Powering Down Debt: A Meta-Analysis of Personalized Case Management Programs Tackling the Affordability Crisis

Amy Buege, Elizabeth Bullard, Trace O'Rorke, Senya Urbom, Verdant Associates, Berkeley, CA

ABSTRACT

California faces an affordability crisis, with residents and businesses subject to some of the highest electricity prices in the country. California has numerous programs that provide energy-bill reductions to help alleviate the financial energy burden faced by underserved communities, with new programs aimed at combating energy debt by offering customers education and personalized case management support from third parties (such as community-based organizations).

While these programs have a supportive design for the customer, they can be challenging to implement in a manner that effectively achieves program goals and allows for rigorous evaluation. Here we provide a meta-analysis of key factors of these programs, including third-party training, data collection, and data validation. We quantify different third-party training parameters using a rubric designed to capture important training considerations, and we evaluate the impacts of non-standardized and validated program and utility data collection.

Our analysis found a preliminary correlation between the training and support of third-party implementers by IOUs and program enrollment. Despite this potential critical connection, only one pilot had evidence of regulatory directives to help support third party implementers, and we found no evidence of IOUs collecting feedback on their training for these third-party implementers. We document issues in utility and program tracking data collection, such as non-standardized tracking data collection for state-wide pilots with multiple implementers or lack of data validation, that negatively impact both implementation and evaluation. To leverage our findings, we present recommendations to help guide the success of interventions that promote the reduction of customer energy debt.

Introduction

California faces an affordability crisis, with residents and businesses subject to some of the highest average electricity prices in the country. A result of these prices is widespread arrears with an estimated 21% of CA customers (over 2 million households) behind on bills and the average household owing $733 in unpaid energy bills. This issue is exacerbated by a continuous increase in energy rates (Figure 1[1]) that disproportionately affect underserved communities and small businesses. California has numerous programs that provide energy-bill reductions to help alleviate the financial energy burden faced by many underserved communities but reducing customer bills alone does not address the arrearage problem at large. To help address this, new interventions, outreach programs and pilots aimed at combating pervasive energy debt have launched in recent years. These programs offer customers personalized case management services (such as education and debt management for energy use and finances, dispute resolution, and program enrollment assistance) provided by third-party community-based organizations (CBOs) or energy ambassadors (EAs) who interact directly with customers.

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[1] Illustrates how electrical rates in California for both residential and commercial customers increased much faster than the average rates for the U.S. between 2019 and 2025 and are currently more than double the national average.
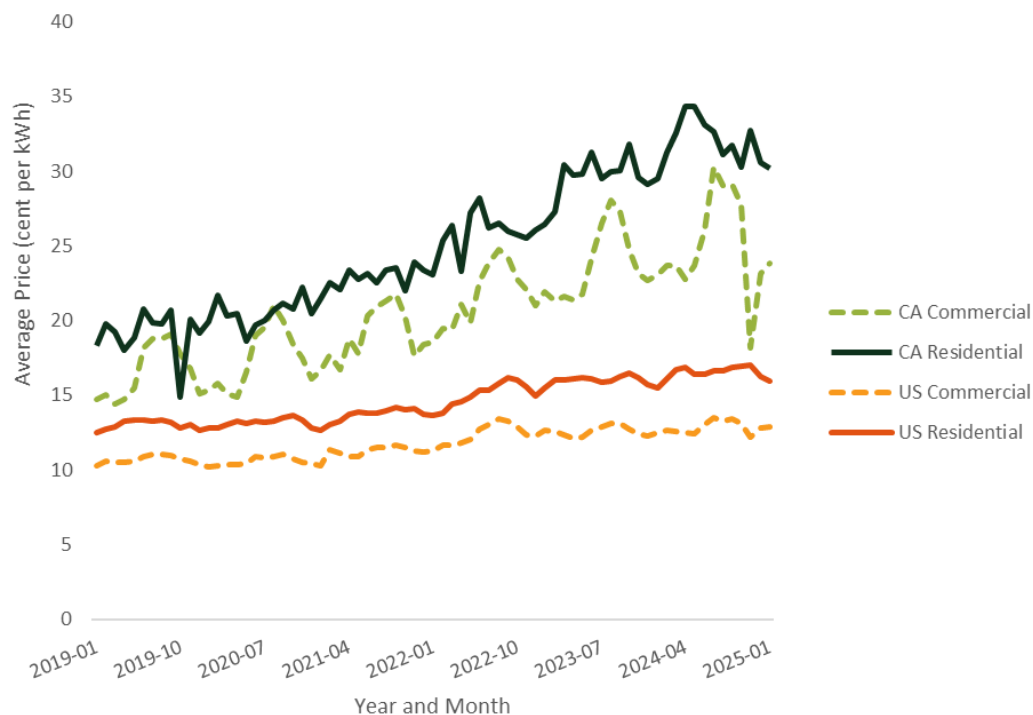
Figure 1. California residential and commercial electric rates compared to average U.S. rates

In March of 2020, the CPUC ordered the four California IOUs to halt disconnections of residential and small business customers who were behind on their bills due to the COVID-19 pandemic with an Rulemaking (R. 21-02-014) opened in early 2021 to examine the need for arrearage relief. This proceeding led to the requirement for utilities to enroll any residential and small business customers with bills more than 60 days past due into payment plans. It also led to the creation of programs to help customers combat any utility bill debt they accumulated during the COVID-19 pandemic. Table 1 below shows how total residential arrearages increased (by nearly 4x) between March 2020 and the end of 2023. Figure 2 below illustrates the growth in the number of customers in arrears between 2019 and 2023.[2]

Table 1. Total residential arrearages ($ million)

	PG&E	SCE	SoCalGas	SDG&E	Total
January 2019	$230	$81	$57	$61	$429
March 2020	$284	$95	$93	$76	$548
December 2023	$651	$862	$353	$261	$2,127

Source: CPUC Report on Residential and Household Utility Service Disconnections

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[2] It should be noted that the numbers reported in Figure 3 for SoCalGas are not directly comparable across years. The value shown in the figure for 2019 is overstated as it represents the number of customers sent late notices. Starting in 2020 it is the number of customers in arrears (i.e., 30+ days past due) since late notices were cancelled due to COVID.
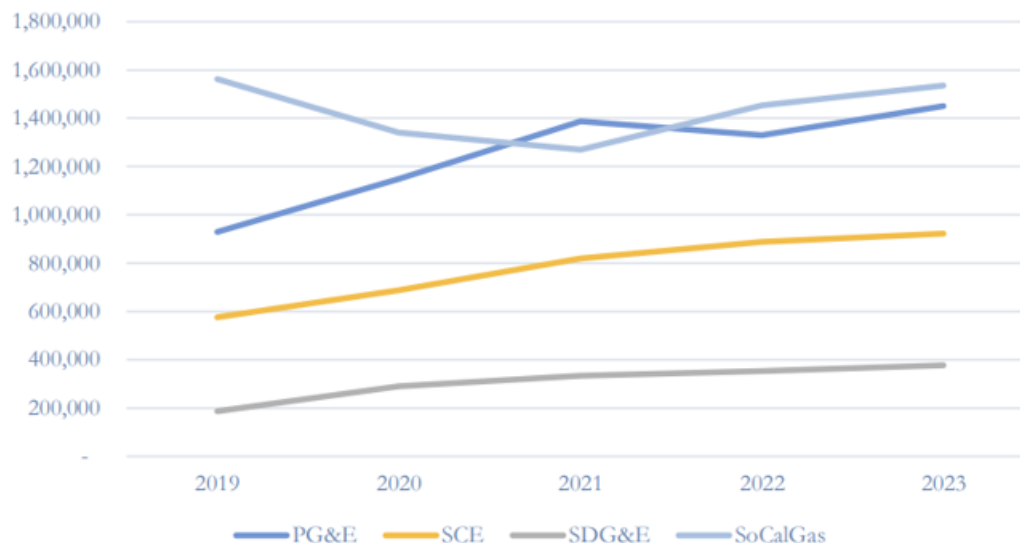
Figure 2. The growth in California customers in arrears by utility (2019 – 2023)
Source: CPUC Report on Residential and Household Utility Service Disconnections Pursuant to PU Code Section 910.5

Approach to Addressing the Crisis

California has developed a comprehensive suite of programs that utilize distinct intervention strategies to address the utility cost affordability crisis. The state implements debt forgiveness programs that eliminate accumulated payment burdens (via the California Arrearage Payment Program, CAPP,[3] (serving customers since 2022) and the Arrearage Management Program, AMP (serving customers since 2021)) and establishes sustainable payment structures (via the Percentage of Income Payment Program, PIPP (serving customers since 2023). It also offers rate discounts that reduce monthly utility costs and provide immediate financial relief to qualifying low-income households via the California Alternate Rates for Energy (CARE) or the Family Electric Rate Assistance (FERA) programs. Since 2015, California has also offered the Community Help and Awareness of Natural Gas and Electric Services (CHANGES) program to limited English proficient (LEP) customers who need assistance with energy-related issues. CHANGES provides energy education and case assistance statewide via a network of local CBOs.

California's more recent innovative approach (launched in the last two years) centers on personalized support programs that combine case management, energy education, and financial literacy training. These programs recognize that affordability challenges often stem from complex intersections of energy usage patterns, financial situation and management practices, and awareness of and access to available resources. The Community Based Organization (CBO) Pilot Program and Small Business Customer Outreach (SBO) Pilot represent the state's investment in comprehensive, individualized interventions that address underlying causes rather than treat symptoms alone.

California's multi-tiered strategy (Figure 3) acknowledges that different households face distinct barriers to utility affordability. Some need immediate debt relief, others require ongoing rate assistance, and many can benefit from educational interventions that build long-term financial resilience and energy efficiency practices.

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[3] CAPP provided 1,236,790 IOU customers with $549,02 million in arrearage reduction in 2022 without necessitating that customers apply for assistance. The average arrearage repayment for IOU customers was $445. https://www.csd.ca.gov/Pages/2022-CAPP-Dashboard.aspx

CA Debt Management Programs	One-on-One Personalized Support	Low Income	Arrearages	Rate Assistance	Debt Relief
Community Based Organization Case Management Pilot Program (CBO Pilot) - Reduce residential energy disconnections and support utility debt reduction by leveraging CBOs.	✖		✖	✖	✖
Small Business Outreach Pilot (SBO Pilot) -Provided energy education to small business customers unable to pay their energy bills because of the COVID-19 pandemic.	✖		✖	✖	✖
Arrearage Management Program (AMP) -Debt forgiveness available for residential customers who are enrolled in CARE/FERA, are more than 90 days past due, and make 12 full monthly payments.		✖	✖		✖
Community Help and Awareness of Natural Gas and Electric Services (CHANGES Program) -Provides education, case assistance, and program outreach services about utility bills to Limited English Proficient (LEP) customers.	✖			✖	✖
Percentage of Income Payment Program (PIPP) -Offers caps on monthly energy bills to residential customers based on their income level.		✖	✖		
California Alternate Rates for Energy (CARE) & Family Electric Rate Assistance Program (FERA) -CARE offers low-income customers discounts on their electric and natural gas bill. FERA offers a discount on electric bills for low-income families with incomes that exceed CARE allowances.		✖		✖	✖
California Arrearage Payment Program (CAPP) -Reduced customer arrearage without requiring customers apply for assistance.			✖		✖

Figure 3. Current California programs aimed at customer debt reduction and support

Methodology

Pilots and Programs

In this paper, we compare three current California initiatives: the CBO Pilot, SBO Pilot, and CHANGES Program. While CA has multiple programs focused on combatting arrearages and addressing customer debt (Figure 4 above), the CBO Pilot, SBO Pilot, and CHANGES Program all have the added focus of providing personalized assistance to California ratepayers, implemented through a combination of strategies that include case management, energy education, energy audits, and financial education and support. The SBO and CBO are current pilots, where significant learnings about this type of arrearage management approach are actively occurring and offer a rich perspective into real-time challenges and successes for this type of work. The CHANGES program, while not specifically designed to deal with arrearages, has been implementing a case management approach with an educational component to help customers manage their energy bills (and by extension arrearages) for 12 years – two years as a pilot and 10 years as a program, allowing for a deeper understanding of the techniques that contribute to a longer running and successful utility bill assistance program. Below we provide further details on the three pilots/programs included in this analysis.

The SBO Pilot is overseen by the California IOUs and implemented by a third-party engineering services company.[4] The company and its subcontractors trained employees to be 'Energy Ambassadors' (EAs) who had the job of enrolling small businesses that were in arrears and located in disadvantaged

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[4] Enrollment and intervention conducted by the third-party implementer were completed in May of 2024.

communities (DACs)[5] to participate in the pilot. IOUs offered the third-party implementer training on their specific program offerings as well as what data to collect for the pilot. Once a small business had enrolled in the pilot, an EA would conduct an onsite energy audit for the customer to offer energy saving solutions and education tailored to the business and business owner(s). Businesses were also provided with information on energy programs and incentives, a link to a rate calculator, and were offered up to four meetings with the EA for the purpose of providing personalized support to help the customer get out of and stay out of arrears.

The CBO Pilot is currently running and leverages community-based organizations (CBOs) in specific ZIP codes to help combat residential arrearages. Each IOU is contracted with one or two CBOs to provide services within their specified ZIP codes with CBOs receiving different levels of training and support from their respective IOU.[6] CBOs conducted outbound enrollment (calls, emails, door to door) from an eligibility list provided by the IOUs,[7] and once customers were enrolled, the CBOs began providing participants with personalized case management services that will continue for the next year. These services vary by CBO, ranging from emailing customers a list of programs for which they are eligible, to requiring the participant attend a 35-minute in-person energy education workshop.

The CHANGES Program is implemented by 24 CBOs across the state of California, with a focus on supporting LEP populations. These CBOs serve inbound requests (i.e., customers seek the CBOs out) for aid with managing utility bills, disconnections, and energy education. Additionally, the CBOs conduct educational workshops and host events to better arm their community with knowledge about their utility bills and energy usage. The program began in 2015 and has served over 51,852 cases in the last nine years. The program utilizes a standard data collection practice to help facilitate uniformity across the 24 CBOs, making it an excellent model for managing third-party implementer data collection.

Analysis

We conducted a meta-analysis of key program factors using existing data from current and published evaluations. We focused on two areas of program design that impact both program implementation and evaluation: 1) training provided to the third parties who implemented these programs and pilots and 2) data collection and validation strategies. For example, training the CBOs who provide case management services on how to accurately collect the data necessary for quantifying program metrics both serves the implementer and allows for robust evaluations to assess the effectiveness of the program or pilot.

Our analysis drew from program evaluation studies, implementation documentation, and performance metrics of each program or pilot. We used a rubric and standardized coding to collect and compare data related to training protocols (e.g., requirements, content, delivery) and data collection and validation procedures. We describe the key features of each of our analytical approaches below.

Third-Party Implementation Training

Evaluation of each program's third-party implementation training was completed through a review of 1) decision language for whether or not training for third party implementers was required as part of the program or pilot implementation (and if yes, details on what was mandated), 2) published evaluation reports and implementation documents citing or reporting on training for the program or pilot

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[5] Disadvantaged communities as defined by the CPUC: https://www.cpuc.ca.gov/industries-and-topics/electrical-energy/infrastructure/disadvantaged-communities

[6] All CBOs received a joint IOU training on statewide IOU program offerings (e.g., CARE/FERA).

[7] While the pilot is still running, enrollment for the pilot ended in July of 2025. There is no income limit for the CBO Pilot; it is open to anyone on the eligibility list.

(including what types and the amount), and 3) in-depth interviews with third-party implementers using standardized interview questions about the types and amount of training and support received for program or pilot implementation.

When reviewing materials, we focused on the following aspects for comparison across programs:

- Was training or support required (by CPUC Decision) or offered (reports and implementation materials)
- Who offered the training (IOUs, evaluators)
- What was the training model (e.g., train the trainer)
- What types of training or support were offered (e.g., IOU program offerings, marketing and outreach support, data collection training and support, etc.)
- What was the frequency of the training and support
- Was feedback collected and reported on for the training and support

Standardized interview questions were posed to the third parties who implemented the CBO and SBO Pilots.[8] Questions were designed to understand the types of training and support offered to the third-party by their IOU counterpart or another program admin (PA) and how that training and support impacted the CBOs ability to implement the pilot. The questions asked include items such as:

- Can you describe the onboarding process you received from the IOUs?
- What training did you receive?
- How satisfied were you with the IOU onboarding process and training?
- Do you have any regular ongoing interaction with the IOUs?
- Do you feel supported by the IOUs when you have issues or when Pilot customers need support that your organization is unable to provide?

Qualitative analysis of the data collected during these interviews was compiled and key takeaways are reported out in the results section below.

Data Collection and Validation Strategies

We reviewed the data collection and validation strategies for each of the programs and pilots included in this meta-analysis. Approaches to evaluating data collection and validation strategies were slightly different for program tracking data and utility data requests as these two types of data are comprised of distinct variables, and the data quality depends on separate factors.

For program tracking data, we focused on ensuring that the data collected and tracked regarding the personalized support offered to customers through these programs could be rigorously evaluated. This included documenting whether specific actions taken by the program (e.g., case management and education interventions) were recorded in a way that would allow the determination of the effectiveness of these actions on customer arrearages. Additional exploration into consistent data collection across third-party implementers (for ease of evaluation for state-wide pilots and programs) was also conducted to evaluate whether arguments for defining universal data collection strategies at the outset of pilots and programs would be prudent.

We evaluated IOU data based on its ability to support impact analysis for each program and pilot. Specifically, whether it would be possible to statistically quantify whether certain program or pilot actions had reduced arrearages in the treatment group when compared against a control group. Impact analyses aimed at quantifying arrearage reductions require the following data for all pilot and program eligible

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[8] Interviews with third-party implementers for the CBO and SBO Pilots have already occurred as part of the pilot evaluations, however CBO interviews are just now being scheduled for the CHANGES program evaluation.

customers on a monthly cadence and from a year prior to the beginning of pilot enrollment to one year post enrollment end: arrearage, billing, payment, and program enrollment data.

For this meta-analysis, we determined whether each IOU provided data that could be utilized for impact analysis using the following criteria: 1) the data provided included up-to-date contact information at the same level of the data that was provided to the implementer (account vs. premise) to allow for seamless integration with program tracking data, and 2) the data was provided in a monthly format that would allow for modeling of changes in arrearages over time.

Results

Third-party training

Our analysis found that the amount and types of training and support provided to third-party implementation staff varied significantly, even within individual programs and pilots, as shown in Table 2 below. None of the programs or pilots reported collecting any feedback from the third parties on whether the training they received sufficiently prepared them for their roles in providing support to IOU customers.

Table 2. Third-party implementer training metrics comparison

Metric	SBO Pilot	CBO Pilot	CHANGES Program
Decision required training	No	Yes	No
Training provider	IOUs and SBO Pilot PA	IOUs	Milestone Consulting
Training model	Subcontractor onboarding; recordings shared with EAs	Varies by CBO*	Unknown how CBOs determined who attends training, but program guidelines are accessible to all program staff
Training offered	IOU program and rate offerings, online account support	IOU program offerings	Program services (education, outreach, case management), event support, media marketing, IOU program offerings, other organizations to assist customers
Support offered	Development of utility-branded program flyers	Varies by IOU*	Technical, education materials, give-away items
Training Frequency	Once per IOU	Once	Yearly Program Guidelines
Frequency of support	Unknown	Varies by IOU	Consistent support by Milestone

*See sections below for further details broken out by CBO or IOU.

This variation created disparate outcomes in both enrollment numbers and implementer satisfaction as well as highlighted the critical role of comprehensive and supportive preparation for these third-party implementers. Results for each pilot and program are briefly shared below.

SBO Pilot

The SBO Pilot provided structured training, where prime contractors and respective IOUs trained EAs about available customer programs and pilot data collection requirements. The EAs also received training for conducting onsite audits (a critical component of the pilot), though the evaluation found data

quality issues with the audit report data thus suggesting that the audit training was insufficient (described further in the Data Collection section below).

CBO Pilot

The CBO Pilot demonstrated the most dramatic variation in training approaches due to its structure. Each IOU provided different levels of training and ongoing support to their respective CBOs, ranging from providing detailed written scripts for enrollment to adopting a more 'hands-off approach' for allowing the CBOs more freedom to structure the implementation of the pilot as they saw appropriate for the community members they serve. Preliminary results (Figure 4)[9] suggest a potential correlation between IOU support and training and enrollment success (illustrated in Figure 5 below).
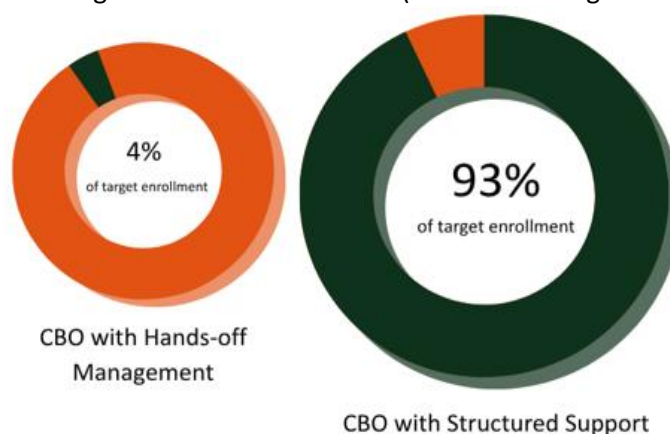
Figure 4. Percent of target enrollment achieved for two CBOs with different levels of IOU support

CHANGES

The CHANGES Program provides CBOs with yearly training and in-depth manuals focusing on data collection, utility issue resolution, and customer education. Staff receive training on specific customer issues (e.g., disconnections, bills, etc.), with training for the program emphasizing practical application to addressing utility problems and educating customers about available services.

Summary

The variation in training approaches we note here revealed that successful third-party program or pilot implementation benefits from structured and comprehensive preparation over minimal orientation or a hands-off management style. Notably, we found preliminary evidence that a higher investment in training and support of third-party implementers led to much higher rates of enrollment and improved data quality (Figure 4).

This preliminary connection between training and enrollment success highlights a potential disconnection between the desire for pilot and program success and the investment in implementer training. For example, only one decision directed IOUs to train their respective third-party implementers. Additionally, we could find no evidence of the IOUs collecting standardized feedback on their training and support – a critical step for training improvement. As IOU support and training may be critical for pilot and program success, this seems like a misstep in terms of both decision directives and pilot and program design.

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[9] These results are preliminary and may be updated once complete program tracking data has been provided by all CBOs.

Data collection and validation strategies

Program Tracking Data

To determine the effectiveness of customer arrearage education and personalized case management programs, it is crucial to effectively collect and store data on customer baseline conditions, program implementers' customer-specific intervention activities, and the resulting outcomes (e.g., program enrollment, rate changes, increased financial education, dispute resolution, etc.). Failing to properly collect these types of data limits the identification of impacts and activities that help customers reduce their utility arrears. Our review and evaluation of these new and established programs found that there were substantial issues and variation in program tracking data collection even with the same pilot.

SBO Pilot

Program tracking data lacked details on pilot intervention activities. This made it difficult to determine which of the pilot interventions were discussed with each participant and what may contribute to their ability to reduce their arrearages.

Audit data included inconsistent and questionable data. The data collected by EAs during the participant onsite audits may not have been reviewed for accuracy, as many fields seemed questionable or did not align with the business type being assessed. Figure 5 below shows an example of the data collected for one audit assessment measure (walk-in freezer doors with auto-closers). As this figure shows, audit data indicated 91% of businesses had this measure (yes and no fields). However, only 37% of participants were types of businesses likely to have such measure (such as accommodations, food services, or commercial businesses), and therefore it is assumed that some of the "Yes" and "No" responses for businesses such as beauty salons, electronic stores, and clothing stores should have been classified as "N/A".
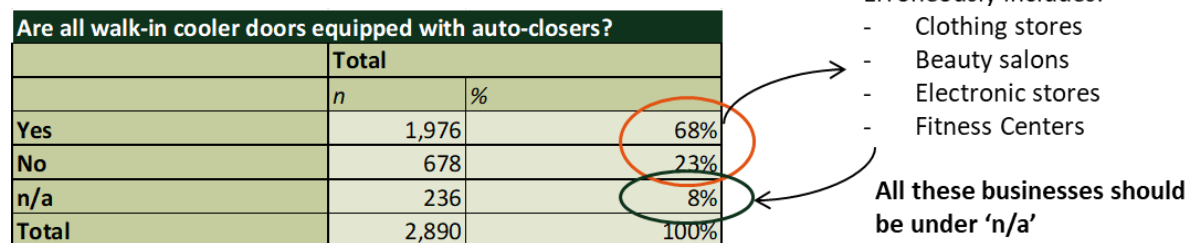

Are all walk-in cooler doors equipped with auto-closers?		
	Total	
	n	%
Yes	1,976	68%
No	678	23%
n/a	236	8%
Total	2,890	100%

Erroneously includes:
- Clothing stores
- Beauty salons
- Electronic stores
- Fitness Centers

All these businesses should be under 'n/a'

Figure 5. Example of non-validated audit data from the SBO Pilot

CBO Pilot

Program tracking data collection and validation strategies are unique across each CBO. While some of the CBOs opted to use an evaluator-created and approved data collection template to inform their data collection strategy, each CBO chose to collect the data and report it slightly differently (with one CBO opting to use a completely different data collection approach that does not collect all requisite metric data).

CHANGES Program

Program tracking data lacks unique customer identifiers and complete record of customer interaction. While this issue is mostly due to limited funding available for CBOs compensation (CBOs are compensated on a per-customer resolution basis and the funding amount has not increased since 2016), the result of this negatively impacts both an accurate accounting of what the CBOs are doing (and could be reimbursed for) and inhibits evaluation of the program.

Utility Data

Designing, implementing, and evaluating programs intended to reduce customer arrearages is relatively new for all parties involved: utilities, implementers, CBOs, and evaluators. To determine the impact of these pilots and programs on arrears, it is necessary to align customer arrearage amounts with program participation and activities. The utilities' billing systems, however, have not typically been the source of data for program evaluations. We document the data collection challenges faced for each of the arrearage management programs evaluated for this work below.

D SBO Pilot

The implementation and evaluation of the SBO Pilot required a significant amount of utility data. Issues with the IOU data provided for the SBO Pilot included:

- **EAs reported a dearth in viable and useful contact information (e.g., address, phone, email) that significantly hampered enrollment efforts.** Over 5% of the data supplied to EAs by the IOUs was identified as either being a residence, multiple records of the same business, or a business with unidentifiable location information. Additionally, over 50% of the email addresses included in the eligible contact lists were missing or invalid.
- **Multiple instances of duplicate "deals" (or customers) existed within the tracking data.** The tracking data provided to the EAs was not collapsed to a customer-level and thus the eligible customer file included many records later identified as duplicate deals for businesses with multiple locations or with adjacent suites in a single location. In some cases, this resulted in wasted outreach effort with multiple EAs contacting a single business to attempt to enroll them in the pilot (Duplicate deals, Table 3).
- **The allocation of pilot leads was often inefficient.** Interviewed EAs were unsure how the population of pilot eligible customers were allocated across individual EAs. Analysis of tracking data found multiple instances where businesses located in nearby suites (often with the same contact) were assigned to different EAs. This speaks to challenges around the data provided to the EAs (i.e. the data was not rolled up to a customer-level), as well as challenges around implementing outreach without geographic organization of enrollment efforts.
- **IOUs defined "small businesses" differently.** This resulted in large banks, universities, and large corporations being included within the eligible customer pool, although they were most likely not the intended customer base for this type of customer assistance and intervention. This has implications for how customers are served by the EA (program offerings, incentives, energy education, finding the decision maker to speak to, etc.) as well as for impact evaluation control matching.
- **Variations in arrearage data.** IOUs captured, stored, and maintained historical arrearage data in distinct ways, some of which created challenges in retrieving historical arrearage data. The various approaches to maintaining and storing the arrearage data required extra effort for the IOUs and led the evaluation team to expend excess time and budget on data QC and validation to ensure it could be leveraged for the impact analysis.

CBO Pilot

When the utilities launched the CBO Pilot, the utilities had worked with arrearage data across other pilot and program evaluations (including the SBO Pilot) and were aware that these data require additional quality control and validation. When the evaluation team was chosen for the embedded evaluation of the CBO Pilot, they were also aware of the unique arrearage data concerns. For the CBO Pilot, the utilities and evaluation team have worked together to ensure the maintenance and availability of the arrearage data necessary for evaluation. Even with this collaboration, there are still challenges in receiving the requisite data. For example, while the data points provided for the CBO Pilot do not appear

to have the same contact information or account issues seen in the SBO Pilot, it is still difficult for some of the IOUs to provide the necessary information. For example, there is still a particular challenge around providing historical arrearages, as not all IOUs have systems that were set up to support this kind of data delivery.

While it is likely that new data concerns may arise, the utility and evaluation teams' experience requesting, validating, and assessing the arrearage data has improved its quality and the ability to assess the impact of the pilot on arrears thusly.

Conclusions and Recommendations

Third-party Training

It's important to note that CBOs and EAs have important and unique value as culturally relevant and trustworthy community forces with specialized skills for serving their neighbors. However, these organizations may require substantial IOU support, particularly around utility-specific program offerings and additional capabilities like marketing strategies for their unique customer base and efficient outbound outreach techniques. As results from this meta-analysis suggest a potential correlation between training investment in third-party implementers and the programs ability to achieve targeted enrollment rates. We recommend the following actions to help support third-party implemented initiatives:

- **CPUC decisions should direct IOUs to train and support their third-party implementer partners.** These directives should lay out specific details regarding the types of training that should be offered (e.g., IOU program offerings, marketing, utility program tracking data collection) and include an evaluation metric on the effectiveness of the training to ensure third-party implementers are being set up for success to implement IOU programming.
- **IOUs should collect feedback on their training and support to make adjustments to better serve their third-party implementers.** Collecting feedback is one of the most powerful tools available to increase the effectiveness of training. A standardized exit ticket or survey should be employed each time an IOU third-party implementer training takes place, and IOU PMs should provide third-party implementers the opportunity to share feedback on how they are being managed and supported. By increasing communication around this, training can be improved to better support third-party implementers in their mission which will help achieve greater success in IOU programing.

Program Tracking Data

Setting up and learning how to accurately and uniformly collect data for an evaluation can be difficult and costly for third-party implementers such as EAs and CBOs. This disconnect between understanding what they are doing intervention-wise as the third-party implementer and what the data are being used for (due to a lack of training) can exacerbate recording information in a usable format for evaluation purposes. Additionally, not having set standards in place for data validation and collection, especially for state-wide programs and pilots, can negatively affect the evaluability of pilots and programs (including the need for increased evaluation budgets). We recommend the following actions to help combat this:

- **IOUs should provide in-depth training on data collection practices and establish data validation protocols to ensure necessary data are collected.** This training and validation can also be performed in collaboration with embedded evaluators to ensure proper practices are in place to support the evaluability of the program or pilot.

- **Pilot and program metrics, data collection, and data validation practices should be fully established prior to pilot implementation and should be uniform across all third-party implementers.** We recommend an embedded evaluation approach to support IOUs in this endeavor. Creating data collection templates for third-party implementers can help to ensure that all data needed for program and pilot evaluations are being collected and that the burden placed on third-party implementers (tracking system development) is reduced through IOU and evaluator support.

Utility Data

Some of the data required to accurately evaluate the impacts of this type of arrearage management program can be difficult for utilities to provide (e.g., historical arrearage data). This difficulty paired with differences in how IOUs set up and retain their arrearage data and data quality issues with customer data can create roadblocks for both implementation and evaluation. While learnings from the SBO Pilot have empowered utilities to be better situated to provide the data necessary to evaluate these pilots and future programs, we expect that the newness of these types of efforts will unearth additional unexpected data concerns as these pilots run their course. We recommend the following actions to help support utilities in their data delivery as well as evaluators in requesting this type of information.

- **Evaluators should work closely with utilities to develop data requests.** As each utility has a different way of storing data and reporting out arrearages and program participation data, we recommend evaluators work with utilities to create data requests. Our evaluation found that more communication (including group and individual meetings with IOUs) led to the creation of utility-specific data requests that ensured the data needed for evaluation could be delivered.
- **Build in ample time for data request fulfillment.** If a utility is delivering arrearage data for the first time, evaluators should request the data far earlier than needed to give utilities time to deliver the data. Timelines for data delivery that have not previously been requested should include sufficient time for both data review and a second data delivery if the data has issues and needs to be re-pulled. We found that some data elements (such as arrearage data) needed to be provided multiple times to get it right and so ensuring there is time for this is critical.
- **Request data monthly.** If utilities do not have historical arrearage systems built, have arrearage data delivered monthly to allow for temporal analysis of changes. Arrearage data often gets overwritten monthly, so it is imperative that monthly snapshots are captured and stored to ensure the data is available for evaluation purposes.

References

California Public Utilities Commission. 2024. Report on Residential and Household Utility Service Disconnections Pursuant to Public Utilities Code Section 910.5 (2019-2023 Results). Sacramento: California Public Utilities Commission.