



CHANGES EVALUATION

REPORT



Level 4



Title	REPORT		
Document #:			
Version:	DRAFT	DATE:	12/24/2018
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Customer:	CALIFORNIA PUBLIC UTILITY COMMISSION		
Contract:	PURCHASE ORDER 17MS5003		
Project:	CHANGES PROGRAM EVALUATION		
Deliverable ID:	TASK 6 AND 8		

VERSION HISTORY

Version	Author	Date	Changes
Draft	WHR	11/16/2018	Original Draft
Final	WHR	12/24/2018	Final version

Approvals




Role	Name	Signature	Date
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1 Executive Summary

The Community Help and Awareness with Natural Gas and Electricity Services (CHANGES) Program was established to respond to the needs and concerns of Limited English Proficient (LEP) consumers regarding the energy services (electricity and natural gas) they receive. CHANGES provides in-language services, such as outreach, education (on a range of issues such as billing and usage), needs assistance and dispute resolution services to LEP consumers.

Level 4 was hired to evaluate the CHANGES program and to assess the cost-effectiveness of CHANGES services delivered to consumers. This is the second CHANGES program evaluation conducted by Level 4. The first evaluation, conducted in 2012, used primarily qualitative analysis of the program as a whole to make recommendations regarding program continuation after the conclusion of the pilot period.

The current evaluation is focused on defining an approach to quantifying CHANGES value delivery (costs, benefits and return on investment) and analyzing the results. To accomplish this we defined a measure we are calling Client Direct Support Events (CDSEs) as a type of performance metric to improve program oversight.

In 2012 Level 4 was tasked to conduct an evaluation of the CHANGES program under CPUC Purchase Order 11MS3002, and we had several recommendations as part of that evaluation. During the current evaluation we met with the CHANGES contractor (SHE and Milestone) to determine the current status with respect to those recommendations. All recommendations from the 2012 evaluation have been implemented with the exception of indemnification of the state from costs associated with a CHANGES data breach.

Overall, the CHANGES program is performing well and meeting its intended objectives. We do not have any major concerns regarding program performance. Based on our survey of other utility regulatory organizations around the country, we found that the CPUC is unique and a national leader in providing LEP specific support to utility customers, many of whom are new to the country and unfamiliar with utility related expectations (e.g., typical energy usage) and available assistance programs. We have the following recommendations coming out of this evaluation:

- The CHANGES program should consider restructuring the way the contractor is paid on future CHANGES contracts to better align with a value model of service delivery. For example, under this approach the contractor might be reimbursed based on quantity and type of CDSEs successfully closed.
- The CHANGES database should be restructured to provide performance data similar to the data used in this analysis for on-going monthly reporting. As part of this work an ad hoc query capability should be provided to the CPUC for the CHANGES database.

- The CPUC and CHANGES contractor should meet quarterly or annually to establish specific goals for value delivery, and contractor performance in achieving those goals should then be monitored monthly.
- Future CHANGES contracts should provide indemnification to the state for damages that would result from a CHANGES data breach. The CHANGES contractor is hosting, maintaining, and controlling the database and liability for any data breaches should rest with the organization that is in a position to control and manage that risk.

We recommend against moving significant CHANGES functions in-house to the CPUC.

- We did look at the feasibility of the state moving areas of responsibility from the CHANGES contractor to in-house responsibilities. In general, we recommend against this. The various components (direct delivery, education, outreach, training, quality assurance, database management, and so on) are intertwined to the extent that changes in one area are likely to have unintended consequences in other areas. The current approach is meeting objectives and working well. We are concerned that making significant changes offers more downside risk than upside potential.
- Due to the significant overlap between the LEP population and the target population for CARE, we recommend that in the areas served by the Small Multi-Jurisdictional Utilities (SMJUs), CARE funding from the SMJU CARE budget should be provided to support CHANGES activities in those areas, if funding for CHANGES has not been provided "On Budget" from the Commission's reimbursable budget in those areas.

2 Introduction

2.1 Project Background

The Community Help and Awareness with Natural Gas and Electricity Services (CHANGES) Program was initially established as a pilot on November 19, 2010 by California Public Utility Commission (CPUC) Resolution CSID-004 in response to Rulemaking (R.) 10-02-005. The overall scope of this proceeding was to focus on developing methods to decrease the number of natural gas and electric service disconnections.

The purpose of the CHANGES program is to respond to the needs and concerns of Limited English Proficient (LEP) consumers regarding the energy services (electricity and natural gas) they receive. The program also supports seniors. This program supports consumers by helping them to better understand their own usage and charges, risks (financial and safety-wise) to avoid, and ensures they have assistance when facing adverse situations, such as falling behind on their bills or being wrongfully disconnected. CHANGES provides in-language services, such as outreach, education (on a range of issues such as billing and usage), needs assistance and dispute resolution services to LEP consumers. Needs differ from complaints in that the consumer may have a problem with their service, or ability to pay for it, but does not necessarily have a dispute with the investor-owned utility (IOU).

The CHANGES program was developed and is monitored by the CPUC's Public Advisor's Office (PAO) which is part of the News & Outreach Office in the Executive Division of the CPUC. The program is operated on a day-to-day basis by a third-party non-profit organization called Self-Help for the Elderly (SHE), which was selected via a competitive bidding process in 2016. SHE administers the CHANGES program using a network of community-based organizations (CBOs) statewide that act as subcontractors to deliver the program to their local communities.

2.2 Evaluation Purpose

Level 4 was hired to evaluate the CHANGES program and to assess the cost-effectiveness of CHANGES services delivered to consumers. As part of this evaluation, the overall costs and benefits of the program were measured. Where actual or potential weaknesses were identified, we suggest improvements or solutions.

2.3 Previous, Current and Potential Future Assessment Efforts

This is the second CHANGES program evaluation conducted by Level 4. The first evaluation, conducted in 2012, used primarily qualitative analysis of the program as a whole to make recommendations regarding program continuation after the conclusion of the pilot period. The current evaluation is focused on defining an approach to quantifying CHANGES value delivery and analyzing the results. The following table shows relevant data collection and assessment approaches identified in the guide

California Energy Efficiency Evaluation Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals. We have indicated which approaches were applied during the first evaluation (initial) and which approaches were applied during this evaluation (current).

Table 1: Evaluation Approach Matrix

Approach	Initial	Current
Interviews and surveys with participants and non-participants.	●	
Interviews and surveys with technology users.	●	
Focus groups with participants, non-participants, trade allies and other key market actors associated with the program or the market in which the program operates.	●	
Observations of operations and field efforts, including field tests and investigative efforts.	●	
Interviews and surveys with Administrators, designers, managers and implementation staff (including contractors, sub-contractors and field staff).	●	●
Collection and analysis of relevant data or databases from third-party sources (e.g., equipment vendors, trade allies and stakeholders and market data suppliers).	●	●
Workflow, production and productivity measurements.		●
Reviews, assessments and testing of records, databases, program-related materials and tools used.		●
Interviews and surveys with key policy makers and public goods charge stakeholders.		
Unannounced participation in the program to test operations and operational practices, processes and interactions.		
Operational observations and field-testing, including process related measurement and verification efforts. These can be announced or unannounced.		

3 Research Methods

In accordance with the *California Energy Efficiency Evaluation Protocols: Technical, Methodological, and Reporting Requirements for Evaluation Professionals Process* Evaluation protocols:

The process evaluation’s primary objective is to help program designers and managers structure their programs to achieve cost-effective savings while maintaining high levels of customer satisfaction. The process evaluation helps accomplish this goal by providing recommendations for changing the program’s structure, management, administration, design, delivery, operations or targets. . .

The primary purpose of process evaluation is to develop recommendations for program design or operation changes that can be expected to cost-effectively improve the issues, conditions or problems being investigated. The primary deliverable of all process evaluations is a process evaluation report that presents the study findings and the associated recommendations for program changes (see Reporting Protocol).

To achieve these objectives, the primary emphasis of this current evaluation was to support the development of a set of quantitative measures that can be used to analyze costs and benefits of the program. To accomplish this we defined a measure we are calling Client Direct Support Events (CDSEs), a type of performance metric that supports improved program oversight through improved analysis of relative efficiency and effectiveness for various aspects of the program and efficiency and effectiveness over time (trend analysis). In addition, the baseline established during this evaluation may be used as a basis for future comparative analysis of efficiency and effectiveness to determine the impact of program changes in areas such as process, organizational structure, and policy.

3.1 Data Collection and Sampling

Table 2 shows the data analyzed during this evaluation, along with the data collection approach that was used:

Table 2: Data Collection Approaches

Data Element	Description	Type	Source
CDSE List	List of CHANGES CDSEs (value added outcomes)	Secondary	CHANGES Database
CDSE Weights	Relative importance of each CDSE, expressed as a numeric value 0 to 1.	Primary	Survey

CDSE Values	Assigned financial value (fair and reasonable market cost) of each CDSE expressed in 2018 US Dollars.	Primary	Calculated
Benchmark Data, other states	Benchmark costs for each CDSE from similar programs in other states, if available. If no other states have similar programs, then this will be definitively stated.	Primary	Survey
Benchmark Data, IOUs	Benchmark costs from the IOUs for each CDSE, if available.	Primary	Survey
CDSE Costs	Cost per CDSE both over time and in the aggregate.	Secondary	SHE Invoice data
Target Population Demographics	LEP population by county.	Secondary	Latest census data

The following paragraphs provide additional details regarding the data collection, sampling, and management approach for each data element.

CDSE List: Changes Case data files, including case notes, were reviewed to develop a set of CDSEs, each representing a value-added outcome of the CHANGES program. In defining these CDSEs, the following criteria were applied:

- CDSEs must be measurable and transactional, so non-quantifiable or difficult to quantify benefits such as goodwill are excluded from consideration.
- CDSEs must be direct rather than indirect, so activities such as media outreach and education were not considered as CDSEs, and their value was measured in terms of finding, qualifying and contributing to identified CDSEs rather than as a stand-alone element. (See specifically section 4.3.9, CHANGES Value by Referral Source.)
- CDSEs were defined in terms of the program’s ability to provide LEP customers with access to programs, assistance, etc. that support their ability to maintain reliable utility services.
- The list of CDSEs was defined to be small enough to ensure statistically significant amounts of data will be maintained and reported without undue difficulty, but large enough to support effective on-going management decision processes.

CDSE Weights: CDSEs were weighted to reflect their perceived value to the CHANGES stakeholders. Each CDSE was assigned a weight, representing the perceived value/importance of that CDSE, between 0 and 1. To accomplish this, stakeholders within the four stakeholder groups (IOUs; CPUC CHANGES Stakeholders; SHE and Milestone; and CHANGES CBOs) were surveyed using an internet survey asking for a perceived value/weight of each CDSE on a 100-point scale ranging from Very High to Very Low. A copy of the survey used is included in chapter 8. Individual survey inputs were then scaled so that each respondent’s answers covered the full range of 0 to 100. So for example, if a respondent’s results were all in the range of 50 to

100 (high value) the results were scaled to cover the full range of 0 to 100. The formula used was:

$$V_s = \frac{(V_o - V_{min}) * 100}{V_{max}}$$

Where

V_s = Scaled value rating

V_o = Original (unscaled) value rating

V_{min} = Minimum value rating for this participant

V_{max} = Maximum value rating for this participant

The scaled responses were then averaged, and the average values were then used to compute a relative weight for each CDSE between 0 and 1 such that the total across all CDSEs sums to 1. The results then represent the relative values of each CDSE across the full spectrum of stakeholders.

Benchmark Data, other states: Level 4 conducted an email survey of National Association of Regulatory Utility Commissioners (NARUC) members to determine which organizations, if any, have programs that are similar to CHANGES.

Benchmark Data, IOUs: The IOUs were asked if they currently provide each of the indicated services to LEP individuals and, if so, their total cost per transaction including suitable allowances for overhead.

CDSE Costs: CDSE costs and value were calculated using procedures described in Chapter 4.

Target Population Demographics: Data from the latest census survey was used to identify LEP households by language and by county.

4 Analysis and Results

Our evaluation was broken down into three broad categories, each of which will be addressed individually:

1. Were the recommendations from the previous evaluation implemented?
2. Does the CHANGES program offer positive value for the investment required?
3. Are the CHANGES resources optimally allocated across languages and geographically?

4.1 Implementation of Previous Evaluation Recommendations

In 2012 Level 4 was tasked to conduct an evaluation of the CHANGES program under CPUC Purchase Order 11MS3002, and we had several recommendations as part of that evaluation. During the current evaluation we met with the CHANGES contractor (SHE and Milestone) to determine the current status with respect to those recommendations. The results of those telephonic discussions are summarized in Table 3.

All recommendations from the 2012 evaluation have been implemented with the exception of indemnification of the state from costs associated with a CHANGES data breach.

Table 3: Status of Previous Recommendations

Previous Recommendation	Current Status
The CPUC should award single contract to an oversight vendor.	Completed.
The awarded contract should increase flexibility in spending outreach and media placement funds.	Funds have been combined into a marketing category and CBOs now have the flexibility to tailor how those funds are used based on their local environment.
The contractor should create one-page CHANGES flyers on appropriate topics.	Flyers were created and are available covering 8 topics in 16 languages.
The contractor should create simplified (one-page) instructor summary sheets for training classes identifying the key topics.	CBO specific summary sheets have been created for each class tailoring the key topics to the specific concerns and needs of each LEP population.
CHANGES stakeholders should meet annually to establish 3 to 7 most important critical success factors for the coming year, and the program should be measured against those factors.	CPUC and SHE hold monthly meetings to discuss emerging issues, but no formal critical success factors are identified and used to measure program success. We anticipate that this will be implemented as an outcome of the current evaluation, using the measurement tools that we are currently putting in place.

Previous Recommendation	Current Status
CHANGES CBO participation at community events should be spot checked for quality purposes.	Milestone is conducting spot checks.
CHANGES branding should be improved.	A changes logo was developed and is used on all marketing. A standard CHANGES banner was provided to CBOs for use at events. Branded give-away items were provided to CBOs.
Implement pre and post testing for training.	Pre and post testing was implemented and used to verify virtually 100% success in communicating the key topic areas. Testing was halted when this result was consistently observed. A pilot effort is now underway to conduct 10% sample-based verification of training retention three months after training was conducted.
Randomized verification of claimed applications (e.g. Energy Savings Assistance Program (ESAP), Home Energy Assistance Program (HEAP)) should be conducted.	Milestone conducts 25% validation through documentation reviews.
CHANGES administrative costs should be contractually limited to 20% or less.	Administrative costs are not contractually limited, but they have been reduced from 29% at the time of the previous evaluation to 21% at the current time. The previous recommendation of 20% was the median overhead rate based on a 2008 Bridgestone study ¹ , and their latest study ² places the median overhead rate at 25%.
Archival and data disposal policies and procedures should be put in place.	Data disposal for paper records is 7 years. The program has not reached this threshold yet, but policies and procedures are being developed that will specify disposal of paper records through shredding.
Ownership of the CHANGES data should be contractually clarified and Incident Response Procedures should be documented.	The SHE contract clarifies that the CPUC owns the data and incident response procedures are available.

¹ <http://www.bridgespan.org/nonprofit-overhead-costs-2008.aspx>

² <https://www.bridgespan.org/insights/library/philanthropy/overhead>

Previous Recommendation	Current Status
CHANGES paperwork should be stored in dedicated drawers or file cabinets and kept locked when not in use.	This has been implemented.
The SHE contract should indemnify the CPUC from damages arising from unauthorized disclosure of CHANGES data.	This has not been implemented. We recommend that this be included in the CHANGES follow-on contract.
The CHANGES data should be scanned regularly to remove duplicate records.	This has been implemented.

4.2 Value Delivery

4.2.1 Per Client Direct Support Event Calculated Fully Loaded Value

In our previous evaluation, we calculated the direct fair and reasonable market value of each Client Direct Support Event (CDSE) at \$46.36 in 2012 dollars. Adjusting for inflation in California this equates to \$51.87 dollars per CDSE in 2018 dollars.

CHANGES delivers support at a fully loaded per CDSE cost of \$243.80 versus an independently calculated per CDSE fair and reasonable market value of \$268.68.

To adjust this CDSE direct value, we need to apply suitable multiples to allow for current CHANGES indirect cost pools (related indirect cost areas). Looking at CHANGES data for the past five years (January 2013 through April 2018), we find the following (Table 4):

- **PROMOTION, EDUCATION and TRAINING COST POOL:** For every dollar spent on client direct support, CHANGES spends an additional \$1.79 on education, promotion, and training. Together, these areas make up the actual service delivery component of CHANGES.
- **SUPPORT SUBCONTRACTOR COST POOL:** For every dollar spent on service delivery (including both direct support and education, promotion, and training), CHANGES spends an additional 48 cents on support subcontracts, primarily for database support and quality assurance. Together these make up the complete program operation component of CHANGES.
- **ADMINISTRATIVE COST POOL:** For every dollar spent on program operation the SHE prime contractor spends an addition 25 cents, primarily for program and contract administration.

- In total, for every dollar spent on client direct support an additional \$4.18³ must be spent on other CHANGES shared cost pool functions.

Table 4: CHANGES Cost Multiples

	Total Costs	Multiple
Total Client Direct Support \$	\$1,021,800	100%
Education, Promotion and Training	\$1,828,962	179%
SHE Subcontractors	\$1,369,976	48%
SHE	\$1,072,120	25%

Applying these multiples to the inflation adjusted CDSE value of \$51.87 results in a fully loaded fair and reasonable market value of \$268.68 per CDSE.

4.2.2 Weighted Client Direct Support Event Value

Not all of the CDSEs offer the same perceived value to the LEP clients of CHANGES. An internet-based stakeholder survey was completed by participants from the CBOs, SHE, Milestone, the IOUs, and other interested in parties in order to determine and rank the perceived value of each CDSE. Sixty-two responses were received in total. Four responses were submitted anonymously and removed. In one case the same person submitted two survey responses, so the earlier survey was removed. Respondents were asked to assign a value weighting to each Client Direct Support Event, using a scale of 0 (very low) to 100 (very high).

Because the objective was to assign relative values rather than absolute values, a scaling process was applied if survey respondents rated all indicators at either the high end or the low end of the scale. So for example if a respondent weighted all CDSE values between 80 and 100 those evaluations were scaled to use the full range of 0 to 100.

Responses were then averaged for each CDSE type, and normalized such that the total across all CDSE types is 100%. The weightings are shown in Table 5. These weightings then represent the proportionate stakeholder perceived value for each of the identified CDSEs, so CDSEs with a higher weight are considered to be more valuable to LEP clients than CDSEs with a lower weight.

Table 5: Value Weighted CDSEs

CDSE	Weight
Enroll in Medical Baseline	7.4%
Apply for HEAP/LIHEAP	7.3%
Resolve pending disconnection	5.4%
Apply for ESAP	5.3%
Assist with reconnection	5.2%

³ $(\$1,828,962 + \$1,369,976 + \$1,072,120) / \$1,021,800 = 4.1799$

CDSE	Weight
Setup payment plan	5.2%
Report unsafe condition/safety problem	5.1%
Apply for Energy/Gas Assistance	5.1%
Setup payment extension	5.1%
Assist high energy user with doc submission	4.9%
Change third-party company	4.7%
Request bill adjustment	4.7%
Resolve aggregation issue	4.6%
Report scam	4.4%
Assist with new account setup	3.9%
Assist with changes to account	3.3%
Request meter service/testing	2.1%
Resolve time of use issue	2.0%
Resolve deposit issue	2.0%
Change billing language	2.0%
Setup 3rd party notification	1.7%
Resolve solar question	1.6%
Resolve customer service issue	1.5%
Schedule energy audit	1.2%
Add level pay plan	0.8%
Consumer Education Only	0.8%
Provide energy efficiency tool	0.7%
Add energy alerts	0.7%
Schedule customer service visit	0.6%
Resolve wildfire related issue	0.4%
Enroll in Demand Response Program	0.3%
TOTAL	100.0%

These weights were then converted to a multiplier used to assign a specific dollar value to each CDSE such that the average is the previously computed fully loaded average CDSE fair and reasonable market value of \$268.68. The results are shown in Table 6.

Per CDSE fully loaded benchmark value ranges from \$620.14 for a new enrollment in medical baseline to \$26.96 for enrollment in the demand response program.

Table 6: Fully Loaded CDSE Values

CDSE	Value	Multiplier
Enroll in Medical Baseline	\$ 620.14	231%
Apply for HEAP/LIHEAP	\$ 608.95	227%

CDSE	Value	Multiplier
Resolve pending disconnection	\$ 453.81	169%
Apply for ESAP	\$ 438.22	163%
Assist with reconnection	\$ 435.98	162%
Setup payment plan	\$ 430.47	160%
Report unsafe condition/safety problem	\$ 427.18	159%
Apply for Energy/Gas Assistance	\$ 426.94	159%
Setup payment extension	\$ 421.14	157%
Assist high energy user with doc submission	\$ 409.21	152%
Change third-party company	\$ 392.11	146%
Request bill adjustment	\$ 390.76	145%
Resolve aggregation issue	\$ 384.45	143%
Report scam	\$ 365.30	136%
Assist with new account setup	\$ 323.23	120%
Assist with changes to account	\$ 274.57	102%
Request meter service/testing	\$ 176.99	66%
Resolve time of use issue	\$ 166.58	62%
Resolve deposit issue	\$ 165.41	62%
Change billing language	\$ 164.06	61%
Setup 3rd party notification	\$ 137.87	51%
Resolve solar question	\$ 133.59	50%
Resolve customer service issue	\$ 127.51	47%
Schedule energy audit	\$ 98.41	37%
Add level pay plan	\$ 69.07	26%
Consumer Education Only	\$ 67.65	25%
Provide energy efficiency tool	\$ 60.35	22%
Add energy alerts	\$ 54.60	20%
Schedule customer service visit	\$ 47.11	18%
Resolve wildfire related issue	\$ 30.45	11%
Enroll in Demand Response Program	\$ 26.96	10%
AVERAGE	\$ 268.68	100%

4.2.3 Actual Changes Value Weighted Cost per CDSE

We then turned our attention to calculating the actual CHANGES actual cost per CDSE. We reviewed CHANGES data from January 2013 through May 2018 to identify total CDSEs. This review including analyzing case data fields and analyzing all comments. Over the analysis period CHANGES delivered 21,710 CDSEs at a fully loaded cost (per our review of CHANGES invoice data over this period) of \$5,292,858, for an average per CDSE cost of \$243.80. In other words, over the five-year analysis period CHANGES CBOs completed 21,710 successful client interactions resulting in a positive outcome (the CDSEs) at a total cost of \$5,292,858. However, not each of these CDSEs represents the same perceived value to the LEP population. Applying the previously computed perceived value for each CDSE (expressed as a percentage) we can

compute the value weighted cost for each CDSE. Table 7 shows the value weighted actual cost per CDSE based on CHANGES data. These values were then used for the remainder of the evaluation.

Table 7: CHANGES CDSE Value Weighted Costs

CDSE	Value
Enroll in Medical Baseline	\$ 562.71
Apply for HEAP/LIHEAP	\$ 552.56
Resolve pending disconnection	\$ 411.79
Apply for ESAP	\$ 397.64
Assist with reconnection	\$ 395.60
Setup payment plan	\$ 390.60
Report unsafe condition/safety problem	\$ 387.63
Apply for Energy/Gas Assistance	\$ 387.40
Setup payment extension	\$ 382.15
Assist high energy user with doc submission	\$ 371.32
Change third-party company	\$ 355.80
Request bill adjustment	\$ 354.57
Resolve aggregation issue	\$ 348.85
Report scam	\$ 331.47
Assist with new account setup	\$ 293.30
Assist with changes to account	\$ 249.15
Request meter service/testing	\$ 160.60
Resolve time of use issue	\$ 151.16
Resolve deposit issue	\$ 150.10
Change billing language	\$ 148.87
Setup 3rd party notification	\$ 125.10
Resolve solar question	\$ 121.22
Resolve customer service issue	\$ 115.70
Schedule energy audit	\$ 89.30
Add level pay plan	\$ 62.67
Consumer Education Only	\$ 61.38
Provide energy efficiency tool	\$ 54.77
Add energy alerts	\$ 49.54
Schedule customer service visit	\$ 42.75
Resolve wildfire related issue	\$ 27.63
Enroll in Demand Response Program	\$ 24.47
AVERAGE	\$ 243.80

As shown in Table 8, the CHANGES team are doing an effective job of prioritizing those CDSEs that offer the greatest overall benefit (fair and reasonable market value). In the table, cost is the fully loaded cost paid by the CPUC to handle the indicated CDSEs from Table 7, and benefit

Overall CHANGES is offering significant value for the funds invested. CHANGES offers the most value in areas involving more complex issues or applications; and the least value in routine customer service transactions.

is the computed fair and reasonable market value of those CDSEs from Table 6. Ratio indicates the ratio of value to cost, so numbers above 1.0 indicate higher return on investment (ROI) relative to cost while numbers below 1.0 indicate lower ROI relative to cost.

Table 8: CHANGES Value vs. Cost

DSI	Total Cases	Benefit	Cost	ROI
Enroll in Medical Baseline	585	\$ 362,779	\$ 142,623	254%
Apply for HEAP/LIHEAP	5589	\$3,403,438	\$1,362,598	250%
Resolve pending disconnection	1256	\$ 569,984	\$ 306,213	186%
Apply for ESAP	871	\$ 381,691	\$ 212,350	180%
Assist with reconnection	360	\$ 156,951	\$ 87,768	179%
Setup payment plan	896	\$ 385,697	\$ 218,445	177%
Report unsafe condition/safety problem	190	\$ 81,165	\$ 46,322	175%
Apply for Energy/Gas Assistance	6544	\$2,793,876	\$1,595,427	175%
Setup payment extension	392	\$ 165,088	\$ 95,570	173%
Assist high energy user with doc submission	18	\$ 7,366	\$ 4,388	168%
Change third-party company	835	\$ 327,411	\$ 203,573	161%
Request bill adjustment	455	\$ 177,795	\$ 110,929	160%
Resolve aggregation issue	554	\$ 212,985	\$ 135,065	158%
Report scam	4	\$ 1,461	\$ 975	150%
Assist with new account setup	542	\$ 175,192	\$ 132,140	133%
Assist with changes to account	1154	\$ 316,857	\$ 281,345	113%
Request meter service/testing	169	\$ 29,912	\$ 41,202	73%
Resolve time of use issue	12	\$ 1,999	\$ 2,926	68%
Resolve deposit issue	266	\$ 44,000	\$ 64,851	68%
Change billing language	278	\$ 45,609	\$ 67,776	67%
Setup 3rd party notification	114	\$ 15,717	\$ 27,793	57%
Resolve solar question	43	\$ 5,744	\$ 10,483	55%
Resolve customer service issue	244	\$ 31,113	\$ 59,487	52%
Schedule energy audit	8	\$ 787	\$ 1,950	40%
Add level pay plan	216	\$ 14,919	\$ 52,661	28%
Consumer Education Only	51	\$ 3,450	\$ 12,434	28%
Provide energy efficiency tool	34	\$ 2,052	\$ 8,289	25%
Schedule customer service visit	14	\$ 660	\$ 3,413	19%

DSI	Total Cases	Benefit	Cost	ROI
Resolve wildfire related issue	1	\$ 30	\$ 244	12%
Enroll in Demand Response Program	15	\$ 404	\$ 3,657	11%
Grand Total	21710	\$9,716,134	\$5,292,898	113%

4.2.4 CHANGES Costs versus External Benchmark Data

In seeking benchmark data, we looked to other states and to the IOUs. We began by sending an email query to the NARUC Member List. We received 21 responses. None of the responding organizations have a program that is similar to CHANGES. The closest match involved programs printing utility related material in multiple languages and making that material available to the public; and telephone-based translation service in multiple languages. Overall, our conclusion is that the CPUC is unique and a national leader in providing LEP specific support to utility customers, many of whom are new to the country and unfamiliar with utility related expectations (e.g., typical energy usage) and available assistance programs.

We asked the IOUs to provide their costs to provide in-language services similar to the CHANGES CDSEs. SDG&E responded that the services are provided but that the financial (cost) data is not available. PG&E indicated that the average cost for in-language services is \$12.88 per incident (service call) across all of the CDSEs. SoCalGas provided a cost of \$4.28 per application for the CDSE “Apply for Energy/Gas Assistance” and \$5.93 for the CDSE “Enroll in Medical Baseline.” In all cases these costs reflect the customer service time plus a telephone based in-language translation service. We do not believe that these costs accurately reflect a “like for like” basis for comparison with CHANGES costs. The primary differences are:

- CHANGES costs include outreach, education, diagnosis, qualification, and other front-end activities that are not included in the IOU costs.
- IOU costs are transactional (single phone call) while CHANGES costs include all activities from the time a client is identified until the time a case is closed out as resolved.
- CHANGES costs involve significant personal interaction, which is a major value added for this particular population group (LEP individuals, often new to the country).
- The IOU approach and costs focus on the language barriers faced by the LEPs, while CHANGES addresses both the language and the cultural barriers.

4.3 Optimum Allocation of Resources

4.3.1 Direct versus Indirect Cost Ratios

As shown in Figure 1, actual client support provides the most direct value to the community. As we move farther away from this hands-on support, the benefits become less direct and more indirect. Client education and outreach is less direct and measurable than CDSEs. Database and quality assurance support is still less direct and measurable. It's important to understand that indirect value is still value, and it represents a critical component of the CHANGES program success. So the goal is not to eliminate indirect costs. Rather, the goal is to find ways to accomplish the indirect value activities in a manner that is as efficient as possible. The first step in this process is to measure those costs as a percentage of the direct costs, and to use those ratios as a baseline for potential efficiency improvements going forward. The ratios provided in this report are a suitable baseline to use going forward. For a further discussion related to this area, see Section 4.3.9 below.

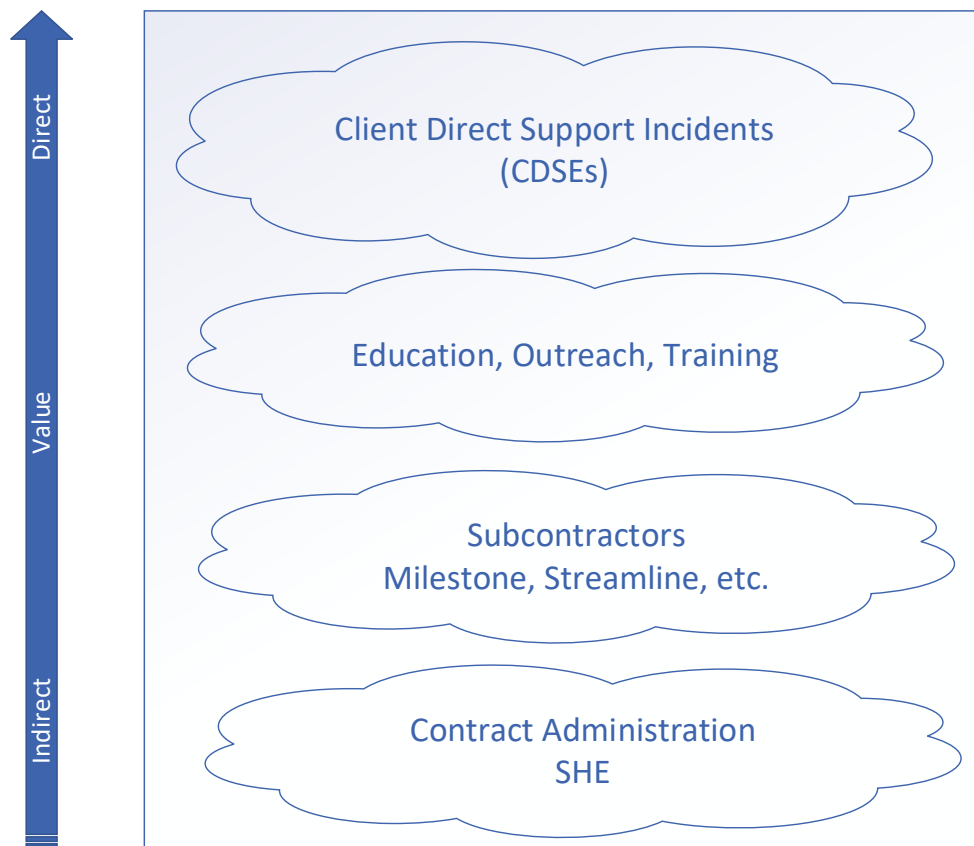


Figure 1: Indirect versus Direct Value

4.3.2 Value Contribution by Language

Table 9 shows the LEP population in California by language as a percentage of the total LEP population, based on 2016 census data, as well as the CHANGES value provided

by language as a percentage of the total CHANGES value provided. The ratio shows the relative percentages of CHANGES value versus Census %, so numbers above 1 would indicate populations that are proportionately overserved while numbers below 1 would indicate populations that are proportionately underserved. Our additional observations are:

- Spanish tends to be relatively well served by the IOUs, so it seems appropriate that CHANGES services this LEP group less than the census percentages would indicate. This focus on populations with the greatest need is a positive aspect of the program operation.
- This table looks at language barriers only, while cultural barriers may be as significant. So the emphasis of CHANGES on some languages more than others may be at least partially driven by these cultural factors. Cultural barriers observed during our first evaluation included lack of familiarity with electricity as a metered and paid service; and the mistaken belief that electric utilities were agents of the government and hence something to be feared.
- The large CHANGES ratio for “Other and unspecified languages” is largely because CHANGES includes sign language in the data while the Census does not.

In general, we recommend that CHANGES enhance penetration into LEP language populations with a ratio in Table 9 of less than 100%.

Table 9: LEP Language versus CHANGE Value Contribution

From: 2016 Census data for California	Census (%)	CHANGES (%)	Ratio
Spanish	65.11%	30.88%	47.42%
Chinese (incl. Mandarin, Cantonese)	9.61%	22.28%	231.91%
Vietnamese	4.76%	15.56%	326.90%
Tagalog (incl. Filipino)	3.97%	1.16%	29.29%
Korean	3.12%	4.61%	147.55%
Armenian	1.34%	3.54%	263.77%
Persian (incl. Farsi, Dari)	1.14%	3.23%	283.70%
Russian	1.07%	0.20%	18.80%
Arabic	1.00%	6.22%	623.95%
Japanese	0.96%	0.39%	40.96%
Punjabi	0.89%	0.00%	0.00%
Thai, Lao, or other Tai-Kadai languages	0.68%	1.99%	292.12%
Ilocano, Samoan, Hawaiian, or other Austronesian languages	0.64%	0.09%	14.72%
Khmer	0.57%	4.78%	834.70%
Hmong	0.50%	1.92%	381.19%
Hindi	0.49%	0.12%	25.12%
Amharic, Somali, or other Afro-Asiatic languages	0.43%	1.06%	248.49%

From: 2016 Census data for California	Census (%)	CHANGES (%)	Ratio
Other languages of Asia	0.42%	0.22%	53.12%
Portuguese	0.37%	0.40%	109.08%
Other Indo-European languages	0.27%	0.19%	70.08%
French (incl. Cajun)	0.27%	0.07%	25.59%
Urdu	0.21%	0.04%	17.21%
Ukrainian or other Slavic languages	0.20%	0.00%	0.00%
Nepali, Marathi, or other Indic languages	0.20%	0.02%	9.80%
Gujarati	0.19%	0.00%	0.00%
German	0.19%	0.01%	5.75%
Other and unspecified languages	0.18%	0.23%	127.07%
Telugu	0.17%	0.00%	0.00%
Italian	0.17%	0.03%	20.67%
Bengali	0.12%	0.03%	27.09%
Tamil	0.12%	0.00%	2.80%
Hebrew	0.10%	0.00%	0.00%
Serbo-Croatian	0.09%	0.00%	0.00%
Malayalam, Kannada, or other Dravidian languages	0.09%	0.00%	0.00%
Yoruba, Twi, Igbo, or other languages of Western Africa	0.08%	0.04%	54.77%
Polish	0.07%	0.00%	0.00%
Greek	0.07%	0.00%	0.00%
Yiddish, Pennsylvania Dutch or other West Germanic languages	0.05%	0.00%	0.00%
Swahili or other languages of Central, Eastern, and Southern Africa	0.05%	0.66%	1398.41%
Haitian	0.02%	0.00%	0.00%
Other Native languages of North America	0.01%	0.00%	0.00%
Navajo	0.00%	0.00%	0.00%

4.3.3 Value Contribution by County

Table 10 shows the LEP population in California by county as a percentage of the total LEP population statewide, based on 2016 census data, as well as the CHANGES value provided by county as a percentage of the total CHANGES value provided. CHANGES value was computed by looking at each of the 21,760 CHANGES closed cases and identifying the county where the service was provided, then applying the value from Table 6 to assign that delivered value to that county. The ratio shows the relative percentages of CHANGES value versus Census %, so numbers above 1 would indicate counties that are proportionately overserved while numbers below 1 would indicate counties that are proportionately underserved.

We hypothesized that the discrepancy for Los Angeles county might be due to a higher than typical Spanish language LEP population in Los Angeles county, but if we remove Spanish from the dataset we find that the CHANGES value delivery in Los Angeles county remains low at 18.0%. Our conclusion is that CHANGES does, in fact, underserve Los Angeles county and that this may be worth some effort in terms of

working with appropriate Los Angeles county-based CBOs to enhance program penetration in that geographic location. In general, we recommend that CHANGES focus on adding CBOs in those counties that are currently underserved as indicated by a Ratio in Table 10 less than 100%.

Table 10: LEP Population versus CHANGES Value Delivered

County	Census (%)	CHANGES (%)	Ratio
Los Angeles	35.5%	14.9%	42%
Orange	8.8%	7.9%	90%
San Diego	6.9%	12.7%	183%
Santa Clara	5.4%	7.3%	135%
Riverside	4.8%	0.1%	3%
San Bernardino	4.6%	7.8%	171%
Alameda	4.0%	2.0%	49%
Sacramento	2.7%	1.5%	55%
San Francisco	2.6%	19.3%	742%
Fresno	2.5%	7.9%	318%
Kern	2.1%	0.0%	2%
Contra Costa	2.0%	0.1%	5%
San Mateo	1.9%	5.4%	279%
Ventura	1.9%	0.1%	6%
San Joaquin	1.7%	9.1%	525%
Monterey	1.6%	0.1%	3%
Tulare	1.4%	0.5%	35%
Stanislaus	1.2%	0.0%	1%
Santa Barbara	1.1%	0.0%	0%
Merced	0.8%	0.1%	11%
Imperial	0.8%	0.0%	0%
Sonoma	0.7%	0.3%	35%
Solano	0.7%	0.0%	1%
Santa Cruz	0.5%	0.0%	2%
Yolo	0.4%	0.0%	4%
Madera	0.4%	1.8%	476%
Kings	0.4%	0.3%	72%
Marin	0.3%	0.1%	16%
Napa	0.3%	0.0%	4%
San Luis Obispo	0.3%	0.0%	5%
Placer	0.2%	0.0%	12%
Sutter	0.2%	0.0%	0%
Butte	0.2%	0.0%	0%
San Benito	0.1%	0.0%	6%
Mendocino	0.1%	0.5%	388%

County	Census (%)	CHANGES (%)	Ratio
El Dorado	0.1%	0.0%	0%
Yuba	0.1%	0.0%	0%
Shasta	0.1%	0.0%	0%
Colusa	0.1%	0.0%	0%
Humboldt	0.1%	0.0%	0%
Tehama	0.1%	0.0%	0%
Glenn	0.1%	0.0%	0%
Lake	0.1%	0.2%	443%
Nevada	0.0%	0.0%	0%
Lassen	0.0%	0.0%	0%
Siskiyou	0.0%	0.0%	0%
Mono	0.0%	0.0%	0%
Tuolumne	0.0%	0.0%	0%
Amador	0.0%	0.0%	0%
Del Norte	0.0%	0.0%	0%
Calaveras	0.0%	0.0%	0%
Inyo	0.0%	0.0%	0%
Modoc	0.0%	0.0%	0%
Mariposa	0.0%	0.0%	0%
Plumas	0.0%	0.0%	0%
Sierra	0.0%	0.0%	0%
Trinity	0.0%	0.0%	0%
Alpine	0.0%	0.0%	0%

4.3.4 Value Contribution by CDSE

Figure 2 shows the areas where CHANGES has delivered the greatest value over the five year analysis period. The value contribution was determined by looking at each of the 21,760 closed CHANGES cases and applying the value calculation from Table 6, so it represents a combination of the relative value from Table 6 combined with the number of cases of each type closed during the analysis period .

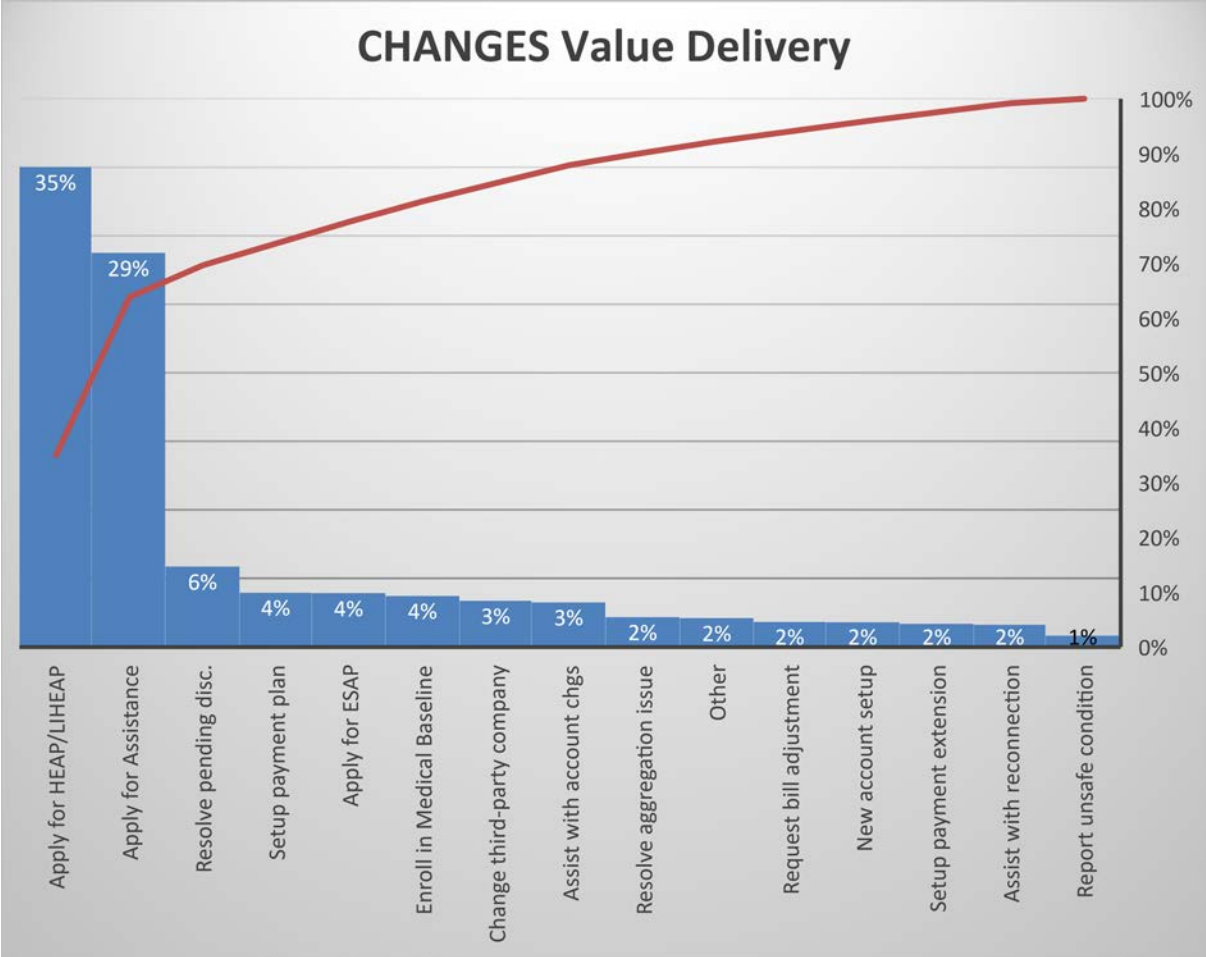


Figure 2: Changes Value Delivery

4.3.5 CHANGES Value Delivery Over Time

As shown in Figure 3, CHANGES has been delivering increasing value over time. In this case we looked at the number of cases closed each year and, for each closed case, used the value contribution from Table 6 to determine the value contribution for that closed case. So the resultant curve is a combination of closing a higher number of cases and focusing attention on those areas that offer the most perceived value.

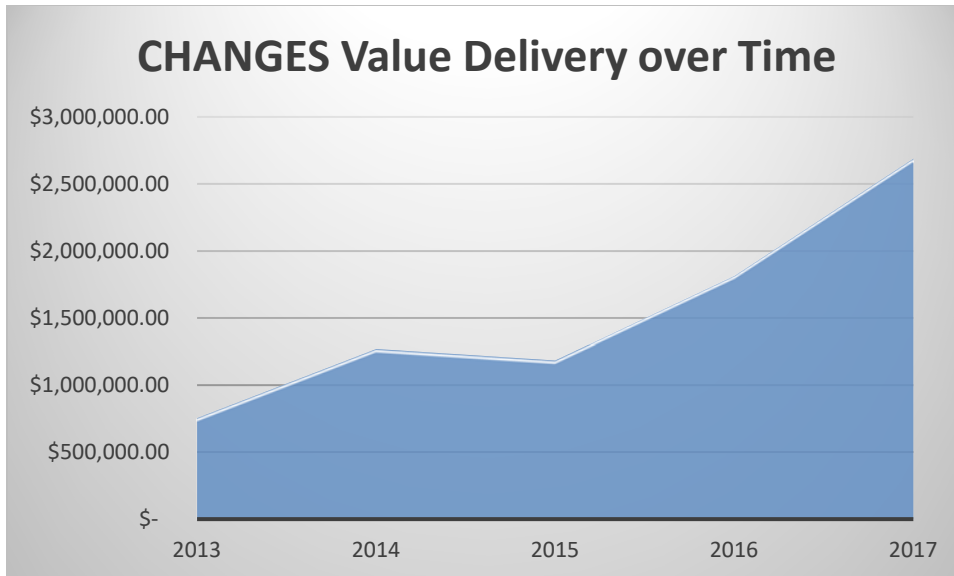


Figure 3: CHANGES Value Delivery over Time

4.3.6 Recidivism Rate by CDSE

Table 11 shows the CHANGES recidivism rate by CDSE. Single are the number of times when that service was provided to the same account only one time. “2X” indicates that the service was provided twice to the same account, “3X” indicates three times, and “4 or More” indicates that the service was provided four or more times to the same account. The recurrence percent simply indicates the percentage of time where the service needed to be provided more than once to the same account for that CDSE. Note that when preparing these numbers, we have already adjusted for situations where the same CDSE was included multiple times for a single CHANGES case record, so these do reflect actual different incidents. Whether recurrence is a good thing or a bad thing will vary by CDSE. So for example, recurrence of “Resolve pending disconnection” for the same account would be a bad thing because it indicates that the underlying root cause leading to the pending disconnection was not satisfactorily address. On the other hand, many of the Energy/Gas assistance programs involve an annual application process so recurrence may indicate client satisfaction with the services delivered.

Table 11: Recidivism Rate by CDSE

	Recurrence	Single	2X	3X	4 or More
Apply for Energy/Gas Assistance	13%	4910	557	120	35
Apply for HEAP/LIHEAP	12%	4320	468	96	10
Resolve pending disconnection	9%	1016	87	14	5
Assist with reconnection	8%	291	21	4	2
Report unsafe condition/safety problem	7%	164	13	0	0
Request bill adjustment	6%	395	24	2	1
Change third-party company	6%	732	41	7	0
Resolve aggregation issue	6%	488	23	5	1
Add level pay plan	5%	192	9	2	0

	Recurrence	Single	2X	3X	4 or More
Enroll in Medical Baseline	5%	529	23	3	0
Setup payment plan	5%	814	36	3	0
Resolve customer service issue	4%	223	10	0	0
Assist with changes to account	4%	1055	43	4	0
Assist with new account setup	4%	491	18	3	0
Provide energy efficiency tool	3%	32	1	0	0
Apply for ESAP	3%	814	22	1	2
Request meter service/testing	2%	161	4	0	0
Resolve solar question	2%	41	1	0	0
Resolve deposit issue	2%	253	6	0	0
Setup payment extension	2%	373	2	5	0
Setup 3rd party notification	1%	112	1	0	0
Change billing language	0%	275	1	0	0
Assist high energy user with doc submission	0%	17	0	0	0
Consumer Education Only	0%	50	0	0	0
Enroll in Demand Response Program	0%	15	0	0	0
Report scam	0%	4	0	0	0
Resolve time of use issue	0%	12	0	0	0
Resolve wildfire related issue	0%	1	0	0	0
Schedule customer service visit	0%	14	0	0	0
Schedule energy audit	0%	8	0	0	0

4.3.7 CHANGES Return on Investment (ROI)

Overall benefit for each CDSE was computed by looking at the total number of cases of that type closed over the five-year analysis period and multiplying this times the value per CDSE from Table 6. The cost was determined by multiplying the total closed cases for each CDSE by the average cost of \$243.80 per CDSE, determined as described in section 4.2.3. As shown in Table 12, CHANGES is providing an overall return on investment (ROI) of 67%. It offers the greatest value by supporting enrollment in the medical baseline program. It offers the least value in routine areas such as enrollment in demand response and scheduling customer service visits.

CDSEs with a negative ROI represent more cost than value under the current payment approach. Our preferred approach to resolving this is to reduce the payments for CDSEs with a negative ROI. Alternatively, the program should be encouraged to focus on the CDSEs with a positive ROI and to deemphasize those CDSEs with a negative ROI.

Table 12: CHANGES ROI by CDSE

	Benefit	Cost	ROI
Enroll in Medical Baseline	\$ 329,185	\$ 142,623	131%
Apply for HEAP/LIHEAP	\$ 3,088,277	\$ 1,362,598	127%

	Benefit	Cost	ROI
Resolve pending disconnection	\$ 517,203	\$ 306,213	69%
Apply for ESAP	\$ 346,346	\$ 212,350	63%
Assist with reconnection	\$ 142,417	\$ 87,768	62%
Setup payment plan	\$ 349,981	\$ 218,445	60%
Report unsafe condition/safety problem	\$ 73,649	\$ 46,322	59%
Apply for Energy/Gas Assistance	\$ 2,535,161	\$ 1,595,427	59%
Setup payment extension	\$ 149,801	\$ 95,570	57%
Assist high energy user with doc submission	\$ 6,684	\$ 4,388	52%
Change third-party company	\$ 297,092	\$ 203,573	46%
Request bill adjustment	\$ 161,331	\$ 110,929	45%
Resolve aggregation issue	\$ 193,262	\$ 135,065	43%
Report scam	\$ 1,326	\$ 975	36%
Assist with new account setup	\$ 158,969	\$ 132,140	20%
Assist with changes to account	\$ 287,516	\$ 281,345	2%
Request meter service/testing	\$ 27,142	\$ 41,202	-34%
Resolve time of use issue	\$ 1,814	\$ 2,926	-38%
Resolve deposit issue	\$ 39,925	\$ 64,851	-38%
Change billing language	\$ 41,386	\$ 67,776	-39%
Setup 3rd party notification	\$ 14,261	\$ 27,793	-49%
Resolve solar question	\$ 5,212	\$ 10,483	-50%
Resolve customer service issue	\$ 28,232	\$ 59,487	-53%
Schedule energy audit	\$ 714	\$ 1,950	-63%
Add level pay plan	\$ 13,537	\$ 52,661	-74%
Consumer Education Only	\$ 3,131	\$ 12,434	-75%
Provide energy efficiency tool	\$ 1,862	\$ 8,289	-78%
Schedule customer service visit	\$ 598	\$ 3,413	-82%
Resolve wildfire related issue	\$ 28	\$ 244	-89%
Enroll in Demand Response Program	\$ 367	\$ 3,657	-90%
Grand Total	\$ 8,816,412	\$ 5,292,898	67%

4.3.8 CHANGES Value Distribution Over Time

Table 13 shows the value provided by CHANGES by CDSE over time between 2013 and 2017. For the data in the table, we looked at the cases closed by CDSE type during each of the calendar years and, for each case, used the values from Table 6 to assign a value.

Table 13: CHANGES Value Distribution Over Time

CDSE	2013	2014	2015	2016	2017
Add level pay plan	\$4,074	\$4,763	\$2,194	\$752	\$1,692
Apply for Energy/Gas Assistance	\$177,818	\$363,771	\$368,807	\$479,604	\$801,148
Apply for ESAP	\$52,489	\$40,560	\$24,256	\$76,745	\$106,966

CDSE	2013	2014	2015	2016	2017
Apply for HEAP/LIHEAP	\$300,594	\$511,674	\$423,264	\$618,871	\$904,546
Assist high energy user with doc submission			\$743	\$1,857	\$4,085
Assist with changes to account	\$45,096	\$27,655	\$26,410	\$43,850	\$87,451
Assist with new account setup	\$21,704	\$24,051	\$24,637	\$43,702	\$38,716
Assist with reconnection	\$2,374	\$11,868	\$23,736	\$37,187	\$54,593
Change billing language	\$7,295	\$4,466		\$5,955	\$18,013
Change third-party company		\$28,820	\$51,235	\$68,669	\$97,489
Consumer Education Only	\$1,289	\$1,105	\$307	\$184	\$246
Enroll in Demand Response Program	\$269		\$24	\$24	\$49
Enroll in Medical Baseline	\$18,569	\$35,451	\$25,322	\$85,532	\$116,481
Provide energy efficiency tool		\$383		\$55	\$219
Report scam			\$663	\$663	
Report unsafe condition/safety problem	\$19,769	\$25,583	\$7,365	\$19,381	\$1,163
Request bill adjustment	\$14,183	\$27,302	\$25,884	\$26,238	\$57,441
Request meter service/testing	\$4,176	\$6,585	\$3,373	\$8,833	\$3,373
Resolve aggregation issue		\$3,140	\$30,699	\$43,606	\$67,328
Resolve customer service issue	\$5,322	\$3,240	\$4,744	\$5,091	\$7,289
Resolve deposit issue	\$1,951	\$7,655	\$3,902	\$20,413	\$5,103
Resolve pending disconnection	\$22,648	\$60,121	\$69,592	\$105,005	\$179,950
Resolve solar question			\$121	\$606	\$1,212
Resolve time of use issue	\$151	\$605	\$151	\$302	\$151
Schedule customer service visit	\$299	\$171		\$43	\$43
Schedule energy audit	\$179			\$447	\$89
Setup 3rd party notification	\$3,002	\$2,002	\$6,380	\$2,002	\$625
Setup payment extension	\$14,904	\$26,750	\$29,807	\$32,100	\$28,279
Setup payment plan	\$34,373	\$50,779	\$29,686	\$85,933	\$104,682
Grand Total	\$752,528	\$1,268,497	\$1,183,302	\$1,813,650	\$2,688,422

4.3.9 CHANGES Value by Referral Source

Table 14 shows the CHANGES value provided broken down by referral source. This was computed by looking at each of the 21,760 CHANGES cases closed over the five-year analysis period; for each looking at the delivered fair and reasonable market value based on Table 6, and then assigning that value to the referral source based on the recorded referral source in the database. Table 15 shows the funds spent over that same five years on outreach activities (training refers to training of CBOs by Milestone, and since its primary purpose is not the identification of new CHANGES clients it may be ignored for this analysis). What we see is that per dollar spent, workshops, outreach and media all generate approximately the same overall value in terms of referrals, so the current proportionate allocation is working effectively. However, we also note that referrals from friends, family and other programs represents the most significant total value and that these referrals arrive with little or no cost. Therefore, an emphasis on

increasing referrals would offer potential opportunities for increasing clients with little or no additional fund expenditure.

Table 14: CHANGES Value by Referral Source

Referral Source	% of Value
changes_workshop	28%
friend_or_family	24%
another_program	22%
community_outreach	8%
another_cbo	7%
mass_media	6%
received_team	4%
Grand Total	100%

Table 15: CHANGES Outreach Areas

Outreach Area	Cost	Percentage
Workshops	\$ 1,144,860	63%
Outreach	\$ 316,880	17%
Media	\$ 233,100	13%
Training	\$ 134,122	7%

5 Recommendations

Recommendations are grouped into three general categories:

- Potential best practices that the IOUs could adopt, or could adopt with state support, that could avoid or address the problems CHANGES customers face.
- Recommendations applicable to the CHANGES program itself.
- Recommendations with respect to CHANGES funding.

5.1 Best Practices that IOUs Could Potentially Adopt

This section identifies potential best practices that the IOUs could adopt, potentially with state assistance or support. A significant aspect of the CHANGES need fits into two general areas:

1. Applying for assistance programs that an LEP individual may be eligible for.
2. Obtaining financial assistance with an unexpectedly high one-time bill, plus some help understanding and correcting the cause of the utility usage spike.

If the state and the IOUs could find a way to largely automate the process of applying for suitable programs, the need for CHANGES CBOs to provide this support may go away. For example, if these LEP individuals are already applying for other assistance and if those other assistance applications could then automatically enroll them in the appropriate utility assistance programs, then separate in-language utility support may be unnecessary. We anticipate that if this is possible, it would require some changes in regulations and policies. Ultimately, if any approach is discovered that will allow the majority of LEP individuals that are eligible for assistance to receive that assistance automatically, that will remove the requirement for CHANGES to perform work in that area.

The second major area of need arises when an LEP individual with limited financial means receives an unexpectedly high bill, thus triggering a cascade of problems. The CHANGES program then finds some emergency funds to help with the one-time high bill and attempts to determine the source of the utility cost spike to ensure that costs return to normal. By way of example, the LEP individual may not realize the high electricity costs associated with the use of an air conditioner or electric heater, or they may have a defective appliance. They do not realize that there is an issue until they receive the unexpectedly high bill. At that point they are then faced both with the financial challenge of paying the bill and with navigating through the language barriers to determine the reason for the high bill. As the IOUs deploy time-of-use metering, it should be possible to identify these situations as they are developing rather than waiting until the billing cycle closes. IOUs could automatically monitor accounts of customers on assistance and, if usage spikes, they could notify those customers in language via phone, text, email, or mail of the higher than typical usage. If IOUs were able to largely eliminate the situation where an LEP individual with limited financial means receives an unexpectedly high bill

that they cannot pay, this would remove the requirement for CHANGES to perform work in that area.

We recognize that the above two suggestions are a tall order, and that they may not be feasible. However, if they are successfully implemented, then that implementation would justify significantly scaling back the CHANGES program.

5.2 Recommendations Applicable to the CHANGES Program

Overall, the CHANGES program is performing well and meeting its intended objectives.

The CHANGES program is performing well and meeting its intended objectives.

Recommendations from the previous evaluation have been implemented; the overall program ROI is positive; and there are no major problems with resources by language or county. We do not have any major concerns regarding program performance.

The CHANGES program should consider restructuring the way the contractor is paid on future CHANGES contracts to better align with a value model of service delivery. For example, under this approach the contractor might be reimbursed based on quantity and type of CDSEs successfully closed.

The CHANGES database should be restructured to provide performance data similar to the data used in this analysis for on-going monthly reporting. The data used for this report required manual and script based processes (for example, parsing and analyzing comment fields) that are impractical for on-going reporting.

The CPUC and CHANGES contractor should meet quarterly or annually to establish specific goals for value delivery, and contractor performance in achieving those goals should then be monitored monthly. By way of illustration only, a goal might be:

Increase CHANGES value delivery (cases closed multiplied by the CDSE value from Table 6 for each case) in Riverside County as measured in Table 10 from 0.12% (current) to between 2% and 4% within twelve months.

An ad hoc query capability should be provided to the CPUC for the CHANGES database.

Future CHANGES contracts should provide indemnification to the state for damages that would result from a CHANGES data breach. The CHANGES contractor is hosting, maintaining, and controlling the database and liability for any data breaches should rest with the organization that is in a position to control and manage that risk.

We recommend against moving significant CHANGES functions in-house to the CPUC.

We did look at the feasibility of the state moving areas of responsibility from the CHANGES contractor to in-house responsibilities. In general, we recommend against this. The various components (direct delivery, education, outreach, training, quality assurance, database management, and so on) are intertwined to the extent that changes in one area are likely to have unintended consequences in other areas. The current approach is meeting objectives and working well. We are concerned that making significant changes offers more downside risk than upside potential.

5.3 Funding Recommendations

Due to the significant overlap between the LEP population and the target population for CARE, we recommend that in the areas served by the Small Multi-Jurisdictional Utilities (SMJUs), CARE funding from the SMJU CARE budget should be provided to support CHANGES activities in those areas, if funding for CHANGES has not been provided "On Budget" from the Commission's reimbursable budget in those areas.

6 Acronyms and Definitions

ABC: Activity Based Costing, a method for allocating indirect costs to specific activities.

CARE: California Alternate Rates for Energy.

CBO: Community Based Organization, service delivery subcontractors under SHE.

CDSE: Client Direct Support Event

CHANGES: Community Help and Awareness with Natural Gas and Electricity Services, the program under evaluation.

CPA: Certified Public Accountant.

CPUC: California Public Utility Commission.

ESAP: Energy Savings Assistance Program.

HEAP: Home Energy Assistance Program.

IOU: Investor Owned Utility.

LEP: Limited English Proficient, the targeted consumer group for CHANGES.

LIHEAP: Low Income Home Energy Assistance Program.

Market Pricing: Comparison with pricing for similar goods or services on the open market.

NARUC: National Association of Regulatory Utility Commissioners.

PAO: Public Advisor's Office.

Pareto diagram: Sorted bar chart with line indicating cumulative total.

Price Build-Up: Determining price based on an analysis of time required, direct costs, indirect costs, and efficiency adjustments.

SHE: Self Help for the Elderly, the CHANGES administration Prime Contractor.

SMJU: Small Multi-Jurisdictional Utilities.

7 Datasets

Level 4 has delivered our analysis dataset to the CPUC in the form of an Excel workbook containing the pivot table used in preparing this evaluation. This pivot table allows the CPUC to conduct additional ad hoc data queries on the evaluation data. The pivot table contains the following fields:

Id: The CHANGES unique Case ID.

Account: The customer utility account number.

Status: The case status (Closed, Progress, Disallowed, or Resolved)

Month: The CHANGES service month.

Year: The CHANGES service Year.

Case type: (Electricity, Gas, Electricity;Gas)

Zip

County

City

Ethnicity: Ethnicity of the primary contact.

Language: Language of the primary contact.

CBO. Community Based Organization

Company. One of the following choices:

- PG&E
- SCE
- SDGE
- SOCALGAS

Steps to Resolve. One of the following choices:

- Called Gas Aggregator/3rd Party Gas Company
- Escalated to Executive Office
- Filed formal complaint with CAB (requires coordination with Milestone Consulting)
- Referred to Legal (requires coordination with Milestone Consulting)
- Resolved with Customer Service Rep
- Resolved with Customer Service Supervisor
- Resolved with Outside Organization/Company

Referral Source. One of the following choices:

- another_cbo
- another_program
- changes_workshop
- community_outreach
- friend_or_family
- mass_media
- received_team

Request_type: Either Dispute or Need.

CDSE: Client Direct Support Event

Value: Computed value of the case.

Cost: Fully loaded actual cost of the case.

8 CDSE Value Survey

The following pages contain the survey used when gathering stakeholder value assessments.

CPUC CHANGES Ranking of Outcomes

1. Please rank the overall relative value of: Add level pay plan.

Very Low Very High

2. Please rank the overall relative value of: Enroll in Demand Response Program.

Very Low Very High

3. Please rank the overall relative value of: Request bill adjustment.

Very Low Very High

4. Please rank the overall relative value of: Resolve deposit issue.

Very Low Very High

5. Please rank the overall relative value of: Setup payment extension.

Very Low Very High

6. Please rank the overall relative value of: Setup payment plan.

Very Low Very High

7. Please rank the overall relative value of: Assist with new account setup.

Very Low Very High

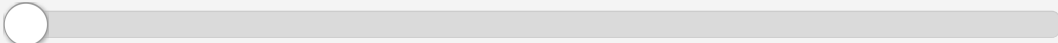
24. Please rank the overall relative value of: Resolve solar question.

Very Low Very High



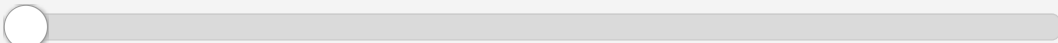
25. Please rank the overall relative value of: Schedule energy audit.

Very Low Very High



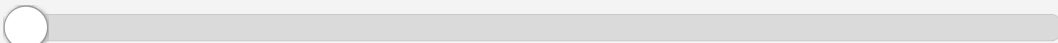
26. Please rank the overall relative value of: Apply for Energy/Gas Assistance.

Very Low Very High



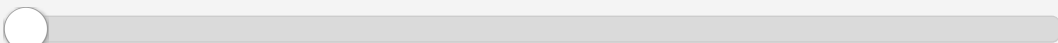
27. Please rank the overall relative value of: Apply for HEAP/LIHEAP.

Very Low Very High



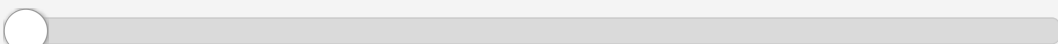
28. Please rank the overall relative value of: Assist high energy user with doc submission.

Very Low Very High



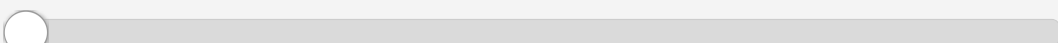
29. Please rank the overall relative value of: Enroll in Medical Baseline.

Very Low Very High



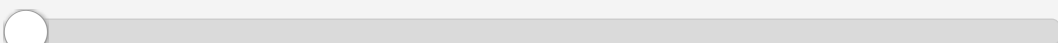
30. Please rank the overall relative value of: Report scam.

Very Low Very High



31. Please rank the overall relative value of: Report unsafe condition/safety problem.

Very Low Very High



32. Please enter your name:

33. Please enter your email address:

34. Please enter your organization type:

- CPUC
- SHE/Milestone
- Independent Operating Utility (IOU)
- Community Based Organization (CBO)
- Other interested party