Staff Straw Proposal and Request for Input on Electric Investor-Owned Utility Cap-and-Trade Program Allowance Proceeds Use

2021-2030

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Overview

In 2017 the California Legislature passed AB 398, which clarified the role of California's Cap-and-Trade Program in achieving the State's 2030 greenhouse gas emissions reduction target. The Cap-and-Trade Program supports three California Public Utilities Commission (CPUC) administered credits for customers of electric investor-owned utilities:

- The residential California Climate Credit.
- The Small Business Climate Credit.
- The California Industry Assistance Credit.

All three are funded through the sale of greenhouse gas allowances granted to electric investor-owned utilities (IOUs), on behalf of their ratepayers, as part of the Cap-and-Trade Program.

This staff proposal has two aims:

- Propose administrative and regulatory changes necessary to keep implementation of these three credits running smoothly and in compliance with various governing authorities for the 2021-2030 period.
- Solicit feedback and incorporate lessons learned/best practices to improve outcomes for residential, small business, and industrial credit recipients for the 2021-2030 period.

Sections A and B, as well as the Appendices, provide background information and data on how the CPUC developed the existing credits and how funds have been distributed to date.

Section C outlines changes proposed by Energy Division staff.

- The first four topic areas make specific recommendations to improve program processes and outcomes in response to administrative and regulatory compliance challenges.
- The final two topic areas request input on areas where Energy Division staff see potential for streamlining administration, delivery, and improving program outcomes but where Energy Division staff has not developed specific recommendations.

For quick reference, a summary sheet of the staff proposals discussed in Section C is included on the following pages.

Summary of Energy Division Staff Proposals and Remaining Potential Questions to be Addressed

Topics of concern and remaining questions are further discussed in Section C of this document.

1. Small Business Climate Credit

- Convert the Small Business Climate Credit from a monthly volumetric return to an annual flat credit.

Remaining Potential Questions

a. Besides the flat credit approach recommended in this staff proposal, are there other non-volumetric methodologies appropriate for the Small Business Climate Credit that the CPUC has not previously considered or should modify and reconsider that would better advance the CPUC's goals?

b. This staff proposal does not propose a time of year to distribute the Small Business Climate Credit. What time of year is most appropriate to distribute the Small Business Climate Credit? Would a monthly distribution be preferable to a semi-annual or annual distribution?

c. This staff proposal does not propose a method to determine the value of a flat Small Business Climate Credit. What factors should the CPUC consider when determining the level of funding for the Small Business Climate Credit? Should the residential and small business Climate Credits be proportional to one another (i.e., should one be a multiple of the other) instead of determining an overall funding level?

d. This staff proposal does not make any recommendations on how to deliver or communicate the Small Business Climate Credit. Is supplemental communication about the credit needed, and what method of delivery or supplemental communications would encourage small businesses owners to use the credit to further reduce their greenhouse gas footprint?

e. What other sources of data, factors, or approaches should Energy Division staff consider?

2. Bear Valley Electric Allowance Auction Proceeds[1]

- Require Bear Valley Electric to distribute allowance auction proceeds following the same methods and reporting procedures as the other small and multi-jurisdictional IOUs.

Remaining Potential Questions

a. Should Bear Valley fully participate in the California Climate Credit, the Small Business Climate Credit, and the California Industry Assistance Credit, as staff recommend in this proposal?

[1] Golden State Water Company dba Bear Valley Electric.

b. Is there a compelling reason why Bear Valley should continue to distribute allowance auction proceeds volumetrically for the 2021-2030 period that this staff proposal does not adequately consider?

c. Should Bear Valley use auction allowance proceeds to engage in increased support of energy efficiency, household resilience, and/or community resilience activities? As Bear Valley does not participate in the SOMAH program, up to 15 percent of their allowance proceeds may be dedicated for programmatic uses.

3. Large EITE California Industry Assistance

- If the California Air Resources Board (CARB) adopts Cap-and-Trade Regulation amendments to allocate allowances to emissions-intensive and trade-exposed (EITE) entities covered by the Cap-and-Trade Program for greenhouse gas costs associated with their electricity purchases, the CPUC will transfer crediting of large EITE facilities from the CPUC to CARB under an appropriate schedule. For periods after such a transition becomes effective:
  (1) Large EITE facilities would no longer receive an annual on-bill credit (or check) in the form of the California Industry Assistance Credit; and
  (2) Large EITE facilities would mostly likely instead receive additional allowances allocated from CARB.

Remaining Potential Questions

a. This staff proposal recommends transferring crediting of large EITE facilities to CARB. Are there any substantive reasons why CPUC should not transfer this responsibility to CARB?

b. What additional considerations should the CPUC account for when transferring crediting of large EITE facilities to CARB that have not been included in this staff proposal?

c. Does the proposed handoff process in Appendix 5 adequately consider any opt-in covered entities?

d. Should the CPUC continue using the existing methodology for crediting refineries after 2020?

4. Small and Medium EITE California Industry Assistance

- Transfer responsibility for calculating small and medium EITE facility credits from Energy Division staff to IOUs.
- Amend the dollar conversion factor formula to eliminate the need for the true-up process.
- Continue once-per-compliance-period self-attestation auditing requirements for 2021-2030.

Remaining Potential Questions

a. This staff proposal recommends changing the crediting formula for small and medium EITE facilities to eliminate the need for a true-up allocation. Any there any factors that

staff did not consider when recommending this change?

b. Which option for an updated dollar conversion factor formula is preferable? Are there other options that would better advance the goals of the program that staff has not considered?

c. This staff proposal shifts the responsibility for performing crediting calculations to the IOUs. Are there any compelling reasons that staff should continue to perform these calculations?

d. This staff proposal recommends continuing existing attestation and auditing requirements. Are there changes that should be made to the attestation auditing process or frequency described in Resolution E-4716 that could make the process more transparent and/or less burdensome?

e. The staff proposal does not recommend any additional outreach to potential credit recipients. Is any additional outreach needed, and if so what additional outreach should IOUs make to potential small and medium EITE recipients in their territories during the 2021-2030 period?

f. If additional outreach is needed, are there organizations such as the Governor's Office of Business and Economic Development (GO-Biz) or other State, local, or civic organizations that could work to increase awareness of the California Industry Assistance program among eligible small and medium EITE facilities?

g. This proposal supports continued crediting to small and medium EITE facilities. Should the CPUC continue to provide support in the form of the California Industry Assistance Credit to small and medium EITE facilities or explore ending the California Industry Assistance Credit once the responsibility for crediting large EITE facilities is transferred to CARB? How could the CPUC ensure that ending EITE credits to small and medium facilities while simultaneously transferring responsibility for crediting large EITE facilities to CARB comports with the CPUC's obligations under Section 748.5 of the Public Utilities Code?

5. Residential California Climate Credit

- Energy Division staff does not have a staff proposal at this time.

Remaining Potential Questions

a. If the CPUC changes the methodology or distribution of the California Climate Credit, which of the policy goals outlined by the CPUC in Section 5.2 of D.12-12-033 should be prioritized? Should any new goals be considered?

b. How can the California Climate Credit adapt to new energy challenges and opportunities?

c. Are there any other sources of data on the awareness or understanding by the public of the California Climate Credit?

d. Should the CPUC or IOUs conduct different or additional outreach and education on the California Climate Credit? What types of outreach and education would be most useful? What groups should be targeted? What budgetary limits should be imposed on these activities?

e. How could the California Climate Credit be presented to customers so that it: (1) raises awareness of Cap-and-Trade Program, and (2) encourages customers to take energy saving actions, and (3) supports household climate resilience?

f. Are there credit design and delivery methods that comply with statutory requirements that would be more effective at advancing the CPUC goals than the existing on-bill credit?

g. Is there a way to make the credit more "meaningful and understandable" to recipients?

h. Would distributing a larger credit less frequently increase awareness and understanding of the California Climate Credit?

i. What are the optimal month(s) for California Climate Credit distribution and what data support this selection?

j. Is it important to distribute the electric California Climate Credit in the same month as the natural gas California Climate Credit (in April)?

k. Does the existing methodology for the California Climate Credit sufficiently protect low-income households from any adverse effects of the Cap-and-Trade Program?

l. Should any available proceeds that can be directed towards clean energy and energy efficiency programs be directed towards increasing energy efficiency and resilience for low-income ratepayers?

m. Would an annual vs. a semi-annual distribution of the California Climate Credit be advantageous or disadvantageous to low-income households?

6. Residential California Climate Credit Distribution to Submetered Customers

- Energy Division staff does not have a staff proposal at this time.

Remaining Potential Questions

a. Are data or estimates available on credit or program delivery to submetered customers?

b. How can the CPUC improve awareness of the California Climate Credit for submetered households? What types of additional outreach would be most effective?

c. What steps can the CPUC take, programmatically and/or legally, to ensure more uniform delivery of the California Climate Credit to submetered households?

d. Which associations or other groups should the CPUC work with to better support credit or program delivery to submetered customers?

e. What special challenges do submetered tenants face in receiving the California Climate Credit?

Table of Contents

A. Existing Regulations and Goals

Section A covers the legislation, regulation, and CPUC actions that together set limits and define the goals on how electric IOUs can use proceeds from CARB-granted allowances.

1. Credit Origin and Legislative Requirements

(a) Legislative Origin – AB 32, SB 32, and AB 398

The Global Warming Solutions Act of 2006, Assembly Bill (AB) 32,[2] set limits on California's greenhouse gas emissions and designated the California Air Resources Board (CARB) as the lead agency in charge of designing a market-based mechanism that would achieve AB 32's goal of reducing statewide emissions to 1990 levels by 2020. In 2016 Senate Bill (SB) 32 established a statewide 2030 greenhouse gas emissions target that is 40 percent below the 1990 emissions level.[3]

In 2017 AB 398 clarified the role of California's Cap-and-Trade Program in achieving the State's 2030 greenhouse gas emissions reduction target.[4]

(b) Statutory Requirements for Credit Design

CARB Requirements

To fulfill the requirements of AB 32, CARB adopted regulations creating a statewide Cap-and-Trade Program in December 2011.[5] As part of the program, each year CARB sets a limit (a "cap") on the number of allowances (pollution permits) available in a year. CARB directly allocates some allowances at no cost to entities required to participate in the Cap-and-Trade Program, while others are available for purchase. After each compliance period, participating entities must surrender to CARB allowances or other compliance instruments equal to their covered emissions during each compliance period.[6]

While publicly-owned electric utilities (POUs) may use CARB's freely allocated allowances for Cap-and-Trade compliance, electric investor-owned utilities (IOUs) are required to consign all CARB-allocated allowances within the year they are allocated to CARB's quarterly auctions and use the proceeds to benefit ratepayers in accordance with CARB's Cap-and-Trade Regulation and as directed by the CPUC. This source funds the CPUC's climate credits and certain Clean Energy/Energy Efficiency (CEEE) programs.

[2] Codified at Health and Safety Code Division 25.5, §§38500-38599.
[3] Codified at Health and Safety Code §38566.
[4] Codified at Health and Safety Code §38951.1.
[5] Codified at Sections 95800-96023 of Title 17 of the California Code of Regulations (CCR).
[6] Excluding the first compliance period (2013-2014), all compliance periods have a duration of three full calendar years, starting on January 1 and extending through December 31. See Cap-and-Trade Regulation 17 CCR §95840(e) "Compliance Periods".

CARB's overarching guidance for the CPUC on the use of allowance value from IOUs is broad.[7] As the lead agency, CARB maintains and periodically updates the Cap-and-Trade Regulation. Updates have occurred in 2012, 2013, 2014, 2016 and 2018.

The 2016 updates (effective October 1, 2017) expressly prohibited volumetric returns of allowance auction proceeds by both POUs and IOUs.[8] The 2018 updates (effective April 1, 2019) placed additional restrictions on the general use of proceeds and on the use of proceeds for administration and outreach. They also increased requirements for reporting to CARB on uses of allowance auction proceeds beyond that required by the CPUC, requiring itemized administrative and outreach cost reporting from both POUs and IOUs to CARB, among other requirements.

Public Utilities Code Requirements—§748.5

Adopted in 2012, Section 748.5 introduced explicit restrictions on the use of allowance proceeds, requiring that proceeds "be credited directly to the residential, small business, and emissions-intensive trade-exposed retail customers of the electrical corporation." An exception is made for up to fifteen percent of proceeds, which the CPUC can use at its discretion for "clean energy and energy efficiency projects."[9]

As part of the Rulemaking (R.)11-03-012 process, an Administrative Law Judge (ALJ) ruling requested feedback on how to interpret the provisions of the code. The CPUC determined that distribution was limited to the classes listed in Section 748.5.[10] Subsequent decisions have reflected the interpretation that each of these three ratepayer groups must receive a portion of the allocated allowance proceeds each year.

Within these limitations, the CPUC maintains wide discretion in shaping how allowance auction proceeds are distributed by the electric IOUs. For example, Section 748.5 did not define "small business" or "emissions-intensive trade-exposed"; these customer classes were later defined by the CPUC. Additionally, the methods for determining how and when value will be distributed among the ratepayer classes, and the priority each has for funding, remains with the CPUC.

[7] "Allowance value, including any allocated allowance auction proceeds, obtained by an electrical distribution utility must be used for the primary benefit of retail electricity ratepayers of each electrical distribution utility, consistent with the goals of AB 32, and may not be used for the primary benefit of entities or persons other than such ratepayers." (Cap-and-Trade Regulation 17 CCR §95892(3)(d)).

[8] Cap-and-Trade Regulation 17 CCR §95892(d) "Limitations on the Use of Auction Proceeds and Allowance Value".

[9] AB 693 amended the Public Utilities Code §2870 to create the Solar on Multifamily Affordable Housing (SOMAH) Program and required that two-thirds of the 15 percent clean energy and energy efficiency set-aside be used to fund the SOMAH program.

[10] In decision (D.)12-12-033 Section 5.3, the CPUC clarified their interpretative process and guidelines for §748.5 requirements.

(c) CPUC Actions and Policy Goals

The CPUC opened R.11-03-012 in 2011 to, in part, decide how to distribute electric IOU allowance auction proceeds to residential, small business, and emissions-intensive trade exposed (EITE) ratepayers. D.12-12-033 established the broad methodology for allocating allowance auction proceeds received by investor-owned utilities, including small and multi-jurisdictional utilities.

Policy Goals

Section 5.2 of D.12-12-033 established the CPUC's policy goals. Consistent with the CPUC's earlier D.08-10-037, which informed CARB of how various carbon reduction strategies might impact the electric and natural gas sectors, D.12-12-033 retained that the primary objective of any credits should be the preservation of the carbon price signal in rates[11,12] and outlined six additional policy objectives:

- Preserve the carbon price signal.
- Prevent economic leakage.
- Distribute revenues equitably recognizing the public asset nature of the atmospheric carbon sink.
- Reduce adverse impacts on low-income households.
- Correct for market failures that lead to underinvestment in carbon mitigation activities and technologies.
- Maintain competitive neutrality across load serving entities.
- Achieve administrative simplicity and understandability.

Wherever possible, subsequent decisions and rulings extended and preserved these objectives. Likewise, this staff proposal remains guided by these established goals.

A more detailed summary table of CPUC proceedings and decisions related to the use of Cap-and-Trade Program allowance auction proceeds can be found in Appendix

[11] "In today's decision, we are guided principally by a desire to maintain the carbon price in rates and therefore ensure that the price of goods and services reflects the full cost of carbon in order to send the clearest signal to ratepayers to make the most efficient economic decisions. We believe this outcome most fully comports with the intentions of Assembly Bill 32." D.12-12-033 at 4.

[12] "Indeed, [preserving the carbon price signal] represents a foundational element of the Cap and Trade program that guides our thinking throughout this decision." D.12-12-033 at 59.

B. Existing Implementation Process and Outcomes

Section B covers how Cap-and-Trade Program allowance auction proceeds are currently distributed by IOUs, provides data on proceeds distributed so far, and provides a floor estimate of future proceeds.

1. How Allowance Auction Proceeds are Allocated and Reviewed

Each electric IOU distributes its own allowance auction proceeds to its ratepayers. Each year, as part of their Energy Resource Recovery Account (ERRA) forecast[13] or ECAC[14] applications, every electric IOU (excluding Bear Valley)[15] performs the following process:

1. Forecast allowance auction proceeds for the coming year.
2. Report and reconcile ("true-up") forecast and reported expenditures for the previous years, rolling over any surplus or deficit into the forecast year's predicted proceeds.
3. Net interest, franchise fees, and uncollectibles against the forecast allowance auction proceeds. This establishes the adjusted forecast available proceeds for the upcoming year.
4. Deduct forecasted administrative and outreach expenses, subject to reasonableness review.
5. Fund Clean Energy and Energy Efficiency (CEEE) projects:
    a. 10 percent (but not exceeding $100M in total across the IOUs) of available allowance auction proceeds are allocated to the Solar on Multifamily Affordable Housing (SOMAH) program (see D.17-12-022 and D.19-03-015).
    b. DAC-SASH is allocated $10M annually, split between the large IOUs.
    c. SCE funds their Clean Energy Optimization Pilot (CEOP) as approved by D.19-04-010.
    d. The Community Solar Green Tariff (CSGT) and Disadvantaged Community Green Tariff (DAC-GT) are funded up until the 15 percent CEEE limit.
6. Fund the California Industry Assistance Credit according to the appropriate CPUC-approved formula (in D.14-12-037 as modified by D.15-08-006 and D.16-07-007).
7. Fund the Small Business Climate Credit as directed in D.13-12-002.
8. Divide the remainder of proceeds equally among all residential accounts within the IOU service territory (including CCA accounts) and distribute the amount semi-annually in two equal amounts, in April and October as the California Climate Credit.[16,17] After this step, zero dollars are left of the forecast proceed amount.[18]

[13] Energy Resource Recovery Account and Generation Non-Bypassable Charges Forecast and Greenhouse Gas Forecast Revenue Return and Reconciliation, used by PG&E, SCE, and SDG&E.
[14] Energy Cost Adjustment Clause used by Liberty (CalPeco) Electric and PacifiCorp.
[15] See the proposal for *"Bear Valley Allowance Auction Proceeds"* for a detailed discussion of Bear Valley's proceeds. At present, Bear Valley distributes all allowance auction proceeds volumetrically.
[16] Due to differences in billing periods, some residential customers may receive the credit in the following month.
[17] D.19-12-002 authorized SDG&E to return the Climate Credit in August and September for 2020 and 2021, only.
[18] SCE rounds the California Climate Credit to the nearest whole dollar, which may leave a small roll-over balance into the next funding year.

To provide a standardized record of these steps for review and approval by Energy Division staff, decision D.14-10-055 (as modified by D.15-01-024 and D.19-04-016) requires that electric IOUs submit a set of standardized templates as part of their ERRA or ECAC filings. The IOUs also submit testimony and narrative to support their expenditures. The final decision for each electric IOU's ERRA or ECAC filing determines the reasonableness of past allowance proceed use and approves the forecasted use of allowance proceeds for CEEE projects and for distribution to residential, small business, and EITE ratepayers.

2. Current Funding Allocation

(a) Historical Proceed Distribution by Ratepayer Type[19]

Table 1, below, and Graph 1 and Graph 2, below, summarize the past disbursement of allowance auction proceeds to electric IOU customers under the existing methods.

[19] Data represent the total amount of allowance auction proceeds set aside by IOUs for the benefit of ratepayers in each year, not the total amount of allowance auction proceeds received by ratepayers within a year. These values may differ as some funds may be held from one year to the next. For example, at the direction of the CPUC, CEEE projects may accrue funding year-over-year. Some administrative and outreach funding has also rolled over from year-to-year (D.17-12-022; D.18-06-027). CARB also reports on the use of value from allocated allowances by electric IOUs and POUs (available here: ww3.arb.ca.gov/cc/capandtrade/allowanceallocation/edu-ng-allowance-value.htm). CARB reports track actual expenditures within the calendar year and may not match the summary statistics contained in this staff proposal due to the reasons listed in this note.

Table 1:
Cap & Trade Program Funding by Recipient Type, All Electric IOUs 2013-2020

	Residential		Industry Assistance‡	Small Business	Clean Energy & Energy Efficiency	Admin & Outreach
	Semi-Annual Credit	Volumetric				
2013*	—	—	—	—	—	3.7M
2014	745M	317M	30.0M	79.6M	—	7.5M
2015	586M	358M	34.7M	99.3M	—	2.4M
2016	666M	20.3M	163M	52.8M	617K	588K
2017	536M	187K	56.1M	56.5M	1.2M	479K
2018	809M	88K	53.5M	39.9M	116M	409K
2019	675M	-20K	51.6M	27.3M	97.8M	366K
2020	814M	—	53.4M	16.5M	170M¤	1.5M
Subtotal	4,832M	696M	443M	372M	386M	17.0M
Total	5,528M		443M	372M	386M	17.0M

Values are: 2013-2018 Recorded; 2019 Recorded and Forecast; 2020 Forecast. All totals exclude Bear Valley.
**CARB required that one-third of the 2013 vintage allowances be consigned to auction in November 2012 (§95892(c)(1) of the 2012 version of the Cap-and-Trade Regulation). After administrative expenses, the combined 2012/2013 proceeds were split equally and distributed with 2014 and 2015 proceeds (D.13-12-041).*
‡ The California Industry Assistance Credit was first distributed in 2016. 2014 and 2015 amounts in Table 1were rolled over into 2016 when the combined 2013-2016 credit was distributed.
¤2020 Clean Energy /Energy Efficiency amount includes funding to true-up SOMAH funding for prior years. Only includes SOMAH funding through June 30, 2020.

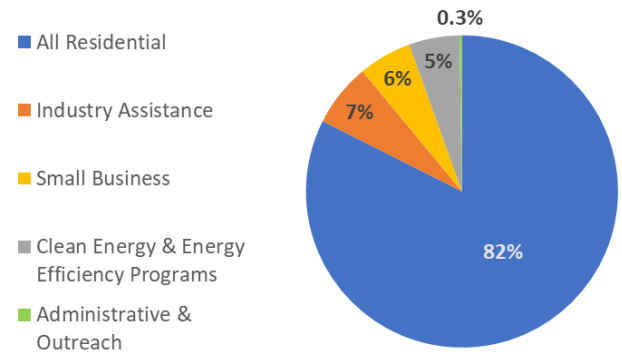
Graph 1:

All Electric IOUs, Total Cap-and-Trade Program Allowance Proceeds, 2013-2020

2013-2018 Recorded, 2019-2020 Forecast Values Excludes Bear Valley

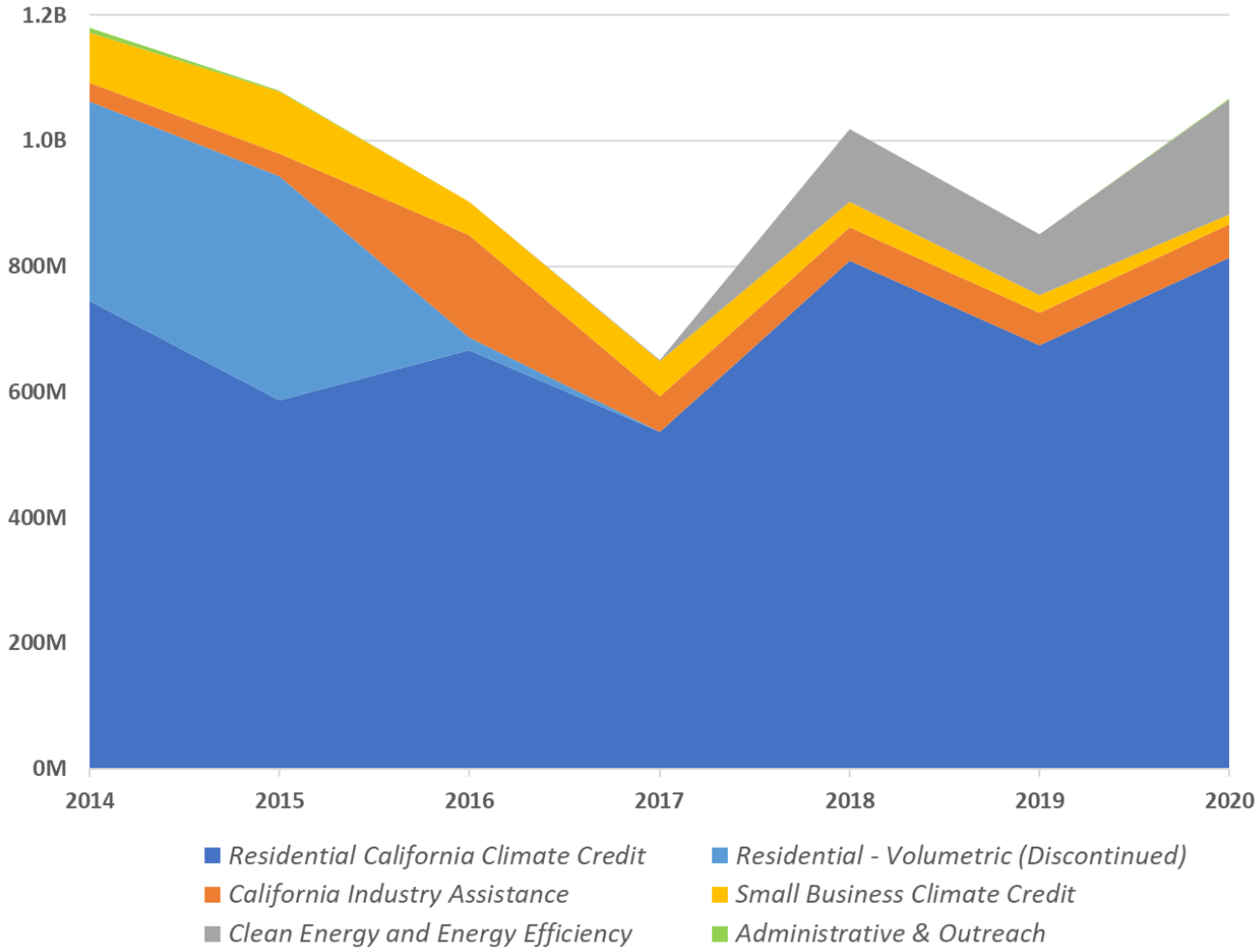
Data from annual ERRA (Energy Resource Recovery Account) and ECAC (Energy Cost Adjustment Clause) applications.

Data from annual ERRA (Energy Resource Recovery Account) and ECAC (Energy Cost Adjustment Clause) applications.



Graph 2:
Cap-and-Trade Program Proceeds - Annual Electric Credit Value by Ratepayer Type

Values are: 2014-2018 Recorded; 2019 Recorded and Forecast; 2020 Forecast. Excludes Bear Valley. $3.7M in administrative costs spent in 2013. Data from annual ERRA (Energy Resource Recovery Account) and ECAC (Energy Cost Adjustment Clause) applications. 2013 proceeds split and distributed in 2014 and 2015.



Residential ratepayers have received the majority of the available allowance auctions proceeds (82 percent). The volumetric portion of the residential credit (known as the Residential Volumetric Credit) ended in 2015 when rate reforms allowed for Cap-and-Trade Program costs to be incorporated fully across all residential rate classes (see D.15-07-001).[20] Returns to EITE and Small Business ratepayers have accounted for approximately 10 percent of total annual returns. Set-asides for CEEE projects have continued to grow. In D.17-12-022 (modified by D.19-03-015), the IOUs (excluding Bear Valley) were ordered to reserve their share of up to $100M of allowance auction proceeds for the Solar on Multifamily Affordably Housing (SOMAH) program. Even with this

[20] Minor trailing costs for the Residential Volumetric Credit in subsequent years represent bill disputes and account settlements between IOUs and individual customers.

funding obligation, no electric IOU has reached the 15 percent CEEE cap as of 2018 (the last year available with fully recorded expenditures). The bulk of administrative and outreach expenses occurred in 2013 and 2014, as the program started up. Since then, administrative and outreach costs have remained minimal, at less than 0.3 percent overall. These costs represent administrative and outreach expenses incurred by the IOUs (such as printing bill inserts for the California Climate Credit) and do not include any administrative or outreach expenses that are incurred by the CEEE program administrators.

(b) Semi-annual California Climate Credit

California Climate Credit Value

Semi-annual Residential California Climate Credit amounts have remained relatively stable (Table 2, below). Excluding PacifiCorp, most semi-annual credits fell between $25 and $45 dollars.

Table 2:
Semi-Annual Electric California Climate Credit Amounts

IOU[21]	2014¤	2015¤	2016	2017	2018	2019	2020	Total Value Received Per Household 2014-2020
PG&E	$30	$25	$28	$17	$39	$28	$36	$406
SCE	$40	$29	$38	$31	$36	$33	$37	$488
SDG&E	$36	$36/$24*	$17‡	$30	$34	$31	$32	$420
Liberty	$42	$35	$27	$23	$29	$46	Pending	
PacifiCorp	$194	$141	$143	$107	$127	$160	Pending	

Values: 2014-2019 Recorded; 2020 Forecast
¤*Includes 50 percent of the 2013 Allowance Auction Proceeds*
**Due to delayed 2015 ERRA approval, SDG&E's April and October credit amounts differed. SDG&E continued distributing the 2014 ERRA-approved credit in April 2015 until the 2015 ERRA was approved.*
‡*The $12 over-crediting in April of 2015 was adjusted for in 2016, resulting in a smaller credit in 2016.*

Credits are distributed statewide in April and October, the two typically lowest billed months for residential electrical use.[22] Excluding PacifiCorp, the total per household value received since 2014 is similar across all electric IOUs, with households either receiving about $400 (PG&E and SDG&E) or about $500 (SCE and Liberty) since 2014. Households serviced by PacifiCorp received notably more. PacifiCorp's higher allowance auction proceeds per household reflect higher allowance allocations per household due to PacifiCorp's higher anticipated Cap-and-Trade Program costs to ratepayers due to its projected continued use of coal reported to CARB

[21] Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas and Electric Company (SDG&E) Liberty Utilities LLC, formerly CalPeco Electric, PacifiCorp formerly Pacific Power.

[22] D.19-12-002 authorized SDG&E to return the California Climate Credit in August and September for 2020 and 2021, only, to experimentally assess how changes in distribution month could improve awareness and communication with residential customers about the residential California Climate Credit.

at the time the allocations were developed. For example, while the other California IOUs reported no use of coal for utility-owned generation for the 2021-2030 period, PacifiCorp predicted 36-55 percent system-wide coal use.[23]

Starting in 2018, residential customers of natural gas IOUs also began receiving a once a year climate credit in April. Table 3, below, shows the value of the Natural Gas Residential Climate Credit by year for combined electric and gas IOUs. The Natural Gas Residential Climate Credit is not in the scope of this proceeding. However, both credits share the same name ("California Climate Credit") and the combined effect of receiving both credits in the same month may influence customer behavior, such as the decision to invest in energy efficiency upgrades or to increase household resilience and preparedness.

Table 3: Natural Gas Climate Credit Amounts for Combined Electric and Gas IOUs

	April Gas Only			April Combined Gas & Electric		
	2018	**2019**	**2020**	**2018**	**2019**	**2020**
PG&E	$30	$25	$27	$69	$53	$63
SDG&E	*	$34	$21	*	$65	$53

Values rounded to the nearest dollar.
2018 and 2019 recorded data; 2020 forecasted data.
**SDG&E's 2018 Natural Gas Climate Credit was combined with and issued alongside the 2019 credit. The individual credits were $15 and $19, for 2018 and 2019 respectively.*

Residential Account Volume

The number of households eligible for the Residential Climate Credit has remained steady. Household counts by year and by electric IOU are summarized in Table 4, below.

Households serviced by Community Choice Aggregators (CCAs) are included in the eligible household count of their incumbent electric IOU. CCA customers receive equal treatment with respect to the Residential California Climate Credit and receive an on-bill credit twice a year in April and October just like their bundled counterparts. Small Business and EITE ratepayers that are customers of CCAs or on Direct Access also receive climate credits identical to their bundled counterparts.

[23] CARB data, publicly available online at: www.arb.ca.gov/regact/2016/capandtrade16/attach10.xlsx?_ga=2.58643436.795095955.1578335426-309222975.1572026514.

Table 4:
Number of Electric California Climate Credit Eligible Residential Household Accounts (Including CCA Residential Accounts within the IOU territory footprint; 2020 data forecasted)

	PG&E	SCE	SDG&E	Liberty	PacifiCorp	Total
2014	4.79M	4.38M	1.31M	40.7K	35.5K	10.55M
2015	4.76M	4.43M	1.31M	41.9K	35.5K	10.58M
2016	4.79M	4.43M	1.32M	42.9K	35.7K	10.62M
2017	4.82M	4.53M	1.33M	42.3K	35.8K	10.76M
2018	4.86M	4.49M	1.34M	43.1K	35.8K	10.77M
2019	4.89M	4.58M	1.35M	42.5K	39.9K	10.90M
2020	4.99M	4.60M	1.35M	43.6K	36.0K	11.02M

3. Estimated Future Allowance Auction Proceeds

(a) Forecast Allowance Auction Proceeds

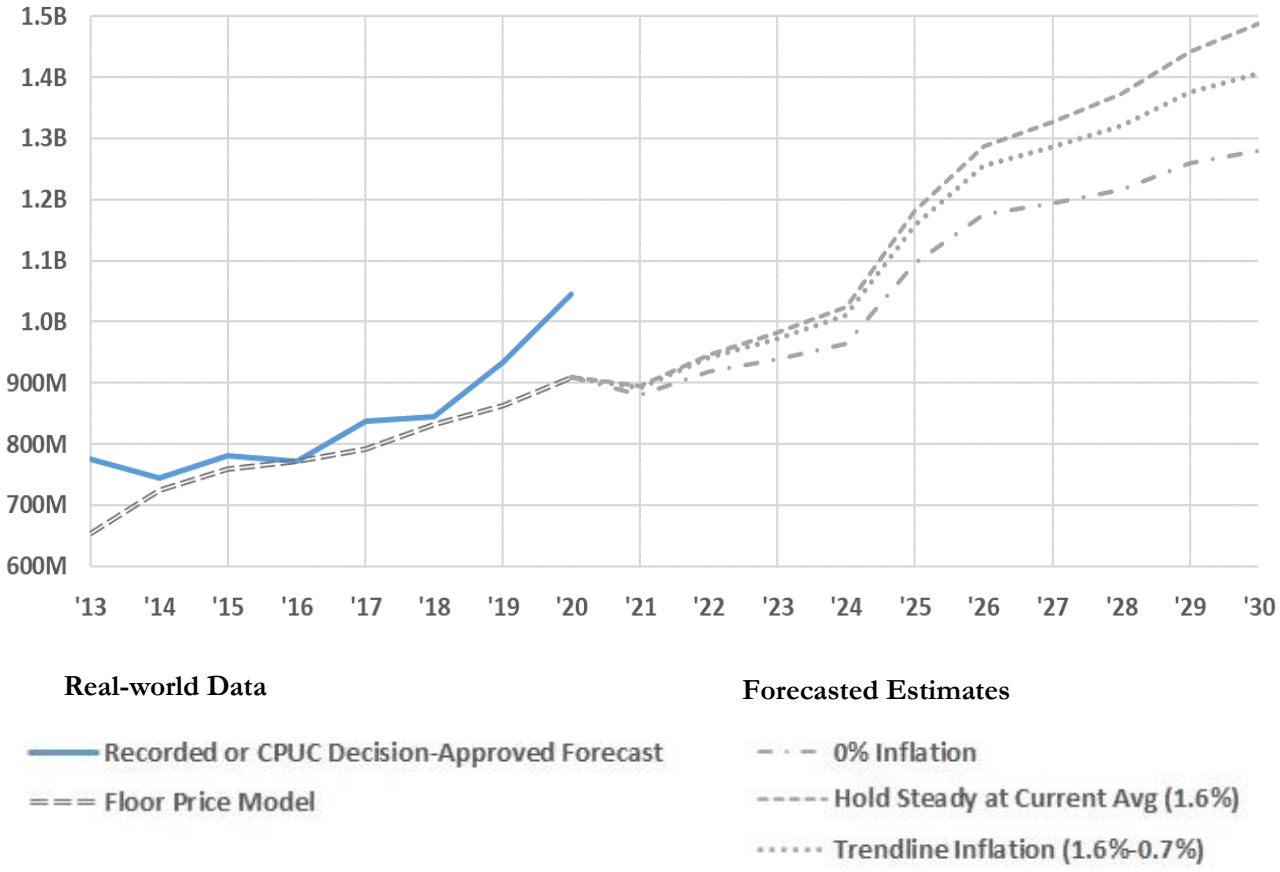
Graph 3, below, charts the recorded amounts of allowance auction proceeds collected for the 2013-2018 period. The 2019 datapoint represents both recorded and forecast proceeds. The 2020 datapoint represents electric IOU forecasted proceed estimates. Graph 3 also provides several conservative Energy Division staff estimates of allowance auction proceeds available each year from 2021 to 2030 based on predicted reserve prices under various inflation scenarios (discussed in Appendix 3). Table 5, below, provides numerical data for the 2021-2030 estimates shown in Graph 3.

Table 5:
Total Estimated 2021-2030 Electric Climate Credit Allowance Auction Proceeds Estimate, All IOUs

Scenario: 5% Annual Escalation plus:	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
No Inflation	881M	918M	938M	965M	1.10B	1.18B	1.19B	1.22B	1.26B	1.28B	10.9B
Trendline Inflation (1.6%-0.7%)	892M	941M	973M	1.01B	1.16B	1.26B	1.29B	1.32B	1.38B	1.41B	11.6B
10-year Avg Inflation (1.6%)	894M	947M	982M	1.02B	1.18B	1.29B	1.33B	1.37B	1.44B	1.49B	11.9B

Excludes Bear Valley. For Estimated Bear Valley Proceeds, see Table A4-2 in Appendix 4.

Graph 3:
Conservative Estimate of Electric Cap-and-Trade Program Allowance Auction Proceeds 2021-2030
All IOUs Excluding Bear Valley



Note: 2013-2020 data from annual ERRA (Energy Resource Recovery Account) and ECAC (Energy Cost Adjustment Clause) applications. Future estimates based off of CARB data for the number of allocated allowances in future years and estimated inflation based on historic inflation from the U.S. Bureau of Labor Statistics.

In order to create a conservative forecast for future allowance auction proceeds, Energy Division staff multiplied the estimated floor price for future Cap-and-Trade Program auctions under three different inflation scenarios by the number of allowances allocated by CARB to the IOUs (excluding Bear Valley) and summed the results by year. Details on future allowance amounts and prices used to create Graph 3 and are supplied in Appendices 2 and 3, respectively.

For comparison, Energy Division staff also charted the minimum allowance proceeds for the period 2013-2020, using the recorded floor price for those years and the recorded number of allocated allowances. This data appears in Graph 3 as the "floor price minimum" line.

C. Staff Proposals

This section covers Energy Division staff's proposed changes to the residential California Climate Credit, Small Business Climate Credit, and the California Industry Assistance Credit.

1. Small Business Climate Credit

Summary and Issue Driver

D.13-12-002 directs electric IOUs to distribute the Small Business Climate Credit volumetrically. Regulatory amendments adopted by CARB in July 2017 and effective October 1, 2017 prohibit volumetric returns of allowance auction proceeds.[24]

Even if the CPUC were to continue with the existing volumetric return method throughout the 2021-2030 period, by 2025 the existing methodology would conflict with Public Utilities Code Section 748.5 requirements to return allowance auction proceed value to various ratepayer groups (See Section A subsection 1(b) for more details). Under the current formula the assistance factor declines by ten percent a year; by 2025 the assistance factor would be set at zero percent resulting in no returns to small business ratepayers, contrary to Section 748.5 requirements.

Energy Division Staff Proposal

Energy Division staff proposes converting the Small Business Climate Credit methodology to a once a year flat credit. In support of this approach, Energy Division staff presents the following data:

(a) Continuing the existing method would violate PUC §748.5

The CPUC envisioned the Small Business Climate Credit as temporary assistance to help transition small businesses onto fully carbon priced electric rates.[25] Accordingly, the existing methodology includes an annually declining assistance factor which rachets down the amount of assistance available to small businesses every year. The current allocation method can be simplified and expressed as:

Equation 1: Simplified Small Business Climate Credit Formula

Monthly Climate Credit = (Assistance Factor) X (Cap-and-Trade Program Cost in Rate)[26]

The CPUC based the assistance factor on Table 8-1 of CARB's Cap-and-Trade Regulation, which included assistance factors for covered EITE facilities with low leakage risk. These factors originally decreased stepwise from 100 percent to 50 percent to 30 percent for the first, second, and third

[24] At CCR Section 95892(d)(5) "Limitations on the Use of Auction Proceeds and Allowance Value."

[25] "However, given the direction in §748.5(a), it is appropriate to provide small businesses with transition assistance to ease small businesses into the Cap and Trade program and to provide additional time and capital to help businesses invest in strategies to reduce their exposure to GHG costs" (D.12-12-033 at 105-106).

[26] Adapted from Appendix 1 in D.13-12-002; see the decision for the official formula.

compliance periods, respectively. The CPUC felt that the rate of decline in the original Table 8-1 was too steep and adopted the same beginning and end points as CARB but instead opted for a smooth decline curve.[27] In the final decision, the CPUC hardcoded the smoothed annual assistance factor in Appendix 2, Table II of D.13-12-002 (reproduced as Table 6, below).

Table 6: Small Business Assistance Factors in D.13-12-002

Year	2013	2014	2015	2016	2017	2018	2019	2020
Assistance Factor	100	100	100	90	80	70	60	50

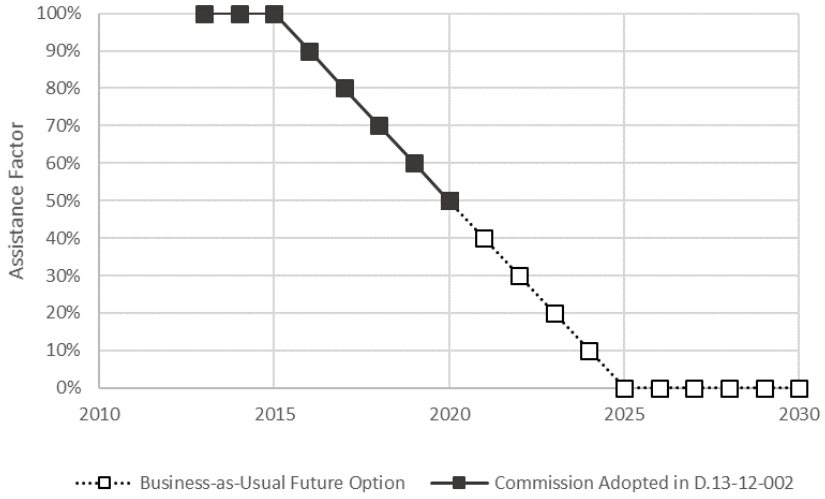
This table presents two problems. First, no assistance factors are specified after 2020. The CPUC must develop small business assistance factors for the 2021-2030 period in order to continue using the existing methodology. An obvious solution–continuing the established methodology by projecting the 10 percent annualized decline–would sunset the Small Business Climate Credit in 2025, as shown in Graph 4, below. This could violate Section 748.5 requirements to provide assistance to small business customers of electric IOUs. The decline trajectory could be revised to follow a gentler path, such as a two-and-a-half percent decline a year for the 2021-2030 period. While continuing to provide a return in every year of the 2021-2030 period, this approach would still utilize a volumetric method to provide assistance.

Finally, in response to direction from AB 398, CARB updated all EITE assistance factors, which the CPUC had initially mirrored, to 100 percent for all compliance periods. This change conflicts with the CPUC's finding that the assistance to small businesses is intended to be transitional.[28]

[27] In Cap-and-Trade Regulation 2013 amendments, CARB delayed decreasing the assistance factors in Table 8-1 until after the second compliance period (2015-2017). The CPUC subsequently delayed the decline schedule for small business assistance factors by two years in order to maintain alignment with 2013-2020 assistance factors for EITE facilities with low leakage risk.

[28] D.12-12-033 at 105/106.

Graph 4:
Small Business Climate Credit Assistance Factors – Approved and Projected Along Existing Path



(b) Previous attempts by the CPUC to find non-volumetric methodologies to return allowance auction proceeds have not been fruitful

Energy Division staff recognizes the limitations of a flat credit methodology for small businesses given the wide variation in small business size and electric use. Besides simplicity, the biggest strength of the volumetric method is the ability of a volumetric instrument to adapt across the broad sweep of small business sizes and deliver predictable and reasonable results. As evidence of this difficultly, Energy Division staff points to numerous prior attempts to develop non-volumetric credit methodologies for distribution of both the electric and natural gas allowance auction proceeds. Energy Division staff believes that these previous attempts demonstrate a good faith effort to find a solution that addresses the data constraints and administrative limitations of small businesses while providing an outcome that best conforms to existing regulatory restrictions and stated CPUC goals for the program. Previous methodologies for climate credit returns that the CPUC has considered, but did not adopt include:

Production-based Methodology (Similar to EITE methodology)

In D.13-12-002 at 5-6, the decision which adopted the existing volumetric small business climate credit return methodology, the CPUC expressed a preference for a facility specific allocation method similar to EITE. However, the CPUC determined that such a method would be impractical given the number and diversity of small businesses. Additionally, the data requirements would be immense and no existing database of the necessary information (including CBI information such as production volumes) exists.

Natural Gas Cap and Trade Proceeding – Ranked Methodology

Energy Division staff proposed a rank-allocation methodology, which "…provides proceeds to individual customers based entirely on relative usage, not volumetric usage."[29] CARB disagreed in comments.[30] Additionally, CARB had concerns the method would incentivize increased consumption for all but the largest users. The California Manufacturer's Technology Association argued that the method disadvantaged larger users.[31]

Natural Gas Cap and Trade Proceeding - CARB Baseline Methodology

In comments, CARB recommended pursuing methods similar to the EITE approach, using efficiency benchmarks or investments in efficiency improvements to determine credit amounts for non-residential customers. This method was very similar to the production-based methodology used for the California Industry Assistance Credit[32] and was not adopted as all value was returned to residential customers.

(c) The current methodology often results in very small credits

Under the existing methodology, the actual total assistance received by most Small Business Climate Credit recipients is very small. Graph 5, below, summarizes the average annual Small Business Climate Credit received in 2018 across the two large IOUs distributing the credit, SCE and SDG&E.[33] As the credit is calculated at the meter-level data are presented at the meter level; note that one small business facility could have multiple meters and receive multiple credits. Table 7, below, includes summary statistics for the 2017 and 2018 Small Business Climate Credit years (2018 is the most recent year with complete data available). For SCE and SDG&E small business customers, the median amount (50th percentile) of Small Business Climate Credits they received in the course of a year was $21.[34] As the Small Business Climate Credit is distributed monthly, the median monthly on-bill assistance is one-twelfth of this amount, $1.75. For comparison, in 2018, PG&E, SCE, and SDG&E had annual residential California Climate Credits of $78, $72, and $68, respectively.

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[29] "Administrative Law Judge's Ruling Incorporating Energy Division Proposal on Allocation of Greenhouse Gas Allowance Proceeds into the Record and Requesting Comments." Issued July 26, 2017 in R.14-03-003.

[30] "Though the staff proposal does not provide proceeds in exact proportion to usage, the approach is effectively volumetric and does not conform to Section 95893(d)(3) of the Cap and Trade Regulation" at 8. California Air Resources Board Comments on Energy Division Proposal on Allocation of Greenhouse Gas Allowance Proceeds. Comments filed in R.14-03-003 on August 16, 2017.

[31] Comments of the California Manufacturers & Technology Association on the Energy Division Staff Proposal at 2. Comments filed in R.14-03-003 on August 16, 2017.

[32] 'California Air Resources Board Comments on Energy Division Proposal on Allocation of Greenhouse Gas Allowance Proceeds' at 12. Comments filed in R.14-03-003 on August 16, 2017.

[33] The Small Business Climate Credit is based on crediting small businesses for a portion of the greenhouse gas Cap-and-Trade Program costs included in electricity bills (See Equation 1, above). In recent years, PG&E's filings to the CPUC using the templates ordered in D.14-10-033 have indicated that small business customers have not been exposed to Cap-and-Trade program costs in their electricity generation rates. As a result, PG&E has not distributed the Small Business Climate Credit since 2017 as there was no need to credit small businesses for increased electric costs.

[34] As the data contains many high outliers, the average Small Business Climate Credit for SCE and SDG&E combined in 2018 was $43.

Graph 5: Histogram - 2018 Annual Small Business Climate Credit Value for SCE and SDG&E

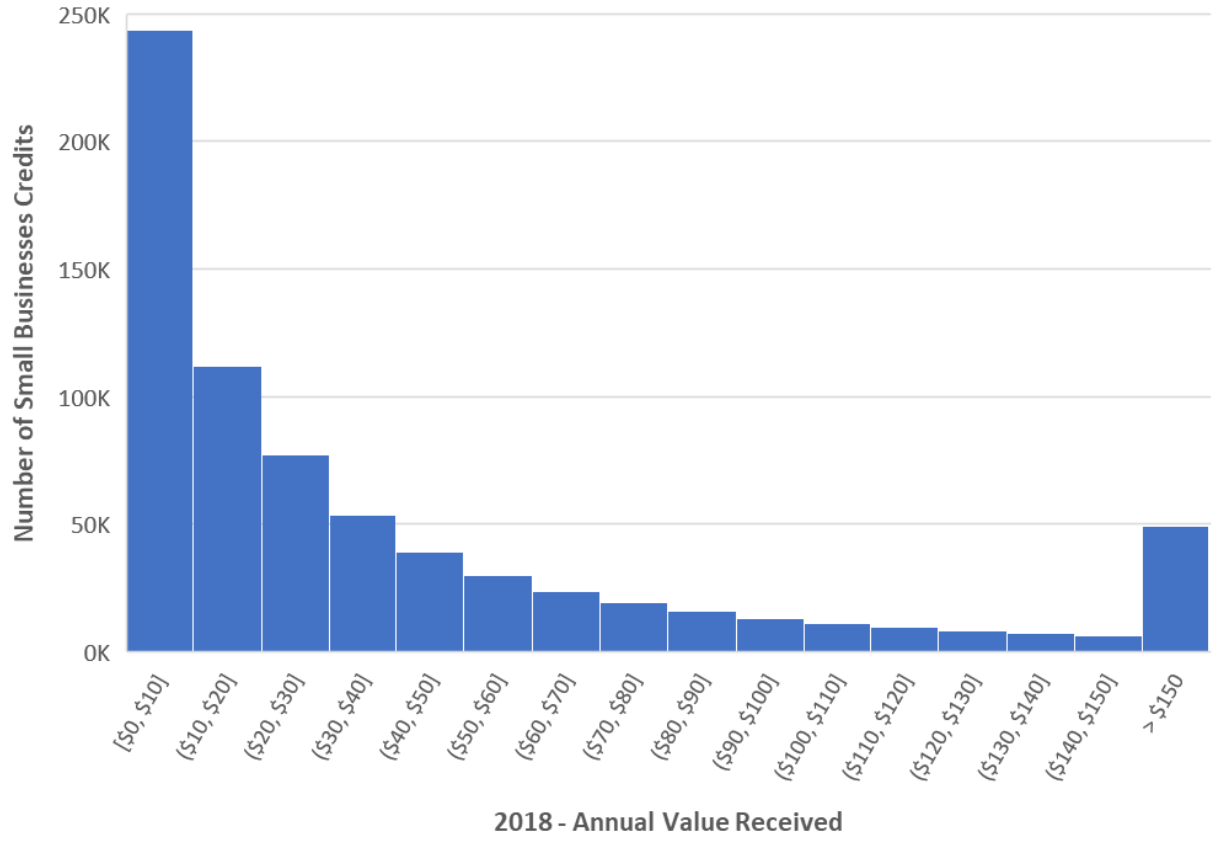

Table 7: Summary Statistics - 2018 Annual Small Business Climate Credit Value for SCE and SDG&E

		Percentiles						
	Min	**20th**	**40th**	**50th**	**60th**	**80th**	**Max**	**# of Recipients**
2017	$0.01	$4	$13	$20	$29	$66	$7,125	717,449
2018	$0.01	$4	$14	$21	$30	$69	$11,651	720,579

Note: Excludes negative values and zeros.

(d) Total Funding Level

With the existing Small Business Climate Credit methodology, the CPUC did not have to decide a total level of funding for the Small Business Climate Credit. The CPUC defined a small business as non-residential entities on general service or agricultural tariffs whose electric demand does not exceed 20 kilowatts in more than three months within the previous twelve-month period.[35] The

[35] D.12-12-033 Conclusions of Law 11 and 12.

overall funding level was determined by the electric use of these small businesses. With a flat credit methodology, the CPUC must determine a funding level for the program. This requirement exists because, unlike the residential California Climate Credit, the Small Business Climate Credit is not the ultimate sink for allowance auction proceeds (see Section B Existing Implementation Process and Outcomes, Subsection 1: How Allowance Auction Proceeds are Allocated and Reviewed). As Table 1 indicated, the Small Business Climate Credit has recently accounted for approximately six percent of annual allowance auction proceed use. Energy Division staff requests input on how to set the level of funding for the Small Business Climate Credit.

Feedback Needed:

a. Besides the flat credit approach recommended in this staff proposal, are there other non-volumetric methodologies appropriate for the Small Business Climate Credit that the CPUC has not previously considered or should modify and reconsider that would better advance the CPUC's goals?

b. This staff proposal does not propose a time of year to distribute the Small Business Climate Credit. What time of year is most appropriate to distribute the Small Business Climate Credit? Would a monthly distribution be preferable to a semi-annual or annual distribution?

c. This staff proposal does not propose a method to determine the value of a flat Small Business Climate Credit. What factors should the CPUC consider when determining the level of funding for the Small Business Climate Credit? Should the residential and small business Climate Credits be proportional to one another (i.e., should one be a multiple of the other) instead of determining an overall funding level?

d. This staff proposal does not make any recommendations on how to deliver or communicate the Small Business Climate Credit. Is supplemental communication about the credit needed, and what method of delivery or supplemental communications would encourage small businesses owners to use the credit to further reduce their greenhouse gas footprint?

e. What other sources of data, factors, or approaches should Energy Division staff consider?

2. Bear Valley Allowance Auction Proceeds

Summary and Issue Driver

In D.12-12-033, the CPUC exempted Bear Valley from the allowance allocation distribution methodologies required of other IOUs, ruling that:

> Bear Valley will receive a very small number of allowances under the Cap and-Trade program, and the administrative cost of distributing [Greenhouse Gas] GHG allowance revenues according to the methodology adopted in this decision would far exceed the value of the allowances received. Returning GHG allowances revenues volumetrically to Bear Valley's customers in proportion to GHG costs incurred is cost-effective and administratively simple to implement. D.12-12-033, Finding of Fact 134.

Recent CARB regulatory amendments prohibit volumetric returns of allowance auction proceeds.[36] Additionally, the total value of CARB allocated allowances received by Bear Valley will rise substantially starting in 2021.

Energy Division Staff Proposal

Energy Division staff proposes that post-2020 Bear Valley return their allowance auction proceeds to residential, small business, and EITE customers following the same procedures as other IOUs. Consistent with previous CPUC decisions, Bear Valley will continue abstaining from participation in the SOMAH[37] and DAC-GT/CSGT programs.

(a) Commission Guidance on Reconsidering Bear Valley's Return Methods

When authorizing volumetric returns for Bear Valley in 2012, the CPUC noted that the return methodology for Bear Valley's allowance auction proceeds may need to be reexamined in the future:

> … [I]f Bear Valley's customer base increases significantly in size or estimated allowance revenues increase substantially in the future, it may be prudent to reconsider whether a different distribution mechanism is appropriate at that time. D.12-12-033, Conclusion of Law 43.

Annual allowance allocations to Bear Valley for the 2021-2030 period increase by a factor of nearly 1,000 compared to average annual 2013-2020 allowance allocations to roughly $1M annually (See Appendix 4, Table A4-2).

[36] Cap-and-Trade Regulation 17 CCR §95892(d)(5) "Limitations on the Use of Auction Proceeds and Allowance Value."

[37] March 18, 2016 ALJ Ruling in R.14-07-002.

(b) Predicted California Climate Credit Value

Energy Division staff estimated the California Climate Credit that would be available to Bear Valley residential ratepayers between 2021 and 2030 under the existing methodology used by all other IOUs. Energy Division staff assumed:

- Small Business and EITE assistance levels would be similar in bulk to the other IOUs as detailed in Table 1, or about 10 percent of total proceeds. This liberal estimate of small business/EITE funding (which together account for less than 7% of total funding across all the IOUs in 2020 according to Table 1) is designed to provide a conservative residential California Climate Credit estimate as it is unlikely Bear Valley has any EITE facilities, similar to the other small and multijurisdictional IOUs.
- The majority of Bear Valley's estimated 23,000 accounts are residential.
- Administrative and outreach costs would be minimal.
- Allowance auction proceeds are $1M per year (see Appendix 4).

These assumptions yield a semi-annual California Climate Credit of roughly $20. Although this credit is smaller than the California Climate Credit from the other IOUs (see Table 2: Semi-Annual Electric California Climate Credit Amounts), it is not insignificant. The credit also better advances the CPUC's programmatic aim to preserve the carbon price signal than a volumetric return.

Alternate Assumption: Higher Estimated Administrative and Outreach Expenses

Energy Division staff recognizes that administrative and outreach expenses may represent a larger proportion of allowance proceeds for smaller IOUs. Average reported administrative and outreach expenses for the 2013-2019 period by Liberty and PacifiCorp are $167K and $61K, respectively. Assuming that Bear Valley might have similar costs would reduce the estimated semi-annual California Climate Credit from $20 to approximately $17. The credit may also be smaller in the first year, as start-up administrative and outreach costs may be higher than subsequent years.

(c) Small Utility Reporting & Regulatory Burden

Energy Division staff also considered the capacity of a small IOU to comply with increased regulatory requirements. While Bear Valley is the smallest electric IOU in California receiving allowance allocations from CARB, there are many smaller POUs that receive allowances. While these POUs are not regulated by the CPUC, both IOUs and POUs are required to follow CARB's regulations on allowance proceed use. This includes annual reporting of proceed use. Administrative and outreach expenses must also be detailed at the line-item level.[38] That all electric utilities receiving allowance allocation from CARB, including the smallest POUs, are able to comply with CARB requirements suggests that even small utilities have the capacity to comply with this proposal.

To compare allowance allocations across POUs and IOUs, Graph A4-1 in Appendix 4 summarizes the number of allowances CARB intends to allocate in 2021 to all IOUs and POUs.

[38] Cap-and-Trade Regulation 17 CCR §95893(e)(4)(C) "Itemizing any use of allocated allowance auction proceeds on administrative and outreach costs and educational programs described in Section 95892(d)(4)."

(d) Community Resilience

Bear Valley's service territory covers mountainous terrain and densely forested areas with the entire service territory in either CPUC Fire-Threat Map Tier 2 (elevated) or Tier 3 (extreme) risk classification.[39] The service area also includes numerous tree attachments (wires or other infrastructure secured directly to trees).

Feedback Needed:

a. Should Bear Valley fully participate in the California Climate Credit, the Small Business Climate Credit, and the California Industry Assistance Credit, as staff recommend in this proposal?

b. Is there a compelling reason why Bear Valley should continue to distribute allowance auction proceeds volumetrically for the 2021-2030 period that this staff proposal does not adequately consider?

c. Should Bear Valley use auction allowance proceeds to engage in increased support of energy efficiency, household resilience, and/or community resilience activities? As Bear Valley does not participate in the SOMAH program, up to 15 percent of their allowance proceeds may be dedicated for programmatic uses.

[39] Bear Valley Electric Service (U 193 E) Wildfire Mitigation Plan. Date: February 6, 2019.

3. Large EITE California Industry Assistance

Summary and Issue Driver

Both CARB and the CPUC currently provide assistance to "large EITE facilities"[40] required to participate in the Cap-and-Trade Program. These are facilities that both (1) are large emitters (>25,000 metric tons of CO_2e/yr) that are covered entities under the Cap-and-Trade Program and (2) operate within one of the NAICS codes in Table 8-1[41] of the Cap-and-Trade Regulation.[42] At present, CARB allocates allowances directly to these facilities to minimize leakage risk and the CPUC directs IOUs to provide an on-bill (or if requested, check) credit in the form of the California Industry Assistance Credit for large EITE facility electricity purchases.

This dual crediting process is not administratively simple, efficient, or transparent. Methods used by the CPUC to calculate credits for individual large EITE facilities, provided in D.14-12-037 (modified by D.15-08-006 and D.16-07-007), are complicated and require the handling of confidential business information, much of which is relayed through CARB to the CPUC. Additionally, the CPUC crediting formula for large EITE facilities that qualify as refineries expires at the end of 2020.

The CPUC also requires the IOUs to provide credits to small and medium EITE facilities that are not covered entities under the Cap-and-Trade Program but operate in one of the designated NAICS codes in Table 8-1 of the Cap-and-Trade Regulation. This section of the staff proposal does not discuss these facilities, because they do not receive allowances from CARB and thus there is no opportunity to streamline the delivery of assistance across agencies for small and medium EITE facilities (See Section 4 for a discussion of Small and Medium EITE facilities).

Energy Division Staff Proposal

(a) Large EITE Crediting Agency

Energy Division staff proposes consolidating the assistance for Large EITE facilities into one credit administered by CARB. In place of on-bill assistance provided by the IOUs in the form of the California Industry Assistance Credit, CARB would most likely allocate additional allowances to large EITE covered entities to minimize leakage risk associated with electricity costs. The CPUC would then direct IOUs to cease providing on-bill assistance in the form of the California Industry Assistance Credit to large EITE facilities through the methods described in D.14-12-037 (and modified by D.15-08-006 and D.16-07-007). Small and medium EITE facilities would continue to receive the California Industry Assistance Credit using the existing CPUC methodologies.

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[40] The CPUC, in this proceeding, uses the term "large EITE facility" to refer to a facility with direct emissions >25,000 metric tons CO_2e/yr. This does not indicate the facility's physical size nor electricity consumption. A "medium EITE facility" is a facility with emissions between 10,000-25,000 metric tons CO_2e/yr thus having an obligation to report its emissions to CARB pursuant to the Mandatory Reporting Regulation (MRR). A "small EITE facility" is one with emissions <10,000 metric tons CO_2e/yr, and does not report to CARB under MRR.

[41] Table 8-1: Assistance Factors and Covered Industrial Sectors.

[42] Codified at Sections 95800-96023 of Title 17 of the California Code of Regulations (CCR).

To implement this proposal, CARB would need to adopt Cap-and-Trade Regulation amendments through a formal public process to modify allowance allocation to EITE entities. No such amendment process has yet been proposed by CARB.

Appendix 5 describes in detail the proposed transfer process, which would ideally phase in over a two year period. The appendix illustrates the handoff occurring in 2021 and 2022. Due to the need to coordinate with CARB, the handoff may occur over a different period.

(b) Refinery Allocation Formula Post-2020

Energy Division staff proposes to continue the existing petroleum refinery allocation formulas post-2020 if the proposed handoff in crediting of large EITE facilities does not occur in time for CARB to credit these facilities for the 2021 crediting year. If the handoff occurs in time for the 2021 crediting year, as Energy Division staff does not anticipate any refineries that qualify as small- or medium-sized EITE facilities, the CPUC would not need to develop refinery formulas post-2020. Post-handoff, if any refinery was not a covered entity (i.e., qualified as a small or medium EITE facility) it would receive a California Industry Assistance Credit using the energy-based formula.

Feedback Needed:

a. This staff proposal recommends transferring crediting of large EITE facilities to CARB. Are there any substantive reasons why CPUC should not transfer this responsibility to CARB?

b. What additional considerations should the CPUC account for when transferring crediting of large EITE facilities to CARB that have not been included in this staff proposal?

c. Does the proposed handoff process in Appendix 5 adequately consider any opt-in covered entities?

d. Should the CPUC continue using the existing methodology for crediting refineries after 2020?

4. Small and Medium EITE California Industry Assistance

Summary and Issue Driver

In addition to distributing the California Industry Assistance Credit to large EITE facilities, the CPUC also directs IOUs to provide the California Industry Assistance Credit to medium facilities (emitting 10,000-25,000 metric tons CO_2e per year and have a reporting obligation to CARB) and small facilities (emitting less than 10,000 metric tons CO_2e per year) that qualify as EITE by operating within one of the North American Industry Classification System (NAICS) codes in Table 8-1 of the Cap-and-Trade Regulation.[43] Energy Division staff calculates credits for all medium and small facilities that have not opted into the Cap-and-Trade Program using an energy-based formula.[44]

Small EITE facilities that emit less than 10,000 metric tons of CO_2e/yr are not required to report to CARB under the Regulation of the Mandatory Reporting of Greenhouse Gas Emissions (MRR). In order to receive the California Industry Assistance Credit, each small EITE facility must file a self-attestation form each compliance period stating that they qualify as an EITE under Table 8-1.[45]

Energy Division Staff Proposal

Energy Division staff intends to continue crediting Small and Medium EITE facilities with the California Industry Assistance Credit to fulfill the CPUC obligations under Public Utilities Code Section 748.5. Energy Division staff proposes two changes in order to simplify the crediting process and make calculation of assistance values more transparent and predictable to recipients.

(a) California Industry Assistance Credit Calculations

Performing Assistance Credit Calculations

Energy Division staff proposes that IOUs perform credit calculations in place of Energy Division staff. Currently, data for this calculation is supplied to Energy Division staff from IOUs. Rather than transfer this data to Energy Division staff, who performs the calculation and supply the bill credit amounts back to the IOUs, Energy Division staff believes that both (1) administrative costs could be streamlined and (2) the potential for data issues is reduced if IOUs perform the calculations directly.

The CPUC will retain the right to inspect or audit any calculations performed by the IOUs.

Removal of True-up Adjustment

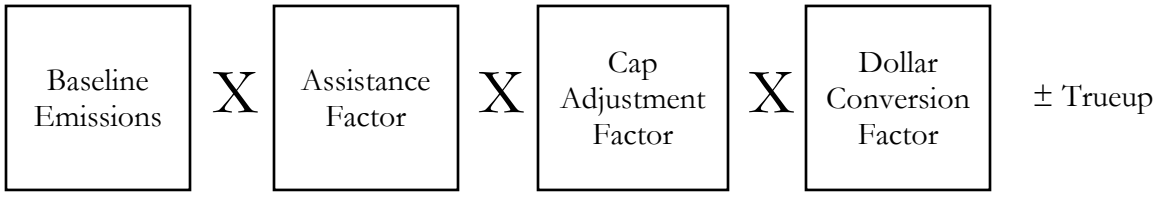
Second, to further streamline the calculation process, Energy Division staff suggests changing the dollar conversion factor formula so that the annual true-up process is no longer needed.

Assistance to Small and Medium EITEs is calculated using the energy-based formula. The energy-based formula is recorded in Appendix A to D.14-12-037, and can be simplified as:

[43] Codified at Sections 95800-96023 of Title 17 of the California Code of Regulations (CCR).
[44] D.14-12-037; current updated formula in D.16-07-007 in Appendix A at 7.
[45] Attestation forms are collected and stored by the IOUs and are subject to audit requirements.

Equation 2: Simplified Energy-Based California Industry Assistance Formula

Energy-Based Allocation =



The baseline emissions, assistance factor,[46] and the cap adjustment factor values are all known in advance. On the other hand, the dollar conversion factor–which is used to convert tons of emissions into a monetary value for crediting purposes–is retrospective. D.14-12-037 defines the dollar conversion factor as "…the average of California Independent System Operator's (CAISO) daily Greenhouse Gas Allowance Index Price for the year." Accordingly, while the credit is issued in April, the accurate value of the dollar conversion factor is not known until the year is finished. As a workaround, the energy-based allocations use the prior year's dollar conversion factor to estimate the assistance for the coming year (for example, the 2020 allocation delivered in April 2020 is calculated using the 2019 dollar conversion factor). The true-up value calculates the amount of the over or under allocation in the previous year once the dollar conversion factor can be calculated.

Dollar Conversion Factor Formula

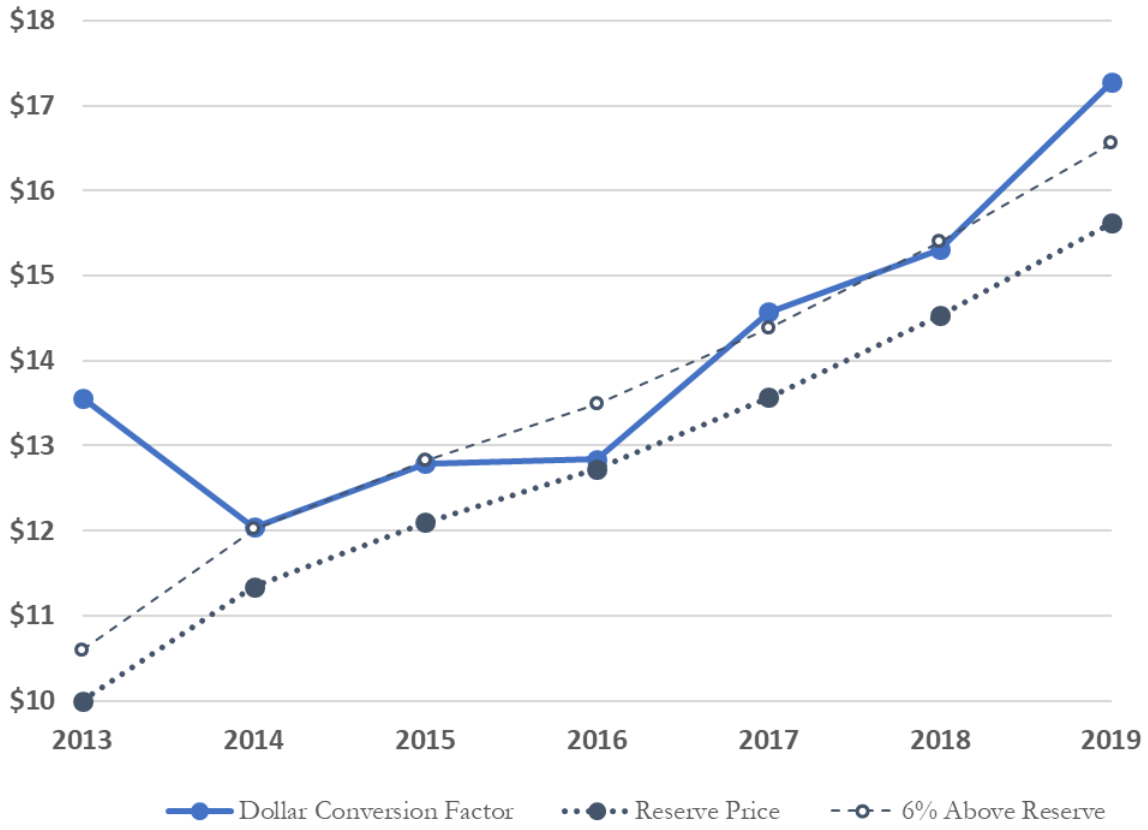
Table 8, below, summarizes the dollar conversion factors used in the calculation of the Energy-Based California Industry Assistance allocation since 2013. Data from Table 8 are presented visually in Graph 6, below.

Table 8: Historic Dollar Conversion Factors for California Industry Assistance

Year	Dollar Conversion Factor	CARB Auction Reserve Price
2013	13.56	$10.00
2014	12.04	$11.34
2015	12.79	$12.10
2016	12.84	$12.73
2017	14.57	$13.57
2018	15.31	$14.53
2019	17.27	$15.62

[46] All assistance factors are currently set at 100 percent for the 2021-2030 period, as required by AB 398.

Graph 6: Dollar Conversion Factors Compared to CARB Reserve Prices



Based on this data, Energy Division staff proposes changes to the calculation of the dollar conversion factor that adjust the credit calculation so that the need for a true-up is removed.

Option 1: Dollar Conversion Factor Defined relative to CARB Auction Reserve Price

This option would amend the dollar conversion factor to:

> The CARB auction reserve price for the year, plus six percent.

As seen in Graph 6, above, the dollar conversion factor follows a similar trend to the CARB auction reserve prices, although the CARB auction reserve prices are lower. Excluding the 2013 datapoint, on average the dollar conversion factor is approximately six percent higher than the CARB floor price.

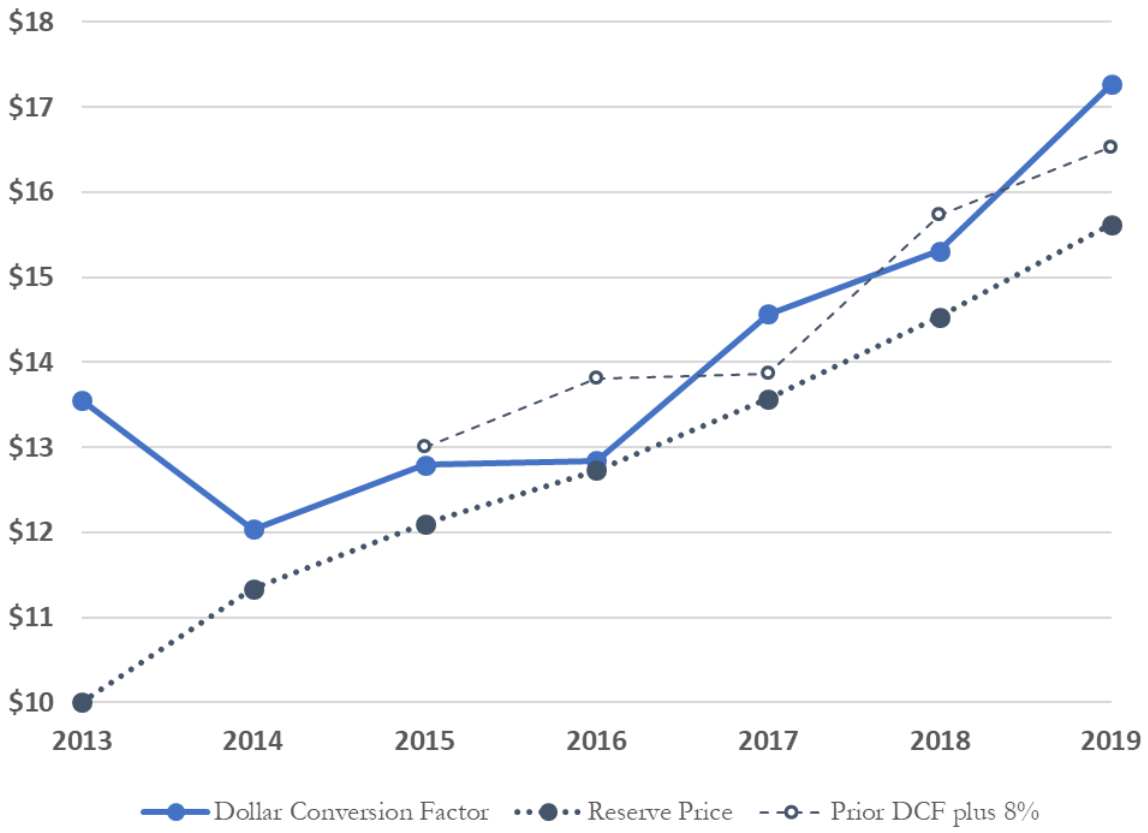
Option 2: Prior Year Dollar Conversion Factor Adjustment

Option 1 assumes that allowance prices will continue to rise along a path similar to the 2014-2019 period. This may not be true, as allowances may begin to trade at higher prices while the CARB floor price continues to rise relatively consistently. Prices could also decrease. A second option to adjust the dollar conversion factor to account for this potential for variability would be to the define the amount as:

> …the average of California Independent System Operator's (CAISO) daily Greenhouse Gas Allowance Index Price for the preceding year, increased by 8%.

The eight percent adjustment is the average annual increase in the dollar conversion factor, excluding the 2013 datapoint. This option is shown below in Graph 7.

Graph 7: Dollar Conversion Factor Compared to Prior Years' Price Plus 8 Percent



In either case, both of these options allow for increased predictability and certainty for credit recipients.

(b) Small EITE Attestation

Attestation Schedule

In April 2015 the CPUC issued Resolution E-4716, describing attestation and outreach requirements and timelines for small EITE facilities to receive the California Industry Assistance Credit. Since these facilities are not required to report to CARB under MRR, they must self-attest (under penalty of perjury) once per compliance period, typically every three years, in order to receive assistance. IOUs must provide an annual opportunity for facilities to attest. "Table 3: Schedule for 2016 and Later" of Resolution E-4716 (reproduced below in Table 9) established a

common annual timeline for attestation and crediting. Energy Division staff expects IOUs to continue this attestation schedule for the 2021-2030 period.

Table 9: Copy of Resolution E-4716 Table 3 "Schedule for 2016 and Later"

Date	Action
January 31	Energy Division calculates revenue due to each eligible facility (identified by September 30 of the previous year) and provides information to utilities
April 1	Utilities begin issuing California Industry Assistance as a bill credit to eligible facilities
September 30	Attestation form submission deadline
November 30	Utilities complete review and verification of attestation forms and provide eligible facility data to Energy Division

Attestation Outreach Schedule

Unlike attestation, Resolution E-4716 did not specify any outreach requirements post-2020. Ordering Paragraph 5 orders outreach by the IOUs to potential assistance recipients in their territories in 2015 and 2017, only.

Attestation Audit Schedules

Resolution E-4716 also required that utilities must audit at least five percent of applications once per compliance period, in 2016 and 2018. The primary purpose of the audits was to ensure NAICS-code conformance. Energy Division staff proposes continuing the once per compliance period audit requirement and all other audit requirements and processes described in Resolution E-4716 for the 2021-2030 period.

Feedback Needed:

a. This staff proposal recommends changing the crediting formula for small and medium EITE facilities to eliminate the need for a true-up allocation. Any there any factors that staff did not consider when recommending this change?

b. Which option for an updated dollar conversion factor formula is preferable? Are there other options that would better advance the goals of the program that staff has not considered?

c. This staff proposal shifts the responsibility for performing crediting calculations to the IOUs. Are there any compelling reasons that staff should continue to perform these calculations?

d. This staff proposal recommends continuing existing attestation and auditing requirements. Are there changes that should be made to the attestation auditing process or frequency described in Resolution E-4716 that could make the process more transparent and/or less burdensome?

e. The staff proposal does not recommend any additional outreach to potential credit recipients. Is any additional outreach needed, and if so what additional outreach should IOUs make to potential small and medium EITE recipients in their territories during the 2021-2030 period?

f. If additional outreach is needed, are there organizations such as the Governor's Office of Business and Economic Development (GO-Biz) or other State, local, or civic organizations that could work to increase awareness of the California Industry Assistance program among eligible small and medium EITE facilities?

g. This proposal supports continued crediting to small and medium EITE facilities. Should the CPUC continue to provide support in the form of the California Industry Assistance Credit to small and medium EITE facilities or explore ending the California Industry Assistance Credit once the responsibility for crediting large EITE facilities is transferred to CARB? How could the CPUC ensure that ending EITE credits to small and medium facilities while simultaneously transferring responsibility for crediting large EITE facilities to CARB comports with the CPUC's obligations under Section 748.5 of the Public Utilities Code?

5. Residential California Climate Credit

Summary and Issue Driver

The California Climate Credit is currently in compliance with all relevant regulations. Energy Division staff requests input on whether changing the distribution strategy could better advance awareness and align outcomes of the credit with the goals of D.12-12-033.

Energy Division Staff Proposal

Energy Division staff does not currently have a recommendation. The following subsections present evidence available to Energy Division staff and requests specific feedback.

(a) Program Goals

D.12-12-033 established seven policy objectives for use of the allowance auction proceeds and summarized many of the conflicting viewpoints on which specific goals should be prioritized over others in Section 1A - *Existing Regulations and Goals*. The CPUC's stated goals were:

- Preserve the carbon price signal.
- Prevent economic leakage.
- Distribute revenues equitably recognizing the public asset nature of the atmospheric carbon sink.
- Reduce adverse impacts on low-income households.
- Correct for market failures that lead to underinvestment in carbon mitigation activities and technologies.
- Maintain competitive neutrality across load serving entities.
- Achieve administrative simplicity and understandability.

Of all the objectives, D.12-12-033 placed special emphasis on preserving the carbon signal as a key goal:

> In today's decision, we are guided principally by a desire to maintain the carbon price in rates and therefore ensure that the price of goods and services reflects the full cost of carbon in order to send the clearest signal to ratepayers to make the most efficient economic decisions. We believe this outcome most fully comports with the intentions of Assembly Bill 32. D.12-12-033 at 4.

No single credit methodology can maximize all seven objectives. Design of any program will favor advancing one or more of the objectives over another. California's energy challenges and opportunities have changed since 2012, when the CPUC developed these program goals and developed methodologies to advance the goals the CPUC felt were most important at that time. Recurring severe wildfires and Public Safety Power Shutoffs, increasing adoption of electric vehicles, expanded use of distributed generation sources such as solar, the emergence of the duck curve, the closure of the San Onofre Nuclear Power Generating Station and the pending closure of the Diablo Canyon Power Plant, expansion of departing load from increased use of Direct Access and CCAs, increasing household use of internet-connected devices, and the introduction of default time-of-use

rates for residential customers are some of the major changes in California's energy system since 2012's D.12-12-033. These challenges and opportunities can impact the ideal program design, user experience, and potential use-cases for the California Climate Credit, the Small Business Climate Credit, and the California Industry Assistance Credit.

Feedback Needed:

a. If the CPUC changes the methodology or distribution of the California Climate Credit, which of the policy goals outlined by the CPUC in Section 5.2 of D.12-12-033 should be prioritized? Should any new goals be considered?

b. How can the California Climate Credit adapt to new energy challenges and opportunities?

(b) Outreach and Education

Public Utilities Code Section 748.5 mandated outreach to customers; the Cap-and-Trade Regulation permits the use of allowance auction proceeds for outreach that "directly supports the implementation of the projects or [otherwise allowable funded] activities…."[47] The CPUC, in D.12-12-033 agreed with the importance of outreach, but reaffirmed that it was "focusing our efforts first and foremost on maximizing the amount, and therefore benefit, of GHG allowance revenue returned to customers."[48] The combined IOU's outreach efforts were evaluated in 2014 in the *Climate Credit Assessment* report and approved of by the CPUC.[49]

The CPUC has not authorized any additional studies post-2014 into the public awareness or perception of the climate credit programs. Some mass-market outreach for the California Climate Credit continues to occur as part of Energy Upgrade California. In the months that the California Climate Credit is distributed, residential customers receive an email or bill insert via their utility as the main form of outreach.

The CPUC News and Outreach staff reports that, with over one million impression per year, the California Climate Credit website (www.cpuc.ca.gov/ClimateCredit/) is the most visited area of the CPUC website excluding the homepage.

Outside of CPUC efforts, the Public Policy Institute of California (PPIC) collects regular public awareness data on the broader Cap-and-Trade Program in PPIC's regular "PPIC Statewide Survey - Californians & The Environment." PPIC does not collect data on the California Climate Credit in particular. PPIC survey results indicate that, since the start of the State's Cap-and-Trade Program, awareness has always been minimal, with more than half of respondents saying they know nothing

[47] Cap-and-Trade Regulation 17 CCR Section 95892(d)(4).
[48] D.12-12-033 at 90.
[49] Resolution E-4611 did not approve the IOU's 2013 outreach and education plans, required by §748.5, and redirected these funds to a neutral non-profit entity to coordinate outreach and education with Energy Upgrade California.

about the program, and over 80 percent saying they no nothing or little. Survey details are in Appendix 6.

Feedback Needed:

c. Are there any other sources of data on the awareness or understanding by the public of the California Climate Credit?

d. Should the CPUC or IOUs conduct different or additional outreach and education on the California Climate Credit? What types of outreach and education would be most useful? What groups should be targeted? What budgetary limits should be imposed on these activities?

e. How could the California Climate Credit be presented to customers so that it: (1) raises awareness of Cap-and-Trade Program, and (2) encourages customers to take energy saving actions, and (3) supports household climate resilience?

(c) Return Time and Method

D.12-12-033 at 123 discussed the frequency of the California Climate Credit, stating:

> In regard to the frequency of the return of the climate dividend [the California Climate Credit] to residential customers, we are guided by our desire to make the rebate meaningful and understandable while minimizing interference with the conservation price signals currently in rates.

Energy Division staff requests input on whether the existing twice-annual pattern provides a credit that is "meaningful and understandable." For example, would issuing the credit once a year, as a larger lump sum, draw more attention to the program and provide better opportunities for education and outreach?

The CPUC's reasoning for placing the credit in low billed months included increasing awareness of the credit (as the credit would be the largest proportionally in these months), as well as an intent to preserve the carbon pricing signal. Recently, in their petition for modification of D.13-12-003, SDG&E argued that returning the residential California Climate Credit in high billed months (August and September) would increase awareness of the California Climate Credit, as more customers paid attention to their bills during these months. In D.19-12-002, the CPUC approved a temporary, two year shift in distribution to high billed months as a test case. In 2020 and 2021, SDG&E is required to report on several metrics to estimate the impact of the shift on customer interaction and understanding of the California Climate Credit.

As a return method, the on-bill credit is an inexpensive and effective way to ensure credit delivery. For low-income customers who may not have access to banking, it also ensures fair access to the credit. On the other hand, there is no easy way to track how the California Climate Credit is used

when it is distributed as an on-bill credit, and it is unclear to Energy Division staff if customers are motivated to invest in energy efficiency as a result of the credit.

Feedback Needed:

f. Are there credit design and delivery methods that comply with statutory requirements that would be more effective at advancing the CPUC goals than the existing on-bill credit?

g. Is there a way to make the credit more "meaningful and understandable" to recipients?

h. Would distributing a larger credit less frequently increase awareness and understanding of the California Climate Credit?

i. What are the optimal month(s) for California Climate Credit distribution and what data support this selection?

j. Is it important to distribute the electric California Climate Credit in the same month as the natural gas California Climate Credit (in April)?

(d) Low-income Customers

Currently, every residential account within an IOU territory receives an identical California Climate Credit. Since Cap-and-Trade Program costs are also passed through to customers in the price of goods and services that use energy, low-income households have the potential to feel a greater exposure to these costs. The CPUC has made reducing adverse effects to low-income households a policy goal of the California Climate Credit. Energy Division staff requests input on if an equal per household distribution for residential accounts sufficiently fulfills the CPUC's goal of protecting low-income households from adverse impacts. For reference, Table 10, below, contains the percentage of residential customer accounts on California Alternate Rates for Energy (CARE), a program that provides a rate discount for qualifying low-income households within California.

Table 10: Percentage of Residential Account CARE Customers (2018)

IOU	Percentage of Customers on CARE (2018 data)
PG&E	24%
SCE	27%
SDG&E	20%
Small and Multi-jurisdictional IOUs	
PacifiCorp	33%
Bear Valley*	12%
Liberty*	9%

**Bear Valley and Liberty contain resort communities with many seasonal and vacation homes. Figures include primary full-time residences and seasonal and vacation homes*

Feedback Needed:

k. Does the existing methodology for the California Climate Credit sufficiently protect low-income households from any adverse effects of the Cap-and-Trade Program?

l. Should any available proceeds that can be directed towards clean energy and energy efficiency programs be directed towards increasing energy efficiency and resilience for low-income ratepayers?

m. Would an annual vs. a semi-annual distribution of the California Climate Credit be advantageous or disadvantageous to low-income households?

6. Residential California Climate Credit Distribution to Submetered Households

Summary and Issue Driver

Outreach to submetered residential households is more challenging than outreach to direct-metered residential customers. The master-meter utility account holder is the customer of the IOU and is responsible for relaying information to submetered households, who do not receive communication directly from an IOU. Energy Division staff is aware of several complaints from submetered households (including households in master-metered communities such as mobile home parks) who have not consistently received the California Climate Credit. In these instances, the CPUC has informally worked with the IOUs and the master-meter customer to try to resolve these issues.

One of the CPUC's goals in D.12-12-033 was to "Reduce Adverse Impacts on Low-Income Households." Many submetered communities, such as mobile home parks and apartment complexes, could be low-income.

Energy Division Staff Proposal

At this time, Energy Division staff does not have a proposal on how to improve communication with and climate credit distribution to submetered households. Energy Division staff believes that submetered households should receive a residential California Climate Credit, and that the CPUC has made that intent clear in previous decisions. Energy Division staff provides the following background information and request input on how to improve program outcomes for submetered households.

(a) Statutory Requirements for Distribution

In the past, Energy Division staff has referenced Public Utilities Code Section 739.5(b)[50] to enforce distribution of the California Climate Credit to submetered households. Section 739.5(b) requires that master-meter holders credit each household a portion of any rebate received. In

[50] 739.5 (a) provides: The commission shall require that, whenever gas or electric service, or both, is provided by a master-meter customer to users who are tenants of a mobile home park, apartment building, or similar residential complex, the master-meter customer shall charge each user of the service at the same rate that would be applicable if the user were receiving gas or electricity, or both, directly from the gas or electrical corporation. The commission shall require the corporation furnishing service to the master-meter customer to establish uniform rates for master-meter service at a level that will provide a sufficient differential to cover the reasonable average costs to master-meter customers of providing submeter service, except that these costs shall not exceed the average cost that the corporation would have incurred in providing comparable services directly to the users of the service.

(b) Every master-meter customer of a gas or electrical corporation subject to subdivision (a) who, on or after January 1, 1978, receives any rebate from the corporation shall distribute to, or credit to the account of, each current user served by the master-meter customer that portion of the rebate which the amount of gas or electricity, or both, consumed by the user during the last billing period bears to the total amount furnished by the corporation to the master-meter customer during that period.

March 2018, D.18-03-017, which set the methodology for returns of allowance auction proceeds by natural gas IOUs, determined that the allowance auction returns do not qualify as rebates. As a result, limits in Section 739.5 pertaining to equal distribution of rebates to subtenant households might not apply.

Energy Division staff believes the CPUC intended all households, and not the master-meter holder alone, to receive the California Climate Credit. In D.12-12-033, the decision establishing the methodology for allowance proceed use by electric IOUs, the CPUC found:

> Customers taking service via a master-meter configuration will be treated equally to all other residential customers in regards to the neutralization of GHG costs in residential rates. This will also be the case for master-meter customers that qualify as small businesses. D.12-12-033 Finding of Fact 127.

In the Joint Implementation Plan for PG&E, SDG&E, and SCE approved by the CPUC the three large electric IOUs agreed to distribute residential climate credits to master-metered facilities based on the number of submeters served at each master meter.[51]

(b) Reported Billing Difficulties

The CPUC has observed difficulties between submetered households and master-meter holders across numerous programs and issues. In 2004 several advocacy groups highlighted problems with general implementation of State programs at master-metered facilities in comments to the CPUC proceedings on submetering.[52] The Latino Issues Forum suggested the CPUC send quarterly notices to master-meter owners and conduct spot-checks to ensure master-metered facilities were properly informing submetered households about discount programs and receiving rebates/credits. The Utility Reform Network also suggested spot-checks whenever a major rebate program is ordered.[53] In response, the CPUC noted that these requests were out of scope and could require a large amount of CPUC resources, but acknowledged the CPUC was aware of ongoing issues with distribution and outreach to submetered customers. To respond to the billing problem, the CPUC ordered the creation of an option where utilities would offer bill calculation services to master-meter owners. While the three large IOUs (PG&E, SCE, and SDG&E) now offer such services,[54] it is unclear how many master-meter holders use these services or how much of the cost is ultimately passed through to submetered households.

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[51] Joint Investor-Owned Utility Cap and Trade Greenhouse Gas Revenue Allowance Return Implementation Plan of Pacific Gas and Electric Company (U 39-E), San Diego Gas & Electric Company (U 902-M), and Southern California Edison Company (U 338-E). Filed February 13, 2013 under R.11-03-012.

[52] Order Instituting Rulemaking on the Commission's Own Motion to Re-Examine the Underlying Issues Involved in the Submetering Discount for Mobile Home Parks and to Stay D.01-08-040.

[53] D.04-11-033.

[54] For example, PG&E's Bill Calculation Service is described here: www.pge.com/en_US/small-medium-business/your-account/billing/understand-your-bill/mobile-home-park-bill-services.page.

(c) Existing Outreach

At the start of the Cap-and-Trade Program, the Center for Sustainable Energy (CCSE) conducted an outreach effort on behalf of all the IOUs that was broadly focused, using mass media outlets such as radio ads and social media posts. No specialty outreach to submetered communities such as mobile home parks was conducted. Subsequent efforts by the IOUs were also broad. For example, PG&E's 2016 Residential Outreach Plan used email and direct mail to customers. However, as submetered households are not customers of the utility, they would have not received any of these outreach efforts.

Currently, each semi-annual credit period IOUs send a letter to master-meter account holders that have submetered households receiving the California Climate Credit explaining their responsibilities and indicating they must post the letter in an area that is publicly accessible to submetered households.

Feedback Needed:

a. Are data or estimates available on credit or program delivery to submetered customers?

b. How can the CPUC improve awareness of the California Climate Credit for submetered households? What types of additional outreach would be most effective?

c. What steps can the CPUC take, programmatically and/or legally, to ensure more uniform delivery of the California Climate Credit to submetered households?

d. Which associations or other groups should the CPUC work with to better support credit or program delivery to submetered customers?

e. What special challenges do submetered tenants face in receiving the California Climate Credit?

D. Appendices

Appendix 1: Commission Actions on the Cap-and-Trade Program

Table A1-1, below, is a partial list of CPUC actions related to the use of allowance auction proceeds.

The full docket card for each proceeding can be accessed through the CPUC docket card search tool. Enter the proceeding number without any periods or dashes to search. Final decisions can be located on the CPUC website using this decision search tool.

Table A1-1: Selected Commission Actions Directing the Use of IOU Allowance Auction Proceeds

PROCEEDING	DOCUMENT	PROGRAM IMPACT
R.06-04-009 (Closed): Coordinates GHG emission reduction policies and associated implementation steps for utility energy procurement.		
	Document	*Program Impact*
	D.08-10-037 Attachment A Attachment B	• Supplied CARB with the CPUC's estimate of potential impacts to the electricity and natural gas sectors from AB 32 implementation options
R.10-05-006 (Closed): Implementation of electric resource procurement policies and programs to ensure a reliable and cost-effective electricity supply in California, including authorization to buy and sell GHG allowances and offsets.		
	Document	*Program Impact*
	D.12-04-046	• Establishes procurement rules about how electric utilities comply with Cap-and-Trade
R.11-03-012 (Open): Addresses potential electric utility cost and revenue issues associated with greenhouse gas emissions including use of revenues that electric utilities may generate from auction of allowances allocated to them by the California Air Resources Board. Includes how revenues may be returned to utility customers or used to fund other programs.		
	Document	*Program Impact*
	D.12-12-033	• Establishes policy goals and overall framework for distribution of allowance proceeds • Established Residential Methodology

PROCEEDING	DOCUMENT	PROGRAM IMPACT
	D.13-12-002	• Established Small Business Methodology • Approved, with modifications, the utilities' implementation plans
	August 21, 2013 ALJ Ruling	• Incorporated into the record a report on outreach and education activities ordered in D.12-12-033
	D.13-12-003	• Approved electric utilities' GHG Cap and Trade Implementation Plans (required by D.12-12-033)
	D.13-12-041	• Ordered the IOUs to split 2013 allowance auction proceeds and GHG costs equally across 2014 and 2015
	D.14-12-037 as modified by D.15-08-006 and D.16-07-007	• Established EITE Methodology • Allows for use of CARB-verified production data when calculating EITE credits and makes other minor EITE formula adjustments
	February 5, 2014 ALJ Ruling	• Name changed from the Climate Dividend to the California Climate Credit
	D.15-07-001	• Rate reform proceeding which removed the wide disparity between tiers and found that the volumetric rate credit should be eliminated starting January 1, 2016 (in R.12-06-013)
	D.19-12-002	• Modifies D.13-12-003 to temporarily allow SDG&E to distribute the California Climate Credit in August and September

PROCEEDING	DOCUMENT	PROGRAM IMPACT
R.14-03-003 (Closed): Establishes the policy, programs, rules, and tariffs necessary for natural gas investor-owned utilities to comply with the California Air Resources Board's greenhouse gas Cap-and-Trade Program.		
	Document	*Program Impact*
	D.14-12-040 Appendix A	• Adopts a settlement agreement regarding policies, programs, rules, and tariffs necessary for natural gas utilities to comply with the Cap-and-Trade Program
	D.15-10-032 as corrected by D.16-01-028	• Approves methodologies for natural gas utilities to use when calculating forecast and recorded greenhouse gas allowance proceeds and greenhouse gas costs associated with complying with Cap-and-Trade
	D.16-04-013	• Opens limited rehearing of D.15-10-032
	D.18-03-017	• Closes rehearing of D.15-10-032 and finalizes methodologies for natural gas utilities to use when calculating GHG allowance proceeds and GHG costs associated with complying with Cap-and-Trade
R.14-07-002 (Open): Establishes SOMAH program. Develops a successor to existing net energy metering (NEM) tariffs and adopts new clean energy and energy efficiency projects.		
	Document	*Program Impact*
	D.17-12-022 as modified by D.19-03-015	• Established and clarified IOU funding requirements for the SOMAH program as part of the 15 percent CEEE set-aside
	D.18-06-027 as corrected by D.18-10-007	• Adopts three new programs to promote the installation of renewable generation among residential customers in disadvantaged communities (DACs)

PROCEEDING	DOCUMENT	PROGRAM IMPACT
A.12-08-007 (Closed): Applications of the electric utilities for statewide marketing, education, and outreach programs and budgets related to the California Climate Credit.		
	Document	*Program Impact*
	D.16-03-029	• Established post-2016 statewide marketing, education, and outreach activities
A.13-08-026 (Closed): Adopts customer education and outreach activities for 2014-2015 pertaining to the distribution of greenhouse gas allowance revenues to residential, small business, and emissions-intensive and trade-exposed customers.		
	Document	*Program Impact*
	D.14-01-012	• Authorized the Energy Division to change the name of the residential return
	D.16-06-041	• Determined requirements for customer outreach and education have been satisfied • Migrates future outreach and education efforts to A.12-08-007
A.13-08-002 (Closed): Adopts standard procedures and templates for electric utilities to file that track greenhouse gas costs and use of allocated allowance auction proceeds.		
	Document	*Program Impact*
	D.14-10-033	• Established tracking of GHG allowance proceeds in ERRA/ECAC applications • Established process for IOUs to request use of CEEE funds
	D.14-10-055 D.15-01-024 D.19-04-016	• Provides updated templates required for GHG allowance proceed reporting and Weighted Average Cost (WAC)
A.18-05-015 (Closed): Application to approve the use of Cap-and-Trade allowance revenues to fund Southern California Edison's Clean Energy Optimization Pilot (CEOP).		
	Document	*Program Impact*
	D.19-04-010 Attachment A	• Approved $20.4M by SCE for clean energy optimization pilot

PROCEEDING	DOCUMENT	PROGRAM IMPACT
Resolutions	E-4611	• Did not approve 2013 utility outreach and education plans and redirected funds to a neutral non-profit entity to coordinate outreach and education with Energy Upgrade California
	E-4716	• Established implementation details for EITE credit • Established the attestation process for Small and Medium EITEs, set refinery formulas for later compliance periods, and clarified processes for multisector EITE facilities
	E-4999	• Implemented the Disadvantaged Communities Green Tariff (DAC-GT) and Community Solar Green Tariff (CSGT) Programs

Table A1-2: Decisions Approving the Return of GHG Allowance Proceeds

	PG&E	SCE	SDG&E	Liberty	PacifiCorp
2014	All Utilities - D.13-12-041				
2015	D.14-12-054	D.15-02-005	D.15-03-019 as corrected by D.15-04-005 and D.15-04-036	D.14-12-047 as corrected by D.15-01-056	D.15-02-006
2016	D.15-12-022	D.15-12-033	D.15-12-032	D.15-12-037	D.15-12-030
2017	D.16-12-038	D.16-12-054	D.16-12-053	D.16-12-013	D.16-12-012
2018	D.18-01-009	D.17-12-018	D.17-12-014	D.18-03-024	D.17-12-017
2019	D.19-02-023	D.19-02-024	D.18-12-016		D.18-12-007
2020	D.20-02-047	D.20-01-022	D.20-01-005		

Appendix 2: CARB Allocated IOU Allowances for Auction

Future Allowance Amounts

The annual number of allowances CARB allocates to electric IOUs for ratepayer benefit is published in Table 9-4 of CARB's Cap-and-Trade Regulation and reproduced in Table A2-1, below. Except for PG&E, allocated allowance amounts generally decrease gradually over time. Bear Valley Electric is not included in Graph 3 of the main body of this staff proposal, as the number of allowances allocated to them is very small compared to the other IOUs and they currently distribute all allowance proceeds volumetrically.

Table A2-1: CARB Allocated Allowances to Electric IOUs under the Cap-and-Trade Program

2021-2030 data from §95892 of the Cap-and-Trade Regulation: Table 9-4; 2020 data for Bear Valley from D.12-12-033 Table 1 derived from Table 9-3 in §95892(e) of the Cap-and-Trade Regulation. 2020 Data for other IOUs from 2019 ERRA/ECAC filings.

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
PG&E	22,646,325	17,599,777	17,460,185	16,921,166	16,757,499	21,426,107	23,023,113	22,260,374	21,597,094	21,308,651	20,636,456
PacifiCorp	767,732	551,045	550,696	544,824	529,519	523,766	518,466	508,806	502,973	501,766	474,261
SDG&E	6,143,946	6,766,147	6,737,256	6,586,708	6,435,664	6,279,487	6,208,750	6,023,536	5,857,961	5,782,142	5,615,045
SCE	24,704,540	25,183,597	24,999,282	24,357,709	23,681,594	23,035,309	22,687,800	21,942,596	21,240,462	20,907,873	20,201,590
Liberty Utilities	226,639	189,367	188,590	185,284	181,575	177,489	175,880	171,165	167,293	165,928	161,944
	54,489,182	**50,289,933**	**49,936,009**	**48,595,691**	**47,585,851**	**51,442,158**	**52,614,009**	**50,906,477**	**49,365,783**	**48,666,360**	**47,089,296**
Bear Valley	58	44,894	44,649	43,482	42,631	41,455	40,867	39,855	38,833	38,397	37,360

Appendix 3: Estimated Allowance Prices

Future Allowance Prices

In order to provide a conservative estimate of future allowance auction proceeds, Energy Division staff based total annual allowance auction proceed estimates on the estimated floor, or minimum, price for allowances in Cap-and-Trade Program auctions each year. CARB defines an annual reserve price (also called the floor price) for allowances in the Cap-and-Trade Regulation as the auction floor price for the previous calendar year increased by five percent plus the rate of inflation as measured by the most recently available twelve months of the Consumer Price Index for an All Urban Consumer.

To estimate the inflation adder, Energy Division staff created three inflation scenarios:

- A conservative estimate with zero percent inflation.
- An estimate using the average CPI inflation for the last ten years (2009-2018)[55] (1.6 percent), assuming similar conditions will prevail for the next ten years (2021-2030).
- An estimate using the trendline average CPI inflation based on the ten-year rolling average inflation since 1990 forecasted out to 2030.

Table A3-1: Estimated Cap-and-Trade Program Allowance Prices 2021-2030

2020 CARB Allowance Auction Reserve Price = $16.68

	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
No Inflation	$17.51	$18.39	$19.31	$20.27	$21.29	$22.35	$23.47	$24.64	$25.88	$27.17
Trendline Inflation	$17.74	$18.85	$20.01	$21.24	$22.52	$23.86	$25.27	$26.74	$28.28	$29.88
Flat 1.6% Inflation	$17.78	$18.95	$20.21	$21.54	$22.96	$24.48	$26.09	$27.81	$29.65	$31.61

[55] 2018 is the last year with full data available.

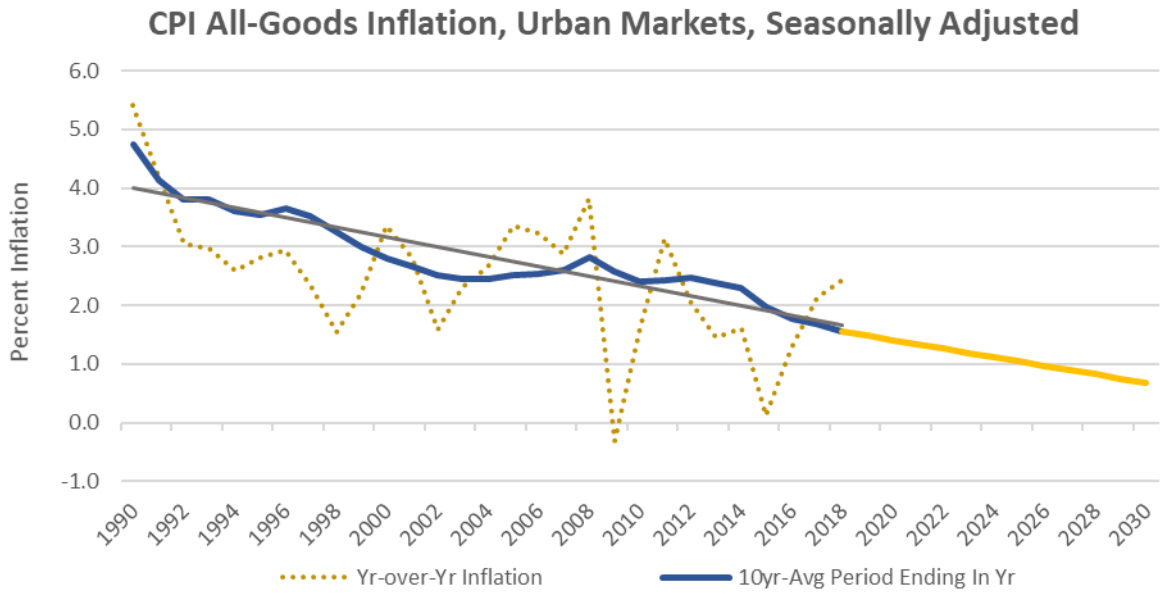
Table A3-2: Trendline Inflation Data

Year	CPI	10yr-Rolling Average	Future Trendline
1990	5.42	4.74	
1991	4.22	4.13	
1992	3.04	3.81	
1993	2.97	3.80	
1994	2.60	3.62	
1995	2.81	3.55	
1996	2.94	3.65	
1997	2.34	3.52	
1998	1.55	3.27	
1999	2.19	3.01	
2000	3.37	2.80	
2001	2.82	2.66	
2002	1.60	2.52	
2003	2.30	2.45	
2004	2.67	2.46	
2005	3.37	2.51	
2006	3.22	2.54	
2007	2.87	2.59	
2008	3.81	2.82	
2009	-0.32	2.57	
2010	1.64	2.40	
2011	3.14	2.43	
2012	2.07	2.48	
2013	1.47	2.39	
2014	1.62	2.29	
2015	0.12	1.96	
2016	1.27	1.77	
2017	2.14	1.70	
2018	2.44	1.56	1.55
2019			1.48
2020			1.41
2021			1.33
2022			1.26
2023			1.19
2024			1.11
2025			1.04
2026			0.97
2027			0.90
2028			0.82
2029			0.75
2030			0.68

Consumer Price Index (CPI) Data From:

- Consumer Price Index: *All Items in U.S. City Average, All Urban Consumers, Percent Change from Year Ago, Annual, Seasonally Adjusted*
- Federal Reserve Economic Data: data.bls.gov/PDQWeb/cu
- 10-year rolling average is for the period ending in the year

Graph A3-1: Estimated 2018-2030 Trendline Inflation



- Trendline in gray in Graph A3-1.
- Future Trendline based on linear regression of 10-year rolling average data over the 1990-2018 period. The r-squared value for the regression is 0.87 (values closer to one indicate that the linear straight-line model is a better fit for the observed data).
- Predicted Percent Inflation = 10.173 – (Year/213.756).

Appendix 4: Bear Valley Allocated Allowances 2020-2030 Predicted Proceeds

Table A4-1: Bear Valley CARB Cap-and-Trade Program Allocated Allowances by Year 2013-2030

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
58	56	55	63	62	61	59	58	44,894	44,649	43,482	42,631	41,455	40,867	39,855	38,833	38,397	37,360

Table A4-1 2013-2020 Data: Table 1 in D.12-12-033, derived from Table 9-3: Percentage of Electric Sector Allocation Allocated to Each Utility, 17 CCR § 95892(e). Table A4-1 2021-2030 Data: 17 CCR §95892: Table 9-4.

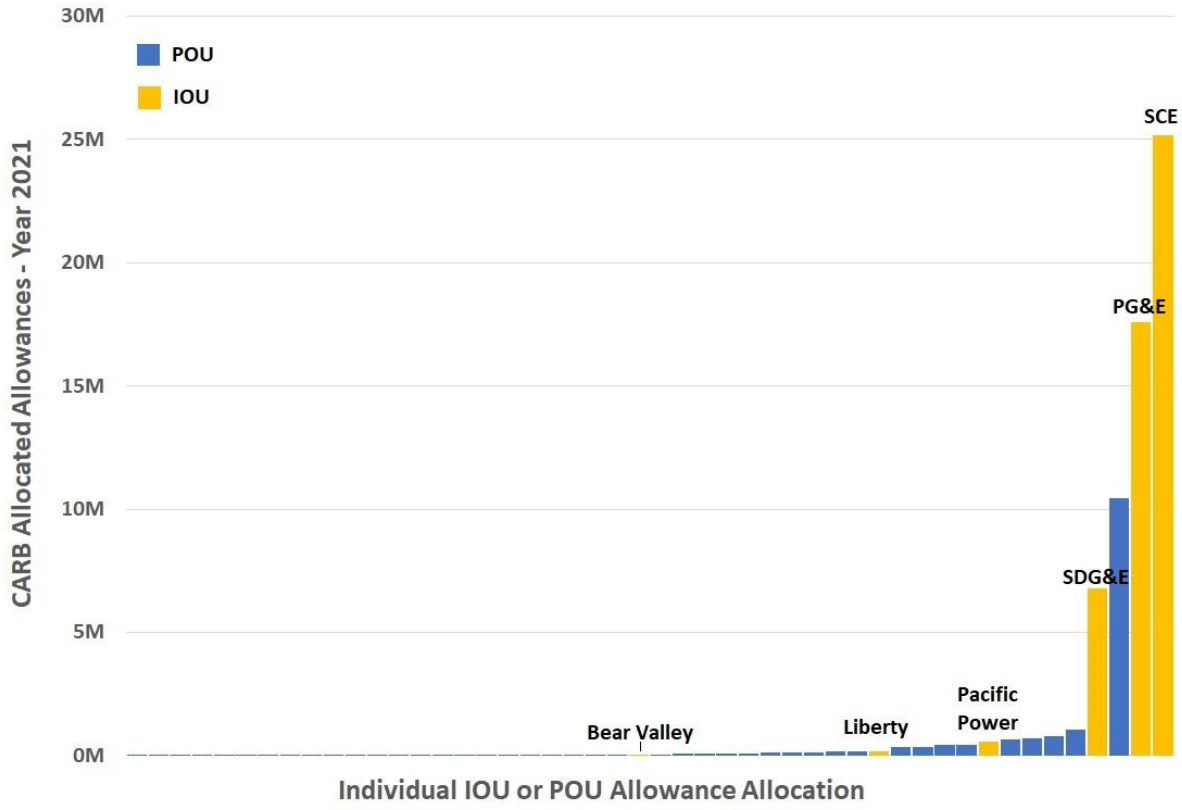
Table A4-2: Predicted Bear Valley Cap-and-Trade Program Allowance Auction Proceeds 2020-2030

See Appendix 3 for an explanation of these three scenarios.

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
No Inflation	1K	786K	821K	840K	864K	883K	913K	935K	957K	994K	1.02M
Trendline Inflation	1K	796K	841K	870K	905K	934K	975K	1.01M	1.04M	1.09M	1.12M
Flat 1.6% Inflation	1K	798K	846K	879K	918K	952K	1.00M	1.04M	1.08M	1.14M	1.18M

Graph A4-1: CARB Cap-and-Trade Program 2021 Allowance Allocations for Electrical Distribution IOUs and POUs

Note: Graph A4-1 Data: Cap-and-Trade Regulation 17 CCR §95892: Table 9-4.



Appendix 5: Large EITE Credit Transfer

1. SUMMARY

This appendix summarizes the CPUC Energy Division staff's proposed process to transfer assistance crediting in the form of the California Industry Assistance Credit for large EITE facilities (facilities emitting more than 25,000 metric tons CO_2e per year) from the CPUC to CARB. CPUC staff offers a process that:

- Preserves existing practices towards recipients.
- Relies on existing authorities and processes.
- Maintains, to the maximum extent possible, the CPUC's decision adopted processes for balancing allowance auction proceeds among EITEs, small businesses, and residents over multiyear periods.
- Minimizes administrative complexity and redundancy across agencies.

The handoff process would likely take two years. This timeline is required due to a two year lag in calculating product based true-up allocations. This staff proposal uses "Year 1" and "Year 2" to discuss the proposed handoff, where "Year 1" is the first year that CARB would provide an initial allocation to EITE entities for their electricity purchases, and "Year 2" is the year immediately following "Year 1." To illustrate potential timing by example, this discussion uses 2021 and 2022 as examples of "Year 1" and "Year 2," respectively. Implementing this proposal, including identifying the actual time period for implementation, would depend on CARB adopting Cap-and-Trade Regulation amendments through a formal public process. As no such amendment process has been proposed at this time, the actual timing of this potential proposal is uncertain and 2021/2022 remain as illustrative examples, only.

CPUC staff proposes that:

- Beginning with Year 1 allocations (v2021 allowance allocation)[56], the CPUC direct IOUs to cease all initial assistance crediting of large EITE facilities for electrical purchases and CARB commences crediting these facilities.
- CARB calculates all product-based Year 1 (v2021) and Year 2 (v2022) true-up allocations (to true-up product-based prior year (v2019 and v2020) initial allocations, respectively).
- CPUC staff calculates the energy-based Year 1 (v2021) true-up allocations (to true-up energy-based v2020 initial allocations) and directs IOUs to provide bill credits for positive true-up values.[57]
- CPUC staff directs IOUs to provide bill credits for positive product-based Year 1 and Year 2 (v2021 and v2022) true-up allocations (for v2019 and v2020 product-based initial allocations), continuing existing practices.
- For any negative Year 1 and Year 2 (v2021 and v2022) true-up allocations, CARB debit the true-up allocations from each facility's annual initial allocation.

[56] "v" indicates the vintage year for the allowances.

[57] CPUC staff predicts that all true-up allocations for energy-based allocations to EITE for 2020 assistance will be positive.

In addition to distributing EITE credits to covered entities (what CPUC staff refers to as "large EITE facilities"), the CPUC also assists medium (entities that emit 10,000-25,000 metric tons CO_2e per year and have a reporting obligation to CARB) and small (entities that emit less than 10,000 metric tons CO_2e per year) EITE facilities. Changes proposed in this appendix apply only to large EITE facilities.

The CPUC has a statutory obligation to distribute funds to EITE facilities.[58] CPUC staff intends to continue fulfilling these obligations under this staff proposal. If in a future period CARB were to cease providing assistance to large EITE facilities to minimize leakage associated with electricity costs, the CPUC would resume crediting these facilities.

2. DESIGN CONSIDERATIONS

A. Continuity with existing CARB and CPUC practices

To minimize leakage, CARB allocates allowances to large EITE facilities for their direct emissions and IOUs distribute allocated allowance value to large EITE facilities via bill credits for their electricity purchases as directed by the CPUC. CARB provides initial and true-up allocations in October each year; the initial allocations are for the upcoming year and the true-up allocations are for the previous year (e.g., in October 2019, CARB provided vintage 2020 (v2020 allowances) for both initial allocation for 2020 emissions and true-up allocation for 2018 emissions). IOUs provide bill credits in April each year; these bill credits include initial allocations for the current year and, for product-based allocation, true-up allocations for two years ago or, for energy-based allocation, true-up allocations for the previous year (e.g., in April 2019, IOUs provide initial bill credits for 2019 emissions and true-up allocations for 2017 emissions (if product-based) or 2018 emissions (if energy-based)). The CPUC does not request refunds from EITE facilities, but the CPUC applies negative true-up allocations to new allocations to properly correct for over-allocation in prior years. This proposal applies schedules and features consistent with current practice, minimizes disruption to recipients, and utilizes existing administrative capacities and workflows.

B. Maintaining Parity Across Ratepayer Groups

From a common pool of allowance proceeds, IOUs provide assistance to three groups: EITE, small business, and residential customers. EITE and small business returns are formula-based; the formulas are not linked to the total amount of allowance proceeds available in a given year. Each residential household receives an equal share of the remainder after EITE and small business returns, administrative and outreach expenses, and authorized clean energy and energy efficiency (CEEE) funds have been calculated and removed from each IOU's predicted total allowance auction proceeds for the year. As this staff proposal does not change small business returns or CEEE funding, conceptually:

- A positive EITE true-up allocation means that in a previous year EITE facilities did not receive their full assistance as determined in CPUC decisions (due to the forward-looking

[58] PUC §748.5: "Except as provided in subdivision (c) the Commission shall require revenues…received by an electrical corporation as a result of the direct allocation of greenhouse gas allowances to electric utilities…to be credited directly to the residential, small business, and emissions-intensive trade-exposed retail customers of the electrical corporation."

nature of the EITE credit and use of prior years' data in forecasting for the upcoming year). The shortfall amount was passed through as an excess credit to residential customers.

- A negative EITE true-up allocation means that in a previous year EITE facilities received an assistance amount in excess of their CPUC determined share (once again due to the forward looking nature of the EITE credit and use of prior years' data in forecasting for the upcoming year), and the excess EITE credit resulted in a lower credit to residential customers.

CPUC staff's proposed handoff process for EITE credits preserves the relationship among the available pool of assistance funding, EITE, and residential customers to the extent possible, adjusting future residential credits for the EITE true-up allocations where practical.

C. Handling Debit Values using existing mechanisms

The CPUC does not have a simple and readily available mechanism to compel EITE facilities to return dollar value to an IOU's allowance auction proceed account. CPUC staff accounts for negative true-up allocations by reducing current and future years' assistance amounts. This proposal does not require the creation of any new mechanism for EITE facilities to return funds to IOUs. Instead, it uses the CPUC's existing annual ERRA balancing process to pass-through imbalances in IOU allocations between the large EITE facilities and residential customers.

3. PROPOSED HANDOFF PROCESS

The proposed handoff process is outlined below. To illustrate potential timing using a concrete example, this discussion uses 2021 and 2022 as "Year 1" and "Year 2," respectively. This proposal, including the actual timing for the implementation of this proposal, would depend on CARB adopting Cap-and-Trade Regulation amendments through a formal public process to modify allowance allocation to EITE entities. No such amendment process has been proposed at this time, and thus, the actual timing of this potential proposal is uncertain and 2021/2022 remain as illustrative examples, only.

A. Initial Allocations

The CPUC and CARB will both continue initial and true-up allocations on their existing schedules until both CARB and the CPUC mutually agree to transfer crediting responsibilities. Starting with Year 1's allocation (v2021), the CPUC will direct IOUs to cease providing the California Industry Assistance Credit to large EITE facilities (with the exception of positive true-up allocations for previous years), and CARB will begin to allocate additional allowances to large EITE facilities (covered entities) through a methodology that would need to be incorporated into the Cap-and-Trade Regulation through a formal rulemaking process.

B. True-up Allocations

The true-up process has two steps: (1) Calculating the true-up allocation and net allocation (the current allocation amount plus-or-minus the true-up allocation) and (2) Distributing the true-up allocation.

i. Performing Calculations

Energy-Based Formula

The initial energy-based allocation is trued-up in the year immediately following the initial allocation. The initial allocation is calculated using the most recent year's dollar conversion factor, and the true-up allocation is calculated using the actual dollar conversion factor for the allocation year. For the Year 1 (v2021) allocation, CPUC staff will perform calculations for true-up allocations for EITE facilities historically credited by the CPUC with an energy-based formula.

CPUC staff currently uses a dollar conversion factor to convert tons of emissions into credit amounts.[59] The factor is defined in D.14-12-037 as "…the annual average of CAISO's daily GHG Allowance Index Price."[60] CPUC staff receives information needed to calculate the dollar conversion factor from the CAISO website.[61]

Product-Based Formula

The initial product-based allocation is trued-up two years after the initial allocation. CPUC staff currently receives the production information needed to calculate the true-up allocation from CARB. As a result, CPUC staff proposes that CARB calculate the true-up allocations for Year 1 (v2021) and Year 2 (v2022) to true-up prior year initial product-based allocations (v2019 and v2020 respectively), for initial allocations provided by both CARB and the CPUC.

ii. Performing Returns of True-Up Allocation

Once the true-up allocations have been calculated:

[59] Discussed in CPUC D.14-12-037 at 18.
[60] D.14-12-037 at 19/20.
[61] Data downloaded from: oasis.caiso.com/mrioasis/logon.do from the "Greenhouse Gas Allowance Index Prices" option under the "Prices" folder.

If True-Up Allocation is Positive

In Year 1 (2021) and Year 2 (2022), IOUs will true-up the initial assistance provided to large EITE facilities in 2019 and 2020, respectively, as a credit on their electricity bill. Providing bill credits to EITE facilities with positive true-up allocations from the common IOU allowance auction proceed pool will reduce the assistance amount available to residential customers in the following year, after the overall GHG accounts are balanced during the ERRA process (e.g., providing bill credits to EITE facilities with positive true-up allocations in Year 2 (2022) will reduce the amount of proceeds returned to residential customers in Year 3 (2023)).[62] This will net out any excess assistance to residential customers provided in prior years.

If True-Up Allocation is Negative

Negative true-up allocations indicate that large EITE facilities received more assistance in the initial allocation than they would have if the CPUC had access to perfect information at the time of crediting. This also means that residential customers received an inadequate share of the allowance proceeds in the year of the initial allocation. In Year 1 and Year 2 (2021 and 2022), CPUC staff has no readily available mechanism to compel EITE recipients to return any potential negative true-up allocation. In previous years, CPUC staff netted the negative true-up allocation from the concurrent initial allocations. Since CARB will be distributing initial allocations in Year 1 and Year 2 (2021 and 2022), CPUC staff proposes that CARB net the negative true-up allocation from the initial allowance allocation on a facility-by-facility basis for Year 1 and Year 2 (v2021 and v2022) allowance allocations. As with other aspects of this proposal, CARB executing these negative true-up allocations would depend on CARB adopting Cap-and-Trade Regulation amendments through a formal public process to modify allowance allocation to EITE entities.

For Year 1 and Year 2 (v2021 and v2022) allocation, CPUC staff identifies two options:

Option 1: No Negative true-up reallocations

In this option, CARB does not reallocate negative true-up allocations debited from large EITE facilities to the IOUs servicing those facilities for the following reasons:[63]

[62] The "Electric Procurement Cost Revenue Requirement Forecast and Forecast of Greenhouse Gas Related Costs" (ERRA) is the annual process by which each IOU submits their forecast allowance auction proceeds accounts for review by the CPUC. Any distributions from the previous year in excess of or short of realized proceeds from consigning allowances at auction over the previous year are subtracted from or added to the upcoming years' predicted GHG allowance auction proceeds. This total estimate for the upcoming year is then used to calculate the upcoming years' residential climate credit, which is then approved by the CPUC in a decision.

[63] Ideally, the value of these negative true-up allocations would be delivered to residential ratepayers. This would require that CARB allocate allowances to the appropriate IOU in the following year in an amount equal to the dollar value of the total negative true-up allocation for EITE facilities in its service territory. IOUs would then consign these allowances at auction, and the proceeds would flow into each IOUs' auction proceeds account. The ERRA account balancing process would distribute these funds equally among residential customers. However, in practice this approach does not appear to be feasible.

- The large temporal disconnect between the time of the initial allocation year and the ultimate receipt by residential customers of the true-up value.[64]
- The anticipated minor monetary impact on residential returns across all three large IOUs resulting from negative EITE true-ups (see Section 4 of this appendix, Table A5-1).
- The increased administrative workload at CARB associated with reallocating allowances to IOUs relative to the ratepayer benefits.
- Energy Division staff believes that true-up credits distributed using the energy-based formula will be positive for the foreseeable future, further minimizing the impact of the simplified handoff approach described here.

Weighing the administrative and logical tradeoffs against the potential financial impacts to stakeholders, CPUC staff believes this approach maximizes positive program outcomes while minimizing disturbance to credit recipients during the transition period.

CPUC staff welcomes feedback on how best to restore decision-granted value to residential customers.

Option 2: Negative true-up reallocation

This option would require EITE facilities to pay back IOUs for negative true-up values in Year 1 and Year 2 of the handoff as an on-bill charge. The IOUs would then transfer these funds to their Greenhouse Gas balancing accounts, where they would be distributed in the following year to residential customers.

For these years, CARB would not reduce their allocations, as the negative true-up values would be assessed as on-bill charges.

As detailed in Section 4, below, this method would restore an estimated maximum sixty cents over two years to residential customers (i.e., adding fifteen cents to each of four California Climate Credit semi-annual installments spread across two years).

4. ESTIMATED IMPACT OF THE EITE TRUE-UP ON RESIDENTIAL ASSISTANCE:

CPUC staff estimated the monetary impact to residential customers in the following scenario:

- For positive true-up allocations, distributing additional credits to large EITE facilities where due from an IOU's allowance auction proceed account.
- For negative true-up allocations, not returning the value to the IOU's allowance proceed account equal to the amount typically netted out from allocations to large EITE facilities.

These calculations are summarized in Table A5-1. Based on data analysis of recent EITE true ups from the three large IOUs, CPUC staff estimates that over the transition period the total maximum impact to residential California Climate Credit recipients would be a decrease of less than 60 cents per household.

[64] For example, for a v2020 initial allocation to a large EITE facility using a product-based formula the true-up allocation would not arrive to residential customers until 2024.

Table A5-1:
Estimated Impact on the Residential California Climate Credit for the Recommended Handoff Method Presented in this Staff Proposal‡

		PG&E	SCE	SDG&E
1	Positive True-up Allocation	$2.7M	$2.7M	$0.019M
2	Negative True-up Allocation	-$1.4M	-$0.3M	$0M
3	Number of Residential Households	5.0M	4.6M	1.4M
4	Per Semi-Annual Credit Impact*	-$0.14	-$0.03	$0.00
5	Over entire two year handoff Period	-$0.56	-$0.12	$0.00
6	Semi-annual Residential Climate Credit	$28	$33	$31
7	Percent Change	-0.5%	-0.1%	0.0%

‡ *Based on 2018 California Industry Assistance data looking at the impact on the 2019 residential climate credit.*
** Line 2 divided by Line 3.*

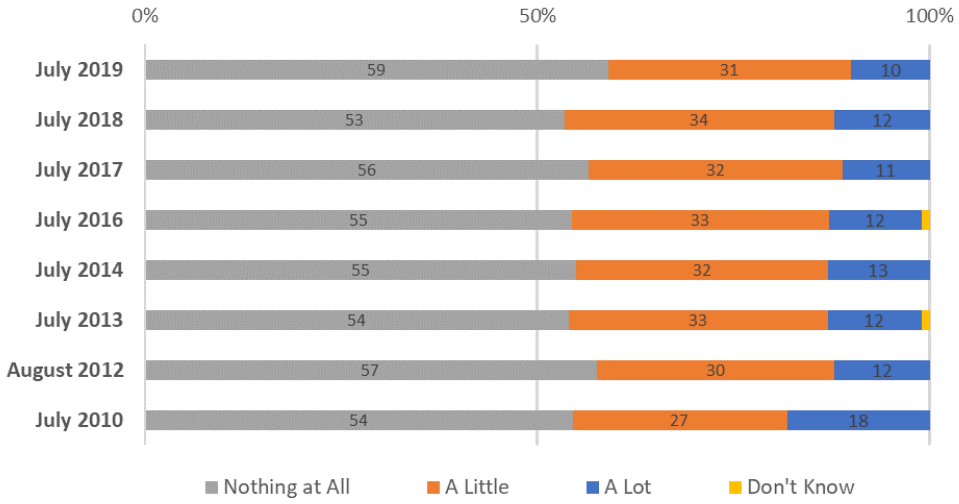
CPUC staff calculations did not include the impact of Cap-and-Trade Regulation changes effective April 1, 2019, which changed Table 8-1 assistance factors to 100 percent for all EITE leakage risk classifications.[65] CPUC staff did not use updated assistance factors to calculate 2019 EITE credits but will use updated assistance factors for 2020 and future EITE credits, including for any true-up allocations. This will ensure that all EITE credits accurately reflect the appropriate assistance factors from the Cap-and-Trade Regulation.

Overall, the impact of EITE credit changes on residential credits is minimal because the total value of the credits returned to all EITE facilities by IOUs is roughly seven percent of the total IOU allowance auction proceeds, while the total value of the residential credits distributed by IOUs is roughly 70 percent of the total IOU allowance auction proceeds. There is a roughly 1:10 "dilution factor" when comparing the magnitude of an impact when moving allowance proceeds between EITE and residential California Climate Credit recipient pools.

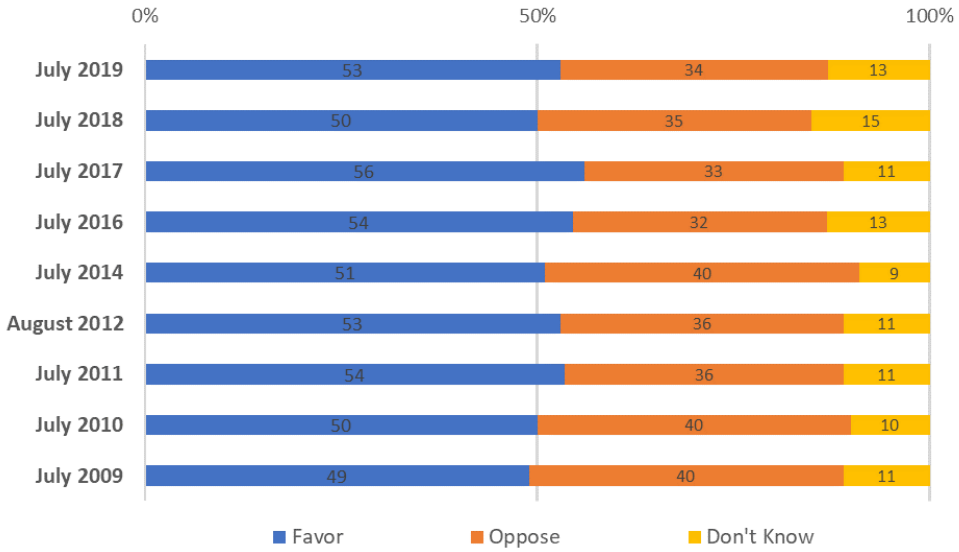
[65] Cap-and-Trade Regulation 17 CCR §95870: Disposition of Vintage 2013-2020 Allowances. Table 8-1: Assistance Factors and Covered Industrial Sectors.

Appendix 6: Public Policy Institute of California Cap-and-Trade Program Survey Data

Graph A6-1: PPIC Survey Timelapse: How much, if anything, have you heard about the state government policy called 'cap and trade' that sets limits on greenhouse gas emissions? [66]



Graph A6-2: PPIC Survey Timelapse: In the system called 'cap and trade,' the California state government issues permits limiting the amount of greenhouse gases companies can put out. Do you favor or oppose the cap and trade system?[67]



(END OF APPENDIX A)

[66] Question 26 in: Public Policy Institute of California (PPIC). July 29, 2019. PPIC Statewide Survey - July 2019. Californians & The Environment.

[67] Question 27 in: Public Policy Institute of California (PPIC). July 29, 2019. PPIC Statewide Survey - July 2019. Californians & The Environment.