Cap-and-Trade Program
Summary of 2013-2021 Electrical Distribution Utility Use of Allocated Allowance Value

Purpose

This report summarizes how electrical distribution utilities (EDUs) used the value of allowances allocated to them by the California Air Resources Board (CARB) under the Cap-and-Trade Program (Program) during the period 2013-2021. The value of these allocated allowances is referred to as "allocated allowance value," or, if the allowances have been consigned to auction and sold, "allocated allowance auction proceeds" or "auction proceeds."[1]

Background

EDUs receive allowance allocations from CARB pursuant to provisions of the Cap-and-Trade Regulation (title 17, California Code of Regulations, sections 95801 *et seq.*) (Regulation).[2] Under the Regulation, these allowances must be used for the benefit of ratepayers, consistent with the goals of the California Global Warming Solutions Act of 2006 (Assembly Bill 32, Nuñez, Chapter 488, Statutes of 2006, AB 32). This report summarizes how EDUs used the value of allocated allowances in 2021, including value from vintage 2021 allocated allowances and value from allocated allowances with prior vintage years (2013-2020) spent in 2021.

For 2021, allowances allocated to EDUs were 23 percent of the total allowance budget. The annual allocation to each EDU from each budget year 2021 to 2030 is specified by section 95892(a)(2) and Table 9-4 of the Regulation.

Allowances are allocated to two general types of EDUs: investor-owned utilities (IOUs) and other utilities. IOUs include the largest electric utilities in the State and are subject to oversight by the California Public Utilities Commission (CPUC). The Regulation requires IOUs to consign all their allocated allowances from each vintage year to the four Program auctions

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[1] Proceeds resulting from the auction of allowances allocated to EDUs are distinct from the auction proceeds received by the State from the auction of California-owned allowances, which are deposited into the Greenhouse Gas Reduction Fund (GGRF) pursuant to section 16428.8 of the California Government Code. For information of GGRF expenditures see: *California Climate Investments webpage.*

[2] *Cap-and-Trade Regulation (unofficial copy)*

held in that calendar year. Senate Bill 1018 (2012) (SB 1018) and the CPUC together require IOUs to distribute nearly all allowance proceeds to their industrial, small business, and residential customers.[3] The other EDUs receiving allowance allocations are publicly owned utilities (POUs) and electrical cooperatives (COOPs). POUs are owned and operated by local governments, such as cities, local utility districts, and irrigation districts, while COOPs are owned by their members. The governing boards of POUs and COOPs determine how to use their allocated allowances in accordance with the requirements in the Regulation.

CARB Reporting Requirements and This Summary Report

The Regulation requires each EDU to report to CARB by June 30 of each year on its use of allocated allowance value during the prior calendar year. EDUs must describe how allocated allowance value was used during the calendar year and how those uses were consistent with the requirements of the Regulation. The information reported for data year 2021 includes reporting on calendar year 2021 expenditures plus several corrections and updates made by EDUs to prior use of allowance value reports.

The "IOU Use of Allocated Allowance Value in 2021" section of this report summarizes individual IOU use of allowance value reporting to CARB. Most of the allowance value allocated to IOUs was returned to residential ratepayers in the form of semi-annual on-bill California Climate Credits.

The "POU and COOP Use of Allocated Allowance Value in 2021" section of this document summarizes the individual POU and COOP use of allowance value reports submitted to CARB. Unlike IOUs, POUs and COOPs may use allocated allowances to fulfill Program compliance obligations, thereby reducing compliance costs. Most allowance value allocated to POUs and COOPs was used for compliance with the Program, renewable energy, and energy efficiency projects.

[3] Decision Adopting Cap-and-Trade GHG Allowance Revenue Allocation Methodology for the IOUs, Decision (D.) 12-12-033 (December 2012). *CPUC D.12-12-033*.

IOU Use of Allocated Allowance Value in 2021

There are six electricity IOUs in California: Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E), PacifiCorp (doing business as Pacific Power), Liberty Utilities LLC (formerly CalPeco Electric), and Bear Valley Electric Service, Inc., (BVES, formerly Golden State Water Co, doing business as BVES).[4] PG&E, SCE, and SDG&E are significantly larger than the other three utilities. Together, IOUs distribute approximately 73 percent of the electricity sold in the State[5] and receive approximately 68 percent of the allowances allocated to EDUs in 2021. The total value of vintage 2021 allowances that CARB allocated to IOUs in October 2020 was approximately 1.12 billion dollars.[6] All of this value, except for a small amount used for administration and outreach, was distributed to ratepayers or is slated for clean energy and energy efficiency projects that benefit ratepayers.[7] Pursuant to the requirements of the Regulation, IOUs distributed allocated allowance value to both bundled and unbundled ratepayers, including those ratepayers served by community choice aggregators, and submetered households.[8]

SB 1018[9] mandates that CPUC oversee the distribution of all IOU allocated allowance auction proceeds to the IOUs' residential, small business, and emissions-intensive, trade-exposed (EITE) industrial retail customers, and it authorizes CPUC to allow the IOUs to use up to 15 percent of proceeds for approved clean energy and energy efficiency projects.

Figure 1a shows the spending of allocated allowance auction proceeds by all IOUs in 2021, and Figure 1b shows the cumulative spending of auction proceeds by all IOUs during the period 2013-2021. The information presented in Figures 1a and 1b is based on the IOU reports to CARB as well as data provided by CPUC.[10] Each category of allowance value use

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[4] BVES is the smallest IOU, delivering less than 0.1% of all electricity in California and receiving fewer than 70 allocated allowances per year through 2020. CPUC instructed BVES to distribute all its allocated allowance value to its customers on a volumetric (per-kilowatt-hour) basis, as the administrative expenses of distributing the value via other methodologies would "far exceed the value of the allowances received." (*CPUC D.12-12-033).* Starting with vintage 2021 allowance allocation, BVES receives substantially larger annual allocations. In 2021, CPUC adopted a new methodology, starting in 2022, for BVES to distribute its allocated allowance value to its customers – eliminating its volumetric residential return and transitioning it to the same methodologies as the other IOUs for all climate credits. *See* D.21-08-026 (August 2021) CPUC D.21-08-026.

[5] *See* Electricity Consumption Data Management System, California Energy Commission, 2021 data, *CEC Electricity Consumption Data Management System*.

[6] The total value of allowances is based on auction proceeds received rounded to the nearest ten million.

[7] Allowances are provided to each IOU on behalf of both its own customers and customers whose electricity is distributed by the IOU, including customers of community choice aggregators.

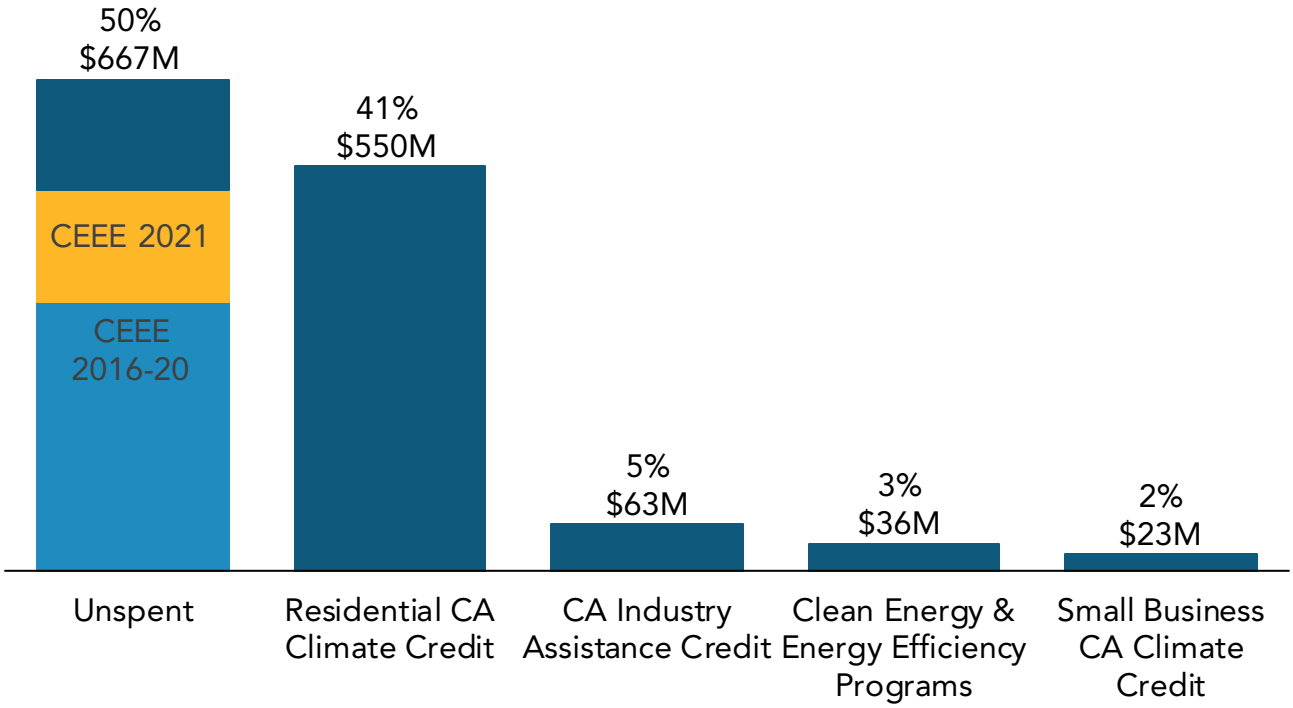
[8] In 2019, SB 1117 clarified that the residential credit must be provided to submetered households.

[9] Codified in Section 748.5 of the State of California Public Utilities Code.

[10] The spending in these figures reflects calendar year spending. The proceeds spent in a given calendar year may derive from proceeds received both during the calendar year and prior to the calendar year. In some years, spending may exceed auction proceeds received because spending is forecast ahead of time based on

shown in Figures 1a and 1b is described in later sections of this report. The data presented in Figures 1a and 1b are available in a *comprehensive table*.

Figure 1a. IOU Use of Allocated Allowance Value in 2021 ($1.34 billion)[11]



Figures 1a and 1b represent the amounts of allowance value expended during the relevant period. When IOUs return auction proceeds to their ratepayers, the value distributed to ratepayers during a given year is derived from auction proceeds from the allowance vintage of that calendar year, plus any (likely small) balance carried over from the preceding year that results from differences between forecast and actual auction proceeds received. For example, in 2021, the value of allocated allowance auction proceeds provided to IOUs was 1.12 billion dollars; however, in 2020, the IOUs returned and spent fewer auction proceeds than they received, and therefore the balance available for distribution to ratepayers, and for

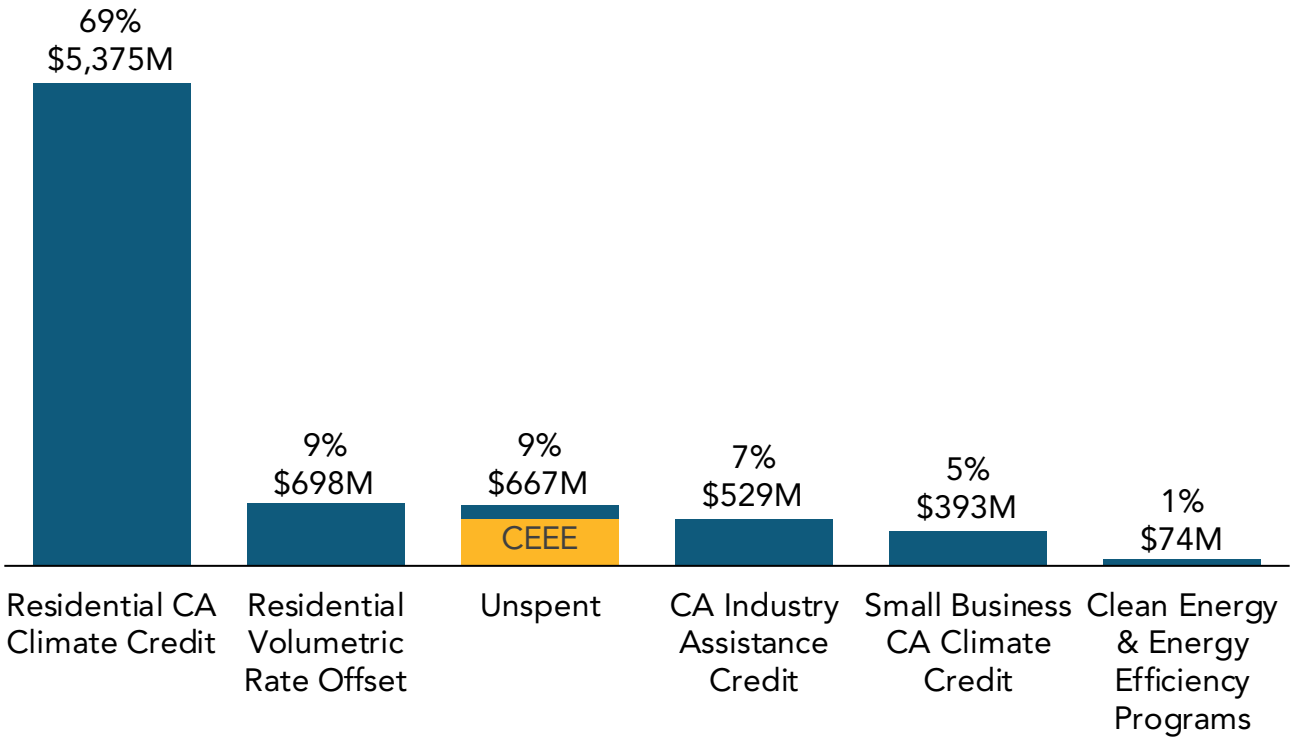
projected auction proceeds. These amounts are trued-up in the amounts of auction proceeds available for distribution to ratepayers in subsequent years.

[11] The individual percentages may not add to 100 percent due to rounding. The unspent amount includes 365 million dollars designated to CEEE from 2016 to 2020 and 153 million dollars designated to CEEE in 2021, which are shown by the light blue and yellow bars, respectively. The individual amounts of unspent proceeds may not add up to the total due to rounding. Administrative costs are included in CEEE spent and for climate credits, in the Residential California Climate Credit.

clean energy and energy efficiency programs (CEEE) in 2021 was approximately 1.34 billion dollars.[12]

Figure 1a shows that of the proceeds spent by IOUs in 2021, 41 percent was returned to residential customers as semi-annual California Climate Credits, five percent was returned to industrial entities through California Industry Assistance, around three percent was expended on CEEE, and about two percent was returned as the small business California Climate Credit. Administrative and outreach costs made up about two percent of the 2021 expenditures. At the end of 2021, approximately 667 million dollars in auction proceeds, or 50 percent, remained unspent. Of that, 153 million dollars was designated for CEEE in 2021 (yellow bar), bringing the total unspent amount of auction proceeds designated to CEEE from 2016 to 2021 to 517 million dollars.[13]

Figure 1b. IOU Use of Allocated Allowance Value in 2013-2021 ($7.74 billion)[14]



[12] This value excludes interest and Franchise Fees and Uncollectibles as reported by IOUs to CARB but includes, as required by the CPUC and the Regulation, the accrued interest to ratepayers in addition to the auction proceeds. In 2021, accrued interest represented a small fraction of total proceeds for most IOUs.
[13] The IOUs started designating funds to CEEE in 2016 as discussed in detail in the Clean Energy and Energy Efficiency Programs Section.
[14] The individual percentages may not add to 100 percent due to rounding. The total value includes interest accrued on auction proceeds prior to the distribution of proceeds to ratepayers. Administrative costs are included in CEEE spent and for climate credits, in the Residential California Climate Credit.

Figure 1b shows that about 78 percent of the value spent by IOUs over the history of the Program has been used to return proceeds to residential ratepayers. IOUs have distributed seven percent to industrial ratepayers, about five percent of proceeds spent to small business ratepayers, and about one percent on CEEE. At the end of 2021, 667 million dollars remained unspent. From 2016 to 2021, 517 million dollars was designated for CEEE but not yet spent (yellow bar), representing 6.6 percent of all IOU auction proceeds.

Residential California Climate Credit

The residential California Climate Credit is a twice-annual on-bill credit given to all IOU residential customers, including customers of community choice aggregators and submetered households. For each IOU, all auction proceeds not used for the other purposes listed below are divided equally among that IOU's residential households. These credits began appearing on customer bills in April 2014. In 2021, the residential California Climate Credit was distributed in April and October.

Residential Volumetric Rate Offset

During 2014 and 2015, PG&E, SCE, and SDG&E temporarily used a portion of their auction proceeds to offset Program-related costs to consumers by reducing residential rates. The magnitude of the residential rate offset exactly matched the Program costs passed through to the residential customers, resulting in a volumetric return of proceeds. CPUC permitted this volumetric return due to the historically wide disparity between lower-tier and upper-tier electricity rates caused by statutory limitations. Assembly Bill 327 (2013) lifted these limitations, and CPUC subsequently phased out residential volumetric rate offsets as of December 31, 2015.

California Industry Assistance Credit

The California Industry Assistance credit is an annual bill credit that is provided to facilities in emissions-intensive, trade-exposed (EITE) industries to minimize leakage related to Program costs included in their electricity rates. CPUC determined that all facilities operating in industrial sectors eligible for industrial allowance allocation pursuant to the Regulation should also be eligible for California Industry Assistance, even if they are not covered entities under the Regulation.[15] These industries include petroleum and natural gas extraction; cement, glass, and paper production; petroleum refining; steel manufacturing; and food processing, among others. (For a complete list of industrial activities eligible for California Industry Assistance, see the NAICS codes listed in Table 8-1 of the Regulation.) For some facilities, the credit is calculated based on the recipient's historic electricity use, while for others it is based on a product benchmark and the amount of product they produced during the preceding year. For more details on how these credits are calculated, see *CPUC's webpage on California Industry Assistance*.

[15] Decision Adopting Greenhouse Gas Allowance Revenue Allocation Formulas and Distribution Methodologies for Emissions-Intensive and Trade-Exposed Customers, D.14-12-037 (Dec. 2014). *CPUC D.14-12-037*.

The California Industry Assistance credit for the year 2021 was distributed to eligible facilities in April 2021. The amount distributed to each facility is calculated using data submitted by the facilities and the three large IOUs to CARB and CPUC.[16]

Small Business California Climate Credit

The small business California Climate Credit is a volumetric, monthly on-bill credit that partially compensates eligible small businesses for Program costs that are included in their electricity rates. The purpose of the credit is to help small businesses adapt to the presence of carbon costs in electricity rates and to provide them an opportunity to invest in measures to reduce their electricity consumption. CPUC defined an eligible small business as any non-residential customer with a typical energy demand of less than 20 kW per month.[17] This credit began in April 2014 by offsetting 100 percent of Program costs in small business electricity rates. This credit also offset 100 percent of Program costs in 2015, and after 2015, this percentage declined by ten percent per year through 2020. In 2020, this credit offset sixty percent of Program costs.[18] In October 2020, CPUC approved an interim methodology for the 2021 climate credit to ensure small businesses continue to receive the climate credit while CPUC evaluated options to provide future small business climate credits in a non-volumetric manner.[19] In August 2021, CPUC changed the small business climate credit from a volumetric return to a non-volumetric credit, in conformance with the Regulation's prohibition on volumetric returns.[20] Volumetric credits ended in January 2022 and beginning with credits distributed in April 2022, the flat small business climate credits are now equal to and on the same distribution schedule as the residential California Climate Credit.

Administrative and Outreach Costs

Administrative and outreach costs include the costs of administering the proceeds distribution and the costs of conducting outreach for allowed uses of auction proceeds expended in each year. The 2021 administrative and outreach costs include the costs to distribute credits to ratepayers of all types and administrative costs related to the start-up and administration of the CEEE programs. Administrative and outreach costs represented about two percent of total expenditures in 2021.

Clean Energy and Energy Efficiency Programs

SB 1018 allows CPUC to allocate up to 15 percent of each IOU's auction proceeds for clean energy or energy efficiency (CEEE) projects. CPUC developed the process by which IOUs may seek approval to fund clean energy or energy efficiency projects that are not otherwise funded using auction proceeds. In 2016, per the requirements of Assembly Bill 693 (2015)

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[16] To date no EITE facilities have been identified in the other IOU service territories.

[17] Monthly demand must not exceed 20 kW more than three times in the prior 12-month period.

[18] *See* App. 2, Decision Adopting GHG Allowance Revenue Formula and Distribution Methodology for Small Business Customers and Modifying D.12-12-033, D.13-12-002 (December 2013). *CPUC D.13-12-002.*

[19] Decision Addressing Threshold and Near-Term Issues, D.20-10-002 (October 2020). *CPUC D.20-10-002*.

[20] Decision Adopting Customer Climate Credit Updates, D. 21-08-026 (August 2021) *CPUC D. 21-08-026*.

(AB 693), Senate Bill 92 (2017), and a CPUC decision directing the implementation of AB 693, the IOUs began to designate auction proceeds to be used for the Solar on Multifamily Affordable Housing program (SOMAH).[21] In 2021, pursuant to requirements set by the CPUC, IOUs spent 36 million dollars on and designated 153 million dollars in auction proceeds to fund SOMAH and other CEEE programs.[22] Other CEEE programs funded include programs supporting distributed solar generation in disadvantaged communities, such as the DAC-SASH (Disadvantaged Community Single-Family Affordable Solar Homes), DAC-GT (Disadvantaged Community Green Tariff), and CSGT (Community Solar Green Tariff) programs, and SCE's Clean Energy Optimization Pilot.

[21] Decision Adopting Implementation Framework for AB 693 and Creating the Solar On Multifamily Affordable Housing Program, D.17-12-022 (Dec. 2017). *CPUC D.17-12-022.*

[22] CEEE funding reflects the year the IOUs designated these funds for CEEE programs, as reported by IOUs to CARB. This may differ from the year CPUC directed IOUs to set aside these funds from the auction proceeds.

POU and COOP Use of Allocated Allowance Value in 2021

There are 43 POUs, four COOPs, and one Federal Power Marketing Authority (FPMA) that received vintage 2021 allowance allocation. Together, these utilities sold approximately 27 percent of the State's electricity[23] and received approximately 32 percent of allowances allocated to the electricity sector. Of this electricity, approximately 31 percent was sold by the Los Angeles Department of Water and Power and 16 percent was sold by the Sacramento Municipal Utility District. The total value of vintage 2021 allowances that CARB allocated to POUs, COOPs, and FPMA was approximately 513 million dollars.[24] The Regulation requires that the use of these allowances must benefit ratepayers and be consistent with the goals of AB 32.

POUs and COOPs are not subject to CPUC jurisdiction. Each POU or COOP makes its own decisions about how to use its allocated allowances, subject to Regulation requirements to benefit ratepayers and maintain consistency with AB 32. Figures 2a and 2b show how POUs and COOPs in total used allocated allowance value in 2021 and in 2013-2021, respectively, as reported in EDU use of allocated allowance value reports to CARB. Note that Figures 2a and 2b for POUs and COOPs present usage on a calendar year basis. As for IOUs, spending by POUs and COOPs of auction proceeds from a particular allowance vintage can occur in the calendar year that is the same as the vintage year of the allowance or in subsequent calendar years. Unlike IOUs, POUs and COOPs can use allocated allowances for compliance with the Program. Allowances allocated to POUs and COOPs can be either deposited for compliance or sold at auction, with the auction proceeds returning to the POU or COOP. Figures 2a and 2b show the percentage of allocated allowance value deposited for compliance and how the proceeds from auctioned allowances were used.

POUs and COOPs held approximately 710 million dollars in allocated allowance value in 2021, 513 million dollars in allocated vintage 2021 allowance value and 197 million dollars in unspent auction proceeds carried into 2021 from previous years. Figure 2a shows that POUs and COOPs directly deposited 42 percent of their allocated allowance value for Program compliance.[25] Thirteen percent of the total allocated allowance value held by POUs and COOPs in 2021 was spent on renewable energy projects, about four percent was spent on energy efficiency projects, and 36 percent remained unspent. Included in these expenditures are administrative and outreach costs, which represent 7.5 percent of auction proceeds spent in 2021.

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[23] "Electricity Consumption Data Management System," California Energy Commission, 2021 data, available at *CEC Electricity Consumption Data Management System*.

[24] The calculation of total allowance value assumes an allowance deposited for compliance is worth 22.04 in 2021 (the average of the settlement prices at the four auctions held in 2021) and relies on auction proceeds amounts reported by the POUs/COOPs to CARB in the EDU use of allowance value reports.

[25] Effective April 1, 2019, purchasing allowances with allocated allowance value is prohibited.

Figure 2a. POU and COOP Use of Allocated Allowance Value in 2021 ($710 million)[26]

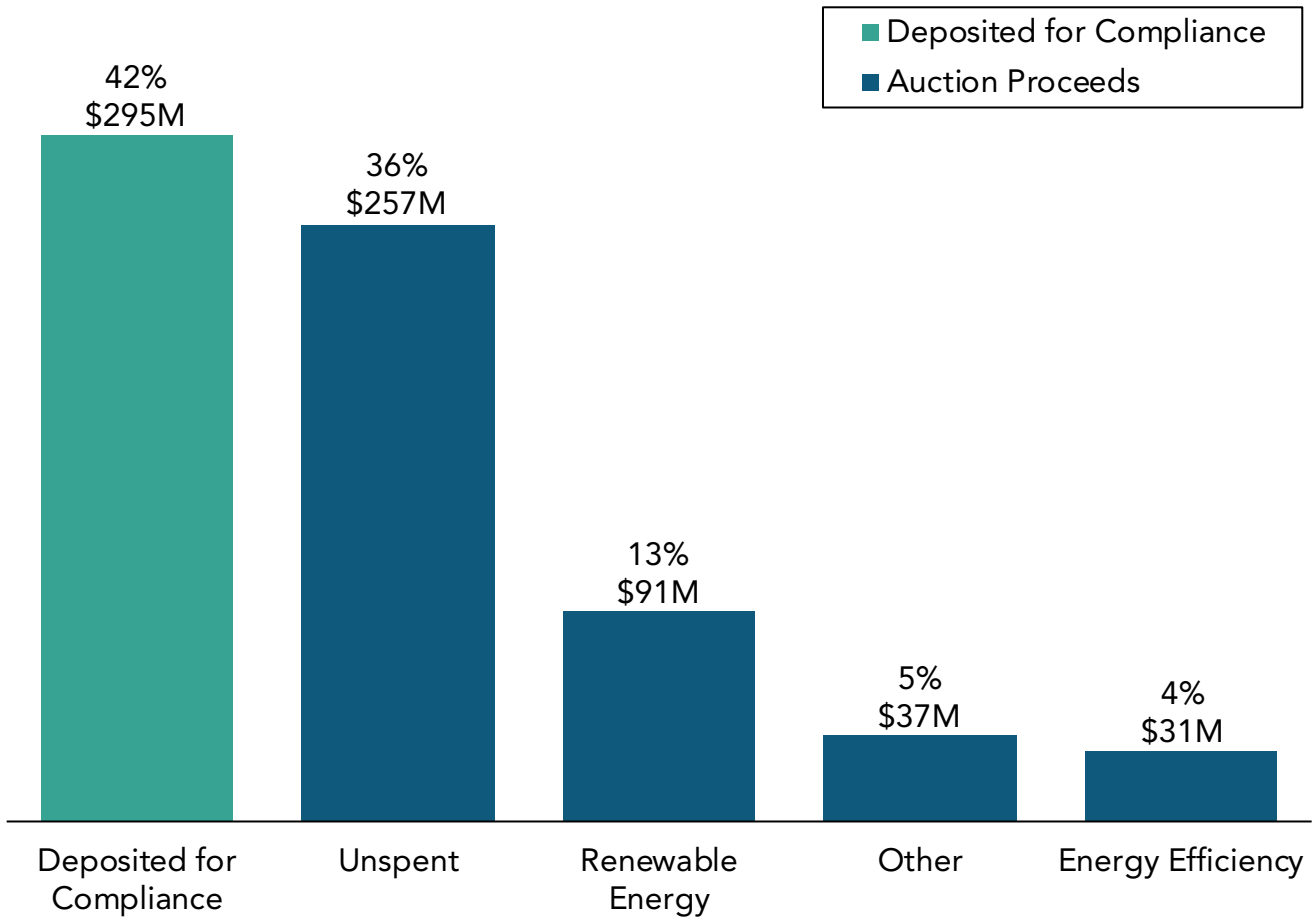

Figure 2b shows cumulative use of all allocated allowance value by POUs and COOPs during 2013 through 2021, as reported in their EDU use of allowance value reports to date. Allowance value allocated to POUs and COOPs for 2013 through 2021 has primarily been used to reduce ratepayer costs, either directly or indirectly. This usage includes depositing allowances for Program compliance and using allocated allowance auction proceeds to purchase allowances, provide customer rebates, purchase renewable energy, and invest in energy efficiency.

[26] The individual percentages may not add to 100 percent due to rounding. "Other" includes transportation electrification (5 percent), other uses (0.3 percent), and direct non-volumetric return (0.1 percent).

Figure 2b. Cumulative POU and COOP Use of Allowance Value in 2013-2021 ($3.85 billion)[27]

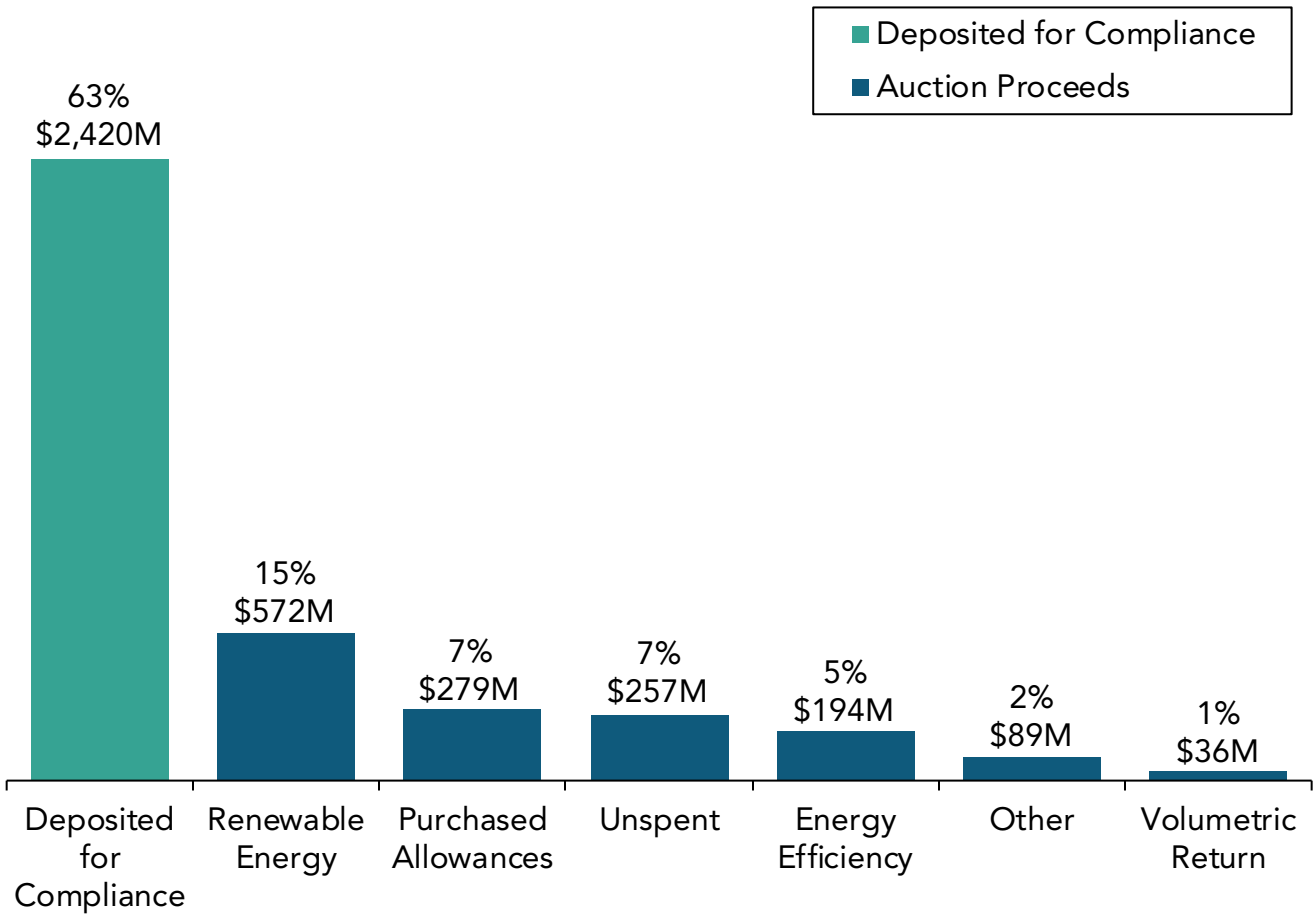

Figure 2b shows that 63 percent of the total allowance value allocated to POUs and COOPs over the history of the Program has been deposited for compliance with the Program and about seven percent of the total allowance value allocated to POUs and COOPs over the history of the Program has been used to purchase allowances. Fifteen percent of total 2013 through 2021 allocated allowance value ($572 million) has been used to purchase and build renewable energy and five percent ($194 million) has been invested in energy efficiency. Of the cumulative (2013-2021) allocated allowance value used to distribute proceeds directly to retail customers of POUs and COOPs, 62 percent ($36 million) was used for volumetric rate decreases, and 38 percent ($22 million) was distributed on a non-volumetric basis. Effective October 1, 2017, volumetric return of proceeds is explicitly prohibited by the Regulation, and in late 2017, POUs began phasing out this usage. Included in these expenditures are administrative and outreach costs, which represent about one percent of total auction

[27] The individual percentages may not add to 100 percent due to rounding. "Other" includes "other uses" (0.4 percent), transportation (1.3 percent), and direct non-volumetric return (0.6 percent).

proceeds. Seven percent of total allocated allowance value ($257 million) remained unspent at the end of the 2021 calendar year.

CARB has prepared a *comprehensive table* that lists each use of allocated allowance value reported by a POU or COOP for the period 2013-2021. This table is available in Microsoft Excel format at the Cap-and-Trade Program's *EDU Use of Allocated Allowance Value webpage*.