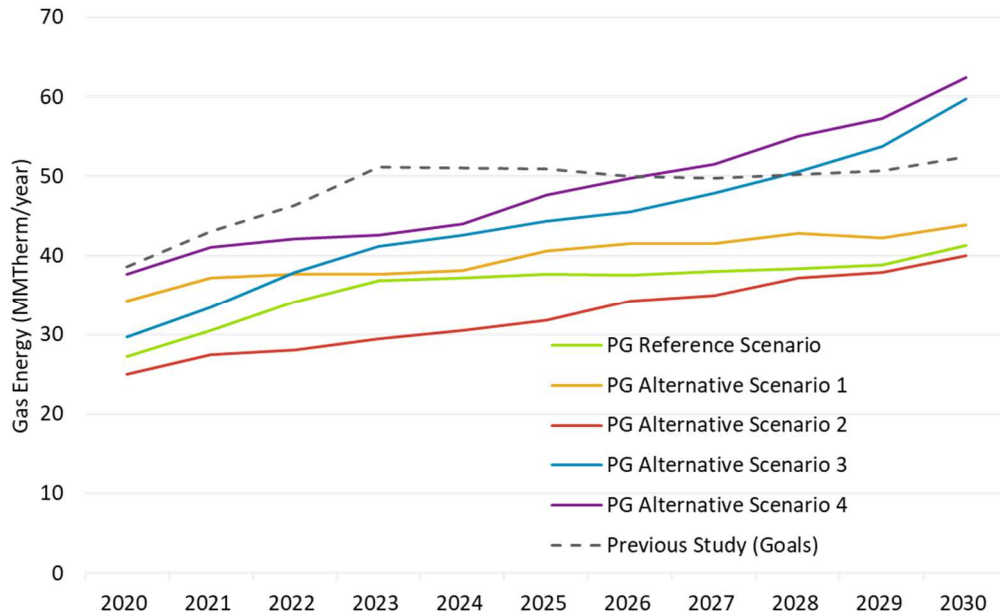


Figure 2. Gas Savings Potential by Scenario, Relative to Previous Study



This decision adopts the Reference scenario, in the 2019 potential study, as the updated energy savings goals for the 2020-2030 period, or until the next update. The following tables show the goals, as adopted in this decision on an annual basis for electricity (gigawatt-hours (gWh)), demand (megawatts (MW)) and natural gas (million metric therms (MMTherms)). The final potential study and Excel-based Results Viewer provide a more detailed breakout of savings estimates.²³

²³ See Appendix H of the final potential study and <http://acp.analytica.com/acpbeta/shared/#dash/fca42209-b98d-4e83-852f-3d075f99ce9b>.

Figure 3. IOU Territory Annual Savings Goals²⁴

Table 1. Annual gWh

Year	Pacific Gas and Electric Company			Southern California Edison Company			San Diego Gas & Electric Company		
	Incentive Programs	Codes & Standards	Total	Incentive Programs	Codes & Standards	Total	Incentive Programs	Codes & Standards	Total
2020	310	646	956	310	667	977	79	151	230
2021	359	642	1,001	352	662	1,014	90	150	240
2022	391	629	1,020	368	649	1,017	93	147	240
2023	393	631	1,024	372	651	1,023	96	148	244
2024	403	599	1,002	384	618	1,002	99	140	240
2025	409	578	987	393	596	989	102	135	238
2026	407	537	944	392	554	946	104	126	230
2027	413	499	912	399	515	914	107	117	224
2028	422	447	869	409	462	871	111	105	215
2029	423	390	813	408	402	810	114	91	205
2030	440	331	771	425	341	766	119	78	196

Table 2. Annual MW

Year	Pacific Gas and Electric Company			Southern California Edison Company			San Diego Gas & Electric Company		
	Incentive Programs	Codes & Standards	Total	Incentive Programs	Codes & Standards	Total	Incentive Programs	Codes & Standards	Total
2020	65	131	196	62	131	193	15	31	46
2021	73	136	209	72	135	207	17	31	48
2022	78	134	212	74	133	207	18	31	49
2023	79	141	219	74	138	212	18	32	50
2024	82	135	217	76	133	209	19	31	50
2025	83	130	214	79	128	207	19	30	49
2026	84	123	206	80	120	200	20	28	48
2027	85	115	200	82	113	195	20	26	47
2028	87	104	191	84	102	186	21	24	45
2029	87	95	182	85	93	178	21	22	43
2030	90	86	176	88	84	172	22	20	42

²⁴ Data shown for Reference scenario (TRC threshold of 1.0); excludes low-income savings estimates; Codes & Standards is inclusive of interactive effects.

Table 3. Annual MMTherms

Year	Pacific Gas and Electric Company			Southern California Gas Company			San Diego Gas & Electric Company		
	Incentive Programs	Codes & Standards	Total	Incentive Programs	Codes & Standards	Total	Incentive Programs	Codes & Standards	Total
2020	12	13	25	13	21	34	2.0	1.5	3.5
2021	14	13	27	14	22	36	2.2	1.5	3.7
2022	15	14	29	17	22	39	2.2	1.5	3.8
2023	18	14	32	17	22	39	2.3	1.6	3.9
2024	18	15	33	17	23	40	2.3	1.7	4.0
2025	18	14	32	17	23	40	2.4	1.6	4.0
2026	18	12	30	17	19	36	2.5	1.3	3.8
2027	19	10	29	17	17	34	2.5	1.2	3.7
2028	19	10	29	17	16	32	2.6	1.1	3.7
2029	19	9	27	17	14	31	2.7	1.0	3.6
2030	20	9	28	19	14	33	2.8	1.0	3.7

8. Consideration of Changes to Annual Budget Advice Letter Process

The May 1, 2019 Ruling asked whether, in light of the changes in savings potential for 2020 (relative to the 2017 potential study), there should be any changes to the required components of annual budget advice letters (ABALs) due from the program administrators in September 2019, and/or to the process or criteria for reviewing the September 2019 ABALs.

8.1. Parties' Positions

BayREN and 3C-REN; Cal Advocates; MCE and Lancaster; and SoCalREN oppose modifying the ABAL process, established in D.18-05-041, as a result of our adoption of energy efficiency goals in this decision. The RENs and CCAs note that the draft potential study does not specify separate estimates of savings potential for the RENs' and CCAs' service areas and updating the ABAL process before accounting for RENs and CCAs could be disruptive. PG&E requests relief from the requirement to submit an ABAL in September 2019, noting it anticipates

a significant “refresh” to its portfolio as a result of its third-party solicitation Request for Proposal, occurring in July and taking effect in mid-2020. Other parties express reservations about the September 2019 ABAL but do not advocate for a modified ABAL deadline. SoCalGas notes the closeness in timing between our anticipated adoption of revised goals and the timing of the ABAL submissions for program year 2020. SCE similarly notes a significant amount of uncertainty in preparing the September 2019 ABALs due to timing of third-party solicitations. SCE also points out a difference between how savings from statewide programs will be credited to program administrators, and how the potential study estimates savings from those programs within each IOU’s service territory. SDG&E asks the Commission to “reevaluate if the current threshold of TRC at 1.25 [for purposes of annual budget approval] is attainable and should be lowered.”²⁵

8.2. Discussion

We share parties’ interest in refining the ABAL process, where warranted, but are not inclined to make piecemeal modifications without considering ramifications on the overall rolling portfolio framework; we also agree that modifying the process at this point is potentially disruptive. We note there is a potentially more comprehensive proposal by Cal Advocates in the context of the California Energy Efficiency Coordinating Council (CAEECC). We defer consideration of any potential change to the ABAL process unless and until a party proposes specific modifications and provides justification / explanation for its proposal.

²⁵ *Comments of San Diego Gas & Electric Company (U 902 M) on Draft Potential and Goals Study*, filed May 21, 2019 (SDG&E opening comments), at 11.

With respect to SCE's comment regarding savings from future statewide programs, we acknowledge the disconnect between how those savings will get credited and how the potential study currently estimates those savings for each utility. Future potential studies should look to performance and funding allocation data from the statewide programs, and Commission staff may hold one or more workshops on methodological and/or procedural changes to account for such data in future studies.

9. Guidance for Upcoming Annual Budget Submissions

9.1. Timing and Applicability of Values and Methodology to Use for Planning and Submitting PY 2020 ABALs

As directed in D.18-05-041, prior to submitting their annual budget advice letters for program year 2020 (PY 2020 ABALs), due September 3, 2019, program administrators must present their plans in a draft ABAL to the CAEECC.²⁶ Since their PY 2019 ABAL submissions, a number of inputs to the tools program administrators use in developing their PY 2020 portfolio planning are pending decisions before the Commission. Due to the uncertain timing around when each of these pending decisions will be approved by the Commission, we recognize that the program administrators need clear guidance on the values and methodology to use for planning and filing their PY 2020 ABALs. In particular, this decision clarifies the approach program administrators should use regarding:

- savings goals for IOUs, RENs, and CCAs;
- Avoided Cost Calculator values used in the Cost Effectiveness Tool;

²⁶ D.18-05-041 *Decision Addressing Energy Efficiency Business Plans*, issued June 5, 2018, at 137.

- forecasted savings values embedded in draft workpapers; and
- forecasting third-party programs.

Additionally, in the course of reviewing and approving the program administrators' PY 2019 ABALs, the need to update the Cost Effectiveness Tool to enable program administrators to forecast without the five percent market effects adjustment was identified. This change is scheduled to be completed by mid-July 2019. The program administrators can and shall now exclude market effects adjustment from their forecasts.

9.2. Savings Goals

IOUs should use energy efficiency savings goals for PY 2020 adopted in this decision to plan their PY 2020 ABAL submissions. In the event a program administrator is unable to meet one or more of the ABAL review criteria²⁷ in its PY 2020 ABAL, and their ABAL is therefore denied, the energy efficiency savings goals for PY 2020 ultimately adopted in this decision will still apply for PY 2020 and beyond. Budgets proposed for PY 2020 should reflect the new goals and stay under the budget cap, as authorized in D.18-05-041. We reiterate that the goals we adopt in this decision represent a minimum amount of savings; the program administrators and implementers should pursue greater energy savings, cost-effectively, to the greatest extent feasible.

D.18-05-041 stated that RENs and MCE forecasted energy savings goals must meet or exceed the annual energy savings targets included in their business plan as a criteria for approval of their ABALs.²⁸ However, MCE, BayREN, SoCalREN, and 3C-REN (non-IOU program administrators) each submitted

²⁷ See D.18-05-041, Section 7.3.

²⁸ D.18-05-041, at 134.

budget and savings true-up tables in their PY 2019 ABALs. These true-up tables reflected more accurate and updated planning assumptions and forecasts, for each program year through 2025, than their business plans. Because RENs and CCAs do not have explicit energy efficiency savings goals as the IOUs do (through this decision), for each year that non-IOU program administrators request energy efficiency funding authorization via an ABAL, they shall meet or exceed the annual savings forecasts presented in their true-up tables as submitted in their PY 2019 ABALs (and subsequently approved in Energy Division's advice letter dispositions).

9.3. Avoided Cost Calculator Values Used in the Cost-Effectiveness Tool

For the purpose of the PY 2020 ABAL submissions, program administrators may use the Avoided Cost Calculator approved by the Commission as of July 12, 2019. However, a pending Avoided Cost Calculator update proposed by draft Resolution E-5014, and scheduled for a Commission vote in August 2019, will be programmed into the Commission's Cost-Effectiveness Tool and available for use by mid-July 2019. A program administrator may choose to use the draft changes to the Avoided Cost Calculator when planning their PY 2020 ABAL submission, in anticipation that the proposed changes will be adopted by the Commission prior to the due date of the ABALs in September.

If a program administrator uses the existing Avoided Cost Calculator inputs and expects significant changes to their 2020 portfolio forecasts as a result of the currently pending Avoided Cost Calculator update, the program administrator shall note instances in its portfolio in which forecasts may be either adversely or positively affected by the 2019 Avoided Cost Calculator update.

9.4. Forecasted Savings Values

Staff will provide a workpaper tally report to the program administrators in mid-July with clear guidance on which workpapers can be used for PY 2020 forecasts. In total, there are approximately 130 revised or new workpapers for potential use in PY 2020. For the purposes of PY 2020 ABAL planning, program administrators will use workpapers that are approved by staff as of July 12, 2019, which staff expects to number around 60 workpapers. Staff will provide additional guidance on the remaining workpapers that may be less controversial and likely to have approval by September 1, 2019, and whether or how program administrators should use these workpaper values in their PY 2020 planning.

Any remaining draft statewide workpapers that may or may not receive staff approval in time for the PY 2020 start date will be dealt with on a case-by-case basis; consequently, the program administrators shall use existing savings value for these workpapers in their forecasting.

9.5. Forecasting Third-Party Programs

We acknowledge the uncertainty inherent in the IOUs' energy savings forecasts resulting from ongoing solicitations for new programs to be implemented in 2020 and beyond. The IOUs shall align these third-party program forecasts pending from solicitations as much as possible with the forecasting methods used for custom projects (in terms of measures and measure mix being "unknown" prior to a program year), as they develop PY 2020 third-party program savings forecasts. The IOUs shall clearly indicate in their PY 2020 ABAL filings the portion of their portfolio forecasts that are from third-party program savings and include a description of the shared methodology used to determine those forecasts.

10. Comments on Proposed Decision

The proposed decision of ALJ Valerie Kao in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3. Comments were filed on _____, and reply comments were filed on _____, by _____.

11. Assignment of Proceeding

Liane M. Randolph is the assigned Commissioner and Julie A. Fitch and Valerie U. Kao are the assigned Administrative Law Judges in this proceeding.

Findings of Fact

1. The Commission's policy objective in setting energy efficiency goals is to set goals that are realistic and aggressive yet achievable.
2. Past potential studies have adopted goals based on a measure-level TRC screen of 0.85.
3. The energy savings goals in Section 7 of this decision are realistic and aggressive yet achievable.

Conclusions of Law

1. Public Utilities Code Sections 454.55 and 454.56 require the Commission, in consultation with the CEC, to identify all potential achievable cost-effective electricity and natural gas efficiency savings and "establish efficiency targets" for electrical and gas corporations to achieve.
2. The Commission sets electricity and natural gas efficiency savings "targets," *i.e.*, goals, for the IOUs.
3. It is reasonable to establish goals that are "aggressive yet achievable," and that reflect an accurate estimation of energy efficiency cost-effectiveness.
4. It is reasonable to adopt energy efficiency goals for 2020 – 2030 based on the Reference scenario, which uses a measure-level TRC screen of 1.0, in the final draft of the 2019 potential study.

5. It is appropriate for the Commission to consider whether and how to develop energy savings goals for the residential and low-income sector in a proceeding addressing ESA, because the Commission can better align any goals it adopts for the residential low-income sector with ESA program rules and requirements in that proceeding.

6. It is reasonable to suspend the requirement for ex-post evaluations of HERs programs, because impact evaluations have shown consistently high results over the past several years.

7. It is reasonable to provide guidance to the program administrators for their PY 2020 ABALs, because of changes in savings potential adopted in this decision and other inputs that are pending while the program administrators must start to develop their PY 2020 portfolios.

O R D E R

IT IS ORDERED that:

1. The energy efficiency goals in Section 7 of this decision for 2020 – 2030 are adopted; these goals are based on the Reference scenario in the final draft of the 2019 potential study, which is included in this decision as Attachment A.

2. The requirement for ex-post evaluations of home energy reports programs is suspended for three years or until the Commission reinstates this requirement via ruling (in this proceeding or a successor proceeding), whichever occurs first. During the suspension, savings for home energy reports programs may be claimed on the basis of the third-party measurement and verification process except where staff conducts an impact evaluation; staff will have discretion to conduct impact evaluations of home energy reports programs.

3. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, San Diego Gas & Electric Company, the Bay

Area Regional Energy Network, the Southern California Regional Energy Network, the Tri-County Regional Energy Network, and Marin Clean Energy shall prepare and submit their annual budget advice letters for program year 2020 pursuant to the guidance included in Section 9 of this decision.

4. Rulemaking 13-11-005 remains open.

This order is effective today.

Dated _____, at San Francisco, California.

ATTACHMENT A

2019 Energy Efficiency Potential and Goals Study