STATE OF CALIFORNIA GAVIN NEWSOM, *Governor*

PUBLIC UTILITIES COMMISSION

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March 3, 2023

Agenda ID #21422
Ratesetting

TO PARTIES OF RECORD IN APPLICATION 22-02-005, *et al.*:

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 April 6, 2023 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 to the proceeding may file comments on the proposed decision as provided in Rule 14.3 of the Commission's Rules of Practice and Procedure (Rules).

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/ MICHELLE COOKE

Michelle Cooke
Acting Chief Administrative Law Judge

MLC:nd3
Attachment

Decision **PROPOSED DECISION OF ALJ KAO (Mailed 3/3/2023)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of Pacific Gas and Electric Company for Approval of 2024-2031 Energy Efficiency Business Plan and 2024-2027 Portfolio Plan (U39M).	Application 22-02-005
And Related Matters.	Application 22-03-003 Application 22-03-004 Application 22-03-005 Application 22-03-007 Application 22-03-008 Application 22-03-011 Application 22-03-012

DECISION ADDRESSING CODES AND STANDARDS SUBPROGRAMS AND BUDGETS AND STAFF PROPOSAL ON REDUCING RATEPAYER-FUNDED INCENTIVES FOR GAS ENERGY EFFICIENCY MEASURES

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DECISION ADDRESSING CODES AND STANDARDS SUBPROGRAMS AND BUDGETS AND STAFF PROPOSAL ON REDUCING RATEPAYER-FUNDED INCENTIVES FOR GAS ENERGY EFFICIENCY MEASURES

Summary

This decision addresses a staff proposal for reducing ratepayer-funded incentives for natural gas energy efficiency measures. This decision: (1) establishes a framework that defines and allows continued funding of "exempt measures" — measures that result in gas savings but do not burn gas; (2) establishes a means to determine whether a given measure is (or is not) cost-effective; and (3) provides for working groups to examine and recommend technical guidance for identifying a viable electric alternative (for a given gas measure) and further criteria for custom projects. Beginning in program year 2024, ratepayer-funded incentives will no longer be authorized for non-exempt, non-cost-effective gas measures for new construction projects with no existing gas line, and for new construction projects with an existing gas line if gas usage will materially increase. This policy will apply to residential and commercial projects in the resource acquisition and market support segments of energy efficiency program administrators' portfolios.

This decision also provides guidance for Codes and Standards subprograms and budgets.

This decision does not address program administrators' business plan/application proposals relating to phasing out natural gas incentives (though it does set a floor for all program administrators) or fuel substitution savings targets.

This proceeding remains open for consideration of energy efficiency portfolios and business plans beginning in 2024.

1. Background

On August 2, 2022, the assigned Administrative Law Judge (ALJ) issued a ruling (Ruling) providing notice and an opportunity to comment on an Energy Division staff proposal (Staff Proposal) recommending a phased transition to reducing ratepayer-funded incentives for natural gas energy efficiency measures.[1] The Ruling also invited comments on Codes and Standards sub-programs and budgets.

The Staff Proposal was, in part, responsive to the January 13, 2022 motion of Sierra Club in Rulemaking (R.) 13-11-005 to prohibit all non-cost-effective gas appliance incentives.[2] The Staff Proposal provides a framework to determine the circumstances under which ratepayer-funded gas energy efficiency incentives would no longer be authorized. The factors on which such determination would be made include:

- Measures that should be exempt from this policy — to achieve this, the Staff Proposal defines an exempt measure as one that results in gas savings but does not burn gas;
- Cost-effectiveness of gas measures;
- Viability of electric alternatives; and
- Proposed timelines for different programs (*e.g.*, new construction), sectors (*e.g.*, residential) and segments (resource acquisition, market support, and equity).

[1] *Administrative Law Judge's Ruling Inviting Comments on Staff Proposal for Gas Energy Efficiency Incentives and Codes and Standards Sub-programs and Budgets*, filed August 2, 2022, Attachment 1: Energy Efficiency Natural Gas Incentive Phase Out Staff Proposal.

[2] On September 16, 2020, Sierra Club and Natural Resources Defense Council (NRDC) jointly filed a motion (also in R.13-11-005) asking the Commission to terminate SoCalGas's Energy Efficient New Homes program and to sanction SoCalGas for alleged violations of Commission rules and policy, including that the Energy Efficient New Homes program fails to ensure above-code savings.

Vermont Energy Investment Corporation, Southern California Gas Company (SoCalGas), Southern California Regional Energy Network (SoCalREN), NRDC, San Diego Gas & Electric Company (SDG&E), Pacific Gas and Electric Company (PG&E), County of Ventura and Association of Bay Area Governments on behalf of Tri-County Regional Energy Network and Bay Area Regional Energy Network (jointly, 3C-REN and BayREN), California Efficiency + Demand Management Council (CEDMC), Marin Clean Energy, Sierra Club, Local Government Sustainable Energy Coalition (LGSEC), Small Business Utility Advocates (SBUA), Google LLC (Google), Southern California Edison Company (SCE), and the Public Advocates Office of the California Public Utilities Commission (Cal Advocates) timely filed comments on the Ruling.[3] The North American Association of Food Equipment Manufacturers submitted comments to the Public Comments portal of this proceeding. SDG&E, Redwood Coast Energy Authority on behalf of Rural Regional Energy Network, Bradford White Corporation, SBUA, SCE, CEDMC, SoCalREN, Sierra Club, NRDC, SoCalGas, East Los Angeles Community Union, and Maravilla Foundation timely filed reply comments.

We address parties' comments as they relate to the policies adopted by this decision in the following sections.

2. Framework for Reducing Ratepayer-Funded Incentives for Natural Gas Energy Efficiency Measures

The Staff Proposal recommends phasing out ratepayer-funded incentives for non-exempt gas efficiency measures with viable electric alternatives over

[3] On September 30, 2022, Cal Advocates filed a motion for leave to late-file its comments, which were timely served; the assigned administrative law judge granted the motion via e-mail ruling dated October 3, 2022.

approximately ten years, beginning in program year 2024. The Staff Proposal defines or establishes the criteria for determining whether a gas measure is exempt, whether a gas measure is cost-effective, and whether an electric alternative is viable. For new construction and retrofits, the proposed end state would eliminate ratepayer-funded incentives for all non-exempt gas measures with a viable electric alternative (*i.e.*, regardless of cost-effectiveness). For custom projects, incentives for gas savings would be progressively reduced while incentives for electric savings would be increased, by the same percentage, in four steps from 25 percent to 100 percent by 2032. Incentives for site-level normalized metered energy consumption programs would similarly be adjusted in two steps, from 50 percent in 2024 to 100 percent in 2026.

In general, several parties urged the Commission to move quickly to reduce incentives for gas efficiency measures to avoid a "lock-in" of long-lived, greenhouse gas (GHG)-emitting appliances, while others emphasized a need for the Commission to consider any new policies carefully in the context of the state's broader building decarbonization efforts, with their associated impacts on electric rates, gas rates and bill impacts for the remaining gas customers.

This decision aims to complement rather than dictate the long-term transition strategy developed in R.19-01-011 and other venues related to building decarbonization.[4] We are also mindful of avoiding unintended negative consequences, particularly the potential for negative bill impacts or for customers to install less efficient gas appliances in the absence of incentives for

[4] To be clear, any policy adopted in this decision affects only ratepayer-funded energy efficiency programs and is therefore much narrower in scope than the policy questions the Commission and other state agencies are addressing in R.19-01-011 and other venues related to building decarbonization.

the efficient gas options (rather than installing an electric alternative); both of these issues warrant further examination. With particular concern for the equity segment, [5] we are wary of removing incentives for efficient gas measures without first providing commensurate incentives or otherwise supporting measures that would make electric alternatives at least equally attractive. At the same time, the Commission's authority to eliminate ratepayer funding for cost-effective gas efficiency measures, or to redirect gas ratepayer funds toward incentivizing electric efficiency measures, requires further consideration. This decision therefore addresses and provides further guidance on the framework for reducing ratepayer funding for gas efficiency incentives. Because the Staff Proposal's recommended policy measures rely on how we define the term "viable electric alternative," we defer action on those recommendations, with one exception: as detailed in Section 2.4, this decision determines that ratepayer funds should be eliminated for new construction gas efficiency measures that are: (1) not exempt, with exempt measures being defined as those that result in gas savings but do not burn gas; and (2) not cost-effective as defined in this decision. Ratepayer funds that, pursuant to this decision, will no longer be authorized for gas efficiency measures should be redirected to incentivize and promote exempt measures, primarily if not exclusively in the energy efficiency portfolio equity segment.

This decision establishes a stakeholder process for development of a Viable Electric Alternative Technical Guidance Document (Technical Guidance

[5] Decision (D.) 21-05-031 directed the energy efficiency program administrators to segment their portfolios according to the primary program purpose, and identified a new equity segment that consists of programs with a primary purpose of providing energy efficiency to hard-to-reach or underserved customers and disadvantaged communities in advancement of the Commission's Environmental and Social Justice Action Plan. (*See* D.21-05-031 at 14-15.)

Document), which will be subject to Commission review and approval, to develop and implement the viable electric alternative definition, as well as to develop further criteria for custom projects. We also direct further examination of the bill impacts, infrastructure costs, and the customer decision-making issues, which will inform future decisions related to gas efficiency measures. It is our intent to eliminate ratepayer-funded incentives for non-exempt, non-cost-effective gas efficiency appliances with a viable electric alternative in the market support segment and in the commercial and residential sectors of the resource acquisition segment in most projects (*i.e.*, retrofits, custom and normalized metered energy consumption) if and when the Commission adopts the Technical Guidance Document.

Beyond these near-term directives and the stakeholder processes for viable electric alternative implementation and needed research, we will seek briefing on the specific question of the Commission's authority to eliminate ratepayer-funded incentives for cost-effective gas measures that have a viable electric alternative, and to redirect gas ratepayer funds toward incentivizing electric efficiency measures.

This decision sets a minimum requirement regarding incentives for gas energy efficiency measures, initially in the new construction market, that applies uniformly across all program administrators' portfolios.

2.1. Exempt Measures

2.1.1. Definition

The Staff Proposal recommends that certain measures be exempt and should continue to receive natural gas energy efficiency incentives. Such measures would be defined as those that result in gas savings but do not burn gas, and would include building insulation, sealing, smart thermostats, faucet aerators and building envelope measures such as windows and doors.

Sierra Club, Google, SCE, PG&E and NRDC support the Staff Proposal's recommended definition. Several parties — 3C-REN and BayREN, LGSEC, SBUA, SoCalGas, and SDG&E — recommend additions or alternative definitions. SoCalGas recommends further stakeholder engagement for the definition of "affected measures," with the understanding that exempt measures would include anything that does not meet the definition of affected measure. SoCalGas further recommends including measures that are offered to specific housing types, such as mobile homes, that may lack the physical space for electric alternatives of specific end uses. LGSEC recommends defining exempt measures as interventions where no technical potential currently exists to otherwise electrify, and further to specify income-based exemptions as instances, for income-qualified customers, in which the total cost of installing and operating an electric appliance is greater than or equal to the cost of a gas appliance. SBUA suggests that exempt measures be defined as any efficiency measure that will continue to save energy after the building has been electrified. Also, regarding the Staff Proposal's discussion of the current 20-year cap on effective useful life, SBUA recommends removing this cap to improve the cost-effectiveness results of longer-lived measures such as insulation.

This decision defines exempt measures as recommended in the Staff Proposal, and confirms that this definition includes behavioral measures (*i.e.*, measures that rely on changes in energy usage behavior to achieve energy savings, such as home energy reports) as well as energy efficiency audits, which are a prerequisite for building envelope measures such as insulation.

2.1.2. Guidance to Promote Exempt Measures

As ratepayer-funded incentives for gas efficiency measures will be reduced, these funds should be redirected to incentivize and promote exempt measures. A number of exempt measures currently exist in the California electronic Technical Reference Manual (eTRM) and are used in the investor-owned utilities' (IOU) portfolios; the eTRM is the online database and repository of all deemed energy efficiency measures available for ratepayer funded programs.[6] These measures have not previously been categorized differently than other energy efficiency measures, but are easily identifiable in that they save therms but do not burn gas.

As an initial step, this decision directs program administrators to submit measure packages, or required documentation, for efficient windows, doors and other building envelope measures, and to seek other exempt measures that do not yet have measure packages or that have measure packages that have been sunsetted, for submission in eTRM no later than January 1, 2024.[7] This requirement will apply regardless of cost-effectiveness; that is, program

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[6] The California eTRM is maintained by the California Technical Forum, which reviews and issues technical information related to California's integrated demand side management portfolio. Further information about the eTRM at: https://www.caltf.org/etrm-overview.

[7] Measure package is defined as:

> the energy efficiency measure documentation that is needed to make a deemed energy efficiency claim. This includes but is not limited to: a narrative which describes the baseline and energy efficient case features of the energy saving technology, describes the methodologies to estimate energy impacts and incremental measure costs, provides citations and links to references and other supporting documentation, provides unit savings calculations and values for all combinations of the technology specific parameters.

See Resolution (Res.) E-5152 at 7-8.

administrators must submit measure packages for exempt measures even if they have a Total Resource Cost (TRC) benefit to cost ratio less than 1.0.

Further, this decision directs program administrators to immediately begin examining the measure packages of all exempt measures in eTRM and, if supported by evidence, update those measure packages to extend the effective useful life for those measures to up to 30 years. Program administrators must complete updating all eligible exempt measures no later than January 1, 2024.

In D.09-05-037 the Commission denied a proposal by the large IOUs to allow the maximum effective useful lives of measures to increase to 30 years for 2009-2011, acknowledging the lack of empirical evidence to support their proposal for a blanket increase. Instead, D.09-05-037 directed Energy Division to conduct a study on increasing the maximum effective useful lives of measures.[8] Pursuant to this direction, the Commission conducted studies on the effective useful life of residential insulation and whole building measures, as discussed in the Staff Proposal. The residential insulation study estimated that the median effective useful life among all survey participants was 32 years.[9] This finding supports our determination to permit and direct program administrators to update the effective useful lives of exempt measures, if supported by evidence, up to 30 years. Exempt measures for which the effective useful life is updated up

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[8] Application 08-07-021, *et al.*, *Application of Southern California Edison Company (U338E) for Approval of its 2009-2011 Energy Efficiency Program Plans and Associated Public Goods Charge (PGC) and Procurement Funding Request; And Related Matters*: D.09-05-037 *Interim Decision Determining Policy and Counting Issues for 2009 to 2011 Energy Efficiency Programs*, issued May 26, 2009, Ordering Paragraph 5.

[9] EMV Group A, Deliverable 16 EUL Research — Residential Insulation Draft Report, June 29, 2021, Reference No. EUL2021-2 at 29. URL: https://pda.energydataweb.com/api/view/2518/CPUC%20Insulation%20EUL%20Draft%20Report%2006292021.pdf.

to 30 years are exempt from the measure package freeze effected by Res. E-5221 (Database for Energy-Efficiency Resources (DEER) updates for 2024-2025 measures).

Insulation and other building envelope measures, though they may be costly, typically minimize the amount of energy required to heat and cool buildings. Noting that both the REN portfolios and all program administrators' equity segments do not have a cost-effectiveness requirement, and that customers with the least resources and means likely face the greatest barriers to adopting these measures, this decision directs program administrators to target incentives for exempt measures to the equity segment. As part of their next portfolio applications, each program administrator must include a comprehensive strategy for promoting and deploying exempt measures in the equity segment, including targeted outreach and engagement and pilots to identify and develop solutions to key barriers, needed education and training/workforce readiness and technical assistance, *etc.* Program administrators should seek to leverage the various programs and incentives, including those other than energy efficiency, that provide support for exempt measures or other options for decarbonization.

2.2. Cost-Effectiveness

The Staff Proposal includes cost-effectiveness criteria at both the measure and program level, recommending that a measure with a TRC benefit to cost ratio less than 1.0 or a program with a TRC benefit to cost ratio less than 1.0 and in which 80 percent of the projected program energy savings come from gas appliance measures should be determined as not cost-effective. The TRC test measures the net costs of a demand-side management program as a resource option based on the total costs of the program, including both the participants' and the utility's costs.[10] The Staff Proposal specifies that our determination to reduce ratepayer funding for gas efficiency incentives would depend in part on whether a given measure is cost-effective.

Cal Advocates, Sierra Club, SCE, NRDC, SBUA, SDG&E and PG&E support the use of the TRC test as opposed to other metrics, namely Total System Benefit (TSB), which does not account for costs. SDG&E supports, in addition to the TRC test, use of the Participant test (*i.e.*, the costs and benefits of adopting a measure from the participant's perspective) while noting that the results are specific to a given customer. SDG&E further recommends including all costs needed for fuel substitution, including panel upgrade costs, which may be attributed proportionally if incurred for a purpose beyond fuel substitution. CEDMC supports use of the TRC test for measures but advocates for use of the TSB for custom projects, which may include load shifting strategies and efficiency upgrades with gas equipment.

SoCalGas asserts that the TRC is a poor indicator of customer motivations for adopting an energy efficiency measure because it does not consider participant costs. SoCalGas suggests that a more appropriate cost-effectiveness metric is one standardized by the amount of emissions abatement achieved (*i.e.*, dollars per unit of carbon dioxide abated). In reply comments, NRDC counters that the TRC does include customers' out-of-pocket costs through the incremental measure cost. NRDC also counters SoCalGas's claim that the Commission's cost-effectiveness tests do not include the value of reducing gas

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[10] The CPUC Standard Practice Manual contains the Commission's method of evaluating energy saving investments using various cost-effectiveness tests at: https://www.cpuc.ca.gov/-/media/cpuc-website/files/uploadedfiles/cpuc_public_website/content/utilities_and_industries/energy_-_electricity_and_natural_gas/cpuc-standard-practice-manual.pdf.

sector GHG emissions, noting that the Commission's Avoided Cost Calculator considers the cost of GHG abatement to meet California's climate goals.

PG&E more specifically recommends use of the "TRC Ratio No Admin" field in the Cost Effectiveness Tool, which excludes all program costs and calculates the TRC benefit to cost ratio based solely on incentives, net participant costs, increased supply costs, refrigerant costs, and measure benefits. In reply comments, SCE disagrees with PG&E's suggestion to exclude administrative costs because of differences across program administrators' administrative costs, suggesting instead to use an average or the lowest of program administrators' administrative costs.

Cal Advocates and NRDC do not support assessing cost-effectiveness at the program level. Cal Advocates notes that the proposed viable electric alternative criteria are at the measure level, and NRDC cautions that a program-level screen would unnecessarily introduce compliance loopholes by enabling non-cost-effective gas measures to still be included in programs. In reply comments, SBUA questions whether such a loophole actually exists, noting that the use of "or" in the Staff Proposal suggests non-cost-effective measures cannot be included in a larger program.

LGSEC suggests it is unreasonable to set a single threshold given the variety of building types and unquantified infrastructure costs. LGSEC focuses its concern on disadvantaged and vulnerable communities, recommending more broadly that measures be aligned with program indicators and metrics associated with market support and equity program portfolios.

SoCalGas and Google prefer maintaining the current approach of evaluating cost-effectiveness only at the portfolio level (for the resource acquisition segment). Google expresses concern that excluding non-cost-effective measures prevents the program administrators from piloting newer measures that still face barriers to adoption.

This decision, for purposes of whether to reduce gas efficiency incentives, applies the cost-effectiveness screen at the measure level, such that a gas efficiency measure will be deemed not cost-effective if its TRC benefit to cost ratio is less than 1.0.[11]

Measures in the eTRM have numerous permutations based on the various factors that can impact the assessment of cost-effectiveness, including IOU service territory and climate zone. Because of this, a single measure may have one TRC benefit to cost ratio in one location and a different TRC benefit to cost ratio in another location. For the purposes of the policy adopted in this decision, cost-effectiveness for natural gas new construction measures will be determined at the eTRM permutation level. To provide a greater level of certainty in program planning, we direct program administrators to use the Cost Effectiveness Tool to assess the TRC benefit to cost ratio for each permutation of non-exempt natural gas new construction measures with all available known costs within 60 days after the issue date of this decision. We acknowledge that this assessment may omit administrative and other costs.

The Commission has previously found reason to require a measure to be cost-effective on a standalone basis rather than only assessing the aggregated cost-effectiveness of the overall portfolio, as has generally been our practice since at least 2005. In D.05-04-051, the Commission determined that energy efficiency funds should not be used to encourage deployment of non-cost-effective solar water heating technologies by bundling them with cost-effective energy

[11] By definition, a TRC benefit to cost ratio of 1.0 means the benefits equal the costs and the measure is therefore cost-effective.

efficiency measures, to ensure ratepayer funds would not be authorized to fund non-cost-effective solar water heating installations.[12] Here we find it reasonable to require non-exempt gas efficiency measures to be cost-effective on a standalone basis to be eligible for funding because gas efficiency measures that burn gas should at minimum result in net benefits to ratepayers. We find that a separate program-level screen is not necessary and potentially complicates determination of applicability of a policy for reducing gas efficiency incentives.

D.19-05-019 identifies the TRC test as the Commission's primary cost-effectiveness test and requires its use for all cost-effectiveness analyses. Further, this decision agrees with most parties that the TRC is most appropriate for measuring cost-effectiveness as opposed to other recommended alternative metrics. As NRDC correctly notes, the TRC does include incremental measure costs incurred by participants.

In response to Google's expressed concern, we confirm that this decision applies only to non-exempt gas efficiency measures; that is, program administrators will retain flexibility to include non-cost-effective measures in their portfolios, provided that their resource acquisition segment meets the Commission's cost-effectiveness threshold, and provided that none of those non-cost-effective measures burn gas.

2.3. Viable Electric Alternatives

The Staff Proposal includes a set of criteria by which to determine whether ratepayer-funded incentives would no longer be authorized for a given (non-exempt, non-cost-effective) measure, principally by considering whether a viable electric alternative, as defined, exists for a given measure. Therefore,

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[12] D.05-04-051 at 6 and Finding of Fact 13.

according to the Staff Proposal's policy recommendations, the extent of the impact of any policy restricting gas efficiency incentives hinges largely on how we define "viable electric alternative." The Staff Proposal's criteria are summarized as:

- Whether there is an electric alternative to the gas measure that has the same end use in any eTRM measure package;
- Whether the measure package for the electric alternative is substituting either from a natural gas baseline or from a mixed-fuel baseline; and
- Whether the sum of the labor and materials costs for the electric alternative is no more than 116 percent greater than the sum of the labor and materials costs for the baseline gas measure.

Many parties assert additional criteria must factor into the consideration of whether an electric alternative is viable. Chief among these is the bill impact of increased electric usage that would result from replacing the gas measure with an electric alternative, which the Staff Proposal acknowledges can vary from customer to customer. Some parties argue a fuller lifecycle cost comparison is needed to determine whether an electric alternative is viable. And parties are split on whether to account for infrastructure costs (including panel upgrades and associated wiring), with those opposing arguing that only a small percentage of such conversions will require infrastructure costs, and/or that these costs are unavoidable because the state is already committed to electrification.

PG&E recommends a stakeholder working group to consider whether the proposed 116 percent threshold should be applied uniformly across all sectors, noting that the wide variability in costs could mean that combined total project costs involving a viable electric alternative, as defined, are still prohibitively costly. SDG&E also raises concern with the 116 percent threshold, asserting it does not appear to consider customers' willingness to accept that amount of a higher cost for the electric alternative. 3C-REN and BayREN express particular concern over whether an adequate and appropriately trained workforce will be available to accommodate the anticipated increase in electrification projects, and suggest adding this as a fourth "prong" or criterion to the viable electric alternative test.

This decision agrees that a more thorough consideration of the viability of an electric alternative, particularly from the customer's perspective, is warranted, including specifically the bill impacts of substituting the electric alternative for the efficient gas option. This decision modifies the Staff Proposal's third criterion to address whether customers' benefits of electrification are greater than their costs. Potential customer benefits of electrification include:

- Gas bill decreases: the difference between electrification and an energy-efficient gas baseline, *i.e.*, improved gas efficiency that would have occurred in the absence of electrification;
- All incentives and rebates for electric equipment, including from energy efficiency, SGIP, BUILD, TECH and programs administered/overseen by other agencies;
- All tax credits, including federally-funded electrification support from the Inflation Reduction Act and other federal funding, as well as any available California tax credit; and
- The cost of gas equipment (including installation, operations and maintenance, *etc.*) that would have been incurred had the efficient gas measure been installed rather than the electric alternative.

Potential customer costs of electrification include:

- Electric bill increases: the difference between post-electrification electric bills and the customer's existing electric baseline; these calculations will be based on the

CPUC fuel substitution bill impact tool that is currently under development and planned for completion in 2023;

- Electric equipment costs, including installation, operations and maintenance, *etc.*; and
- Costs of building or electric infrastructure upgrades needed for electrification; these costs should be proportional to the generalized percentage of building electric load that is required for any particular measure.

With respect to electric infrastructure upgrades, we anticipate an upcoming fuel substitution infrastructure cost market study that will help develop the data needed to estimate a value for the generalized percentage of building electric load that is required for a particular measure.[13] This market study will include an assessment of the infrastructure upgrade data that has been collected as part of the TECH program. Additionally, all downstream fuel substitution programs are currently required to collect data on the infrastructure upgrade costs of participants. The first IOU downstream fuel substitution programs will begin in 2023; data from these programs will help estimate infrastructure upgrade costs associated with electrification.[14]

Further details for implementation of any new policy based on the viable electric alternative concept require development. Section 2.6 of this decision describes the process the Commission will utilize for this further development, including a Technical Guidance Document that will specify how to determine whether a given gas measure has a viable electric alternative.

[13] The fuel substitution infrastructure cost market study will be conducted under Task 6 of the CPUC's current Group E contract. The scope of work for this study has not yet been finalized.

[14] *See* CEDARS quarterly claims data at: https://cedars.sound-data.com/upload/dashboard/list/. To see fuel substitution claims, filter "measure impact type" to show values with fuel substitution.

2.4. Policy for New Construction Projects

The Staff Proposal recommends, beginning in program year 2024, eliminating ratepayer-funded incentives for all new construction non-exempt, non-cost-effective gas appliances with viable electric alternatives; and in program year 2028, eliminating incentives for all non-exempt gas measures with viable electric alternatives. These changes would take effect in all segments (*i.e.*, resource acquisition, market support and equity) and all sectors (*i.e.*, residential, commercial, industrial and agricultural).

Sierra Club supports eliminating incentives for all gas-burning appliances as soon as possible, to align with state and Commission building decarbonization policy. Similarly, Cal Advocates recommends immediately eliminating incentives for all non-exempt gas measures with a viable electric alternative, beginning in program year 2024. NRDC and SBUA urge a phase-out of non-cost-effective measures beginning in program year 2023.

PG&E and SDG&E agree with the proposed steps in the Staff Proposal; SDG&E disagrees with parties recommending to accelerate the timeline. SoCalGas asserts more analysis is needed to determine whether the proposed policies will result in gas emissions savings.

This decision generally agrees with Cal Advocates and Sierra Club that adopting a more immediate phase-out of gas efficiency incentives, in new construction, is consistent with the state and Commission's building decarbonization policy to avoid "locking in" long-lived gas assets. As mentioned by several parties, the Commission in D.22-09-026 eliminated subsidies for gas line extensions to "move the state closer to meeting its goals of reducing greenhouse gas (GHG) emissions and combating climate change."[15] Removing incentives for gas efficiency measures is consistent with eliminating subsidies for gas line extensions, as well as with the increased focus on electric readiness detailed in the 2022 Building Energy Efficiency Standards (or Energy Code, as described in the Staff Proposal).

Departing from the Staff Proposal's recommendation in one important aspect, we choose not to condition our new construction policy on whether a viable electric alternative exists for a given gas measure. The imperative of avoiding a costly "lock-in" of long-lived gas assets warrants a more aggressive approach. Therefore, this decision eliminates ratepayer-funded incentives for any non-exempt, non-cost-effective gas measure for new construction programs, beginning in program year 2024. This policy applies to both the residential and commercial sectors in the resource acquisition and market support segments.

We make one notable exception to the new construction program prohibition, however. The California Energy Commission (CEC) classifies many existing building retrofits as new construction, which means some buildings to which our new construction policy would apply have an existing gas line. Many of these retrofits — for example some residential retrofits following major wildfire damage — will not result in a substantial increase in gas consumption. It is reasonable to treat these situations in the same manner as other retrofits and not as "new construction" for the purposes of this policy.

If a project involves a "greenfield" construction (*i.e.*, no existing gas infrastructure) or the project will result in a substantial increase in gas

[15] D.22-09-026 at 2.

consumption (regardless of whether the site has an existing gas line), the new construction policy will apply.

If a project involves existing gas infrastructure and will result in a substantial increase in gas consumption, it will be subject to this new construction policy. For purposes of determining whether an increase is substantial, this decision relies on the current specification of a substantial change in design occupancy, which is a change of 30 percent (or more) as currently reflected in Res. E-4818.[16]

2.5. Third-Party Programs

The Staff Proposal recommends that existing contracts that fund gas measures or programs not receiving incentives as a result of the Staff Proposal (if adopted) would be allowed to complete their current contract period but would not be renewed. Therefore, contracts that support non-cost-effective gas measures with a viable electric alternative in any portfolio segment would not be extended beyond program year 2027.

Cal Advocates recommends requiring both existing and new contracts to conform to any new policy regarding gas efficiency incentives, noting that standard contract language provides that utilities may modify a contract to maintain consistency with a Commission order. Cal Advocates also recommends that all contracts executed within six months after this decision must conform to its directives.

The Commission agrees that it is reasonable to require third-party programs to conform with this decision's directives on the same timeline as all other programs, given that standard contract language permits the utilities to

[16] Res. E-4818 *Measure level baseline assignment and preponderance of evidence guidance to establish eligibility for an accelerated replacement baseline treatment*, issued March 3, 2017.

modify a contract to maintain consistency with a Commission order and that no changes will take effect until, at the earliest, program year 2024.[17] All existing and new contracts must comply with the policies adopted by this decision by the time each policy takes effect.

2.6. Process to Develop Technical Guidance for Identifying Viable Electric Alternatives

2.6.1. Viable Electric Alternative Technical Guidance

This decision authorizes Commission staff to convene a workshop(s) and/or working group(s) to develop the Technical Guidance Document for implementing the viable electric alternative definition we adopt here. The Technical Guidance Document should address, at minimum:

- How to allocate costs of behind the meter electric infrastructure upgrades needed for electrification;
- How to use the customer bill impact calculator involved in the third viable electric alternative criterion;
- The best test for comparing the benefit to cost ratio for customers between the gas measure and its potential viable electric alternative;
- Development and maintenance of a list of measures no longer eligible for ratepayer-funded incentives; and
- The process for making updates or changes to measure packages and eTRM as needed, including what existing measures are viable electric alternatives, and removing measures that are no longer eligible for ratepayer-funded incentives.

The Commission plans for specific working groups and research projects to inform the development of the Technical Guidance Document, some of which

[17] *See* D.18-10-008 at 40 and Attachment A (Standard Contract Terms and Conditions).

are already underway. Under the current Group E Energy Efficiency Potential and Goals contract (Group E contract), Commission staff have begun a market study to examine the infrastructure costs related to fuel substitution on the customer side of the meter. The Commission anticipates the outcomes of this market study to be used by a stakeholder working group to determine how to assess the fractional attribution of these infrastructure costs between fuel substitution equipment and other equipment that may be installed with those upgrades (*i.e.*, electric vehicle charging or photovoltaic solar). The current Group E contract is also funding a fuel substitution bill impact calculator. A stakeholder working group is planned to recommend a process for determining which current and future measures in eTRM will be considered viable electric alternatives.

Commission staff will also convene working group(s) to determine how energy efficiency incentive policy will evolve in relation to custom projects, although we do not plan to have the Technical Guidance Document cover these details. For guidance specific to custom projects, Commission staff may convene a separate workshop(s) or working group. The workshop(s) and/or working group should first identify any additional criteria (*e.g.*, performance, effective useful life, load capacity of site) that should be included for non-deemed typical equipment (*e.g.*, large boilers). The workshop(s) and/or working group should then determine additional criteria that should be included for custom process measures (*e.g.*, for cooking cement at a cement factory). For each of these objectives, the workshop(s) and/or working group should also determine how SoCalGas will approach custom projects involving viable electric alternatives, given that SoCalGas has not historically partnered with an electric utility for custom projects. Commission staff will prepare a white paper to guide the group, set target milestones and associated dates/timeframes, and guide the group's development of recommendations for Commission review and disposition. The draft Technical Guidance Document will be issued via ruling in this proceeding or a related or subsequent proceeding for stakeholder comment and Commission disposition.

2.6.2. Studies to Inform Building Decarbonization and Fuel Substitution Policy

To inform the development of future policies in this area that will build on the Technical Guidance Document and overall building decarbonization policy, this decision directs further studies on infrastructure costs and the impact of incentives on customer fuel substitution. As noted in Section 2.3 of this decision, data is currently lacking on infrastructure costs needed for electrification. As noted in Section 2.6.1, a market study for market rate customers fuel substitution infrastructure costs is planned for 2023 and is funded as part of the existing Group E contract. This decision directs the IOUs to fund a separate study on fuel substitution infrastructure costs for low-income customers. The impact of incentives on customer fuel substitution is also still largely undetermined; this decision directs the IOUs to fund a market study for market rate customers and for low-income customers. For each of the three studies ordered by this decision (fuel substitution infrastructure costs for low-income customers, market rate customer fuel substitution market study, and low-income customer fuel substitution market study), the IOUs are authorized to expend up to $200,000, and are directed to publish and serve a draft no later than December 31, 2023, and a final report no later than March 1, 2024. The IOUs shall seek public comment by posting the draft report to the Public Document Area (https://pda.energydataweb.com) and follow the same process for evaluation studies before finalizing.

3. Codes and Standards Sub-programs and Budgets

The Ruling invited comments on the scope of Codes and Standards advocacy programs, and related budget considerations for other Codes and Standards sub-programs.

3.1. Scope of Codes and Standards Advocacy Programs

Most parties addressing Codes and Standards generally support expanding the scope of the Codes and Standards advocacy programs to support transportation electrification and building decarbonization. Sierra Club notes that PG&E's approved 2018-2025 business plan already includes electric vehicle charging as part of building code advocacy. Similarly, SDG&E and PG&E state that the scope of Codes and Standards programs already includes transportation electrification and building decarbonization, among other state policy objectives. SDG&E refers to both the 2022-2023 Biannual Budget Advice Letter and IOU 2024-2027 business plan applications, as well as Public Resources (Pub. Res.) Code Section 25402.7, which requires electric and gas utilities to provide support for the CEC's development of building and appliance standards and other regulations.[18] SCE defers to PG&E as the statewide lead for Codes and Standards

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[18] Pub. Res. Code Section 25402.7:

> (a) In consultation with the commission, electric and gas utilities shall provide support for building standards and other regulations pursuant to Section 25402 and subdivision (b) of Section 25553 including appropriate research, development, and training to implement those standards and other regulations.

Advocacy. 3C-REN and BayREN suggest that expanding the scope of the IOUs' advocacy programs could benefit ratepayers by decreasing energy use and costs. LGSEC emphasizes that reach codes and building performance standards proposed by RENs have been used by jurisdictions to accelerate clean energy goals, and supports approval of energy efficiency business plans that support these efforts as well as increased investment in programs that streamline permitting requirements associated with electrification. SoCalGas is the only party to suggest that Codes and Standards Advocacy programs should not expand their scope, unless supplemented by additional funding from outside the energy efficiency budgets. SoCalGas acknowledges that it is prohibited from using ratepayer funds for Codes and Standards programs other than to transfer funds to the statewide lead.

This decision confirms, consistent with Pub. Res. Code Section 25402.7, that the IOUs' Codes and Standards advocacy programs must support the CEC's development of building and appliance standards and other regulations. Because the CEC's building and appliance standards and other regulations address transportation electrification and building decarbonization, the IOUs' Codes and Standards Advocacy programs must support these broader clean energy goals.

3.2. Non-Advocacy Sub-Programs and Budgets

The Ruling noted that budgets for the non-advocacy Codes and Standards sub-programs — which currently consist of Planning and Coordination, Compliance Enhancement, Code Readiness and Reach Codes — have increased in recent years while the advocacy portion has remained more consistent. The

(b) The electric and gas utilities shall provide support pursuant to subdivision (a) only to the extent that funds are made available to the utilities for that purpose.

Ruling invited comments on whether to limit these budgets to a set percentage of portfolio budgets, or if increases in non-advocacy budgets should somehow be tied to increases in advocacy budgets.

Most parties addressing this question advocate for budget flexibility and therefore do not support limiting non-advocacy sub-program budgets. These parties assert that non-advocacy subprograms are distinct from advocacy, although PG&E acknowledges a complementary relationship wherein the non-advocacy subprograms support certain advocacy efforts.

The Commission acknowledges parties' calls for flexibility but also finds reason to link non-advocacy subprogram budgets to advocacy budgets for IOU Codes and Standards budgets, to ensure some connection between any increased spending on non-advocacy programs and spending on advocacy. This decision sets an upper limit of 70 percent of the IOUs' total Codes and Standards budgets that may be directed to non-advocacy Codes and Standards subprograms. This limit does not apply to non-IOU program administrators' Codes and Standards budgets. In this way, the IOUs will maintain some flexibility over their Codes and Standards budgets while ensuring that non-advocacy budgets remain within certain bounds relative to their advocacy budgets.

4. Summary of Public Comment

Rule 1.18 of the Commission's Rules of Practice and Procedure (Rules) allows any member of the public to submit written comment in any Commission proceeding using the "Public Comment" tab of the online Docket Card for that proceeding on the Commission's website. Rule 1.18(b) requires that relevant written comment submitted in a proceeding be summarized in the final decision issued in that proceeding. The Commission received written comments relevant to the Staff Proposal from Charlie Souhrada, on behalf of North American

Association of Food Equipment Manufacturers (NAFEM), which state that NAFEM strongly disagrees with the Staff Proposal as it will place a significant burden on the commercial foodservice industry. The comments state NAFEM looks forward to engaging with the Commission on this issue to develop a plan that achieves the overarching goals without limiting consumer choice and without risking putting foodservice owners/operators out of business.

5. 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 ________________.

6. Assignment of Proceeding

Genevieve Shiroma is the assigned Commissioner, and Julie A. Fitch and Valerie Kao are the assigned ALJs in this proceeding.

Findings of Fact

1. Certain gas energy efficiency measures result in gas savings but do not burn gas; such measures include building insulation, sealing, smart thermostats, faucet aerators, building envelope measures such as windows and doors, behavioral measures, and energy efficiency audits.

2. Insulation and other building envelope measures minimize the amount of energy required to heat and cool buildings.

3. Customers with the least resources and means face the greatest barriers to adopting costly insulation and other building envelope measures.

4. D.19-05-019 identifies the TRC test as the Commission's primary cost-effectiveness test and requires its use for all cost-effectiveness analyses.

5. Certain electric measures may provide the same function as certain gas energy efficiency measures. The degree to which an electric measure is viable to displace a gas measure depends on its availability and on customers' net benefits from such displacement.
6. D.22-09-026 eliminated subsidies for gas line extensions.
7. Removing incentives for gas efficiency measures in new construction is consistent with eliminating subsidies for gas line extensions and with the increased focus on electrification readiness in the 2022 Energy Code.
8. The CEC classifies many existing building retrofits as new construction, including projects that do not result in a substantial increase in gas consumption.
9. Res. E-4818 defines a substantial change in design occupancy as a change of 30 percent (or more) as part of determining whether to apply a code baseline.
10. Standard energy efficiency contract language provides that utilities may modify a contract to maintain consistency with a Commission order.
11. Bill impacts from fuel substitution and customer decision making in response to reduced incentives for gas efficiency measures warrant further examination.
12. Implementation of the viable electric alternative concept for custom projects warrants development of further criteria.
13. The CEC's building and appliance standards and other regulations address broader clean energy goals, including transportation electrification and building decarbonization.
14. Non-advocacy Codes and Standards subprograms, while distinct from Codes and Standards advocacy, support certain advocacy efforts.

Conclusions of Law

1. For the purpose of determining whether to eliminate ratepayer funds for gas energy efficiency measures, it is reasonable to define an exempt measure as a measure that results in gas savings but does not burn gas. Exempt measures include building insulation, sealing, smart thermostats, faucet aerators, building envelope measures such as windows and doors, behavioral measures and energy efficiency audits.

2. It is reasonable to direct program administrators to submit measure packages for exempt measures and to update the effective useful lives of exempt measures, if supported by evidence, to up to 30 years by January 1, 2024. It is reasonable to exempt these updates from the measure package freeze effected by Res. E-5221 (DEER updates for 2024-2025 measures).

3. It is reasonable to direct program administrators to include a comprehensive strategy for promoting and deploying exempt measures in the equity segment in their 2028 portfolio applications.

4. For the purpose of determining whether to eliminate ratepayer funds for gas energy efficiency measures, it is reasonable to define cost-effective as any measure with a TRC benefit to cost ratio of 1.0 or higher; thus, any measure with a TRC benefit to cost ratio less than 1.0 is not cost-effective.

5. For the purposes of the policy adopted in this decision, it is reasonable to determine cost-effectiveness for natural gas new construction measures at the eTRM permutation level.

6. For the purpose of determining whether to eliminate ratepayer funds for gas energy efficiency measures, it is reasonable to define viable electric alternative as described in Section 2.3 of this decision, and to provide for

Commission staff to convene a research and stakeholder process to develop technical guidance for implementing this definition.

7. For the purpose of determining whether to eliminate ratepayer funds for gas energy efficiency measures, it is reasonable to treat existing building retrofits that will not result in a substantial increase in gas consumption, which the CEC may classify as new construction, consistent with our policy for retrofits.

8. For the purpose of determining whether an increase in gas consumption is substantial, it is reasonable to specify an increase of 30 percent (or more) for consistency with Res. E-4818.

9. It is reasonable to authorize Commission staff to develop technical guidance for implementing the definition of viable electric alternative adopted by this decision, and to develop further criteria to apply to custom projects.

10. It is reasonable to eliminate ratepayer funding for gas energy efficiency measures that are not exempt and not cost-effective in residential and commercial new construction projects in the resource acquisition and market support segments, beginning in program year 2024.

11. It is reasonable to require third-party programs to conform with this decision's directives on the same timeline as all other programs.

12. Pub. Res. Code Section 25402.7 requires electric and gas utilities to provide support for the CEC's building standards and other regulations. Because the CEC's building standards and other regulations address transportation electrification and building decarbonization, the IOUs' Codes and Standards Advocacy programs must support these broader clean energy goals.

13. It is reasonable to link non-advocacy Codes and Standards subprogram budgets to advocacy budgets.

O R D E R

IT IS ORDERED that:

1. Energy Division staff is authorized to convene a research and stakeholder process to develop a Viable Electric Alternative Technical Guidance Document (Technical Guidance Document) as detailed in Section 2 of this decision. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Bay Area Regional Energy Network, Southern California Regional Energy Network, Tri-County Regional Energy Network, Inland Regional Energy Network, and Marin Clean Energy must participate in this process to help develop the Technical Guidance Document.

2. Within 60 days after the issue date of this decision, the program administrator lead for each non-exempt natural gas new construction measure, whether it is Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Bay Area Regional Energy Network, Southern California Regional Energy Network, Tri-County Regional Energy Network, Inland Regional Energy Network, or Marin Clean Energy, must file a document that identifies the Total Resource Cost benefit to cost ratio (based on the Cost Effectiveness Tool) for each permutation of non-exempt natural gas new construction measures with all available known costs.

3. Beginning January 1, 2024, ratepayer-funded incentives are eliminated for gas energy efficiency measures that: (1) do not meet the definition of exempt, as specified in this decision; and (2) do not meet the definition of cost-effective, as specified in this decision. This policy applies to the resource acquisition and market support segments of all energy efficiency portfolios for:

- Residential and commercial new construction with no existing gas line; and
- Residential and commercial new construction with an existing gas line, if gas usage will materially increase.

Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Bay Area Regional Energy Network, Southern California Regional Energy Network, Tri-County Regional Energy Network, Inland Regional Energy Network, and Marin Clean Energy must modify their programs and third-party contracts to comply with this policy no later than October 1, 2023.

4. By no later than January 1, 2024, the lead program administrator for the technology type, whether that be Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Bay Area Regional Energy Network, Southern California Regional Energy Network, Tri-County Regional Energy Network, Inland Regional Energy Network, or Marin Clean Energy, must submit measure packages for efficient windows, doors and other building envelope measures, and seek other exempt measures that do not yet have measure packages or that have measure packages that have been sunsetted, for submission in the California electronic Technical Reference Manual.

5. By no later than January 1, 2024, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Bay Area Regional Energy Network, Southern California Regional Energy Network, Tri-County Regional Energy Network, Inland Regional Energy Network, and Marin Clean Energy must complete updating all eligible exempt measures, if supported by evidence, to extend the effective useful life of those measures up to 30 years, as detailed in

this decision. This update is to be done by the program administrator that is the lead for the measure package.

6. As part of the 2028 energy efficiency applications that will be filed on or before April 1, 2026, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, Southern California Gas Company, Bay Area Regional Energy Network, Southern California Regional Energy Network, Tri-County Regional Energy Network, Inland Regional Energy Network, and Marin Clean Energy must include a comprehensive strategy for promoting and deploying exempt measures in the equity segment, including targeted outreach and engagement and pilots to identify and develop solutions for key barriers, needed education and training/workforce readiness and technical assistance, and other relevant elements.

7. Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company (together, the investor-owned utilities or IOUs) must fund market studies on: (a) infrastructure costs needed for electrification for low-income customers; (b) the impact of incentives on customer fuel substitution for market rate customers; and (c) the impact of incentives on customer fuel substitution for low-income customers. For each of these three studies, the IOUs must publish and serve a draft by no later than December 31, 2023, and a final report by no later than March 1, 2024. The IOUs shall seek public comment by posting the draft report to the Public Document Area (https://pda.energydataweb.com) and follow the same process for evaluation studies before finalizing. The IOUs may recover up to $200,000 for the cost to produce each of these three studies.

8. Beginning on January 1, 2024, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and

Southern California Gas Company's non-advocacy Codes and Standards subprogram budgets may not exceed 70 percent of their total Codes and Standards budgets.

This order is effective today.

Dated ________________________, at San Francisco, California.