PUBLIC UTILITIES COMMISSION
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SAN FRANCISCO, CA 94102-3298

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Ratesetting

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

This is the proposed decision of Administrative Law Judges Kao and Fitch. 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 September 23, 2021 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).

/s/ ANNE E. SIMON
Anne E. Simon
Chief Administrative Law Judge

AES:mph
Attachment

Decision **PROPOSED DECISION OF ALJs Kao and Fitch (Mailed 8/20/2021)**

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 2022-2032

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DECISION ADOPTING ENERGY EFFICIENCY GOALS FOR 2022-2032

Summary

This decision adopts energy savings goals for ratepayer-funded energy efficiency program portfolios for 2022 – 2032, and provides updated guidance to program administrators for 2022-2023 budget advice letters and 2024-2027 applications.

1. Background

California Public Utilities Code Sections 454.55 and 454.56 require the California Public Utilities Commission (Commission), in consultation with the California Energy Commission (CEC), to identify all potentially 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, and associated system benefits, potentially available in the state's residential and commercial building stocks, residential and commercial equipment and processes, industrial sector, agricultural sector and mining sector. We use this study to set goals for the large investor-owned utilities (IOUs);[2] these goals in turn inform the planning

[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.

activities of the energy efficiency program administrators, Commission staff in integrated energy resource planning, and other state agencies, including the 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.19-08-034. The Commission needs to adopt goals for 2022 forward, and to incorporate new information that updates or modifies some of the inputs and approaches to estimating energy efficiency potential.

On April 23, 2021, the assigned administrative law judge issued a ruling inviting parties to comment on the initial draft of the 2021 potential study (draft potential study). On May 13, 2021, Commission staff held a workshop for the study's author, Guidehouse, to provide an overview of the draft potential study, and for parties to ask questions about the study.

Relevant to the draft potential study, D.21-05-031 adopted a new metric for setting goals, beginning in 2024. This new metric, total system benefit, reflects the lifecycle energy, capacity, and greenhouse gas benefits of a measure in dollar terms, in contrast to the separate energy and peak demand (*i.e.*, kilowatt-hour, kilowatt, and therm) goals we have traditionally adopted. The draft potential study expresses scenario results in both the traditional energy and peak demand targets (savings from fuel substitution measures are expressed in converted new fuel units) as well as the total system benefit metric.

The draft potential study updates the energy savings potential forecasts of the 2019 study, with new savings estimates from fuel substitution, sensitivity analyses that assess possible impacts of demand response (DR)-enabled

technologies, and the economic impacts of the COVID-19 pandemic. The draft potential study also includes results from optimization of the RESOLVE model used in the Commission's integrated resource planning (IRP) proceeding, using energy efficiency supply curves (*i.e.*, bundles of energy efficiency measures) developed through the energy efficiency potential methodology, in addition to scenarios that past studies have included for comparing results based on different assumptions regarding cost-effectiveness and adoption levers. The three non-IRP scenarios included in the draft potential study are:

- Scenario 1 ("TRC Low"): A measure-level total resource cost (TRC) screen of 1.0 and business-as-usual adoption.
- Scenario 2 ("TRC Reference" or reference scenario): A measure-level TRC screen of 0.85 and business-as-usual adoption.
- Scenario 3 ("TRC High"): A measure-level TRC screen of 0.85 and an aggressive level of adoption.

1.1. Party comments on draft potential study

On May 21, 2021, the California Efficiency + Demand Management Council (Council); Marin Clean Energy (MCE); the Natural Resources Defense Council (NRDC); Pacific Gas and Electric Company (PG&E); the Public Advocates Office at the California Public Utilities Commission (Cal Advocates); Small Business Utility Advocates (SBUA); Southern California Edison Company (SCE); Southern California Gas Company (SoCalGas); San Diego Gas & Electric Company (SDG&E); and The Utility Reform Network (TURN) filed opening comments. On May 28, 2021, Cal Advocates; the Council; PG&E; Recurve Analytics, Inc. (Recurve); SBUA; SCE; SDG&E; the County of Los Angeles on behalf of Southern California Regional Energy Network (SoCalREN); and TURN filed reply comments.

As an initial matter, nearly all parties urged the Commission to (direct Guidehouse to) re-run the draft potential study using updated avoided cost values included in Draft Resolution E-5150 (2021 avoided costs). These parties asserted the avoided cost updates, although themselves minor in scope, would likely result in a significant decrease in electric avoided costs. Thus, these parties suggested, it would be inaccurate and potentially send an incorrect procurement signal to set goals based on 2020 avoided cost values, as the draft potential study does. Recurve and SBUA did not support re-running the study with 2021 avoided costs; Recurve preferred that the Commission refine multiple components of the Avoided Cost Calculator (ACC), beyond the updated avoided costs, before re-running the study, and SBUA expressed concern over impacts of a delayed decision to the CEC's demand forecasting.

Notwithstanding the requests for Guidehouse to re-run the draft potential study with 2021 avoided costs, parties commented on which scenario was most appropriate for setting goals. No party recommended setting goals based on the IRP scenario, with many parties suggesting further analysis was needed before the Commission could reliably set goals based on IRP optimization. Parties were also generally aligned in their comments that more research is needed to understand the impacts of the COVID-19 pandemic on energy efficiency potential.

Cal Advocates, PG&E, SCE and TURN recommended using Scenario 1 to set goals. SCE recommended modifying Scenario 1 by applying a lower cost-effectiveness screen (TRC of 0.85) to emerging technology measures, asserting this approach was consistent with D.19-08-034's determination not to use a TRC screen of 0.85. Cal Advocates, which initially recommended using Scenario 2 because it included some fuel substitution technologies, supported SCE's

approach in reply comments. PG&E asserted Scenario 1 is most aligned with D.21-05-031 in terms of setting a portfolio TRC threshold of 1.0. TURN identified Scenario 1 as most consistent with the intent to set goals that are realistic and achievable.

SBUA and SDG&E recommended using Scenario 2 to set goals. SBUA's first preference was to set goals based on the Societal Cost Test (SCT), because the SCT more closely reflects all benefits and costs; SBUA explained that the higher portfolio TRC results justify setting a TRC screen of 0.85, particularly because the TRC does not include non-energy / societal benefits. SDG&E, in contrast to both PG&E and SCE, stated Scenario 2 was reasonable to use because D.21-05-031 (1) segmented energy efficiency portfolios such that resource acquisition would not need to compensate for market support and equity, and (2) set a portfolio TRC threshold of 1.0, and therefore program administrators will have more flexibility to balance their portfolios (compared to prior portfolio requirements). In reply comments, SDG&E suggested SCE's interpretation of D.19-08-034 was incorrect, noting that the then-required portfolio forecast TRC was 1.25, and this was the reason why D.19-08-034 set a measure-level TRC screen of 1.0, therefore "a similar adjustment down should be made to the threshold TRC in the scenario used to inform the current [potential and goals, or] P&G goals."[3]

The Council, NRDC and SoCalGas recommended using Scenario 3 to set goals. Further, the Council, NRDC and Recurve asserted the Program Administrator Cost (PAC) test is the most appropriate test for setting goals. The Council and NRDC recommended re-running Scenario 3 using the PAC test,

[3] *Reply Comments of San Diego Gas & Electric Company (U 902 M) on the Draft 2021 Energy Efficiency Potential & Goals Study*, filed May 28, 2021, at 3.

because doing so would achieve the most energy savings and total system benefit. SoCalGas recommended Scenario 3 because it best supports the state's aggressive energy efficiency doubling targets established pursuant to Senate Bill 350 (Stats. 2015, Chap. 547).

Parties that addressed how the draft potential study accounts for fuel substitution had varying comments and recommendations. SBUA stated that savings should be converted to the common energy metric of British thermal units (BTU), and to modify the approach for customers who get electricity and gas from different utilities so that the electric fuel substitution measure can be compared with the efficient gas measure, as suggested by Guidehouse. SCE suggested that the Commission account for fuel substitution goals separately from the overall energy efficiency goal, due to competition of gas energy efficiency incentives with electric fuel substitution that is not currently accounted for. The Council expressed concerns that the draft potential study undervalues fuel substitution measure potential given the discontinuity between electric and gas avoided costs; the Council thus recommended against applying the draft potential study's approach for this goal-setting period (2022-2032). Although SoCalGas agreed with the methodology used in the draft potential study, they also recommended a "truing-up" of the pre-assigned forecasted fuel substitution savings analysis, with better load shape documentation and field data on operational performance. NRDC noted that the issue of expressing electrification savings in the manner proposed is a temporary issue until total system benefit is adopted as the primary metric for energy efficiency. Similarly acknowledging that energy efficiency goals will be based on the total system benefit metric, PG&E recommended that, starting in 2024, D.19-08-009 be modified to

discontinue the conversion of electric and gas savings for fuel substitution measures.

Most parties were generally supportive of how the draft potential study defines total system benefit (TSB), but some sought clarification of both the definition and the equation used to express the term, in order to make clear that increased supply cost (resulting from fuel substitution and/or interactive effects) represents a reduction in benefits. To that end, parties recommended alternative TSB definitions, as follows:

- The sum of the benefit that a measure provides to the electric and natural gas systems. (PG&E)
- The product of measure savings load-shape, Commission adopted avoided costs, and the measure's estimated useful life, this lifetime savings calculation shall be adjusted appropriately to incorporate the impact of dual baselines for early replacement measures. (NRDC)
- The total benefit that a measure provides to the electric and natural gas systems, net of any supply costs added by the measure. (TURN)
- The total impact that a measure has on the electric and natural gas systems, including avoided cost benefits and any increased supply costs. (TURN)

SBUA supported the TSB definition but suggested a further modification to approximate the value of equity in efficiency analyses. SoCalGas also supported the TSB definition but recommended clarifying that the methodology is based on gross lifecycle savings net of costs. In reply comments, TURN cautioned against using "net" or "gross" in the definition, as both terms may introduce confusion. The Council expressed concern with the use of a net to gross ratio when comparing energy efficiency resources to supply-side resources, and for this reason recommended using gross savings. In reply comments, Cal

Advocates argued that the use of a net to gross ratio is appropriate in order to account for attribution of savings.

Most parties addressing the method for calculating total system benefit for fuel substitution measures agreed with the draft potential study's approach, although SoCalGas asserted much additional work is needed, and SCE noted a potential problem where calculating total system benefit with the full energy savings credit method is a misapplication of the Avoided Cost Calculator, which was designed to calculate electric and gas benefits separately.

In addition to the questions and issues raised by the ruling, TURN noted the potential need to provide updated guidance to the IOUs for their upcoming energy efficiency applications, and recommended we instruct the IOUs to use the 2021 Avoided Cost Calculator to prepare their applications. MCE's comments were focused on clarifying that the draft potential study applies only to IOU program administrator goals, and recommending that non-IOU program administrators be allowed to propose goals via applications and to update their goals via Tier 2 advice letters. SCE recommended the Commission hold one or more workshops to consider alignment of energy efficiency potential with IOUs' ability to capture savings during the transition to statewide administration for fuel substitution and other programs. And the Council, asserting current Commission rules prohibit use of site-based normalized metered energy consumption (NMEC) methods for proposed projects, recommended the Commission form a site-based NMEC stakeholder working group with the goal of allowing Industrial and Agricultural process-specific projects to use site-based NMEC methods.

1.2. Updated and additional study results

On July 14, 2021, Commission staff provided notice of updated results for the draft potential study. These results reflect (1) consideration of technical comments to the April 23, 2021, ruling, and (2) correction of a double-counting error, of greenhouse gas emissions values in electric avoided costs and electric supply costs. The correction results in lower electric savings potential from energy efficiency, and higher gas savings potential from fuel substitution measures than was shown in the original version of the draft potential study.

On July 22, 2021, the assigned administrative law judge issued a ruling providing notice and opportunity to comment on additional results for the draft potential study. These additional results reflect a re-run of the study's model using the 2021 Avoided Cost Calculator, as requested by most parties, and a PAC Reference scenario (also based on the 2021 Avoided Cost Calculator), as requested by some parties.[4] The ruling also presented and invited comments on a proposed approach for setting 2022-2032 goals, whereby 2022-2023 goals would be set using a scenario based on the 2020 Avoided Cost Calculator, and 2024-2032 goals would be set using a scenario based on the 2021 Avoided Cost Calculator.

In comparison to the July 14, 2021 updated results, the July 22, 2021, additional results reflect a decrease in potential from energy efficiency equipment and behavior programs, and a slight increase in potential from fuel substitution. The 2021 Avoided Cost Calculator reflects significantly lower electric avoided costs, and somewhat lower gas avoided costs, than the 2020 Avoided Cost Calculator; thus the additional results reflect fewer measures "passing" the economic screen for inclusion in the portfolio of energy efficiency

[4] On June 24, 2021, the Commission approved Resolution E-5150, adopting updates to the Avoided Cost Calculator.

potential. Table 1 of Guidehouse's July 14, 2021, memo, reproduced here, shows the top-line impact on 2024 energy savings and total system benefit:

2024 Results Comparison (Percent Decrease to Updated 2020 Avoided Cost Vintage Results)

Scenario	1st-year Electric Energy Savings	1st-year Gas Energy Savings	Total System Benefit
1: TRC Low	9%	25%	57%
2: TRC Reference	18%	9%	44%
3: TRC High	16%	8%	43%

On July 30, 2021, Cal Advocates, the Council, MCE, PG&E, Recurve, SCE, SDG&E, and SoCalGas filed comments on the additional results of the draft potential study and on the proposed approach to setting 2022-2032 goals.[5]

The IOUs and MCE agree with the proposed "hybrid" approach outlined in the July 22, 2021, ruling, *i.e.,* to set 2022-2023 goals using a scenario based on the 2020 Avoided Cost Calculator, and to set 2024-2032 goals using a scenario based on the 2021 Avoided Cost Calculator. Cal Advocates disagrees and recommends instead that we set 2022-2032 goals based on the 2021 Avoided Cost Calculator. The Council recommends that the Commission "engage stakeholders to explore a variety of options that would comprise alternative scenarios, including potentially a high scenario with a PAC test."[6] Recurve agrees with Cal Advocates' recommendation, but – importantly – only if the Commission adopts the PAC as the "core" or primary cost test, and sets goals based on the PAC. Without use of the PAC, Recurve asserts, "using the ACC 2021 or the 2024-2032

[5] On August 6, 2021, Cal Advocates filed amended comments to correct calculation errors at 7 of their July 30, 2021 comments.

[6] *Opening Comments of the California Efficiency + Demand Management Council on Administrative Law Judge's Ruling Providing Notice and Opportunity Regarding Additional Results of Draft Potential and Goals Study*, filed July 30, 2021 (The Council July 30, 2021 comments), at 3.

Business Plans and Goal setting exercise will likely have a devastating impact on the existing program budgets." Absent immediate adoption of the PAC, and with significant reservation, Recurve states that the hybrid approach may be a manageable alternative that would avoid "significant market disruption."[7]

In general, all the above parties maintain their positions on which scenario the Commission should use for setting goals, both in relation to their earlier comments (on the initial draft potential study) and with respect to 2022-2023 goals vs. 2024-2032 goals; MCE states it takes no position on this question, though it supports the proposed approach to setting goals. Cal Advocates, PG&E and SCE support Scenario 1 for much the same reasons as articulated in their earlier comments; importantly, however (and as noted above), Cal Advocates recommends using a scenario based on the 2021 Avoided Cost Calculator for all years. SDG&E continues to support Scenario 2, for all years. The Council and SoCalGas continue to support Scenario 3, for all years, although the Council expresses disappointment with "the absence of the scenario that we requested in our Reply Comments dated May 28, 2021...we argued that advancing the assumptions from Scenario 3 but using a PAC test would be the most appropriate representation of EE potential at this point in time."[8] Recurve's top recommendation is to use a PAC scenario to set goals, in which case Recurve would support use of the 2021 Avoided Cost Calculator. Recurve asserts, however, "it is essential and prudent for the Commission to continue to sustain their policy of continuity between the filings and reporting requirements

[7] *Comments of Recurve Analytics, Inc. on Email Ruling Providing Notice and Opportunity: Re Additional Results of Draft of Potential and Goals Study*, filed July 30, 2021 (Recurve July 30, 2021 comments), at 3.

[8] The Council July 30, 2021 comments, at 3.

applying the same ACC vintage (in this case, the ACC 2020 for filing and reporting through 2023)."[9] In opposition to the Council's and Recurve's positions, SDG&E does not support adoption of the PAC scenario "because the PAC does not consider additional participant costs when screening potential measures as compared to the TRC, and the potential savings would therefore not necessarily translate into effective goals."[10]

Cal Advocates and the IOUs make additional recommendations. Cal Advocates asserts "a technical correction needs to be made to the savings potential estimation from the additional results because, due to the ACC update, several Home Energy Reports (HERs) measures are no longer cost-effective in some scenarios but remain in the estimates of incremental, achievable potential."[11] Cal Advocates goes on to assert that exempting behavioral, retrocommissioning and operational (BRO) measures from the economic screen is not a reasonable methodological choice.

PG&E and SCE recommend updating the study's fuel substitution potential in all scenarios, noting the draft potential study did not calibrate potential for fuel substitution measures due to limited historical data from past portfolios. Both PG&E and SCE warn against adopting goals without this calibration, noting the estimates of fuel substitution potential reflect a drastic increase in potential that, they suggest, is not realistically achievable.

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[9] Recurve July 30, 2021 comments, at 3.

[10] *Comments of San Diego Gas & Electric Company (U 902 M) on the Email Ruling Providing Notice of, and Opportunity to Comment on, Additional Results for the Draft 2021 Energy Efficiency Potential and Goals Study*, filed July 30, 2021, at 3.

[11] *Amended Comments of the Public Advocates Office on the Administrative Law Judge's Ruling Inviting Comments on Additional Results for the Draft 2021 Potential and Goals Study*, filed August 6, 2021, at 5.

SDG&E and SoCalGas both request that Energy Division oversee development and incorporation of vetted and standardized Avoided Gas Infrastructure Cost (AGIC) values that can be used in combination with the 2021 Avoided Cost Calculator and implemented in the development of all-electric new construction programs that will be included in the 2024-2027 portfolio and budget applications. SDG&E and SoCalGas state this request is consistent with the direction provided in the non-standard disposition letters of PG&E's Advice Letters 4386-G/6094-E and 4387-G/6095-E.[12]

2. Issues Before the Commission

The primary issue we must address is how to set goals for 2022-2032, and associated implementation issues. This decision also addresses updated guidance for 2022-2023 budget advice letters and 2024-2027 portfolio applications, the definition of total system benefit, and a process for non-IOU program administrators to propose and update goals applicable to their portfolios.

3. Energy Efficiency Goals for 2022-2032

3.1. Setting goals based on different Avoided Cost Calculator vintages

This decision adopts goals for 2022 and 2023 based on the 2020-adopted Avoided Cost Calculator, and for 2024-2032 based on the 2021-adopted Avoided Cost Calculator. The IOUs and MCE support this approach. We acknowledge Cal Advocates' comments that there is no real distinction between budget advice letters and portfolio applications. However, the Commission has already directed the program administrators to use the 2020 Avoided Cost Calculator for

[12] "PG&E shall work with the other IOUs and [Energy Division] to support the development of vetted and standardized AGIC values prior to filing of program accomplishments for the all-electric new construction program."

their 2022-2023 budget advice letters. Directing the program administrators to use a different vintage of the Avoided Cost Calculator at this time may not afford them sufficient opportunity to modify their planning and budgeting for 2022-2023; even under current circumstances, Commission staff may not have sufficient time to dispose of the 2022-2023 budget advice letters before January 1, 2022.

For similar reasons, the Commission cannot put aside adoption of 2024-2032 goals in favor of exploring alternative scenarios, as recommended by the Council, given our need to inform the CEC's load forecasting process.[13] Also, D.21-05-031 specifies that program administrators (other than the regional energy networks) must design their resource acquisition portfolios to achieve an *ex ante* TRC ratio of at least 1.0. Exploration of alternative scenarios such as those recommended by the Council would require us to drastically modify our guidance for the upcoming 2024-2027 portfolio applications, which we do not find prudent at this time.

In the interest of avoiding any further delays to implementation of 2022-2023 programs and preparation of 2024-2027 portfolio applications, this decision affirms D.21-05-031 with respect to 2022 and 2023 goals, portfolios and budgets, but directs the program administrators to use the 2021 Avoided Cost Calculator in developing their 2024-2027 applications.

3.2. Goals for 2022-2023 and 2024-2032

Consistent with our directions for how the program administrators should develop their portfolios and budgets, as described above in Section 3.1, this

[13] With respect to the Council's earlier recommendation for stakeholder engagement on site-based NMEC methods for Industrial and Agricultural process-specific projects, the January 7, 2020 ruling specifies that Energy Division staff will continue to engage stakeholders regarding NMEC programs.

decision sets 2022-2023 goals using a scenario based on the 2020 Avoided Cost Calculator, and 2024-2032 goals using a scenario based on the 2021 Avoided Cost Calculator.

We first note that all parties who agree with our proposed approach recommend the same scenario regardless of the time period for goal-setting, *e.g.,* Scenario 1 (based on the 2020 Avoided Cost Calculator) for 2022-2023 and Scenario 1 (based on the 2021 Avoided Cost Calculator) for 2024-2032, each asserting their recommended scenario best reflects the appropriate policy direction that the Commission should take in setting energy efficiency goals. We agree with this approach and select Scenario 2 as the scenario that best reflects the policy direction we intend to set for this goal-setting period (2022-2032). To be clear, 2022-2023 goals will be set using Scenario 2 based on the 2020 Avoided Cost Calculator, and 2024-2032 goals will be set using Scenario 2 based on the 2021 Avoided Cost Calculator.

Our selection of Scenario 2 reflects our intent for the program administrators to aggressively pursue all energy savings opportunities, particularly from fuel substitution measures that have thus far gone untapped, including those about which PG&E and SCE raise questions (primarily, heat pump water heating). In raising these questions, PG&E and SCE cite historical data that Guidehouse did not have available when it ran the study. Although we acknowledge the data provided by PG&E and SCE, we remain intent on sending a strong signal to all program administrators to pursue fuel substitution savings opportunities. Further, as mandated by California Public Utilities Code Sections 454.55 and 454.56, the Commission must update energy efficiency goals every two years, and we expect the Commission will have the benefit of more program

data to better estimate fuel substitution savings potential as part of the next potential study.

We also do not adjust the savings potential estimates for BRO programs/measures as recommended by Cal Advocates. First of all, we note that most BRO measures do pass the economic screen in 2022 and 2023 under Scenario 2, based on the 2020 Avoided Cost Calculator. Under Scenario 2 based on the 2021 Avoided Cost Calculator, a number of BRO measures do not pass the economic screen in 2024-2026, although they do pass the economic screen in 2027-2032. Second, noting that BRO programs do not involve equipment, and further that implementers are able to target programs (primarily Home Energy Reports) toward customers with higher savings opportunities, we expect that program administrators have a greater ability to achieve cost-effective savings from BRO programs than from equipment rebate programs. In light of this greater cost flexibility and the fact that the draft potential study estimates all BRO measures to be cost-effective in 2027-2032, it is reasonable to facilitate program continuity by maintaining BRO savings in the goals. We remain intent on having the program administrators develop their portfolios to achieve all potential savings opportunities that contribute to cost-effective portfolios.

We also agree with SDG&E that, in light of the portfolio segmentation provided by D.21-05-031, the program administrators should have sufficient flexibility to incorporate measures with a TRC below 1.0 into their resource acquisition portfolios, while still balancing these portfolios to achieve an overall TRC of 1.0 or greater.

Scenario 2 also best reflects our policy objective of setting realistically achievable goals, whereas Scenario 3 reflects unrealistic assumptions of the extent to which customers will adopt these measures.

3.2.1. COVID sensitivities

We agree with parties who suggested further research is needed to understand the impacts of the COVID-19 pandemic on energy efficiency potential; therefore this decision does not use the draft potential study's COVID sensitivities to set 2022-2032 goals.

3.2.2. Fuel substitution goals for 2022-2023

To account for fuel substitution potential in our goals, this decision determines to follow the approach outlined in D.19-08-009 for crediting energy savings. Specifically, we will add converted gas savings to electric savings goals (*i.e.*, converted from therms to kilowatt-hours) from fuel substitution measures that displace gas usage, and vice versa. SCE warns that the full amount of fuel substitution potential may not be achieved because some amount of "standard" energy efficiency measures has displaced that potential. The draft potential study, however, does not estimate savings potential from one measure at the total exclusion of another, competing, measure. If two measures compete against each other, the model may forecast both of them getting adopted, albeit at different levels. Further, we maintain that program administrators may achieve a greater amount of savings, from energy efficiency measures, than the amounts reflected in the goals we set. In setting one electric savings goal that reflects potential from both energy efficiency and fuel substitution, we afford flexibility in how the electric IOUs endeavor to achieve that goal. As NRDC and PG&E note, the issue of whether and how to account for fuel substitution is temporary, given that we will set goals based on total system benefit beginning with 2024-2034 goals. This conversion approach to attributing energy efficiency savings from fuel substitution measures, as specified in D.19-08-009, will apply only to 2022-2023 goals for this goal-setting period, and no longer thereafter.

3.2.3. 2022-2032 Energy Efficiency Goals

This decision adopts the following energy efficiency goals, which are based on Scenario 2 of the draft potential study; consistent with our discussion above in Section 3.2.2, the 2022 - 2023 goals reflect converted (therm to kilowatt-hour) savings from fuel substitution measures. Low-income goals through 2026 were set in the low income proceeding; for 2027-2032, low-income goals will be the results of the low-income savings reference scenario in the draft potential study.[14]

PG&E

Year	**Incentive Programs**			**Codes and Standards**		
	GWh	MW	MMTherms	GWh	MW	MMTherms
2022	553	75	13	979	178	21
2023	597	81	14	1,010	204	23
	Total System Benefit (TSB)					
2024	$162,606,129			1,023	205	23
2025	$176,747,992			970	196	23
2026	$196,644,524			909	185	14
2027	$225,827,308			819	169	14
2028	$250,914,835			771	161	13
2029	$281,615,913			630	141	12
2030	$311,440,972			569	133	12
2031	$331,975,917			553	125	11
2032	$357,988,192			538	118	11

[14] *Low Income Program Energy Efficiency Potential Study*, April 16, 2021, accessible at https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/energy-efficiency/2021-potential-goals-study/low-income-report.pdf?sc_lang=en&hash=E87140B4DA742DFEB0A1A90371FF8D1C

SCE

Year	**Incentive Programs**			**Codes and Standards**		
	GWh	MW	MMTherms	GWh	MW	MMTherms
2022	425	65	-	979	170	-
2023	461	69	-	1,010	192	-
	Total System Benefit (TSB)					
2024	$102,297,776			1,023	193	-
2025	$117,112,631			970	185	-
2026	$133,464,475			909	174	-
2027	$148,180,513			819	158	-
2028	$164,905,075			771	151	-
2029	$179,471,956			630	132	-
2030	$203,967,012			569	123	-
2031	$219,219,299			553	117	-
2032	$237,857,497			538	111	-

SDG&E

Year	**Incentive Programs**			**Codes and Standards**		
	GWh	MW	MMTherms	GWh	MW	MMTherms
2022	104	22	2	200	36	2
2023	111	23	2	207	41	2
	Total System Benefit (TSB)					
2024	$27,389,666			209	41	2
2025	$31,386,333			199	40	2
2026	$35,088,813			186	37	1
2027	$41,758,229			168	34	1
2028	$45,864,039			158	32	1
2029	$49,767,279			129	28	1
2030	$54,228,782			116	26	1
2031	$58,556,952			113	25	1
2032	$65,136,777			110	24	1

SoCalGas

Year	**Incentive Programs**			**Codes and Standards**		
	GWh	MW	MMTherms	GWh	MW	MMTherms
2022	-	-	19	-	-	24
2023	-	-	21	-	-	26
	Total System Benefit (TSB)					
2024	$94,305,917			-	-	26
2025	$105,511,595			-	-	25
2026	$115,302,575			-	-	16
2027	$131,937,530			-	-	16
2028	$141,969,329			-	-	15
2029	$153,846,185			-	-	13
2030	$168,151,490			-	-	13
2031	$179,411,291			-	-	13
2032	$188,296,981			-	-	12

The final potential study is included with this decision as Attachment 1.

4. Guidance for 2022-2023 budgets and 2024-2027 portfolio applications

In light of our approach to setting 2022-2032 goals and the timing of this decision, we must provide updated guidance to the IOUs and non-IOU program administrators for their upcoming 2022-2023 budget advice letters and for their portfolio applications, for budgets beginning in 2024.

For the 2022-2023 budget advice letters, the IOUs and non-IOU program administrators shall have until November 1, 2021, or 30 days after the issue date of this decision, whichever is later, to submit their advice letters. The IOUs and non-IOU program administrators must use the 2020 Avoided Cost Calculator for budget proposal and associated purposes.

For the portfolio applications, due on February 15, 2022, the IOUs and non-IOU program administrators must use the 2021 Avoided Cost Calculator for budget proposal and associated purposes.

5. Total System Benefit

In response to party comments requesting clarification of the definition of total system benefit, we agree with and adopt the definition suggested by Guidehouse during the May 13, 2021, workshop, and supported by PG&E in its comments to the April 23, 2021, ruling: "the sum of the benefit that a measure provides to the electric and natural gas systems." This definition accounts for increased supply costs as a reduction in benefits, in large part by omitting reference to "net benefits," and therefore avoids unnecessary conflation with separate (albeit related) concepts such as the net to gross ratio.[15]

We further provide clarification, as requested by PG&E, that additional avoided costs approved by the Commission in the context of updates to the Avoided Cost Calculator (*i.e.*, within scope of Rulemaking (R.) 14-10-003 or a successor proceeding), including refrigerant avoided costs and other avoided costs adopted in the future, should be included in calculations of the total system benefit metric. We also include interim values for avoided gas infrastructure costs, which Commission staff have previously approved for use in certain PG&E programs,[16] to encourage the program administrators to design their upcoming portfolio applications to achieve this benefit. Although SDG&E and SoCalGas recommend a different approach to developing these values, we anticipate the

[15] Potential revision of Commission policy regarding attribution of savings to ratepayer-funded programs was not within scope of the study, or of the issues for which the April 23, 2021, ruling sought comment.

[16] PG&E Advice Letters 4386-G/6094-E and 4387-G/6095-E.

Commission will adopt updated values for avoided gas infrastructure costs in R.14-10-003 or a successor proceeding; those values, once adopted, will supersede the interim values we adopt in this decision.

Commission staff has published, and will update as necessary, a technical guidance document that provides more specific guidance on actual calculation of the total system benefit metric.

6. Goal-setting and Updating for Non-IOU Program Administrators

In its comments to the April 23, 2021, ruling, MCE noted that the potential studies estimate savings potential according to IOU service territory and not according to the areas served by non-IOU program administrators; thus the goals we set, insofar as they are based on the potential studies, apply to IOU program administrators and not to non-IOU program administrators. Noting that non-IOU program administrators' goals are currently fixed at the levels reflected in their 2019 annual budget advice letters, MCE requested that the Commission afford flexibility for non-IOU program administrators to propose updated goals. MCE outlined a proposed process, which we find generally reasonable and adopt with certain modifications, as follows:

1. Non-IOU program administrators may propose to update their 2022-2023 portfolio goals via the budget advice letters, now due November 1, 2021, or 30 days after the issue date of this decision, whichever is later; Commission staff is authorized to modify these proposals.
2. Non-IOU program administrators may propose energy savings goals every four years through the portfolio application process;
3. Non-IOU program administrators may propose to revise their goals and savings forecast in the true-up or mid-cycle advice letters; any such proposal must specifically identify

the factor(s) impacting the proposed revision; Commission staff is authorized to modify these proposals.

7. Comments on Proposed Decision

The proposed decision of Administrative Law Judges Valerie U. Kao and Julie A. Fitch 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 of the Commission's Rules of Practice and Procedure. Comments were filed on _____, and reply comments were filed on _____ by _____.

8. Assignment of Proceeding

Genevieve Shiroma is the assigned Commissioner and Valerie U. Kao and Julie A. Fitch are the assigned administrative law judges in this proceeding.

Findings of Fact

1. D.21-05-031 instructs the energy efficiency program administrators to use the 2020 Avoided Cost Calculator for developing 2022-2023 budget advice letters and 2024-2027 portfolio applications.
2. The 2021 Avoided Cost Calculator reflects significantly lower electric avoided costs, and somewhat lower gas avoided costs, than the 2020 Avoided Cost Calculator, resulting in fewer measures passing the economic screen for inclusion in the portfolio of energy efficiency potential.
3. The timing of this decision may not enable Commission staff to dispose of the program administrators' 2022-2023 budget advice letters before January 1, 2022.
4. Scenario 2, which uses a TRC screen of 0.85 and assumes business-as-usual adoption, best reflects the Commission's intent for program administrators to aggressively pursue all energy savings opportunities.
5. Scenario 3 reflects unrealistic assumptions of customer adoption.

6. D.21-05-031 adopts a new metric, total system benefit, for setting goals beginning in 2024.

7. Defining total system benefit as "the sum of the benefit that a measure provides to the electric and natural gas systems" avoids unnecessary conflation with unrelated concepts.

8. The total system benefit metric shall include additional avoided costs approved by the Commission in Rulemaking 14-10-003 or a successor proceeding.

9. The economic screen used to estimate energy efficiency potential, and the total system benefit metric, are based in part on the Commission's Avoided Cost Calculator.

10. Commission staff approved avoided gas infrastructure costs for certain PG&E programs.

11. The non-IOU program administrators' goals are currently fixed at the levels reflected in their 2019 annual budget advice letters; the non-IOU program administrators currently do not have an established process for proposing updated goals.

Conclusions of Law

1. It is generally reasonable to adopt energy efficiency goals based on the most current adopted assumptions of electric and gas costs that will be avoided; however, the Commission should avoid further delays to implementation of 2022-2023 programs. Therefore, it is reasonable to adopt goals for 2022-2023 based on the 2020-adopted Avoided Cost Calculator, and goals for 2024-2032 based on the 2021-adopted Avoided Cost Calculator.

2. It is reasonable to adopt goals based on Scenario 2.

3. It is reasonable to determine that the conversion approach to attributing savings from fuel substitution measures, as specified in D.19-08-009, will apply only to 2022-2023 goals, and no longer thereafter.

4. It is reasonable to update Commission guidance for the 2022-2023 budget advice letters and the 2024-2027 portfolio applications, in accordance with the goals adopted in this decision.

5. It is reasonable to define total system benefit as: "the sum of the benefit that a measure provides to the electric and natural gas systems."

6. It is reasonable to clarify that the total system benefit metric includes additional avoided costs approved by the Commission in R.14-10-003 or a successor proceeding.

7. It is reasonable to include interim values for avoided gas infrastructure costs, as approved for certain PG&E programs, in the total system benefit metric to encourage the program administrators to pursue such savings opportunities in their 2024-2027 portfolio applications. These interim values should be superseded by avoided gas infrastructure cost values adopted in R.14-10-003 or a successor proceeding.

8. It is reasonable for the total system benefit metric to include interim values for avoided gas infrastructure costs, as approved for Pacific Gas and Electric Company's Advice Letters 4386-G/6094-E and 4387-G/6095-E, until the Commission adopts standardized values for avoided gas infrastructure costs in Rulemaking 14-10-003 or a successor proceeding.

9. It is reasonable to provide a process for non-IOU program administrators to propose updated goals.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company and Southern California Gas Company must apply the 2022-2032 energy efficiency goals as adopted and shown in Section 3.2.3 of this decision.

2. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company and Southern California Gas Company must apply the conversion approach to attributing energy efficiency savings from fuel substitution measures, as specified in Decision 19-08-009, only to 2022-2023 goals, and no longer thereafter.

3. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Marin Clean Energy, the Southern California Regional Energy Network, Bay Area Regional Energy Network and Tri-County Regional Energy Network must follow the updated guidance for the 2022-2023 budget advice letters and 2024-2027 portfolio applications as described in Section 4 of this decision.

4. Energy efficiency program administrators, including Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Marin Clean Energy, the Southern California Regional Energy Network, Bay Area Regional Energy Network, and Tri-County Regional Energy Network, must adhere to Commission staff's technical guidance regarding the definition and calculation of total system benefit.

5. Non-utility energy efficiency program administrators, including Marin Clean Energy, the Southern California Regional Energy Network, Bay Area

Regional Energy Network, and Tri-County Regional Energy Network, shall propose updated goals by following the process described in Section 6 of this decision.

6. Rulemaking 13-11-005 remains open.

   This order is effective today.

   Dated _____, at San Francisco, California.