



STATE OF CALIFORNIA

GAVIN NEWSOM, Governor

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

FILED

10/31/25

03:44 PM

R2008022

October 31, 2025

Agenda ID #23838
Ratesetting

TO PARTIES OF RECORD IN RULEMAKING 20-08-022:

This is the proposed decision of Administrative Law Judge Garrett Toy. 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 December 4, 2025, 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/ MICHELLE COOKE

Michelle Cooke

Chief Administrative Law Judge

MLC: smt

Attachment

Decision **PROPOSED DECISION OF ALJ TOY** (Mailed 10/31/2025)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to
Investigate and Design Clean Energy
Financing Options for Electricity and
Natural Gas Customers.

Rulemaking 20-08-022

DECISION ON TARIFF ON-BILL PILOT PROPOSALS

TABLE OF CONTENTS

Title	Page
DECISION ON TARIFF ON-BILL PILOT PROPOSALS	2
Summary	2
1. Background	2
2. TOB Proposals.....	7
3. Overarching TOB Proposal Characteristics.....	11
3.1. Customer Protections.....	12
3.2. Pilot Entities	15
3.2.1. Program Sponsor.....	16
3.2.2. Program Implementer	16
3.2.3. Utility	16
3.2.4. Installation Contractors.....	16
3.2.5. Customers	17
3.3. Model Project Initiation Process.....	17
3.4. Eligible Technologies	18
3.5. Information Systems Requirements	18
3.6. Measurement & Verification.....	19
3.7. Utility Tariffs and Customer Agreements	19
3.8. Accessibility, Funding, and Incentives	20
3.9. Reporting and Metrics	22
3.10. General Concerns	22
3.11. Requested Action	23
4. Individual TOB Proposals.....	24
4.1. PG&E.....	24
4.2. SCE.....	24
4.2.1. Customer Eligibility.....	25
4.2.2. Project Eligibility	25
4.2.3. Marketing and Outreach.....	26
4.2.4. Measurement and Verification.....	26
4.2.5. Differences from Joint TOB Proposal.....	27
4.2.6. Implementation	27
4.2.7. Budget.....	27
4.3. SoCalGas	29
4.3.1. Customer Eligibility.....	29
4.3.2. Project Eligibility	30
4.3.3. Customer Provisions	31
4.3.4. Differences from Joint TOB Proposal.....	32

4.3.5.	Implementation	32
4.3.6.	Metrics/KPIs/Reporting	33
4.3.7.	Budget and Cost Recovery	33
4.4.	SDG&E	35
4.4.1.	Customer Eligibility	35
4.4.2.	Project Eligibility	36
4.4.3.	Customer Concerns	36
4.4.4.	Implementation	37
4.4.5.	Metrics/KPIs/Reporting	38
4.4.6.	Budget and Cost Recovery	38
4.5.	SVCE.....	40
5.	Dunsky Report.....	41
5.1.	Dunsky Report Scoring Analysis	41
5.2.	Discussion and Scoring of Joint TOB Proposal.....	42
5.2.1.	Equity	42
5.2.2.	Consumer Protections	43
5.2.3.	Non-Payment Recourse	43
5.2.4.	Capital Sourcing.....	44
5.2.5.	Cost-Effectiveness	44
5.2.6.	Implementability	44
5.2.7.	Inclusion of Key Technology Types	45
5.2.8.	Transferability	45
5.2.9.	Pilot KPIs	46
5.3.	Dunsky Report Recommendations.....	46
5.3.1.	General Recommendations.....	46
5.3.2.	Specific Recommendations.....	47
6.	Party Comments	48
6.1.	Cal Advocates	48
6.2.	Greenlining and Green for All.....	50
6.3.	Joint Consumer Advocates	51
6.4.	SoCalREN	52
6.5.	SBUA	53
6.6.	VEIC	53
6.7.	Rewiring America	55
6.8.	SVCE.....	56
6.9.	SDG&E	57
6.10.	PG&E	58
6.11.	SoCalGas.....	59
6.12.	SCE	60

7.	Consideration and Analysis of Proposals.....	62
7.1.	Joint TOB Proposal and Shared Comments	62
7.2.	PG&E	65
7.3.	SDG&E	66
7.4.	SoCalGas	66
7.5.	SVCE.....	67
7.6.	SCE.....	68
8.	Approved Modified SCE Pilot	69
8.1.	Bill Neutrality.....	70
8.2.	Use of Billing History for Qualification	70
8.3.	Customer Eligibility	71
8.4.	Project Eligibility	73
8.5.	Marketing and Outreach	75
8.6.	M&V	76
8.7.	KPIs.....	78
8.8.	Differences from Joint TOB Proposal	79
8.9.	Implementation	80
8.10.	Budget and Cost Recovery	80
8.11.	Post-Pilot Review	82
9.	Conclusion.....	82
10.	Summary of Public Comment	83
11.	Comments on Proposed Decision.....	83
12.	Assignment of Proceeding	83
	Findings of Fact.....	83
	Conclusions of Law	89
	ORDER	91

Attachment A: Joint Tariff On-Bill Proposal

Attachment B: Southern California Edison Company TOB Pilot Proposal

DECISION ON TARIFF ON-BILL PILOT PROPOSALS

Summary

This decision authorizes Southern California Edison's proposed Tariff On-Bill Financing Pilot proposal, with modifications, and denies the proposals put forth by San Diego Gas & Electric Company, Southern California Gas Company, and Silicon Valley Clean Energy.

The proceeding is closed.

1. Background

The California Public Utilities Commission (Commission) has historically authorized regulated, investor-owned utilities (IOUs) to offer financial support to customers adopting energy efficiency (EE) and clean energy technologies in compliance with state and federal legislation.¹ In August 2020, the Commission launched the instant proceeding, Rulemaking (R.) 20-08-022, to evaluate the potential efficiencies of providing financing strategies that allow for larger or broader investments in multiple types of clean energy improvements through a single program.² The Order Instituting Rulemaking (OIR) in this proceeding highlighted the need to investigate and potentially design mechanisms for energy infrastructure financing that can reach underserved populations, reduce capital/creditworthiness needs, and help obtain private capital support, without increasing the risk of disconnection.³ Through this rulemaking, the Commission

¹ A background of the Commission's activities related to clean energy financing was provided as Section 2 of the Order Instituting Rulemaking 20-08-022, as issued by the Commission on September 4, 2020. The IOUs referenced throughout this decision are Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), Southern California Gas Company (SoCalGas), and San Diego Gas & Electric Company (SDG&E).

² R.20-08-022 at 1-2. The Rulemaking was launched during the August 27, 2020 Commission meeting, and the Order Instituting Rulemaking was formally issued on September 4, 2020.

³ R.20-08-022, at 30-32.

also sought to provide a venue for proposers to receive comments and consideration from the Commission, utilities, stakeholders, and the public on the implementation of new clean energy financing programs. Amongst these potential programs were Tariff On-Bill programs.⁴

On March 5, 2021, the assigned Commissioner issued a Scoping Memo and Ruling (Scoping Memo) setting forth the issues to be considered and a schedule for the proceeding. The Scoping Memo structured the proceeding schedule along three tracks.

The first track was set to address near-term issues related to the California Alternative Energy and Advanced Transportation Financing Authority's (CAEATFA) existing California Hub for Energy Efficiency Financing (CHEEF) programs. The second track was set to examine existing financing structures that the Commission should explore expanding or modifying to facilitate a more significant scale of clean energy investments. The third track was set to consider proposals for clean energy financing programs from utilities and other parties to this proceeding and to evaluate the most effective clean energy financing mechanisms.

The Commission resolved the Track 1 issues in this proceeding through Decision (D.) 21-08-006, which: (1) granted a five-year extension for the existing financing programs administered by CAEATFA; (2) authorized up to \$75.2 million in additional ratepayer funding to support the extended programs; and (3) authorized CAEATFA to leverage the technology platform it has established with ratepayer funds to use alternative, non-ratepayer funding

⁴ Rulemaking 20-08-022, at 8-9.

resources to offer similar financing options to customers that receive non-IOU gas and/or electric service.

The assigned Commissioner issued an Amended Scoping Memo and Ruling (Amended Scoping Memo) on November 19, 2021. The Amended Scoping Memo consolidated the second and third tracks to allow adequate time for the development of new financing options and stakeholder feedback before issuing a final decision. The Amended Scoping Memo asked that parties present new and additional financing options that incentivize or ease customers' ability to adopt clean energy technologies, to decrease emissions, and aid California in reaching its decarbonization goals. The Amended Scoping Memo also asked the proposers to keep in mind various topics while designing the programs, including metrics, marketing and outreach, customer protections, alignment with other state programs or goals, rate impacts, and program scalability.

A virtual workshop was held on March 25, 2022 to allow parties to present and receive comments on their initial high-level clean energy financing proposals.

On April 15, 2022, clean energy financing proposals were filed by PG&E, SCE, SDG&E, SoCalGas, the Local Government Sustainable Energy Coalition (LGSEC), and Silicon Valley Clean Energy Authority (SVCE). On the same date, CAEATFA served its proposed clean energy financing proposals.⁵

An additional virtual workshop on the proposals was held on May 12, 2022, to give the seven proposal proponents an opportunity to present their proposals and allow other parties to ask clarifying questions. Each IOU also hosted one or more community meetings on their clean energy financing

⁵ An Administrative Law Judge (ALJ) ruling on June 15, 2022 added CAEATFA's proposals to the proceeding record for party comment.

proposals during May 2022. Based on the feedback from the workshop and community meetings, all the proposal proponents except for CAEATFA filed revised proposals on June 15, 2022.

Initial opening comments to the seven clean energy financing proposals were filed on June 28, 2022, and June 30, 2022, by SVCE, SoCal Gas, SCE, PG&E, National Diversity Coalition, RENEW Energy Partners, California Coast Credit Union, ENGIE North America, Inc., First U.S. Community Credit Union, East Bay Community Energy, Travis Credit Union, Small Business Utility Advocates (SBUA), Prime Capital Funding, Environmental Defense Fund, Rewiring America, San Diego Community Power, Gridium, Inc., and VEIC. Opening comments were also filed jointly by the National Consumer Law Center, California Low-Income Consumer Coalition, The Utility Reform Network, and Center for Accessible Technology (CforAT) (collectively, the Joint Consumer Advocates) and jointly by the Greenlining Institute and Green for All (Greenlining).

Joint reply comments to the clean energy financing proposals were filed on July 21, 2022 by the County of Ventura and Association of Bay Area Governments. Additional reply comments were filed on July 22, 2022 by NDC, SCE, SBUA, LGSEC, PG&E, SVCE, SDG&E, SoCal Gas, EDF, the Joint Consumer Advocates, and VEIC, and joint reply comments were filed by Greenlining. CAEATFA also served reply comments on July 22, 2022, which were added to the record by an ALJ ruling issued on May 24, 2023.

On August 10, 2023, D.23-08-026 was issued, authorizing the expansion of on-bill financing programs and the CAEATFA California Hub for Energy Efficiency Financing Programs. The decision also declined to adopt certain programs. Finally, it also reviewed the clean energy financing proposals,

highlighted specific issues that were not satisfactorily addressed in the Tariff On-Bill (TOB) proposals, and directed the IOUs, consisting of PG&E, SCE, SDG&E, and SoCal Gas (collectively, the Utilities), as well as any others who wished to proceed with a proposal, to file a Joint TOB Proposal in the proceeding.

The parties participated in a TOB Working Group and Equity Committee to discuss customer protections, equity concerns, and other outstanding issues highlighted by D.23-08-026. On May 16, 2024, the Utilities and SVCE submitted the Joint Tariff On-Bill Proposal of PG&E, SDG&E, SVCE, SCE, and SoCalGas (Joint TOB Proposal) as a compliance filing in this proceeding. The Commission's Energy Division retained Dunskey Energy + Climate Advisors to draft a Joint Tariff On-Bill Proposal Assessment (Dunskey Report) to assess the viability of each of the TOB proposals.

On April 16, 2025, an ALJ ruling was issued asking parties to consider the TOB proposals as well as the Dunskey Report, and provide comments to determine which proposals, if any, should be approved.

On May 14, 2025, Opening Comments were provided by the Utilities, the Commission's Public Advocates Office (Cal Advocates), SBUA, Southern California Regional Energy Network (SoCalREN), the Joint Consumer Advocates, Rewiring America, VEIC, SVCE, and Green for All/Greenlining.⁶ Reply Comments were filed on May 30, 2025, by the Utilities, SBUA, Joint Consumer Advocates, Rewiring America, VEIC, SVCE, and Green for

⁶ Unless otherwise specified, all citations to opening comments in this decision are to the opening comments filed on May 14, 2025 and May 16, 2025.

All/Greenlining.⁷ The matter was submitted following filing of Reply Comments.

2. TOB Proposals

One of the main goals of this proceeding was to test the efficacy of applying a TOB or Decarbonization charge to customer's bills to pay for technological upgrades at that customer's address. D.23-08-026 defined TOB as a "utility investment mechanism that provides up-front capital to pay for energy efficiency and electrification upgrades at a customer's premises and recovers its costs through a fixed tariff-based cost recovery charge on the participating customer's utility bill. TOB can pay the upfront costs for up to 100 percent of efficiency upgrades that are estimated to produce immediate net savings (and may include the option for participants to contribute a copayment for upgrades in addition to what the estimated savings alone would support). The tariffed cost recovery charge is tied to the location rather than an individual, and successor customers at an upgraded site are notified that the cost recovery charge applies automatically to the bill until the utility's costs are recovered."⁸

D.23-08-026 determined that the TOB proposals previously submitted in this proceeding were lacking on a number of fronts, and directed further working groups and development so that the Utilities could submit implementable TOB pilots. In particular, D.23-08-026 directed that the joint filers focus on ways to incorporate Inclusive Utility Investment (IUI) principles laid out by the United States Environmental Protection Agency, especially those relating to customer protections, automatic tariff charge succession rules, and

⁷ Unless otherwise specified, all citations to reply comments in this decision are to the reply comments filed on May 30, 2025.

⁸ D.23-08-026, at 74-75.

savings estimate and affordability reviews.⁹ D.23-08-026 also encouraged the Utilities to submit proposals that required bill neutral projects, as this would decrease the risk of customer non-payment of their utility bill.¹⁰ D.23-08-026 further directed that the Utilities and SVCE create a TOB Working Group, with a goal of developing a more detailed Joint TOB Proposal. The stated goal was that a TOB charge could be used to encourage the uptake of electrification technologies, especially amongst low-income, disadvantaged community, and renter customers who may lack the upfront capital to pay for such upgrades.¹¹

Public Utilities Code Section 8375, et. seq., as established by Senate Bill (SB) 1112 (Becker, 2022), further discusses the definitions and rules that “energy suppliers”¹² must follow in implementing a Decarbonization Charge (effectively, a TOB charge). A Decarbonization Charge is defined as a charge “that is added to the billing for service associated with the electrical meter, or other measuring device, under the control of an energy supplier located at the subscriber property where a decarbonization upgrade is located, and that is collected in order to pay for a decarbonization upgrade.”¹³ The charge is associated with the electrical meter at the subscriber’s property on which the decarbonization upgrade is located and is transferable to any successor subscriber who subsequently

⁹ United States Environmental Protection Agency, Inclusive Utility Investments: Tariffed On-Bill Programs, *available* at <https://www.epa.gov/statelocalenergy/inclusive-utility-investments-tariffed-bill-programs>.

¹⁰ D.23-08-026, at 75.

¹¹ D.23-08-026, at 74, 77-78.

¹² Pub. Utils. Code Section 8376(a). As defined in the statute, this applies only to electrical corporations, local publicly owned utilities, electric service providers, and community choice aggregators (CCAs), but not gas corporations.

¹³ Pub. Util. Code Section 8376(a).

receives electrical service at the property.¹⁴ Importantly, the statute states that a Decarbonization Charge is not a debt collection.¹⁵ It also requires the relevant energy supplier to “record, no later than 30 days after funding a decarbonization upgrade, a notice of Decarbonization Charge with the county recorder of the county where the property subject to the Decarbonization Charge is located.”¹⁶ Information that must be recorded include the address, Decarbonization Charge amount and payment period, and contact information for the someone to receive information about the charge. It also requires that any agreement between landlords and energy suppliers for participation in the program require that the landlord inform any tenants of the existence of the Decarbonization Charge in the leasing document for the property.¹⁷

Following a development period, the Utilities and SVCE submitted a Joint TOB Proposal on May 16, 2024 in this proceeding. The Joint TOB Proposal included a Joint TOB framework that discussed common themes, findings, and definitions to be shared amongst the individual proposals, a document relaying the findings and recommendations of the Equity Committee, and individual sections for each utility that discussed each utility’s specific pilot and any deviations from the Joint TOB framework. The Joint TOB Proposal provided a list of definitions and principles that were directed to be considered by D.23-08-026, for consistency in all proposals.¹⁸ Of note, any TOB program should have the following characteristics:

¹⁴ Pub. Utils. Code Section 8377(a)(4).

¹⁵ Pub. Utils. Code Section 8375(b).

¹⁶ Pub. Utils. Code Section 8377(b)(1).

¹⁷ Pub. Utils. Code Section 8377(b)(5).

¹⁸ Joint TOB Proposal, at 14-18.

- Either property owners or tenants should be able to participate in the TOB program, including Community Choice Aggregator (CCA) customers;
- Any cost recovery must be tied to the site, and not any individual or entity, and may not increase during the duration of the pay-back period;
- The total annual Decarbonization Charge placed on the customer's bill would be equal to or less than the estimated annual aggregate measure energy savings, to ensure affordability for participants;
- Payment obligations at the site meter would automatically transfer to any successor customer that takes service at the site;
- The Decarbonization Charge may be temporarily suspended due to vacancy of the property;
- The clean energy upgrade must work for the duration of the cost-recovery period, subject to informing the program sponsor if non-routine maintenance or repairs are necessary;
- Consideration of ability to pay for the upgrade and eligibility to participate in the program only looks to utility bill payment history, not credit or income qualification;
- Ensuring adequate customer protections and allowing for all customer classes including disadvantaged communities to participate.

The Joint TOB Proposal also highlighted discussions by the Working Group regarding challenges in implementing TOB programs,¹⁹ including balancing project economics and customer protections, as well as the overall economics and affordability of the proposals in general.

¹⁹ Joint TOB Proposal, at 19.

PG&E, SCE, SDG&E, SoCalGas, and SVCE all participated in the submittal of the Joint TOB Proposal, per the direction of D.23-08-026. The submitted proposals are for two-year pilots. Although each proposal is distinct and separate from the others, the Joint TOB Proposal provided a unified discussion on parts of the proposals that were applicable to each. The provided goals for the TOB Proposals included:

- Determining effective savings verification and remedies;
- Ensuring adequate tariff recovery and low charge-off rates; and
- Ensuring adequate customer protections.

In the following sections, we first discuss the program designs described in the Joint TOB Proposal and then discuss the individual specifics of each pilot, including any deviations from the Joint TOB Proposal.

3. Overarching TOB Proposal Characteristics

The Utilities designed the pilots to determine whether there is a feasible pathway to utilizing the TOB method to expand customer access to clean energy upgrades. It is envisioned that a fully implemented TOB process would allow customers to obtain these investments with no increase in overall energy costs, relative to if the customer had not participated in the program.²⁰ The proposals broke down the following components for consideration:

- Savings verification and remedy- Validation of performance and savings; comparison with predicted performance;
- Decarbonization Charge recovery – Recovery of TOB charges and determination of charge-off rates;

²⁰ Joint TOB Proposal at 23.

- Consumer protections – measures to financially protect participating customers;
- Customer acceptance – measuring customer participation, performance, and satisfaction to determine scalability;
- Equitable adoption – ensuring that the programs are available for renters and other households that are typically underserved by market-rate incentive and loan programs; and
- Targeting – advancing customer targeting to engage those who would benefit most.

3.1. Customer Protections

The Utilities propose a number of safeguards that are designed so that TOB pilot customers are not left worse off due to their participation in the program. Customers would first be screened for eligibility for other no-cost or low-cost equipment programs they may be eligible for, including the Energy Savings Assistance (ESA) program. This would reduce cost and risk for customers, so that they are participating in the programs most beneficial to them. Before any project is approved in this pilot phase, the program administrator and customer would work together to estimate the savings due to the installed upgrades. The administrators would utilize a buffer while determining the likely amount to be saved from the upgrades, increasing the likelihood of positive outcomes due to the program.²¹ The proposals generally utilize the methods laid out in the SVCE field test proposal for estimating usage and savings (discussed below).

All proposals would tie the Decarbonization Charge to the meter on the premises, not the individual customer. The Joint TOB Proposal recommends that all projects be fully analyzed for landlord cost-sharing, owner co-payments,

²¹ Joint TOB Proposal, at 25.

rebates, and incentives. Only projects where the estimated customer bill following project completion would be less than or equal to the sum of the customer's pre-project bill shall be approved (bill neutrality).²² If the meter is shut off due to vacancy, or where the program is responsible for maintenance²³ if an upgrade fails due to reasons beyond customer control, the Decarbonization Charge may be suspended until the meter is restored to service or re-established. Such repairs or vacancies may extend the duration of the charge beyond the initially planned end date but would not increase the re-occurring amount of the charge.²⁴ If the upgrade completely fails through no fault of the occupant, the program would pay off any remaining charges. The proposed TOB programs would also be unable to put liens onto customer homes and would not re-possess the installed upgrades in the event of non-payment.²⁵

The eligible technologies would be commercially proven products that meet standards for energy efficiency, performance, and reliability. The implementer would conduct quality-control inspections, and energy usage would be monitored to ensure that consumption aligns with expectations. Some of the TOB pilots would include extended warranties for any installed upgrades covering the duration of the cost-recovery period.²⁶ Necessary repairs would be conducted by the Program Sponsor or Program Implementer, but the customer shall be liable for damaging or removing installed upgrades. Customers would

²² Joint TOB Proposal, at 24.

²³ The SDG&E and SoCalGas TOB pilots would have the program retain maintenance responsibilities.

²⁴ Joint TOB Proposal, at 25.

²⁵ *Id.*

²⁶ Joint TOB Proposal, at 26.

be able to contribute to upfront costs (also known as a co-pay)²⁷ to receive upgrades in addition to what estimated savings would support, including where the expected bill savings in combination with all other sources of funding would be inadequate to approve a project.²⁸

The Joint TOB Proposal lays out a process whereby the Program Sponsor contracts with experienced Program Implementers, who would in turn require strong contractor qualifications and robust quality control processes.²⁹ The Program Implementer would have no incentives to increase project volume or number of enrollees, and would handle all marketing, contracting, and fee scheduling in order to reduce the potential for predatory sales practices.³⁰ Following the first year, measurement and verification (M&V) of project savings would be conducted, to determine whether the measures generated the intended savings. The Utilities state that further M&V after the first year would be cost-prohibitive. Participating customers will be sent an annual letter reminding them of information related to their installed upgrades.³¹

Customers would be subject to disconnection due to non-payment of their bills, including the Decarbonization Charge, for the life of the program. The Utilities state that this security against the upgrades should be kept, as it is the normal consequence customers face for non-payment of their utility bills, and the

²⁷ A Co-pay is where the program participant provides an upfront one time-payment to reduce the total amount of re-payment needed, thereby reducing the amount of the Decarbonization Charge.

²⁸ Joint TOB Proposal, at 27.

²⁹ Joint TOB Proposal, at 27.

³⁰ Joint TOB Proposal, at 28.

³¹ Joint TOB Proposal, at 29.

installed upgrades should not increase their bills.³² Customers shall have the option to pay the remaining Decarbonization Charge in one lump sum. The total amount to be paid via Decarbonization Charge payments is to be the total cost of the equipment used for the upgrade plus any installation costs, without interest.

Successor customers shall be notified, either through notice recorded with the County Clerk in the case of building purchasers (and other applicable laws), or by the landlord in the case of tenants.³³ Any tenant participation would be subject to landlord/owner consent, and a tenant must agree in order for the Decarbonization Charge to be added to a customer's bill. Landlords must participate in cost sharing for water heating and space conditioning replacements, to reflect the landlord's responsibility to provide those services. Landlords would be required to execute a participation agreement with the program that includes limitations on rent increases and tenant evictions.

3.2. Pilot Entities

The Utilities propose the following entities that would play roles in program implementation:³⁴

- Program Sponsor – IOU or another energy supplier, such as a CCA;
- The IOU;
- The Program Implementer;
- Installation Contractors; and
- Customer (either property owner or tenant and landlord).

³² Joint TOB Proposal, at 28

³³ Joint TOB Proposal, at 29.

³⁴ Joint TOB Proposal, at 33.

3.2.1. Program Sponsor

The Program Sponsor would be responsible for the design, administration, and implementation of the pilot. They would submit reporting to the Commission, define customer eligibility and targeting criteria, and contract with and oversee the Program Implementer and other subcontractors, if applicable. The Program Sponsor would coordinate M&V (including one-year anniversary verifications), define product warranty and maintenance requirements, and report the Decarbonization Charge to the County Recorder in accordance with SB 1112.

3.2.2. Program Implementer

The Program Implementer would initially prequalify customers and projects. The Program Implementer would also model expected energy benefits, determine the financial terms of the project (including location of applicable incentives and rebates), and execute the contract. Following project approval the Program Implementer would contract with an Installation Contractor based on approved projects, manage project oversight and documentation, oversee customer service, and facilitate quality assurance (QA).

3.2.3. Utility

The utility, whether acting as Program Sponsor or not, would be responsible for submitting the TOB tariff for Commission approval, as well as establishing the necessary balancing accounts to record, track, and recover TOB pilot costs. The Utility would also need to include the Decarbonization Charge on participating customers' bills. The Utility must also provide timely gas and electricity data to the program sponsor for M&V.

3.2.4. Installation Contractors

Either the Program Sponsor or Program Implementer would contract with an Installation Contractor. The Installation Contractors perform the agreed-upon

upgrades at the customer site, per the installation specifications provided by the Program Implementer. The Installation Contractor would also be subject to any other requirements established by the Program Implementer, including providing updates, performing maintenance and repairs, and conducting project commissioning.

3.2.5. Customers

Customers who are property owners would be required to agree to project participation, approve the project scope and installation, agree to operate equipment properly, and agree to not destroy or disable equipment. Where a tenant participates in the pilot programs, they would only be required to approve the Decarbonization Charge on the bill and authorize the project in the occupied space, while the landlord would be responsible for everything else as well as having a duty to inform future tenants of the charge. Either the landlord or the property owner becomes owner of the physical upgrades.

3.3. Model Project Initiation Process

The Joint TOB Proposal provides a model process the Utilities and Program Implementer should follow in obtaining project approvals from customers:³⁵

1. Customer prequalification, including bill payment history;
2. Completing site assessments for qualified customers;
3. Modeling expected energy benefits and developing an investment plan;
4. Presenting Customer, including both Site Property Owner and Participating Customer (tenant), as applicable, with a proposal that includes the recommended Clean Energy Measures, total project installation costs, available rebates and incentives, the expected customer bill savings, the

³⁵ Joint TOB Proposal, at 34-35.

- Decarbonization Charge, the cost recovery term and any required cost share;
5. Obtaining executed customer agreements (from participating customer and site property owner);
 6. Reserving funding, including from applicable state and local incentives; and
 7. Preparing installation specifications.

Following customer approval, the Program Sponsor or Implementer would contract with Installation Contractors and get the projects installed, including any necessary quality checks. After installation is completed, the project is reviewed by the customer and approvals are routed to the Program Sponsor, who would add the Decarbonization Charge to the bill and also record it as required by SB 1112. Either the Program Sponsor or Implementer would be responsible for customer service and QA, as well as for conducting a measurement and verification of savings process after one year. Appropriate remedies shall be offered if estimated savings are not satisfactory.

3.4. Eligible Technologies

The Utilities state that the focus in deciding what technologies to approve shall be to lower bills and reduce greenhouse gas (GHG) emissions. The Utilities state that transportation electrification upgrades are not proposed due to their complexity. Each utility proposes different technologies that would be eligible to participate in their respective pilots. These are further discussed below in each utility's proposal.

3.5. Information Systems Requirements

The Utilities state that certain information technology (IT) system upgrades may be necessary to implement the TOB pilots.³⁶ Particularly, the

³⁶ Joint TOB Proposal, at 38.

Utilities highlight the billing system functionalities that would be needed to implement and track payment of the Decarbonization Charge, including the ability to display the TOB Decarbonization Charge, track and distribute the TOB related funds, ability to pause or remove the Decarbonization Charge, and negotiate interactions with other processes including payment plans and disconnections.

3.6. Measurement & Verification

Project Measurement and Verification (M&V) is needed to ensure that the estimates upon which projects are being approved are accurate, to ensure that customers are obtaining the projected savings and to consider improvements to the programs moving forward. As discussed above, an analysis of all individual customer projects approved for the pilots would be conducted after one year, and any appropriate remedies would be conducted if savings are underperforming pre-installation estimates. After the first year, the TOB pilots would continue M&V activities by monitoring meter usage to detect outlier energy usage that may be indicative of under-performing equipment.

3.7. Utility Tariffs and Customer Agreements

The Utilities propose to submit updated tariffs for approved pilots via the advice letter (AL) process. Each utility would draft their own separate tariff, depending on the terms of their pilot. Each utility would also draft their own customer agreements. The Utilities agreed to the same definitions for a customer, property owner, program sponsor, and site.³⁷ The Utilities agree that each customer agreement should include:

- A description of the upgrades to be installed and implemented;

³⁷ Joint TOB Proposal, at 40-41.

- Expected upgrade in-service date (with follow-up notice to reflect actual in-service date);
- Cost share and co-payment amount (if any);
- Amount and expected duration of the Decarbonization Charge;
- Partial and accelerated payment provisions;
- Disconnection provisions;
- Maintenance and repair requirements;
- Vacancy clauses and associated extensions of the Decarbonization Charge;
- Tariff transferability provisions;
- Data sharing requirements;
- Notice requirements the Utility must follow and implement, including those required by SB 1112, to warn potential buyers and tenants of the existence of the Decarbonization Charge;
- Expected annual bill savings or directions for obtaining savings information from the Program Sponsor;
- How to contact the Program Sponsor and Commission for complaint or issue resolution; and
- Potential rights related to landlord obligations and breach thereof.

3.8. Accessibility, Funding, and Incentives

The TOB Pilots would be open for participation only for residential customers. SCE's pilot offers participation for tenants, but SDG&E and SoCalGas propose only owner-occupied sites at this time. The Program Implementer would work with the customer to apply for and obtain all relevant incentives, to reduce program cost for the customer (and consequently the Decarbonization Charge).

No TOB Pilot proposal proposed to target low-income customers for participation. Some proposals explicitly stated that customers eligible for CARE, FERA, or other low-income groups would not be eligible and instead would be recommended for participation in ESA or other low or no-cost programs for technology/efficiency upgrades. The Joint TOB Proposal notes that the Equity Committee specifically recommends not including these customer populations in the pilots for customer protection issues.

SCE and SDG&E request that ratepayer funds cover the entire cost of the TOB pilot via Public Purpose Program (PPP) surcharges, with any Decarbonization Charge recovery going back to ratepayers. SoCalGas plans to pay entirely for the cost of the investment via internal capital and treat it as a regulatory asset earning a rate of return, while using ratepayer funding for the administration and management of its respective program. No utility proposed the use of third-party funding for their pilots, due to time constraints, poor fit, and/or cost concerns.³⁸

Any funds approved for use in the pilots would be implemented and tracked in balancing accounts. These costs would include assessment costs, customer project costs, service agreement costs, and program administration costs. The funds, including any recovered via the Decarbonization Charge, may be returned to ratepayers or re-deployed in the pilot, depending on the individual pilot proposals.³⁹

³⁸ Joint TOB Proposal, at 46.

³⁹ Joint TOB Proposal, at 48.

3.9. Reporting and Metrics

Reporting and metrics of each pilot proposal are important to ensure that the pilot is performing as intended or to determine how the pilot can or should be improved. The design of the metrics dictates what can be learned after the pilot is deployed. Each TOB Pilot proposes differing reporting metrics and key performance indicators (KPIs) depending on the specifics of each program. General KPIs that each Joint TOB Proposal would include are TOB Delinquency rates, uncollectible costs, TOB participation rates, number of needed interventions, and number of Decarbonization Charge transfers.⁴⁰

3.10. General Concerns

The Joint TOB Proposal states that the ultimate goal of the pilots should be to investigate the scalability of TOB Programs to determine if they present a viable pathway to expanding customer access to clean energy investments, particularly among customer populations that are generally underserved by typical programs. The Utilities do not believe a statewide program should be implemented, given the difficulty in coordinating billing systems and lack of flexibility a unified program would provide, as well as the resulting removal of CCA participation.⁴¹ The Joint TOB Proposal also highlights the fact that although the Commission directed a 2-year pilot, the nature of the program would require continuous support for any participating customer through the life of the upgraded technology, even if the pilot is subsequently ended and TOB programs are no longer pursued.⁴² The Utilities note that given the nature of pilots and in the interest of focusing testing on the feasibility of TOB as a service,

⁴⁰ Joint TOB Proposal, at 49-50.

⁴¹ Joint TOB Proposal at 51-52.

⁴² Joint TOB Proposal, at 52.

there was discussion amongst the TOB Working Group regarding the need to focus on safer customer segments and technologies to attempt to reduce variables.⁴³

The TOB Working Group proposed a number of TOB design elements that would need to be evaluated following pilot completion, to determine whether TOB should be utilized going forward. These design elements that require analysis include:⁴⁴

- Project economics, such as determining the minimal amount of savings needed to justify TOB investment;
- Customer protections,
- Program economics, such as determining financial risks for future third-party investors to participate, or reviewing the efficacy of utilizing customer bill history to predict non-payment likelihood;
- Customer eligibility, including determining whether TOB programs are a good fit for communities historically underserved by utility programs;
- Customer acceptance, such as what mix of homeowners and tenant/landlords participate in the program; and
- Legal and regulatory issues, including coordinating with the California Department of Financial Protection and Innovation (DFPI) to ensure that the proposed TOB pilots are not subject to the California Finance Law.

3.11. Requested Action

The Joint TOB Proposal requests that the Commission find the proposed framework reasonable, that the Decarbonization Charge and TOB Pilots as a

⁴³ Joint TOB Proposal, at 53.

⁴⁴ Joint TOB Proposal, at 55.

whole do not constitute a debt pursuant to SB 1112, and that each individual utility TOB proposal and budget is reasonable.

4. Individual TOB Proposals

4.1. PG&E

PG&E did not propose a TOB Pilot at in the Joint TOB Proposal. At the time the proposal was submitted, PG&E was focused on billing system upgrades. PG&E asks that its Tariff On-Bill Memorandum Account be authorized to continue tracking costs related to coordination with SVCE for their pilot, scoping of IT functionality for a future TOB program, and time spent gathering stakeholder feedback.

4.2. SCE

SCE sees its pilot as a stepping stone to establish proof of concept for TOB. SCE projects a reduced level of participation, based on SCE's expectation that there would be a small number of financially viable projects at this time. SCE's assumptions include 150 projects that combine energy efficiency with heat pump space heating measures, and 50 projects that combine energy efficiency with heat pump space heating and heat pump water heating measures, for a capped total of 200 upgrade sites.⁴⁵ SCE assumes 90% owner-occupied sites and 10% rental unit sites. SCE projects total net cost savings of approximately \$128,418 for participating customers (or \$642 per customer) but notes that such savings are speculative.⁴⁶ SCE also projects reductions in GHG emissions totaling 3,173 metric tons of CO₂.

⁴⁵ Joint TOB Proposal, Appendix E.3, at SCE-6.

⁴⁶ Joint TOB Proposal, Appendix E.3, at SCE-8.

4.2.1. Customer Eligibility

SCE lays out the following customer eligibility criteria for participation in the pilot:⁴⁷

- Unbundled and bundled residential customers who reside in single family and multifamily residences and are in good standing with SCE;
- Only customer project sites that demonstrate a positive bill savings analysis would be allowed to participate;
- Targeting of high energy users with greatest opportunity for bill savings from more efficient energy efficiency and building electrification measures; and
- Living in an individually metered unit serviced by SCE.
- Customers who are participating in the California Alternate Rates for Energy (CARE), Family Electric Rate Assistance (FERA), Disadvantaged Communities Green Tariffs (DAC-GT and DAC-CSGT), and Medical Baseline (MBL) programs at the time of application would not be eligible for the Pilot.

SCE would provide pilot participants with a customized bill impact calculation to explain the impacts of consumption changes and behaviors. Pilot participants must agree to provide 12-month historical bill usage data for both gas and electric use. Participants may withdraw participation until the Customer Participation Agreement and Property Owner Agreement (if tenant participant) are both signed. Enrollment would continue until the maximum number of project sites is reached or the end of the two-year pilot, whichever is first.

4.2.2. Project Eligibility

Approved energy efficiency (EE) or electrification measures that support decarbonization of regulated fuel sources would be eligible for participation in

⁴⁷ Joint TOB Proposal, Appendix E.3, at SCE-9.

SCE's TOB pilot. SCE proposes five eligible technologies: heat pump water heaters, heat pump space cooling/heating, duct sealing, attic insulation, and smart connected thermostats, and any number of eligible technologies may be installed.⁴⁸ Technologies must also be economically viable for the customer (demonstrate bill neutrality), as reviewed and calculated by the Program Implementer. The maximum Decarbonization Charge amount would be limited to 90 percent of the annual projected overall energy bill cost savings (divided over the 12 monthly bills), with a tariff recovery period of 10 years or the estimated useful life of the installed measure, whichever is less.

4.2.3. Marketing and Outreach

SCE would perform marketing and outreach through the Program Implementer, installation contractors, and SCE's website. SCE would target the top ten percent of highest residential energy users, in an effort to find customers with the greatest ability to achieve higher cost savings and meet eligibility criteria.

4.2.4. Measurement and Verification

SCE proposes to work with SVCE and the Technology and Equipment for Clean Heating (TECH) program to determine the final M&V protocols for the Pilot, based on a combination calculated/normalized meter energy consumption (NMEC) site-specific approach, which is different from what was proposed for use in the SVCE field test.⁴⁹ If SVCE's pilot does not test a NMEC approach, then SCE proposes to create one using the Commission's approved measure packages and Fuel Substitution Impact Tool, as well as custom engineering calculations to estimate annual savings. This would be compared after one year with post-

⁴⁸ Joint TOB Proposal, Appendix E.3, at SCE-9.

⁴⁹ Joint TOB Proposal, Appendix E.3, at SCE-10.

retrofit energy bills and NMEC data to determine if energy savings met projected amounts. SCE proposes to utilize the KPIs included in the Joint TOB Proposal, as well as track the number of TOB projects by building type.

4.2.5. Differences from Joint TOB Proposal

SCE's pilot proposal contained one large deviation from the Joint TOB Proposal: property owners would be responsible for regular maintenance and the cost of any extended warranty for the project. If regular maintenance is not conducted and the property owner is unable to provide documentation showing that required scheduled maintenance has been completed, the property owner would be responsible for the remaining amount of the Decarbonization Charge at the time of equipment failure. If, however, the failure is not due to customer negligence or wrongdoing or failure to maintain the equipment, the Decarbonization Charge would be erased and losses would be charged to the program.

4.2.6. Implementation

SCE proposes to open the TOB Pilot for customer applications 18 months after the Commission approves it.⁵⁰ SCE estimates the competitive solicitation process to take 9-12 months. SCE asks that the Commission grant flexibility to submit its tariff and begin the pilot as SCE awaits data from SVCE's pilot. SCE provided a draft tariff in the Joint TOB Proposal,⁵¹ and asks that it be directed to submit an advice letter containing the TOB Pilot tariff (and any necessary modifications) for Commission approval.

4.2.7. Budget

SCE's budget is broken down as follows:

⁵⁰ Joint TOB Proposal, Appendix E.3, at SCE-10.

⁵¹ Joint TOB Proposal, Appendix E.3, at SCE-13-15.

- Net Project Costs to be Funded by TOB Pilot – these include the collected Decarbonization Charges obtained from program participants and would be returned to ratepayers, subject to Charge-off amounts.
- Estimated Tariff Charge-Offs & Performance Reserves – this funding is for uncollectable Decarbonization Charges due to equipment failures and Decarbonization Charge adjustments at one-year verification true-up.
- Administration – This is SCE’s labor cost for providing program sponsorship until projects are fully recovered and assumes \$150,000 for the first three years and an annual cost of \$100,000 over a nine-year period.
- Marketing, Education, and Outreach – This category includes promotion of the program, notifications, website development, and welcome packages.
- IT/Systems Cost: This includes the cost of developing on-bill functionality and other related tracking and reporting systems.
- Program Implementation – These costs include costs paid to the Program Implementer, including for outreach, education, project development and installation, inspections, and project support.

Table 1 SCE TOB Proposal Budget by Category		
Net Project Costs to be Funded by TOB Pilot Decarbonization Charges	\$1,160,000	16.1%
Estimated Tariff Charge-Offs & Performance Reserves	\$140,000	1.9%
Administration	\$1,350,000	18.8%
Marketing, Education, and Outreach	\$200,000	2.8%
IT/Systems	\$1,070,000	14.9%

Project M&V	\$1,120,000	15.6%
Program Implementation	\$2,150,000	29.9%
Total Program Budget	\$7,190,000	100%

SCE proposes to maintain the ability to fund-shift between all categories. SCE proposes utilizing ratepayer funds from the PPP Charge for its TOB proposal and asks for a budget of \$7,190,000 for its TOB Pilot. SCE asks for authority to establish a two-way balancing account to record, track, and recover TOB Pilot costs with transfers to and from the PPP Adjustment mechanism.

4.3. SoCalGas

As a natural gas provider, SoCalGas' TOB Pilot is inherently different from the others. The main difference in SoCalGas' pilot is that the upgrade infrastructure would be owned by SoCalGas and treated as a regulatory asset, with SoCalGas recovering as it would from other capital assets it maintains. The below continues to use the term Decarbonization Charge although SoCalGas does not propose any electrification technologies.

4.3.1. Customer Eligibility

SoCalGas lays out the following customer eligibility criteria for participation in the pilot:⁵²

- Residential customers who reside in single-family residences;
- Utilization of bill payment history factors to qualify,⁵³ including not being more than 3 months in arrears, not having had a disconnection notice for the past 12 months, no more than two payment arrangements in the last 12

⁵² Joint TOB Proposal, Appendix E.3, at SCE-9.

⁵³ Joint TOB Proposal, Appendix E.4, at 5-6.

- months, and having a minimum of 12 months of natural gas usage history at the address;
- Assessment of ESA qualifications, to determine if ESA is a preferable program for the customer;
 - Living in an individually metered unit serviced by SoCalGas; and
 - Customers who are participating in CARE, FERA, DAC-GT and DAC-CSGT, and MBL programs at the time of application would not be eligible for the Pilot.

SoCalGas would provide pilot participants with a customized bill impact analysis based on the Building Performance Institute's standard BPI-2400-S-2015, following the M&V protocols discussed above, to calculate the estimated bill savings to determine whether the project is at least bill-neutral and the amount of the Decarbonization charge. Pilot participants must agree to provide 12-month historical bill usage data for both gas and electric use. Participants may withdraw participation until the Customer Participation Agreement and Property Owner Agreement (if tenant participant) are both signed. Enrollment would continue until the maximum number of project sites is reached or the end of the pilot, whichever is first.

4.3.2. Project Eligibility

Approved EE measures that include weatherization⁵⁴ with a high-efficiency tankless water heater would be eligible for participation in SoCalGas's TOB pilot.⁵⁵ SoCalGas plans to target homes using inefficient standard storage tank water heaters with little or no weatherization, which would allow the pilot to leverage existing rebates to reduce cost. The pilot would require the

⁵⁴ Weatherization measures would include wall insulation, ceiling insulation, and weather-stripping. Joint TOB Proposal, Appendix E.4, at 4.

⁵⁵ Joint TOB Proposal, Appendix E.4, at 3.

installation of at least one weatherization measure in addition to the tankless water heater. SoCalGas proposes a maximum Decarbonization Charge term of 12 years, for purposes of calculating payback period. With the use of rebates, SoCalGas estimates an average investment cost to be \$4,000 per project. Technologies must lead to bill neutrality for the customer, as reviewed and calculated by the Program Implementer using any relevant savings including water bill savings. Co-pays would be allowed where the estimated savings do not achieve bill neutrality.

4.3.3. Customer Provisions

SoCalGas would implement the customer protections discussed above, summarized as:

- Customers would first be screened for eligibility for free or low-cost services;
- Equipment failures would be replaced by SoCalGas if the failure is not due to customer fault;
- SoCalGas and/or the Program Implementer would handle all marketing to remove sale incentives; in a similar vein, contractor activities would be limited to installations and/or repairs and maintenance; and
- SoCalGas would conduct site inspections, customer training, and issue satisfaction surveys for quality control (QC) purposes.

SoCalGas would conduct a one-year review to measure performance against estimates and adjust the Decarbonization Charge going forward as well as providing a refund for overcharges if the actual savings are 90 percent or less than what was expected. SoCalGas would maintain a risk-reserve budget of ten percent of the equipment investment budget to manage this risk.

4.3.4. Differences from Joint TOB Proposal

SoCalGas plans to take on a more active role in program administration, as it would be responsible for oversight, tracking, reporting, customer outreach, project preapproval, and customer support. SoCalGas would hire a Program Implementer to work on limited roles such as managing installations and maintenance, and working with contractors. SoCalGas plans to contract with an existing vendor to reduce contracting time for the pilot period. No extended warranty would be necessary as TWHs come with basic warranties likely to cover the useful life of the upgrade as well as required maintenance.

4.3.5. Implementation

SoCalGas expects to utilize existing billing system functionality to administer the TOB Pilot, with some functions being performed manually (and some modifications being necessary). Non-payment of the charge would be treated as a reason for disconnection for purposes of integration with its billing system.⁵⁶ The charge would pass to either the next property owner or tenant as detailed in the Joint TOB Proposal. SoCalGas proposes to utilize the measure verification and remedies process as well as the successor customer policies discussed above in the Joint TOB Proposal.⁵⁷

SoCalGas intends to begin its program as soon as possible, estimating a ramp up period of 3-6 months before its two-year pilot program can begin.⁵⁸ By using a current Implementer, it plans to move faster than other pilots. It would also begin marketing immediately following Commission approval, assuming SoCalGas' new billing system is complete.

⁵⁶ Joint TOB Proposal, Appendix E.4, at 7-8.

⁵⁷ Joint TOB Proposal, Appendix E.4, at 8-9.

⁵⁸ Joint TOB Proposal, Appendix E.4, at 11-12.

4.3.6. Metrics/KPIs/Reporting

SoCalGas proposed to track and report the metrics identified in the Joint TOB Proposal, as well as the following:

- Number of decarbonization projects enrolled;
- Total amount invested by sub-segment (if relevant);
- Net GHG reduction;
- Defaults (total number and dollar amount);
- Number of late payments;
- Uncollectibles related to TOB defaults;
- Type of weatherization installed;
- Average term length;
- Projects denied;
- Projects in-progress; and
- Customer satisfaction.

4.3.7. Budget and Cost Recovery

SoCalGas's budget is broken down as follows:

- Project Costs, including the purchase of EE equipment;
- Non-Project costs, which can be broken down into Administration, Marketing, Education, and Outreach, Evaluation, Measurement & Verification (EM&V), and Direct Implementation costs, including IT/Systems Cost Program Implementation costs, and QA/QC.

Table 2 SoCalGas TOB Proposal Budget by Category		
Decarbonization Investment Capital	\$2,000,000	40%
Administration	\$200,000	4%
Marketing, Education, and Outreach	\$50,000	1%

IT/Systems, Project M&V, Program Implementation	\$2,700,000	54%
EM&V	\$50,000	1%
Total Program Budget	\$5,000,000	100%

SoCalGas estimates it would need budget for 3 full-time employees to administer its TOB Pilot. As discussed above, SoCalGas plans to utilize its own funds to pay for the project costs, and then treat the resulting upgrade equipment as a regulatory asset. Payment of the Decarbonization Charge would amortize the balance of the asset, drawing down the balance until the project costs are fully recovered.

SoCalGas asks that the Commission authorize the outstanding balance of the TOB regulatory assets to earn at the rate of SoCalGas' authorized rate of return. SoCalGas states this approach would reduce the burden on ratepayers by reducing the immediate rate impacts of the program, as compared to ratepayers fully funding the program.

SoCalGas asks for authority to submit a Tier 1 AL establishing a two-way interest-bearing balancing account to record, track, and recover the return on the TOB regulatory asset and incremental non-project costs, in separate subaccounts.⁵⁹ SoCalGas proposes to recover the return sub-account on an annual basis through its Regulatory Account Update AL filing. For the incremental non-project costs, SoCalGas requests the authority to recover the budgets in PPP rates or customers' transportation rates. SoCalGas asks for authority to submit a Tier 2 AL with an updated revenue requirement to include indirect costs and escalation. If after twelve years there are any extra funds, they

⁵⁹ Joint TOB Proposal, Appendix E.4, at 13.

would be returned to ratepayers, but if there is a deficiency then SoCalGas requests authority to recover any extra costs through PPP amortization or transportation rates.

4.4. SDG&E

SDG&E's proposed pilot does not deviate significantly from the Joint TOB Proposal.

4.4.1. Customer Eligibility

SDG&E lays out the following customer eligibility criteria for participation in the pilot:

- Residential customers who reside in single family residences with high energy usage;
- Account with SDG&E in good standing, and a good payment history without being on a payment plan;
- Assessment of ESA qualifications, to determine if ESA is a preferable program for the customer;
- Living in an individually metered unit serviced by SDG&E.
- Moderate-income households.

SDG&E would target approximately 2,000 customers with annual cooling load over 6,000 kWh and heating load over 375 therms, with the goal of enrolling 50 to 100 for participation in the pilot.⁶⁰ SDG&E projects project costs of \$21,730 on average (before any rebates or incentives).

SDG&E would conduct a pre-approval analysis based on the Building Performance Institute's modeling tool, following the M&V protocols discussed above, to calculate the estimated bill savings to determine the likely energy

⁶⁰ Joint TOB Proposal, Appendix E.5, at 5.

savings attributable to the upgrade and consequently whether the project is at least bill-neutral.⁶¹

4.4.2. Project Eligibility

Approved technologies would include heat pump HVAC technology and EE weatherization measures such as air sealing, insulation, duct sealing, and smart thermostats. SDG&E states that these technologies provide the greatest potential for bill savings amongst the general population and therefore are most likely to reduce charge-off risk for its pilot. SDG&E proposes a maximum Decarbonization Charge term of 10 years.⁶² Technologies must lead to bill neutrality for the customer, as reviewed and calculated by the Program Implementer using any relevant savings including water bill savings. Co-pays may be added so that the project can reach bill neutrality. The Program Implementer would work with the customer to obtain any available incentives to increase the likelihood of bill savings.

4.4.3. Customer Concerns

SDG&E would implement the customer protections discussed above, summarized as:

- Customers would be screened for eligibility for free services;
- Equipment failures would be replaced by SDG&E if the failure is not due to customer fault;
- SDG&E and/or the Program Implementer would handle all marketing to remove sale incentives; in a similar vein, contractor activities would be limited to installations and/or repairs and maintenance; and

⁶¹ Joint TOB Proposal, Appendix E.5, at 6

⁶² Joint TOB Proposal, Appendix E.5, at 4.

SDG&E would conduct a one-year review to measure performance against estimates and provide remedies if the actual energy savings are less than expected, which may include adjustment of the Decarbonization Charge going forward, repairs or replacements of equipment, or additional education.⁶³ To minimize bill savings uncertainty, SDG&E proposes to only use 80% of the bill savings estimate in calculating the maximum Decarbonization Charge.

To address ongoing problems as the Pilot continues to run, SDG&E plans to offer equipment maintenance, repair and replacement, verification of energy usage, and customer data storage for analysis, either through the Program Implementer or itself as a backstop.⁶⁴ SDG&E proposes to develop a plan with the Program Implementer to address any concerns or issues that may arise.

4.4.4. Implementation

SDG&E plans to serve as the Program Sponsor and Pilot Administrator. These tasks would include developing customer target lists, filing the required SB 1112 notice, tracking charges paid and outstanding balances, conducting inspections and maintaining quality control, and putting the line-item charge on the customer's bill (as well as any associated IT system changes).

SDG&E proposes to utilize a Program Implementer to conduct customer outreach and enrollment, project scoping, assignment and oversight of installation contractors, and customer services related to project installation and savings inquiries.⁶⁵ SDG&E proposes to utilize the measure verification and

⁶³ Joint TOB Proposal, Appendix E.5, at 7, 14.

⁶⁴ Joint TOB Proposal, Appendix E.5, at 9.

⁶⁵ Joint TOB Proposal, Appendix E.5, at 10-11.

remedies process as well as the successor customer policies discussed above in the Joint TOB Proposal.⁶⁶ SDG&E did not provide a timeline for the pilot.

4.4.5. Metrics/KPIs/Reporting

SDG&E proposed to track and report the metrics identified in the Joint TOB Proposal, as well as the following:

- Project cost and net project investment for each participating customer site;
- Upfront incentive contributions;
- Customer outreach and customer satisfaction;
- Acceptance rates (customers contacted, ineligible enrolled, declined);
- Marketing and messaging effectiveness;
- Health and safety benefits and issues related to installation;
- QA/QC errors on savings estimates; and
- QA/QC on installations.

4.4.6. Budget and Cost Recovery

SDG&E's budget is broken down as follows:⁶⁷

- Project investment costs, including the purchase and installation of upgrade equipment (assuming 100 pilot participants at an average cost of \$21,370 per project); and
- Non-project costs, which can be broken down into Program Implementer, SDG&E Labor, EM&V, IT Labor and Development Costs, and Project investment loss reserves.

⁶⁶ Joint TOB Proposal, Appendix E.5, at 8-9.

⁶⁷ Joint TOB Proposal, Appendix E.5, at 8.

Table 3 SDG&E TOB Proposal Budget by Category		
Total Project Investment Pool	\$2,137,000	28%
Implementer Cost	\$2,000,000	26%
SDG&E Labor	\$1,100,000	15%
IT Labor and Development	\$2,000,000	26%
EM&V	\$281,830	4%
Project Investment Loss Reserve	\$106,851	1%
Total Program Budget	\$7,625,681	100%

SDG&E estimates it would need budget for 2.33 full-time employees to administer its TOB Pilot, with 0.33 FTE staying on to administer the program until all Decarbonization Charges have ended in approximately ten years. Project investment loss reserves would be kept as contingency funds in case of customer defaults, incorrect payment amounts, and challenged billing amounts, as well as any equipment issues that are to be fixed by SDG&E and/or the Program Implementer. SDG&E asks for the ability to fund shift between all categories.

SDG&E proposes to utilize unspent and uncommitted EE funds from program years pre-2024-2027 held in its EE Balancing Accounts⁶⁸ to fund the TOB Pilot.⁶⁹ These funds would be used for both individual project costs as well as general pilot administration and implementation costs (and losses). SDG&E asks for authority to create a two-way TOB Balancing Account to record the re-allocated unspent and uncommitted EE and PPP funds to fund the TOB Pilot, as

⁶⁸ These consist of the Post-1997 Electric Energy Efficiency Balancing Account (PEEEBA) and Post-2005 Gas Energy Efficiency Balancing Account (PGEEBA) balancing accounts.

⁶⁹ Joint TOB Proposal, Appendix E.5, at 15.

well as any losses due to Decarbonization Charge repayment shortfalls. Any funds collected from pilot customers through the Decarbonization Charge would be used to reduce recorded pilot administration and program implementation costs. SDG&E asks that if there is a balance after the pilot is over, it be allowed to recover through PPP rates or distribution rates. Any refunds would go to ratepayers. SDG&E asks for authority to submit a Tier 1 AL establishing the pilot tariff, within 90 days after the issuance of the final decision.⁷⁰

4.5. SVCE

SVCE noted in the Joint TOB Proposal that it planned to move forward with a field test of many of the principles of TOB (but without the automatic succession rule, nor an automated bill charge). SVCE stated Commission approval was not necessary, as it would conduct the program without ratepayer funds, and that its proposal was therefore mainly informational. SVCE withdrew its proposal prior to issuance of the April 16, 2025 Ruling Seeking Party Comment. In the ruling, SVCE was directed to notify the service list prior to the filing of Opening Comments on May 14, 2025, if it wished to keep its proposal under consideration in this proceeding, and did do so. SVCE waited until it filed opening comments before stating its desire to seek cost recovery for its field test,⁷¹ meaning parties did not address its requests.

However, other pilots in the Joint TOB Proposal note that they plan to take advantage of data and information gathered by the SVCE field test, particularly with regards to M&V activities that will be undertaken. SVCE's proposal laid out detailed requirements for customer data sharing, methods for calculating

⁷⁰ Joint TOB Proposal, Appendix E.5, at 4.

⁷¹ SVCE Opening Comments, May 14, 2025 (SVCE Opening Comments), at 1.

pre-installation savings predictions (involving the same Building Performance Institute's BPI-2400-S-2015 Standard that SDG&E proposes), and a process for performing the measure savings verification. The SVCE TOB proposal also discussed troubleshooting and diagnostic techniques. The SVCE TOB Proposal also contained a much more comprehensive list of eligible technologies than those proposed by the Utilities.

5. Dunsy Report

The April 16, 2025 Ruling attached for party review and comment a report prepared by Dunsy for the Commission's Energy Division (Dunsy Report). The Dunsy Report analyzed and scored each TOB proposal based on several factors and found that all of the TOB proposals had flaws. ultimately recommended that the SoCalGas TOB Pilot be approved with modification, the SVCE Pilot be encouraged by the Commission, and that the SCE and SDG&E TOB Pilots be denied. Below we discuss the Dunsy Report's analysis, findings, and recommendations.

5.1. Dunsy Report Scoring Analysis

The Dunsy Report set out to compare the Joint TOB Proposals with existing TOB programs in other jurisdictions, utilizing a Scoring Rubric to rate each proposal on a number of factors. These factors included:⁷²

- Equity, or the proposal's ability to market and encourage participation of underserved groups;
- Consumer protection, or the proposal's ability to ensure that proposal participants are protected from unintended consequences, such as predatory sales and unexpected complications;
- Recourse for non-payment, such as disconnections;

⁷² Dunsy Report, at 15-18.

- Capital sourcing, or how the proposal plans to utilize sustainable non-ratepayer funding;
- Cost-effectiveness, or whether the program would be sustainable long term and provide net benefits for ratepayers (both participants and non-participants);
- Implementability, or ability to scale up after the pilot phase and resolve administrative concerns;
- Inclusion of key technology types, or whether the proposal offers a wide range of eligible technologies;
- Transferability, or how the proposal resolves tariff transfers to a new property owner or tenant; and
- Pilot KPIs, or whether the proposal plans to track a robust list of KPIs to ensure sufficient data for analysis post-pilot.

For each factor, each proposal was assigned a score of 0, 1, 2, or 3, based on whether the proposal did not address (0), did not adequately address (1), only partially addressed (2), or fully and appropriately addressed (3) that particular topic.

5.2. Discussion and Scoring of Joint TOB Proposal

Dunsy provided scoring for the Joint TOB Proposal overall, and not for each particular Utility pilot proposal, although it did discuss each pilot's deviations from the overall proposal. Below is a summary of the Dunsy Report's analysis and scoring on each factor.

5.2.1. Equity

The Dunsy Report found that the Joint TOB Proposal (and the individual pilot proposals) did not adequately address equity concerns. It notes that TOB programs should inherently provide significant protections against adverse outcomes due to the fact that the charge is designed to not be any higher than estimated savings, and that TOB should also promote cost-causation as the

charge would stay at the site and be charged to whoever is benefitting from the upgrades. The report, however, notes that both SDG&E and SoCalGas limit eligibility to single-family owner-occupied dwellings. Multiple proposals also state they would target high usage customers, and all would explicitly not offer participation to customers on income-qualified programs, leaving likely high-income customers available to participate.

The Dunskey Report recommends opening the pilots to limited participation of income-qualified participants, for purposes of testing and information gathering.

5.2.2. Consumer Protections

The Dunskey Report found that the Joint TOB Proposal (and the individual pilot proposals) partially addressed consumer protection concerns. The report highlights that requiring that approved projects demonstrate bill neutrality is already a significant protection against detrimental outcomes. It also notes the long list of protections proposed, including suspensions of the charge due to upgrade failure or vacancy, rebate program eligibility checks, and the removal of sales incentives from marketing. The report ultimately determines that the list of customer protections proposed is overly broad and is likely to unnecessarily reduce program participation. It particularly highlights the requirements that all customers be bill neutral, that programs offer extended warranties, and the M&V processes as either adding unnecessary cost to the program or preventing willing and able customers from participating.

5.2.3. Non-Payment Recourse

The Dunskey Report approves of the use of disconnections in the event of customer non-payment of the Decarbonization Charge. This is the only security the Utilities can utilize to enforce payment, but due to the requirement of project

bill neutrality, the report notes that such disconnection would likely have happened without the upgrade installation.

5.2.4. Capital Sourcing

The Dunsky Report finds that the Joint TOB Proposal did not adequately address capital sourcing. It notes that none of the IOUs were able to procure a funding source other than ratepayer funds, nor do they provide information about how they plan to use the pilot to gather information that would be useful in determining whether private capital can/should be considered in future TOB programs. For example, none of the pilots consider interest costs in the Decarbonization Charge. The report ultimately recommends that the pilots consider features that would allow them to gather more data to determine the feasibility of third-party capital funding in a future program.

5.2.5. Cost-Effectiveness

The Dunsky Report finds that the Joint TOB Proposals did not address cost-effectiveness. It recommends that the pilots not focus on a pure cost-effectiveness test, but also consider more holistic questions such as whether TOB programs can be utilized to fill holes or gaps that other financial assistance programs are unable to fill. This includes increasing access to low-income or disadvantaged customers, the necessity of co-pays, and whether TOB can be used in conjunction with other EE programs. The report also recommends that not all pilots be approved, to reduce potential ratepayer losses.

5.2.6. Implementability

The report rates the Joint TOB Proposal and individual proposals as not adequately addressing implementability. The report notes that although general terms and roles are defined for the Program Sponsor, Program Implementer, and Installation Contractors, the proposals contain significant administrative burden

that may hamper pilot performance. These concerns include the inability for contractors to perform marketing and outreach, unclear billing system statuses and needed improvements, maintenance and repair burdens being placed on the program, as well as the significant burden presented by the one-year M&V analysis. The Dunskey Report recommends that the property owners be responsible for maintenance of the equipment due to the significant administrative and financial burden presented by that requirement. Overall, the report questions whether the pilot is providing sufficient planning on billing system processes and scalability and sustainability for TOB programs moving forward.

5.2.7. Inclusion of Key Technology Types

The Dunskey Report notes that the pilots' eligible technologies have been chosen to maximize bill savings, which is likely to give these TOB pilots the greatest chance of success. Weatherization and energy efficiency measures are likely to provide the greatest bill savings to customers, and are proposed for use in all programs. It therefore rated the pilots as fully and appropriately addressing this concern. However, elsewhere in the report it is noted that the programs do not approve for testing Electric Vehicle (EV) chargers, or heat pumps for SoCalGas, which may inhibit scaling of programs for that pilot going forward.

5.2.8. Transferability

The Dunskey Report states that the pilots have fully and appropriately considered the issue of transferability, by meeting the requirements of SB 1112 as well as putting the onus on the landlord to notify new tenants of any Decarbonization Charge. The report highlights certain unaddressed scenarios that the Joint TOB Proposal would deal with on a case-by-case basis, but perhaps

could be addressed now, such as the scenario of a long-time vacant site or where a landlord fails to notify a tenant of the Decarbonization Charge.

5.2.9. Pilot KPIs

The Dunskey Report rates the pilots as not adequately addressing KPIs. Although it finds that the pilots' proposed KPIs state program objectives and have clear measurements, it asserts that more thinking and tracking is necessary to provide analysis for the future scaling of TOB programs. These KPI adjustments could include more financial metrics for consideration by third-party capital sources, more granular disconnection rates, review of the one-year M&V analysis for usefulness and efficacy, and a possibly longer pilot period to make these KPIs more robust.

5.3. Dunskey Report Recommendations

The Dunskey Report finds that the pilots overall do not provide new avenues for cost-effective electrification nor do they increase equitable access to energy saving infrastructure. The report recommends that if the Commission decides to approve any pilots, it should first require that the pilots be revised with a greater focus on evaluation metrics that can be utilized in the future to determine the viability of TOB programs. It recommends general modifications that should be adopted for any approved proposal, as well as specific revisions for each proposal, but ultimately recommends that only SoCalGas' pilot be approved.

5.3.1. General Recommendations

The Dunskey Report recommends that any approved pilot be revised to:⁷³

- Utilize the Greenhouse Gas Reduction Fund's definitions for low-income and disadvantaged communities, as well as consider how low-income customers participating in the

⁷³ Dunskey Report, at 44-45.

CARE or FERA programs could be incorporated into pilots;

- Consider further study and evaluation of capital sourcing options by including additional evaluation metrics related to defaults, delinquencies, and non-payments; and
- Consider the implications of utilizing internal capital and ratepayer funds, including cost-effectiveness metrics.

The Dunskey Report also notes a number of deficiencies in the proposals:

- Lack of discussion or proposals on obtaining third-party or alternative financing solutions;
- Exclusion of customers on Income-Qualified programs means there would be lack of data when a full-scale program is considered following pilot completion;
- Extended warranties and extensive one-year M&V process may be unnecessary and significantly increase program cost;
- Lack of renter participation in multiple proposals;
- Consider allowing owner-occupied participants to take part in the program even if the upgrades would not lead to bill neutrality;
- Lack of specifics on needed IT and billing system upgrades; and
- Lack of detail on how potential edge cases related to Decarbonization Charge transferability should be handled, especially with regards to pauses and rentals.

5.3.2. Specific Recommendations

The Dunskey Report provides recommendations for each proposal as well. As discussed later, we do not need to consider PG&E and SVCE for purposes of this decision. For SCE, the report recommends the Commission not approve, due to high administration costs and overlap with SoCalGas' territory. The Dunskey Report notes that SCE's proposal excludes extended warranties, leaves

maintenance for the upgrades to the property owner, and also discusses cost-effectiveness considerations, all of which the other proposals do not. The report recommends that the SCE proposal be modified to utilize un-committed PPP funds rather than incremental funds, should further explain the project loss reserve funding by ratepayers, and needs to provide more detail regarding its M&V approach and billing system upgrades.

For SDG&E, the report recommends that the Commission not approve, due to high cost of administration, low participation targets, and exclusion of renters. The report notes that SDG&E would be an interesting pilot as it is the only utility proposal involving a combined natural gas and electric entity. The report states that the SDG&E proposal should be modified to include landlords and renters, should utilize re-allocated PPP funds, explain the use of a ratepayer funded project loss reserve, better describe its billing system upgrades, and remove consideration of extended warranties to reduce cost.

For SoCalGas, the report recommends approval with modifications, as it targets the largest number of customers and utilizes internal capital as opposed to ratepayer funds. The report recommends the inclusion of renter participation, the use of re-allocated PPP funds, use of a simplified M&V process, eligibility for electrification equipment participation, and a better description of needs for the customer billing process.

6. Party Comments

6.1. Cal Advocates

Cal Advocates recommends that no pilots be approved, stating that they would not provide adequate lessons towards a full-scale TOB program and

would be a poor use of ratepayer funds, especially with the state's current focus on rate affordability.⁷⁴ Cal Advocates particularly notes high non-project costs.

For specific projects, Cal Advocates recommends denial for SoCalGas as Cal Advocates states that SoCalGas' pilot does not support electrification, and would in fact delay emissions reductions by delaying heat pump adoption. Cal Advocates also does not support SoCalGas' proposal to treat TOB projects as a regulatory asset, as it has not provided sufficient detail on revenue requirements and ratepayer impact. Cal Advocates also does not support the approval of SoCalGas' (and SDG&E's) pilot due to the lack of participation by renters, as insufficient data would be presented to inform a full-scale pilot.

Cal Advocates also recommends denial for SDG&E due to the use of extended warranties and long-term service plans, as Cal Advocates recommends that the program participant be tasked with maintenance of equipment. Cal Advocates also recommends denial of SDG&E's (and SCE's) proposal due to high non-project costs. Cal Advocates points to SoCalGas' IT budget, which is smaller due to the planned use of manual entries as opposed to the more expensive upgrades presented by SCE and SDG&E. Cal Advocates also states that loss backstops should not be provided given the small number of estimated participants, as well as the fact that ratepayers are capitalizing the TOB programs and any shortfalls would simply result in less money returned to ratepayers at the end of the pilot and the use of a project loss reserve would therefore be redundant.⁷⁵

⁷⁴ Cal Advocates Opening Comments, May 14, 2025 (Cal Advocates Opening Comments), at 2-3.

⁷⁵ Cal Advocates Opening Comments, at 6.

Should the Commission approve a pilot, Cal Advocates recommends that the SCE pilot be approved, as it most closely matches TOB pilot objectives. Cal Advocates recommends modifications to remove the bill neutrality requirement, require manual billing entries, and re-allocate existing un-committed PPP funds to pay for the program to increase participation and reduce cost/ratepayer impact.

6.2. Greenlining and Green for All

Greenlining supports the approval of the SCE pilot, but not the SDG&E or SoCalGas pilots. Greenlining notes that there is an immense need for electrification and an unclear path forward through simply utilizing grant-based programs.⁷⁶ SoCalGas is not recommended for approval as it is a gas-only TOB program. Greenlining states that the TOB pilot costs are not out of step with the cost of other utility pilot projects or financing programs, including GoGreen financing.⁷⁷ Greenlining believes that the SCE and SDG&E proposals contain sufficient customer safeguards, and encourages that any approved pilot include low-income customer populations and renters for testing purposes. Greenlining also supports keeping bill neutrality as a requirement, for customer protection purposes and because it is a key component of what differentiates TOB programs from other debt-oriented programs. Greenlining supports keeping robust M&V measures to ensure that customers are receiving the projected savings and if not, that they are made whole, possibly through adjustments to the Decarbonization Charge.⁷⁸ For modifications to the SCE pilot, Greenlining recommends a joint

⁷⁶ Greenlining Reply Comments, May 30, 2025 (Greenlining Reply Comments), at 5.

⁷⁷ Greenlining Opening Comments, May 16, 2025 (Greenlining Opening Comments), at 5.

⁷⁸ Greenlining Reply Comments, at 4.

pilot with SoCalGas to maximize effectiveness and incorporate both electric and gas savings.

6.3. Joint Consumer Advocates

The Joint Consumer Advocates recommend that no pilot be adopted at this time. The Joint Consumer Advocates focus on consumer protections, and note that the proposals do not include income checks. The Joint Consumer Advocates also contest the Dunskey Report's recommendation to allow non-bill neutral projects to proceed, as this is similar to On-Bill Financing (OBF) programs, which allow customers to finance projects through their utility bill but have no bill neutrality requirements.⁷⁹ Regarding partial payments, the Joint Consumer Advocates note that the proposals do not adequately spell out how partial customer bill payments would be allocated. The Joint Consumer Advocates also point out issues such as monthly fluctuations in usage possibly leading to the Decarbonization Charge increasing bills. They recommend treating the TOB program under the Truth in Lending Act, although they do not explain the ramifications for such an action.

The Joint Consumer Advocates state that the pilots have not adequately addressed concerns surrounding transferability, including convincing new owners to accept repayment obligations, laying out when a vacant unit turns into a program loss, and the lack of enforceability of tenant protections, particularly requirements that landlords warn tenants of the charge before they sign rental agreements.⁸⁰

⁷⁹ Joint Consumer Advocates Opening Comments, May 14, 2025 (Joint Consumer Advocates Opening Comments), at 11.

⁸⁰ Joint Consumer Advocates Opening Comments, at 13.

The Joint Consumer Advocates also warn against the Dunsky Report's recommendation to allow contractors to market to customers. They point out the mismatched incentives of customers and contractors as well as a lack of regulation over contractors should fraud occur.

The Joint Consumer Advocates recommend denial of SCE's and SDG&E's proposal due to high administrative costs, 84 percent and 75 percent of program costs, respectively. The Joint Consumer Advocates state that SoCalGas' proposal would also be costly, as it recommends regulatory asset treatment for upgrades, resulting in shareholder profits.⁸¹ The Joint Consumer Advocates note that ratepayers bear the burden of risk in all pilot proposals, and highlight that the proposals are likely to lead to cost-shifting as IOUs have not procured state or federal funding sources as in other existing TOB programs.⁸²

The Joint Consumer Advocates also recommend that SVCE's request for cost recovery should be denied, as the field trial was never approved by the Commission, and approval would result in retroactive ratemaking. SVCE had in fact stated no Commission funding was needed.⁸³ They also recommend that the TOB pilot be denied as SVCE did not continue consideration of its TOB pilot proposal.

6.4. SoCalREN

SoCalRen states that any cost-effectiveness evaluations should meaningfully incorporate non-energy benefits, such as greenhouse gas reductions and societal benefits.⁸⁴

⁸¹ Joint Consumer Advocates Opening Comments, at 29-30.

⁸² Joint Consumer Advocates Opening Comments, at 32-33.

⁸³ Joint Consumer Advocates Reply Comments, at 5.

⁸⁴ SoCalREN Opening Comments, May 14, 2025, at 2.

6.5. SBUA

SBUA asks that all TOB pilots be opened to include small business customers, as they face similar challenges to obtaining financing for clean energy upgrades that residential customers face. SBUA states that additional workshops could be utilized to discuss concerns and explore modifications to the pilot proposals.

6.6. VEIC

VEIC recommends that the Commission approve both SCE's and SDG&E's pilot proposals, with modifications. VEIC also recommends that PG&E be directed to consider the use of its existing billing system to support a TOB program prior to implementing its full billing system upgrade. Regarding SoCalGas, VEIC is skeptical of its pilot, stating that replacement of gas water heaters with tankless gas water heaters will not aid the state's goals of decarbonization or heat pump installations.⁸⁵ VEIC also notes the risk of a customer electrifying their home and canceling gas service leading to non-repayment, as well as the fact that since SoCalGas focuses on gas-only measures little is learned about fuel-switching risks.

Regarding program design, VEIC states that maximizing customer protections such as extended warranties is in line with US EPA recommendations for TOB programs, and where it is unclear whether the protections are needed it would be prudent to include them in these pilots for customer protection.⁸⁶ However, VEIC also notes the risk of imposing too many restrictions, especially for landlords, as this may discourage participation leading

⁸⁵ VEIC Opening Comments, May 14, 2025 (VEIC Opening Comments), at 5.

⁸⁶ VEIC Opening Comments, at 9.

to nothing being learned.⁸⁷ VEIC recommends that an approved SCE pilot include renters and multifamily properties in year 2 of the pilot.

VEIC is supportive of the exclusion of third-party capital until a TOB pilot has shown that the program is deliverable at scale, societal benefits can be monetized, and there are enough customers to take advantage of the program. VEIC also states that the Dunskey Report's grading of the proposals is too harsh and asks for an unnecessary level of detail, particularly with regards to implementation, that should be left to the Utilities to determine. VEIC states that the Dunskey Report's recommendations to not require bill-neutrality, allow for contractor co-marketing, reduce one-year M&V activities, allow for income-qualified participant participation, impose definitional constraints, and not approve the SCE and SDG&E proposals should be discarded as they misunderstand the inherent design and benefits of TOB programs. VEIC also recommends discarding KPIs related to financial metrics as they would require fully developed data collection and reporting plans. Regarding cost, VEIC says the pilots are reasonably budgeted to begin the field testing needed to determine the usefulness of TOB. Where parties have concerns about the pilot budgets, VEIC recommends that the advice letter process be utilized to refine the budgets, especially after the SVCE field trial is completed.⁸⁸

VEIC recommends that the Commission consider the design and findings of the SVCE and TECH field trial, which should be fully deployed by the end of 2025. The main goal of the field trial is to determine whether a public or ratepayer investment in TOB can deliver the same or higher benefits than a

⁸⁷ VEIC Reply Comments, May 30, 2025 (VEIC Reply Comments) at 8.

⁸⁸ VEIC Reply Comments, at 6-7.

comparable investment in a direct subsidy program.⁸⁹ VEIC also notes that although TOB may not be cost-effective as compared to taking no action, if the state in the future decides to conduct other decarbonization programs and activities then those are the programs that TOB should be compared to. VEIC also notes that TOB requires little or no upfront cost and no additional consumer debt, which is novel as compared to other potential consumer infrastructure upgrade programs. VEIC recommends that SCE work with TECH to utilize access to gas and electric data and that SoCalGas be directed to work with SCE to facilitate ongoing and subsequent targeting.

In response to other parties, VEIC notes that the Joint Consumer Advocates view that credit checks should be instituted and Cal Advocates position that bill neutrality should be removed as a requirement are at odds, but that neither's recommendation is in the spirit of IUI as the bill neutrality requirement is a necessary and sufficient protection for program participants.⁹⁰

6.7. Rewiring America

Rewiring America notes the policy benefits of supporting electrification, including advancing state climate goals, emissions reductions, affordability, health benefits, grid performance and load management, and workforce and economic development.⁹¹ Rewiring America particularly notes that TOB can be used to bridge gaps in current financing programs which require income verification and customer debt.⁹² Without opening technology upgrade

⁸⁹ VEIC Opening Comments, at 14.

⁹⁰ VEIC Reply Comments, at 9-10.

⁹¹ Rewiring America Opening Comments, May 14, 2025 (Rewiring America Opening Comments), at 4-8.

⁹² Rewiring America Opening Comments, at 8-9, Rewiring America Reply Comments, May 30, 2025, at 6-8.

programs to all, Rewiring America notes it would be difficult to meet the state's climate and equity mandates. Rewiring America therefore supports the approval of pilots to test implementation and gather information, and finds that the pilot costs are reasonable given the potential benefits that TOB can provide to the state and to ratepayers.⁹³ Rewiring America also states that SVCE's field trial is not a substitute for a full-scale utility-led pilot, due to questions surrounding billing integration, regulatory coordination, and long-term administrative feasibility.

Regarding TOB program design, Rewiring America supports maintaining bill neutrality and pairing it with beneficial electric rates. It also supports making the programs available to low-income customers. Rewiring America encourages the approval of electrification technologies, including heat pump water heaters. Rewiring America also highlights the need to ensure that avoided gas usage is accounted for in project economics to ensure financial feasibility and bill neutrality calculations are properly conducted.

6.8. SVCE

Although SVCE did not seek ex-ante Commission approval of its pilot/field trial, it asks that the Commission authorize recovery of its field trial and future TOB pilot costs in its Public Purpose Program Adjustment Mechanism. It asks that the Commission authorize SVCE to file a Tier 2 advice letter for recovery of its field trial as well as a TOB pilot. SVCE also asks that PG&E be directed to implement TOB billing functionality, to allow SVCE to operate a TOB pilot at some point.

SVCE recommends approval of a utility TOB pilot both to test different strategies and also because SVCE's field trial does not include a Decarbonization

⁹³ Rewiring America Opening Comments, at 20.

Charge. SVCE notes that the Dunskey Report recommends design changes that diverge from the EPA's model for IUI/TOB financing, specifically relating to bill neutrality requirements and the inclusion of low-income customers. SVCE also questions the Dunskey Report's use of terms such as "loan loss reserve" when TOB programs are not loans. SVCE states that cost-effectiveness should not be a consideration for a pilot, as this is meant to test whether a full-scale program could be cost-effective, given learnings from pilots.⁹⁴

6.9. SDG&E

SDG&E states that it is not proposing participation for low-income customers out of concerns for negative bill impacts, given the pilot status of the proposals, and is instead focused on the mechanics of running a TOB program. SDG&E states that it requests cost recovery through incremental PPP funds, but would prefer the proposal be denied given the impacts on ratepayers. SDG&E also notes that its proposal for ratepayers to fund the project loss reserve is similar to how EE and OBF loan programs treat recovery of project loss reserves. Regarding needed billing system upgrades, SDG&E states that current on-bill repayment systems track the customer, whereas TOB would track the site. Additional changes would need to be made to address pauses in payment, as well as how to deal with SB 1112 requirements. SDG&E disagrees with the Dunskey Report's recommendation to do away with extended warranties, given the need to ensure consistent operation of the upgrades to justify the Decarbonization Charge. Ultimately, SDG&E recommends approval of no pilots, but if any are approved, it should not be SDG&E's.⁹⁵

⁹⁴ SVCE Reply Comments, May 30, 2025 (SVCE Reply Comments), at 2-3.

⁹⁵ SDG&E Reply Comments, May 30, 2025, at 3-4.

6.10. PG&E

PG&E disagrees with the Dunskey Report's recommendations to reduce customer protections and remove the contracting and service model. PG&E states that an extended warranty is necessary to ensure that the upgrade is functional for the life of the Decarbonization Charge to ensure that participating customer bills do not increase. PG&E particularly notes that in the case of a tenant-landlord site, it would be unfair for a new tenant to be required to pay a Decarbonization Charge for an upgrade that no longer functions.⁹⁶ Similarly, PG&E states that because the TOB program should be viewed as a service program rather than a loan program from the participant's perspective, then it would make more sense for the program implementer to exercise more oversight of contractors. PG&E also states that cost-effectiveness KPIs are unnecessary at this time as any full-scale program would likely have different goals and costs than these pilots. Finally, PG&E re-iterates its inability to implement a PG&E TOB Pilot at this time, given high administrative costs, affordability concerns, and difficulty in implementation.⁹⁷

PG&E states that it would be unable to add a TOB line item in its billing system, as requested by SVCE and VEIC, before 2030 without taking its focus away from other projects, due to the ongoing billing system upgrade project PG&E is currently undertaking. PG&E also notes the cost of implementing any billing upgrades, without knowing whether TOB programs would be continued in the future, would be speculative and unwise. PG&E recommends testing of only one pilot.

⁹⁶ PG&E Opening Comments, May 14, 2025, at 2.

⁹⁷ PG&E Reply Comments, May 30, 2025, at 4.

6.11. SoCalGas

In response to the Dunskey Report, SoCalGas notes that some of the changes requested would necessitate revisions to its proposal's budget and timeline, particularly the Dunskey Report's request to include rental properties and CARE program participants for eligibility in its pilot.⁹⁸ SoCalGas also states that the inclusion of electrification measures for project eligibility would require significant customer protection challenges and potentially be an improper cross-subsidization between electric and gas customers. Regarding the request for additional billing system upgrade details, SoCalGas states that any detail requested more than in its proposal would be determined in a later implementation document. SoCalGas is in support of extending the pilot term to three years.

In response to party comments, SoCalGas states that EE measures should not be excluded as a TOB eligible technology, as EE measures decrease energy use and therefore decarbonize. SoCalGas also states that contrary to arguments by the Joint Consumer Advocates, other TOB programs such as Duke's TOB program uses a regulatory asset with rate of return model, and notes that the use of regulatory assets in the program is consistent with the EPA/IUI model.⁹⁹ SoCalGas also re-iterated its opposition to adding landlords and renters to the TOB pilots, noting the greatly increased complexity in dealing with notice timelines and transferability. SoCalGas also noted that adding CARE customers while removing the threat of disconnection would leave no repercussions for customers should they fail to pay their bill, likely leading to no participation by

⁹⁸ SoCalGas Opening Comments, May 14, 2025 (SoCalGas Opening Comments), at 1-2.

⁹⁹ SoCalGas Reply Comments, May 30, 2025 (SoCalGas Reply Comments), at 2-3.

equity markets.¹⁰⁰ SoCalGas supports the continued use of bill payment history and not credit checks for customer qualification, as well as continuing to require bill neutrality. SoCalGas also disputes the need to address cost-effectiveness at this time, as TOB is a pilot, and the record in this proceeding is insufficient on the issue of cost-effectiveness.¹⁰¹ SoCalGas also defends the costs of its proposal, noting that regulatory asset treatment would allow for prompt deployment and greater transparency.¹⁰²

6.12. SCE

SCE does not recommend approval of its proposed TOB Pilot. It notes that there would be high start-up costs, and that the pilot is unlikely to be cost-effective, but agrees that it would provide insight into the TOB model that could be leveraged in the future.¹⁰³ Although SCE shares concerns about scalability and the financial impact to non-participants, it does not agree with recommendations in the Dunskey Report to reduce participant protections, such as bill neutrality and M&V processes, as it could lead to increased disconnections.¹⁰⁴ However, SCE states that if any pilot is to be approved, it should be SCE's unmodified proposal.

In response to the Dunskey Report, SCE notes that as cost-effectiveness was not a stated goal of the TOB pilots, it would treat financing defaults in the same manner as the OBF program and cover the losses with ratepayer funding. Regarding the participation of Income-Qualified programs customers in the

¹⁰⁰ SoCalGas Reply Comments, at 6.

¹⁰¹ SoCalGas Opening Comments, at 4-5.

¹⁰² SoCalGas Reply Comments, at 9.

¹⁰³ SCE Opening Comments, May 14, 2025 (SCE Opening Comments) at 3.

¹⁰⁴ SCE Opening Comments, at 3.

pilot, SCE notes that including CARE and FERA customers would be difficult, as their bills are lower due to the discounts applied by those programs.¹⁰⁵ SCE notes that its billing system would require, at minimum, changes to the way the OBF program is programmed to work on bills, as it is designed for non-residential customers as a direct loan to the company, and not a charge on the meter. However, SCE's billing system has recently completed an upgrade and therefore has no issues for timeline in that respect.¹⁰⁶ SCE reiterates that electrification measures would not lead to bill savings, making the TOB model unworkable for reaching bill neutrality.

Contrary to the report's conclusions, SCE states that its program does not necessarily overlap with SoCalGas' just because they share territory. However, SCE recommends that SoCalGas' proposal should not include heat pumps as eligible technologies and that that should be left to SCE as the electric utility company in the area. SCE states that its cost estimates may need to be updated higher and it should be allowed to re-submit updated cost totals, especially if modifications are directed.¹⁰⁷

Regarding transferability, SCE states that it would leave to the landlord and tenant how to deal with a lack of notice of the Decarbonization Charge, as a contractual dispute.

In response to comments, SCE reiterates that it should not be ordered to modify the pilot as requested by other parties, as this could increase cost and complexity significantly. SCE highlights Cal Advocates' manual billing request particularly, as SCE argues this would significantly increase administrative

¹⁰⁵ SCE Opening Comments, at 7.

¹⁰⁶ SCE Opening Comments, at 8.

¹⁰⁷ SCE Reply Comments, May 30, 2025 (SCE Reply Comments), at 3.

costs.¹⁰⁸ SCE also restates its opposition to removing the requirement of bill neutrality. SCE notes that it did not propose third-party capital KPIs because it would not be using such capital sources during the pilot.

7. Consideration and Analysis of Proposals

The Commission thanks the parties for their efforts in preparing and drafting these TOB pilot proposals. This section first discusses the Joint TOB Proposal, and then each proposal individually.

7.1. Joint TOB Proposal and Shared Comments

Parties were generally supportive of the principles and models laid out in the Joint TOB Proposal. Parties stated there was a potential need to find alternative methods for supporting clean energy upgrades for ratepayers that have not been typically reached for participation in subsidy and grant programs. However, as such populations may face difficulty with bill payments as well as general understanding of utility programs such as TOB, parties highlighted the need for sufficient customer protections if a pilot were to be approved. Parties also noted that TOB may be beneficial to customers since it requires no upfront costs and does not saddle customers with additional debt.

Most intervenors stated that the suite of customer protections was well-considered and in line with TOB principles. The one-year M&V would also provide an opportunity to confirm the pre-project estimates and make adjustments if customers are not seeing the expected savings. The Dunskey Report and commenting parties therefore mostly determined that disconnections were a valid method to ensure payment. The Joint Consumer Advocates raised a number of issues related to protections for low-income customers, citing a need

¹⁰⁸ SCE Reply Comments, at 1-2.

for credit checks and more thorough discussion of transferability and disconnection rules, especially related to tenants.

The Dunskey Report, as well as Cal Advocates, stated that the bill neutrality requirement should be removed, as it would serve as an unnecessary barrier to customer participation. The Dunskey Report also recommended modifying other customer protections, such as reducing the depth of the one year M&V process as well as any provisions for extended warranties, in order to reduce administrative burden and cost. Cal Advocates also recommend that extended warranties not be used, and that program participants be tasked with equipment maintenance. VEIC, Joint Consumer Advocates, the Utilities, Rewiring America, and Greenlining were all against the recommendation to remove the bill neutrality requirement, and stated that doing so would be against the principles and benefits of the TOB/IUI scheme. They noted that it would be a removal of the most important customer protection. Most parties were also supportive of extended warranties, to maximize customer protection.

The Dunskey Report recommended that contractors be allowed to market, but the Joint Consumer Advocates note that past programs have faced struggles due to contractors encouraging participation by customers that was not in their best interest.

Some parties highlighted a need for additional KPIs, so that the pilot provides enough information to design future programs. Although parties were generally understanding of the lack of capital sourcing in the proposed pilots, the Dunskey Report recommended that the pilots focus on KPIs and other methods to collect data that could be used to procure third-party capital funding in the future. The Dunskey Report and VEIC stated that additional financial metrics are necessary to provide future capital providers enough information to determine

whether and how to participate. In response, SCE notes that no third-party capital KPIs were proposed as no such capital is being utilized for this pilot.

Multiple parties questioned the need for a project loss reserve, given that ratepayers would be covering the initial funds. SDG&E and SCE state that the project loss reserve would function similarly to OBF programs in that any project that “defaults” would have the amount reimbursed to the loan pool by the loss reserve, which would then go back to ratepayers.

Parties were supportive of the use of weatherization and energy efficiency measures, but highlighted the lack of decarbonization technologies in SoCalGas’s pilot, which may inhibit scaling. SCE notes that electrification measures are not likely to lead to bill savings, which could make the TOB model unworkable as bill neutrality would not be reached.

Many parties recommended that no pilots be approved, claiming that they are not likely to be cost-effective. Parties noted ongoing affordability concerns regarding electric rates, and all three proposed pilots would present non-project costs to be recovered from ratepayers for administration and implementation. VEIC argues that although TOB may not currently be cost-effective, it should be compared to future decarbonization programs and activities that the state may be forced to consider in achieving its decarbonization goals. The Dunskey Report recommended that any pilots that seek recovery through PPP funds do so through uncommitted and unspent EE or PPP funds to fund the pilot, as opposed to incremental funds.

The Dunskey Report as well as other parties questioned why project implementation costs were so high, and asked that SDG&E and SCE provide additional information regarding what billing system upgrades would be necessary and their cost. SDG&E states that current on-bill repayment systems

track the customer, whereas TOB would track the site. Additional changes would need to be made to address pauses in payment, as well as how to deal with SB 1112 requirements. SCE stated that its current billing system does not accommodate the automatic transferability of a tariff or extended period paused billing during vacancies. Significantly, the OBF program is for non-residential customers, and is a direct loan to the company, not a charge on the meter. Adding a TOB charge that runs with the meter would require the system improvements SCE discussed in its proposal.

In sum, most parties did not question the need for or overall principles of TOB programs. Most comments suggested modifications related to utility implementation or program design. VEIC and SVCE recommended that pilots be open for modification after the SVCE field test is completed.

7.2. PG&E

Regardless, some parties, particularly SVCE, requested that the CPUC direct PG&E to take action to set up its billing system so that it has the ability to put a Decarbonization/tariff charge on customer bills. PG&E states that adding this functionality would slow down the currently ongoing process of upgrading its overall billing system, and would be unwise at this time given the nascent status of TOB.

It would not be reasonable to direct PG&E to take steps to implement a TOB billing system at this time, given that this decision is only authorizing one pilot for SCE. We decline to direct PG&E to implement any billing system changes at this time related to TOB. PG&E is authorized to continue tracking in its Tariff On-Bill Memorandum Account costs related to coordination with SVCE for their pilot, and may submit a Tier 1 Advice Letter effectuating this change.

7.3. SDG&E

Parties were generally not supportive of SDG&E's proposal, for a number of reasons, chiefly high administrative and implementation costs, as noted by the Dunsky Report.¹⁰⁹ Cal Advocates notes that the use of extended warranties and long-term service plans would greatly increase project administrative cost. Parties also note that SDG&E's proposal does not include renters or low-income customers, reducing what can be learned from the pilot. Some parties noted that SDG&E's proposal was unique in that it was the only proposal from a combined electric and gas utility, thus providing synergy opportunities including better participant targeting. Notably, SDG&E itself did not support approval of its pilot, due to cost.

SDG&E's pilot design does not provide enough information to justify the cost of the pilot. As discussed above, throughout this proceeding and in D.23-08-026 the Commission has made clear that TOB is to be tested for its value in providing access to customer populations that historically are underserved by clean energy infrastructure programs. Excluding renters in the pilot phase would not provide us with sufficient information. Additionally, as we have approved SCE's pilot (discussed later), we are not convinced that additional pilots are necessary, as we see no large differences between SDG&E's and SCE's territory and customer populations for purposes of this pilot. SDG&E's proposal is therefore denied.

7.4. SoCalGas

SoCalGas was the only utility to support approval of its own proposal. SoCalGas provided the quickest timeframe to start its pilot, within 3-6 months.

¹⁰⁹ Dunsky Report, at 46.

SoCalGas proposed to allow for tenant participation and proposed the lowest administration cost of any pilot. The Dunskey Report was supportive of the SoCalGas pilot, due to the larger number of customers targeted and use of internal capital to pay for projects, as opposed to ratepayer funds.

Most parties were not supportive of SoCalGas' proposal, for two main reasons. Parties note that SoCalGas, as a natural gas utility, does not propose electrification measures as part of its eligible technologies. Parties note that customers participating in SoCalGas' pilot would be replacing current infrastructure with new gas infrastructure, thus locking in gas usage for the life of the upgrade (estimated by SoCalGas to be 12 years, if matching the proposed length of the Decarbonization Charge). Secondly, intervenors saw SoCalGas' proposal to treat the upgrades as a regulatory asset as unnecessary and simply a way for SoCalGas to obtain additional profits. In response SoCalGas stated that its proposed list of measures decrease energy use and therefore decarbonize, and that the use of regulatory assets are consistent with the EPA/IUI TOB model.

We agree with intervenors that it would not be fruitful to approve the SoCalGas pilot at this time, especially given that the SCE proposal is being approved below. The SoCalGas pilot does not meet many of the most important goals for testing TOB pilots highlighted in D.23-08-026, mainly concerning decarbonization/electrification and tenant participation.¹¹⁰ We therefore deny the proposal.

7.5. SVCE

Although SVCE did not seek approval for its ongoing field test, it does seek cost recovery for it as well as approval for a future TOB pilot. As noted by

¹¹⁰ D.23-08-026, at 74-78.

the Joint Consumer Advocates, any approval of cost recovery for SVCE's pilot would be retroactive ratemaking at this time, as SVCE has already implemented its field test. Additionally, it would not be reasonable to approve an SVCE TOB pilot given outstanding implementation concerns with PG&E, as well as the overall uncertain nature of TOB efficacy in California generally. As discussed above, for similar reasons we reject SVCE's request to direct PG&E to take efforts to make its billing system TOB ready. SVCE's requests are denied.

7.6. SCE

Although The Dunskey Report did not recommend approval of the SCE pilot, due to high administration costs and overlap with SoCalGas' territory, it did note that the SCE pilot contained recommended TOB/IUI designs such as the participation of renters, the exclusion of extended warranties on technologies, and the provision that maintenance is left to the property owner. The Dunskey Report sees these details as essential TOB/IUI design as well as reducing unnecessary program cost. For these reasons, a number of the parties stated that the Commission should approve the SCE pilot, if it chooses to approve any at all, as it most closely matches the principles of TOB/IUI.

Parties recommended that the SCE pilot be revised to remove the bill neutrality requirement, require manual billing entries to reduce administrative cost, and re-allocate existing un-committed PPP funds to pay for the program to reduce ratepayer impacts. VEIC recommended that the approved SCE pilot allow renters and multi-family properties to participate starting in the second year of the pilot. Some parties recommended closer collaboration between SCE and SoCalGas on pilots, but no specificity was provided as to how such a venture would occur.

SCE did not support approval of its pilot, but noted that if any pilot were to be approved then it should be its own, as it most closely matches the EPA TOB/IUI principles as well as the stated goals of this proceeding. Given the state's urgent need to address its decarbonization goals, we approve this SCE pilot. Below, we address modifications to the pilot as well as cost recovery issues.

8. Approved Modified SCE Pilot

As discussed above, many have noted that while there is a cost associated with clean energy infrastructure and upgrades at a customer's residence or property, there are potential benefits to a TOB pilot, which is outside of the usual subsidy methods that have historically been utilized. TOB projects require no upfront costs for participants since the TOB functions as a loan attached to one's meter, and as the Decarbonization Charges are not debt, TOB programs require less in the way of credit checks. Bill neutrality requirements could provide both security for the program against customer default as well as protections for the customer against inability to pay for the upgrade. It would be beneficial for the Commission and the Utilities to implement a pilot in California to test its effectiveness here.

However, intervenors have raised concerns regarding the pilots as designed and implemented by the IOUs. Particularly, intervenors and the Utilities themselves are concerned with the cost of the pilots. The Commission recognizes the ongoing affordability concerns, and is wary of unnecessary spending of ratepayer funds. As such, only SCE's pilot will be approved, as it is the pilot that most closely matches the principles espoused by the US EPA and D.23-08-026. Below, we discuss the different portions of SCE's pilot and determine whether any modifications should be made to that portion. Unless

otherwise specified here or in SCE's TOB Pilot proposal, it is assumed that SCE's proposal adopts the standards laid out in the Joint TOB Proposal, particularly for customer protections and customer agreements.

8.1. Bill Neutrality

There was significant discussion in the Dunskey Report and party comment regarding bill neutrality. Both the Dunskey Report and Cal Advocates posit that requiring bill neutrality would limit program participation. Other parties stated that requiring bill neutrality is necessary for a functional TOB system, otherwise it is akin to an OBF program, as there are no controls on the amount the Decarbonization Charge can be as compared to savings.

For purposes of this pilot, it is reasonable to require bill neutrality, but allow for the possibility of co-pays. In order for the rules regarding transferability to function fairly, subsequent tenants and renters must be expected to receive total energy savings equivalent to the Decarbonization Charge on their electric bill. To Cal Advocates' point however, owners of buildings should have the option to participate even if bill neutrality is not initially obtained, for health or safety reasons¹¹¹ – therefore, we will allow participants to provide a co-pay to reduce the Decarbonization Charge and achieve bill neutrality.

8.2. Use of Billing History for Qualification

Parties were generally accepting of the use of utility bill payment history as screening criteria. Other proposals recommended more stringent criteria than SCE's, such as ensuring that the participant had not had payment troubles within the last 12 months. The Joint Consumer Advocates stated that further reviews,

¹¹¹ Cal Advocates Opening Comments, at 7.

such as income and credit checks, should be considered, to ensure that participants are being sufficiently protected from disconnection or default.

Upon consideration of party comments, we find that billing history review is a sufficient safeguard for both the utility and participants, when viewed in concert with other protections in this TOB pilot as implemented. The requirement of bill neutrality should protect participants against increased total energy costs. The process of disconnections (which currently already exists) should deter non-payment of bills. Requiring credit checks also goes against the goals of TOB and IUI programs, which seek to provide customers who are typically unable to participate in debt-related financing programs due to poor credit a path to obtaining clean energy upgrades. SCE's pilot should lean towards more inclusivity at this time, to provide additional learnings before a full-scale program is considered, and as discussed below, we are implementing additional safeguards in this pilot to ensure that program participants will not have adverse consequences for their participation. SCE's proposal to use billing history to qualify participants is therefore approved – however, SCE shall also ensure that in addition to the customer being in good standing, the potential participant shall not have been on a payment plan in the previous 12 months, as was proposed in SDG&E's pilot.

8.3. Customer Eligibility

SCE's TOB Pilot Proposal is open to all residential customers living in an individually metered unit in good standing with SCE. Projects must also reflect bill neutrality, with high energy users being targeted. Participants must agree to share 12-month historical bill usage data for gas and electric use prior to approval, as well as ongoing access for M&V purposes at a frequency to be determined by SCE. Participants in certain special tariffs, including CARE and

FERA, are not eligible for participation. SCE shall screen all customers for eligibility for subsidized equipment upgrade programs, such as ESA, prior to participant approval, in order to reduce upgrade costs.

Parties were supportive of SCE's proposal to include renters in the pilot. SCE estimates that 10 percent of projects will be renters, which based on SCE's overall project maximum of 150 projects would be fifteen total tenant/landlord sites. This amount should help SCE to work through potential issues in working with renters and landlords without overwhelming the pilot administratively, or financially should problems arise. SCE's argument that it would not be feasible at this time to include customers that pay discounted electric bills is reasonable, as such customers already see reduced electric bills potentially making it difficult for those customers to achieve bill neutrality after upgrades are installed. Such customers are the most at-risk and least able to afford potential short-term setbacks if the pre-project bill neutrality calculation proves to be inaccurate. SCE's proposal to only utilize 90 percent of estimated bill savings for purposes of calculating bill neutrality is sufficient to both provide a buffer without making the program calculations unworkable.

The Joint TOB Pilot Proposal includes a long list of terms that must be included in the customer agreement, including Decarbonization Charge duration, partial payment, vacancy, disconnection, and transferability provisions.¹¹² Some parties, such as the Joint Consumer Advocates, note that some of these terms are not yet fully defined. As this is a pilot, it is likely that not all circumstances can be addressed ahead of time. Instead, it is important to develop a protective safeguard so that customers are not unreasonably burdened

¹¹² Joint TOB Proposal, at 40-41.

by such unforeseen circumstances. As such, in addition to the included protections in the TOB Pilot Proposal, we direct that SCE also propose in its TOB tariff customer disconnection and partial payment provisions similar to those already in effect – that is, treatment of the TOB charge similarly to the rest of a customer’s bill.¹¹³ The TOB charges should not stack, but where a bill is partially paid the TOB charge portion should be paid last such the repayment duration is extended until the full amount is paid. For location vacancies, SCE shall be allowed to write off the Decarbonization Charge at a site following five years of inactivity on the meter at the site. Transferability concerns should be dealt with between renter and landlord, but for purposes of this pilot if a subsequent tenant’s average annual savings is less than the total annual Decarbonization Charge, and such concern is raised to SCE by the tenant, SCE shall provide a refund to the tenant annually in the amount of the difference, if other educational remedies are ineffective.

Until a Customer Participation Agreement is signed by the participating customer, and landlord if the participating customer is not the owner of the property, no contract is enforceable. Landlords shall be subject to the requirements listed in the Joint TOB Proposal, including cost-sharing for water heating and space conditioning replacements. The landlord shall follow all applicable federal, state, and local laws regarding rent increases and tenant evictions.

8.4. Project Eligibility

SCE’s Pilot proposed that approved EE or electrification measures that support decarbonization of regulated fuel sources will be eligible for

¹¹³ Joint TOB Proposal, at 41.

participation in SCE's TOB pilot. SCE proposes five eligible technologies: heat pump water heaters, heat pump space cooling/heating, duct sealing, attic insulation, and smart connected thermostats.¹¹⁴ Projects must reflect bill neutrality, using a maximum Decarbonization Charge amount limited to 90 percent of the projected overall energy bill cost savings. This means that the maximum monthly charge that can be levied pursuant to the TOB pilot shall be equal to 90 percent of the estimated monthly bill savings due to the infrastructure upgrades. Projects will not be eligible for participation if the maximum monthly project Decarbonization Charge is insufficient to pay for the whole upgrade cost after 120 payments. Co-pays will be allowed where the savings are insufficient to pay for the project within the 120-month payback period.

SCE's eligible technologies such as weatherization are likely to produce bill savings, while others provide an opportunity to determine whether TOB can be used to encourage uptake of decarbonization technologies such as heat pumps. Additional technologies, such as electric vehicle charging infrastructure, could be added, but for purposes of the pilot it is beneficial to target technologies that are most likely to produce bill savings to test TOB functionality without greatly increasing administrative difficulty. SCE states that the addition of EV chargers would likely decrease the chances that a project would reach bill neutrality.¹¹⁵ The technologies presented are reasonable and satisfy the goals of D.23-08-026.

¹¹⁴ Joint TOB Proposal, Appendix E.3, at SCE-9.

¹¹⁵ SCE Opening Comments, at 9.

SCE's pilot proposal, as modified, complies with SB 1112's requirements. The proposed Decarbonization Charge is added to the bill at the service address the upgrade is installed at, and is collected until the upgrade is paid off. The charge is transferable to the next customer at the location. Consequently, SCE's program qualifies for SB 1112's stipulation that a Decarbonization Charge is not a debt collection. SCE's proposed TOB Pilot, as modified, also provides significant protections for participating customers, including bill neutrality calculations and remedies for savings underperformance. However, as noted in the Joint TOB Proposal,¹¹⁶ there is an outstanding question whether the TOB pilot could be construed as a loan program, which would subject SCE to lender licensing requirements. SCE shall seek to comply with all applicable financial lending laws and regulations. SCE shall, within 180 days after issuance of this decision, seek an opinion from DFPI on whether the pilot qualifies as a lending program and is therefore subject to additional lending regulations, or may otherwise be exempted from compliance as the TOB program is a pilot which carries substantial customer protections built in. SCE shall notify the Commission of DFPI's opinion via a Tier 1 AL within 30 days after receiving notice of the opinion.

8.5. Marketing and Outreach

SCE proposed to perform marketing and outreach through the Program Implementer, installation contractors, and SCE's website.¹¹⁷ SCE will target the top ten percent of highest residential energy users, in an effort to find customers

¹¹⁶ Joint TOB Proposal, at 16.

¹¹⁷ Joint TOB Proposal, at E.3 SCE-10.

with the greatest ability to achieve higher cost savings and meet eligibility criteria.

The Dunskey Report recommended that installation contractors be allowed to market to increase program participation. Both VEIC and the Joint Consumer Advocates warn against allowing contractors to market, based on past experience with the PACE program's predatory sales practices. At this point of the trial, it is reasonable to keep program marketing to SCE and/or its chosen Program Implementer. Although the requirement of bill neutrality should protect customers, given the low number of total projects, as well as SCE's stated intent to target high usage customers, it is reasonable to only allow TOB Pilot marketing by SCE or its Program Implementer, to remove any potential for contractor malfeasance until such time as additional standards can be set in the future.

8.6. M&V

SCE proposes to work with SVCE and the Technology and Equipment for Clean Heating (TECH) program to determine the final M&V protocols for the Pilot, based on a combination calculated/normalized meter energy consumption (NMEC) site-specific approach.¹¹⁸ If SVCE's pilot does not test a NMEC approach, then SCE proposes to create one using the Commission's approved measure packages and Fuel Substitution Impact Tool, as well as custom engineering calculations to estimate annual savings. This would be compared after one year with post-retrofit energy bills and NMEC data to determine if energy savings met projected amounts.

¹¹⁸ Joint TOB Proposal, at Appendix B, SVCE i-xii.

The Dunsky Report recommended that the one-year M&V analysis be less comprehensive to reduce administrative cost. SCE's projected budget for the full project (initial two-year period and subsequent analysis) M&V is \$1.12 million, approximately 16 percent of SCE's total pilot budget. Both Greenlining and VEIC disagreed with the recommendation, noting that M&V is needed to ensure that program participants are receiving the expected benefits of participation in the program and are not being unduly burdened. The Joint TOB Proposal states that M&V after one year of installation will be conducted to verify the savings allocated to the upgrade, as well as to determine whether remedies such as repair or replacement of equipment or reductions to the Decarbonization Charge are needed. The Joint TOB Proposal also states that customers may request a review if they suspect their upgrades are underperforming.¹¹⁹

It is reasonable for SCE to conduct M&V activities after one year. Such checks will help SCE determine whether its pre-project calculations and assumptions were correct while also ensuring that customers are not shouldering increased energy costs for long periods of time due to the project. As a pilot, TOB is in a learning phase and a rigorous M&V process will provide both learnings and security for program participants. In addition, as the Commission's Energy Division staff are also conducting NMEC evaluations of population-level NMEC programs, it will be critical for SCE's M&V team to engage Energy Division in the scoping, draft, and final stages of the evaluation to ensure consistency and best practices across studies. SCE shall conduct its proposed NMEC M&V process, engage the Energy Division at critical path checkpoints, and provide participants with remedies should it be determined

¹¹⁹ Joint TOB Proposal, at 39-40.

that an upgrade is not achieving expected bill savings, which can include refunds, a reduction of the Decarbonization Charge, or repair/replacement of equipment.

8.7. KPIs

SCE proposes to utilize the KPIs included in the Joint TOB Proposal, as well as track the number of TOB projects by building type. The Dunskey Report and VEIC recommended that additional KPIs be tracked with an eye towards providing third-party capital with additional information by which to judge whether to participate in a future full TOB program, such as delinquency rates, early repayments, and disconnection rates.

Upon review of the list of KPIs in the Joint TOB Proposal,¹²⁰ we find them to be a reasonable list of KPIs that will accurately portray whether the program was a success and where improvements can be made. The KPIs presented include delinquency rates, sunk costs, participation rates, number of transfers, Decarbonization Charge prepayments, savings realizations, number of remedies needed following the one year M&V, as well as the cost of such remedies. However, SCE should propose more granular KPIs than those proposed in the Joint TOB Proposal, especially with regards to tracking of equipment performance and savings, when it seeks approval for its new tariff implementing the TOB pilot via advice letter. SCE should further track estimated and actual savings by equipment type, as well as differences among customer segments. SCE should implement surveys as well to determine customer satisfaction with the process, as SCE and SDG&E proposed.¹²¹

¹²⁰ Joint TOB Proposal, at 49-50.

¹²¹ SoCalGas TOB Proposal, Appendix E.4, at 11; SDG&E TOB Proposal, Appendix E.5, at SDG&E – 3.

SCE shall work with the Commission's Energy Division to conduct a post-pilot review and shall serve it upon the service list in this proceeding within 12 months after the start date of the pilot.

8.8. Differences from Joint TOB Proposal

SCE's pilot proposal contained one large deviation from the Joint TOB Proposal: property owners would be responsible for regular maintenance and the cost of any extended warranty for the project. If regular maintenance is not conducted and the property owner is unable to provide documentation showing that required scheduled maintenance has not been completed, the property owner would be responsible for the remaining amount of the Decarbonization Charge at the time of equipment failure. If however the failure is not due to customer negligence or wrongdoing or failure to maintain the equipment, the Decarbonization Charge will simply be erased and losses will be charged to the program.

The Dunskey Report noted the cost of providing extended warranties and ongoing maintenance and service to participants and recommended they not be provided. Other parties recommended keeping such protections, to maximize participant safety. It is reasonable to approve SCE's request to remove extended warranties and ongoing maintenance, for purposes of testing and learning. Before approving a full-scale TOB program, it must be determined what barriers to program success exist, including inability to rely on participant maintenance. Extended warranties and continual service of project sites are significant expenses and it would be helpful to understand whether they are needed prior to full-scale program consideration. It is therefore reasonable to approve SCE's pilot design without the use of extended warranties.

8.9. Implementation

SCE proposes to open the TOB Pilot for customer applications 18 months after the Commission approves it.¹²² SCE estimates the competitive solicitation process to take 9-12 months. SCE asks that the Commission grant flexibility to submit its tariff and begin the pilot as SCE awaits data from SVCE's pilot. SCE provided a draft tariff in the Joint TOB Proposal,¹²³ and asks that it be directed to submit an advice letter containing the TOB Pilot tariff (and any necessary modifications) for Commission approval.

It is reasonable to allow SCE to incorporate the results of SVCE's field test while it conducts its competitive solicitation process to find a Program Implementer. No party challenged SCE's timeline. SCE shall submit its TOB Pilot Tariff as a Tier 2 Advice Letter by February 28, 2027, and open its TOB pilot for customer applications within 18 months after the issuance of this decision, or within 30 days after its advice letter is approved by the Commission, whichever is later. We clarify that the two-year duration of the pilot does not include the ramp-up time, the time spent enrolling customers, nor the time evaluating the pilot afterward.

8.10. Budget and Cost Recovery

SCE projected total costs of \$7.19 million in its pilot proposal. SCE in opening comments requested that it be granted an opportunity to update these projections if its pilot were to be approved, due to cost increases as well as in response to any program modifications. Multiple parties noted high projected administrative costs, as well as lack of definition for what those costs would be, especially those related to IT system upgrades. SCE notes that administrative

¹²² Joint TOB Proposal, Appendix E.3, at SCE-10.

¹²³ Joint TOB Proposal, Appendix E.3, at SCE-13-15.

costs are to cover twelve years of program administration (duration of the TOB charges), and claims that it is currently unknown what IT upgrades will be exactly necessary to implement TOB functionality.

Given the potential costs related to modifications to SCE's pilot approved by this decision, as well as the design changes possibly needed due to the addition of the Decarbonization Charge to a customer's bill, it is reasonable to grant SCE its requested IT budget. Should SCE later determine that manual billing is a less expensive implementation option, SCE shall be allowed to pursue manual billing for this pilot. However, given that this is a pilot, we find the initially proposed \$7.19 million budget to be reasonable and deny SCE's request to increase its proposed budget. Instead, SCE is granted its request to fund-shift across all categories; however, SCE shall not increase the budget for any given category¹²⁴ by more than fifty percent via fund-shifting. SCE shall reduce the number of projects for testing if remaining funds for project costs are lower than expected.

Table 4 Approved SCE TOB Proposal Budget by Category		
Net Project Costs to be Funded by TOB Pilot Decarbonization Charges	\$1,160,000	16.1%
Estimated Tariff Charge-Offs & Performance Reserves	\$140,000	1.9%
Administration	\$1,350,000	18.8%

¹²⁴ The categories are as follows: (1) Net Project Costs to be Funded by TOB Pilot Decarbonization Charges, (2) Estimated Tariff Charge-Offs & Performance Reserves, (3) Administration, (4) Marketing, Education, and Outreach, (5) IT/Systems, (6) Project M&V, and (7) Program Implementation.

Marketing, Education, and Outreach	\$200,000	2.8%
IT/Systems	\$1,070,000	14.9%
Project M&V	\$1,120,000	15.6%
Program Implementation	\$2,150,000	29.9%
Total Program Budget	\$7,190,000	100%

SCE is authorized to establish a two-way balancing account to record, track, and recover TOB Pilot costs. The Dunskey Report and parties commented that SCE should use unspent and un-committed PPP funds to pay for the pilot. However, parties did not provide any information showing that such funds exist, and SDG&E notes that unspent and uncommitted PPP funds may be difficult to procure as unspent uncommitted funds may be dedicated to EE program budgets and revenues.¹²⁵ We therefore authorize SCE to collect incremental PPP funds for this pilot up to \$7.19 million.

8.11. Post-Pilot Review

Following pilot completion, SCE shall collect and prepare a report detailing its narrative findings, and all KPIs, for review. SCE shall provide such report to the service list for this proceeding within one year following pilot completion. SCE shall also provide the Commission's Energy Division with all relevant pilot data for review.

9. Conclusion

SCE is authorized to submit a Tier 1 Advice Letter to create a two-way balancing account to record, track and recover TOB Pilot costs with transfers to and from the PPP Adjustment Mechanism. SCE shall, by February 28, 2027,

¹²⁵ SDG&E Opening Comments, at 2-3.

submit a Tier 2 Advice letter establishing a tariff to implement its TOB pilot. PG&E is authorized to continue tracking costs related to implementation of SVCE's field test. SoCalGas's and SDG&E's TOB pilot proposals are denied. SVCE's request for recovery for its field test is denied.

10. Summary of Public Comment

No public comments have been received in this proceeding since the issuance of D.23-08-026.

11. Comments on Proposed Decision

The proposed decision of the ALJs 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 _____.

12. Assignment of Proceeding

Alice Reynolds is the assigned Commissioner and Garrett Toy is the assigned ALJ in this proceeding.

Findings of Fact

1. The Order Instituting Rulemaking in this proceeding highlighted the need to investigate and design mechanisms for energy infrastructure financing that can reach underserved populations, reduce capital/creditworthiness needs, and obtain private capital support, without increasing the risk of disconnection.
2. D.23-08-026 directed the Utilities to submit TOB Pilot proposals.
3. D.23-08-026 defined TOB programs as "a utility investment mechanism that provides up-front capital to pay for energy efficiency and electrification upgrades at a customer's premises and recovers its costs through a fixed tariff-based cost recovery charge on the participating customer's utility bill."

4. D.23-08-026 directed the Utilities to submit TOB proposals that promoted electrification and participation by groups not typically reached by infrastructure incentive programs, such as renters and low-income customers.

5. TOB programs add a Decarbonization Charge to customer bills to pay for energy infrastructure upgrades.

6. Bill neutrality means that the annual total Decarbonization Charge added to the participant's bill will be less than or equal to the annual energy bill savings that accrue due to the energy infrastructure upgrade.

7. D.23-08-026 required that the proposed TOB Pilots require bill neutrality to be eligible for program participation.

8. D.23-08-026 highlighted the need for significant customer protections in implementing a TOB program, including a robust M&V process.

9. The Utilities consulted with a TOB Working Group and were advised by an Equity Committee in designing their TOB pilots.

10. PG&E, SVCE, SCE, and SDG&E collectively submitted a Joint TOB Pilot Proposal with standardized program definitions.

11. PG&E, SVCE, SCE, and SDG&E submitted individual modified TOB pilots.

12. The Joint TOB Pilot Proposal requires customers to take on no debt.

13. The Joint TOB Pilot Proposal does not require customers to provide upfront payments in order to participate.

14. Co-pays allow customers to submit upfront payments that reduce the Decarbonization Charge.

15. Allowing co-pays decreases the Decarbonization Charge, allowing customers to achieve bill neutrality on their energy upgrades.

16. Allowing co-pays increases program participation rates.

17. The proposed Joint TOB pilots tie payback for the upgrade to the specific site via a Decarbonization Charge on the bill.

18. Screening customers for eligibility in other no-cost or low-cost equipment programs will protect low-income customers.

19. The proposed requirement that upgrades show bill neutrality provides important assurances that the TOB pilot will likely not lead to increased customer defaults or higher customer bills.

20. Tenants must agree to participation before an upgrade is made pursuant to a TOB program.

21. Landlord participants must provide notice to tenants of the existence of the Decarbonization Charge and must participate in cost sharing for water heating and space conditioning replacements.

22. The TOB pilots will not utilize contractors for marketing, reducing the potential for contractor malfeasance.

23. Tenants will receive significant protection against unforeseen cost increases when participating in the proposed TOB pilot.

24. Tenant participation is an important factor to test in this pilot.

25. SCE's TOB Pilot proposes tenant participation.

26. SDG&E's and SoCalGas's pilots do not propose tenant participation.

27. Decarbonization via reduced natural gas usage (electrification) is an important consideration in meeting California's climate goals.

28. SoCalGas's pilot proposes eligibility for technologies that utilize natural gas.

29. Testing only one pilot reduces ratepayer cost while still providing an opportunity to test TOB functionality.

30. SCE's TOB pilot reflects the goals and objectives for testing TOB functionality more than SDG&E's and SoCalGas's TOB pilot.

31. Eligible technologies for SCE's TOB Pilot include weatherization and EE upgrades as well as heat pump water heaters and heat pump space cooling and heaters.

32. SCE's proposed technologies were selected to maximize potential for bill savings and bill neutrality.

33. Project M&V will be conducted after one year to verify savings and review pilot outcomes.

34. SCE proposes to utilize a NMEC approach to calculate bill savings and bill neutrality, in conjunction with SVCE.

35. SCE's proposed methodology for calculating bill neutrality is reasonable.

36. Limiting the maximum Decarbonization Charge amount to 90 percent of the projected overall energy bill cost savings reduces the likelihood that pilot participants will see energy bill increases due to program participation.

37. SCE's bill neutrality calculation is adequately designed to reduce the potential for poor savings estimates leading to increased customer energy costs.

38. SCE proposes to provide customers with customized bill impact calculations prior to program participation.

39. SCE's TOB Pilot shall be made available to all unbundled and bundled residential customers residing in single family and multifamily residences in good standing with SCE.

40. SCE's TOB Pilot will not be available to customers on certain reduced rate tariffs.

41. It is reasonable to exclude participation by customers on reduced rate tariffs for this pilot as bill neutrality will be difficult to achieve given the reduced usage rates for those customers.

42. SCE's TOB pilot utilizes a Decarbonization Charge as described by SB 1112.

43. SCE's TOB Pilot includes a process for SCE to record the Decarbonization Charge with the county recorder.

44. SCE's TOB Pilot requires landlords to inform potential tenants of the existence of the Decarbonization Charge.

45. Use of billing history for TOB pilot program qualification allows for participation by customers who are typically precluded from participation in debt-based programs.

46. Use of 12 months of billing history for TOB pilot program qualification allows for sufficient investigation of payment history to determine likelihood of customer default.

47. Requiring that the customer is also in good standing and has not been on a payment plan in the previous 12 months ensures that the customer has sufficiently kept up to date with payments.

48. SCE's TOB Pilot will utilize a Program Implementer as oversight for contractors and overall program administration.

49. SCE's TOB Pilot will leave project maintenance to the participant.

50. It is reasonable to leave maintenance to program participants, to reduce program cost.

51. SCE proposes to track KPIs related to delinquency rates, sunk costs, participation rates, number of transfers, Decarbonization Charge prepayments,

savings realizations, number of remedies needed following the one year M&V, as well as the cost of such remedies.

52. Additional KPIs related to equipment installed and differences between customer segments will aid pilot review analysis.

53. Surveys will provide data regarding customer satisfaction.

54. SCE's proposes a budget of \$7.19 million for its TOB pilot, which includes program administration, project costs, marketing, education, and outreach, and IT systems costs.

55. SCE requests \$1.07 million for IT systems upgrades.

56. It is reasonable to grant SCE significant funds for IT systems upgrades where new billing line functionalities must be added to customer bills for TOB pilots.

57. Fundshifting allows programs to use approved program funds as needed to ensure programmatic stability.

58. SCE proposes to utilize incremental PPP surcharges to pay for its TOB Pilot.

59. It is reasonable to utilize incremental PPP surcharges to pay for a new pilot program.

60. SCE proposes to review and provide KPIs following pilot completion.

61. Post-pilot review will include EM&V from SCE, with participation from Energy Division, submitted to the service list.

62. SCE's proposed TOB Pilot would aid the Commission in testing whether TOB technology can be used to promote electrification, especially amongst underutilized customer groups such as renters.

63. SVCE seeks recovery of funds after its field test has begun.

64. Any SVCE TOB pilot would require utilization of PG&E's billing system to establish a Decarbonization Charge on the customer's bill.

65. PG&E does not currently have the ability to establish a Decarbonization Charge on customer bills.

66. PG&E is currently upgrading its IT system and it would require significant resources to establish a Decarbonization Charge at this time.

67. DPFI is the California agency that regulates lending programs.

68. The Joint TOB Proposal is uncertain about whether the proposed TOB pilots qualify as lending programs.

Conclusions of Law

1. It would be unreasonable to approve pilots that do not support the principles highlighted in the OIR and D.23-08-026.

2. SDG&E's TOB Pilot does not meet the goals for a TOB Pilot.

3. SDG&E's TOB Pilot should be denied.

4. SoCalGas's TOB Pilot does not meet the goals for a TOB Pilot.

5. SoCalGas's TOB Pilot should be denied.

6. The TOB Pilot design and principles as laid out in the Joint TOB Proposal and implemented in SCE's TOB pilot are reasonable.

7. SCE's TOB pilot is compliant with SB 1112 (2022).

8. The Decarbonization Charge in SCE's TOB pilot is not a debt collection.

9. SCE's TOB pilot provides significant customer protections.

10. SCE should utilize only 90 percent of the projected overall energy bill cost savings in calculating bill neutrality, to enhance customer protection.

11. SCE's proposed KPIs should be modified to include additional KPIs related to equipment installed and differences between customer segments.

12. SCE's proposed KPIs and M&V, as modified, will provide important information by which to determine whether the Commission should continue to pursue TOB programs in the future.

13. SCE's proposed budget of \$7.19 million for its TOB pilot is reasonable.

14. It is reasonable to allow SCE to fundshift between categories for its TOB pilot.

15. SCE's proposed cost recovery method for the TOB pilot is reasonable.

16. The modified post-pilot review is reasonable.

17. SCE's TOB Pilot should be approved to allow the Commission to determine whether TOB technology can be used to promote electrification and other energy upgrade uptake amongst additional customer classes.

18. SCE's TOB Pilot provides significant opportunity to conduct M&V activities to determine pilot effectiveness.

19. SCE's TOB Pilot, as modified, is reasonable and should be approved.

20. SVCE's request to recover ratepayer funds for its field test should be denied as an inappropriate attempt at retroactive ratemaking.

21. PG&E should not be directed to implement TOB system functionality at this time, given that it has not begun its own pilot and is currently in the process of conducting full IT system upgrades.

22. SVCE should not be authorized recovery for a future TOB pilot at this time.

23. SCE's TOB Pilot could be construed as a lending program.

24. SCE should seek the opinion of DFPI on whether its TOB Pilot is subject to lending regulations.

O R D E R**IT IS ORDERED** that:

1. Southern California Edison Company (SCE) is authorized to submit a Tier 2 Advice Letter establishing tariffs for the Tariff On-Bill pilot program approved in this decision. The advice letter shall be submitted by February 28, 2027. SCE shall open its Tariff On-Bill pilot for customer applications within 18 months from the issuance of this decision, or within 30 days after its advice letter is approved by the Commission, whichever is later.

2. Southern California Edison Company (SCE) is authorized to collect \$7.19 million via its Public Purpose Program surcharge, over two years, to pay for the Tariff On-Bill pilot program. Southern California Edison Company is authorized to submit a Tier 1 advice letter to establish any necessary balancing accounts and sub-accounts to track costs related to developing and administering its Tariff On-Bill pilot program within 30 days after the issuance of this decision.

3. Southern California Edison Company shall, within 180 days from the date of issuance of this decision, seek an opinion from the California Department of Financial Protection and Innovation on whether the proposed Tariff On-Bill Pilot is a lending program.

4. Pacific Gas and Electric Company is authorized to continue tracking for recovery costs related to the development of the Silicon Valley Clean Energy Field Test in its Tariff On-Bill Memorandum Account.

5. Rulemaking 20-08-022 is closed.

This order is effective today.

Dated _____, at San Francisco, California.

Attachment A

Southern California Edison Joint Tariff On-Bill Pilot Proposal

(END OF ATTACHMENT A)

Attachment B

Southern California Edison Company TOB Pilot Proposal

(END OF ATTACHMENT B)