California Public Utilities Commission

ADVICE LETTER SUMMARY

ENERGY UTILITY

MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: BayREN #941

Utility type:
☑ ELC ☑ GAS ☐ WATER
☐ PLC ☐ HEAT

Contact Person: Jennifer Berg
Phone #: 414-820-7947
E-mail: jberg@bayareametro.gov
E-mail Disposition Notice to: Jberg@bayareametro.gov

EXPLANATION OF UTILITY TYPE
ELC = Electric GAS = Gas WATER = Water
PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)
September 4, 2018

Advice Letter (AL) #: 9E

Tier Designation: 2

Subject of AL: 2019 Annual Energy Efficiency Program and Portfolio Budget Request for the San Francisco Bay Area Regional Energy Network (BayREN).

Keywords (choose from CPUC listing): Energy Efficiency; Compliance

AL Type: ☐ Monthly ☐ Quarterly ☑ Annual ☐ One-Time ☐ Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:
D.15-10-028; D.18-05-041.

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: N/A

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Confidential treatment requested? ☐ Yes ☑ No

If yes, specification of confidential information:
Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/ access to confidential information:

Resolution required? ☐ Yes ☑ No

Requested effective date: 10/4/18 No. of tariff sheets: 0

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected:

Service affected and changes proposed[1]: N/A

Pending advice letters that revise the same tariff sheets: N/A

[1]Discuss in AL if more space is needed.

Clear Form

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Gerald Lahr
Title: Assistant Director - Energy Programs, MTC
Utility Name:
Address: 375 Beal Street, 7th Floor
City: San Francisco State: California
Telephone (xxx) xxx-xxxx: 415-820-7908
Facsimile (xxx) xxx-xxxx:
Email: jlahr@bayareametro.gov

Name:
Title:
Utility Name:
Address:
City: State: Wyoming
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Clear Form

Local Governments Empowering Our Communities

September 4, 2018

California Public Utilities Commission
Energy Division Tariff Unit
505 Van Ness Ave.
Fourth Floor
San Francisco, CA 94102-3298
Advice Letter 9-E

(BayREN ID #941)

Subject:

BayREN 2019 Annual Energy Efficiency Program and Portfolio Budget Request

Purpose

The purpose of this advice filing is to seek approval for the 2019 Annual Energy Efficiency Program and Portfolio Budget request for the San Francisco Bay Area Regional Energy Network ("BayREN").

The BayREN is a collaboration of the nine counties that make up the San Francisco Bay Area. Led by the Association of Bay Area Governments[1], the BayREN implements effective energy saving programs on a regional level and draws on the expertise, experience, and proven track record of Bay Area local governments to develop and administer successful climate, resource, and sustainability programs. Since its inception, the BayREN has been addressing the three areas indicated by Decision 12-11-015 in the formation and implementation of programs: filling gaps that the investor-owned utilities ("IOUs") are not serving; developing programs for hard-to-reach markets; and piloting new approaches to programs that have the potential to scale and offer innovative avenues to energy savings.

Background

In D. 14-10-046, the Commission approved the Rolling Portfolio funding, and provided that 2015 is "'year zero' insofar as we are leaving 2015 programs and funding in place until the earlier of when we provide superseding direction, or 2025."[2] In addition, funding for various financing programs, including BayREN's Multifamily Capital Advance Program ("BAMCAP"), was previously approved in D.13-09-044.[3] REN funding for 2018 was articulated in D.16-08-019: "[E]xisting approved activities [of the RENs] may have ongoing funding that was previously approved."[4] Recently, in D.18-05-041, BayREN's Business Plan and Budgets for the term of the Rolling Portfolio was approved with slight modifications.

[1] On July 1, 2017 ABAG underwent a staff consolidation with the Metropolitan Transportation Commission (MTC). ABAG and its Executive Board continue to exist and to implement programs, such as BayREN.
[2] D.14-10-046 at page 31.
[3] D.13-09-044, Ordering Paragraph 22.
[4] D.16-08-019 at page 10.

D.15-10-028 established that on the first business day in September, each PA will file a Tier 2 advice letter for continued collection of Energy Efficiency (EE) funding from ratepayers. This filing, which envisions ministerial review, is intended to formalize the Program Administrator's annualized budget which shall remain in place until superseded by Commission or Commission Staff action on the new budget.[5] D.18-05-041 provided the required components of the Annual Budget Advice Letter (ABAL) and directed Program Administrators to file the 2019 ABAL by September 4, 2018.[6]

As directed by D.18-05-041 and additional guidance provided by Commission staff, BayREN has submitted via CEDARS-FM the 2019 BayREN Budget Filing Detail Report; the confirmation receipt is attached hereto as Attachment A.

Discussion

1. **BayREN 2019 Budget Request**

BayREN requests a total portfolio and Evaluation, Measurement and Verification ("EM&V") budget of 23,336,847. The budget breakdown by sector and the energy savings is provided in Table 1.

Table 1: BayREN 2019 Budget and Savings[7]

		BayREN FORECAST ENERGY SAVINGS (Net)		
Sector	**2019 Program Year Budget**	Forecast kWh	Forecast kW	Forecast therms (MM)
Residential	$18,591,913	1,738,594	384	0.22
Commercial	$2,713,832	820,530	656	0.01
Industrial				
Agriculture				
Emerging Tech				
Public				
Codes and Standards	$1,766,730	N/A	N/A	N/A
WE&T				
Finance				
OBF Loan Pool				
Subtotal	$23,072,475	2,559,124	1,041	0.23
PA EM&V[1]	$264,372			
Total PA PY Spending Budget[2]	$23,336,847			
Uncommitted and Unspent Carryover balance[3]	TBD			
Total PA PY Budget Recovery Request[4]	$23,336,847			
Authorized PY Budget Cap (D.18-05-041)	$23,950,000			
Forecast PY TRC	0.22			
Forecast PY PAC	0.25			

[5] D.15-10-028, at pages 59-60.
[6] D.18-04-041, pp 123-129.
[7] Program Administrators received guidance from Energy Division to not update the ABAL tables. The Residential sector includes BayREN's Water/Energy Nexus program, which is a cross-cutting program, only because of this guidance. The Water/Energy Nexus program is defined as a cross-cutting program in CEDARS.

Table 1 Notes:

[1] BayREN's portion of the total EM&V budget amount of $961,353, which is the 27.5 percent split.

[2] Total proposed program year budget spending, including uncommitted unspent carryover.

[3] The balance of unspent uncommitted must reflect the total unspent uncommitted starting January 1, 2018 through December 31 of current year (PY-1). Because each ABAL is filed in Q3, this unspent uncommitted amount will be an estimate for the year in which the ABAL is filed.

[4] Amount of funds to be collected for the Program Year - Line 18 less Line 19.

Table 2: BayREN's Annual Rolling Portfolio Budget Forecast True-Up

Table 2: BayREN Annual Rolling Portfolio Budget Forecast - True-Up									
Sector	**2018 [1]**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**Total**
Residential	$14,771,780	$18,591,913	$18,487,479	$17,020,547	$16,904,743	$16,500,387	$17,834,401	$17,713,181	$137,824,431
Commercial		$2,713,832	$3,246,473	$3,572,306	$3,980,158	$4,525,331	$4,665,108	$5,104,067	$27,807,276
Industrial									
Agriculture									
Emerging Tech									
Public									
Codes and Standards	$1,660,370	$1,766,730	$1,928,700	$2,103,700	$2,283,200	$2,461,700	$2,641,100	$2,820,400	$17,665,900
WE&T									
Finance	$2,515,712								$2,515,712
OBF Loan Pool									
Subtotal	$18,947,862	$23,072,475	$23,662,652	$22,696,553	$23,168,101	$23,487,418	$25,140,609	$25,637,648	$185,813,319
EM&V	$257,755	$264,372	$271,135	$260,065	$265,468	$269,127	$288,069	$293,765	$2,169,755
Total Portfolio Program Year BayREN Budget	$19,205,617	$23,336,847	$23,933,787	$22,956,618	$23,433,569	$23,756,545	$25,428,679	$25,931,413	$187,983,074
Total Authorized Portfolio PY Budget Cap	$22,738,000	$23,950,000	$24,615,000	$23,216,000	$23,720,000	$24,605,000	$24,629,000	$25,503,000	$192,976,000
Forecast Portfolio PY TRC	0.25	0.22	0.28	0.31	0.34	0.38	0.47	0.49	0.35
Forecast Portfolio PY PAC	0.43	0.25	0.31	0.33	0.37	0.43	0.55	0.57	0.39

[1] "Reset" 2018 budget at or below 2018 annual budget approved in Business plan Decision. "True-up" years 2019-2025.

BayREN's portfolio savings forecast true-up is provided in Tables 3, 4 and 5 below.

Table 3: Annual Rolling Portfolio Savings Forecast True-Up (Net kWh)

Table 3: Annual Rolling Portfolio Savings Forecast - True-up (Net kWh)								
Sector	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Residential	2,687,839	1,738,594	1,937,532	1,690,107	1,802,022	1,914,702	2,399,505	2,399,505
Commercial	N/A	820,530	1,322,385	1,512,230	1,863,897	2,124,296	2,342,852	2,600,805
Industrial								
Agriculture								
Emerging Tech								
Public								
Codes and Standards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WE&T								
Finance	N/A							
OBF Loan Pool								
Total Forecast Portfolio Savings	2,687,839	2,559,124	3,259,917	3,202,337	3,665,919	4,038,997	4,742,357	5,000,310
CPUC Goal*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
% of Goal*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Not applicable to CCA/REN as of 2018, in template for future ABAL when applicable

Table 4: Annual Rolling Portfolio Savings Forecast True-Up (Net kW)

Table 4: Annual Rolling Portfolio Savings Forecast - True-up (Net kW)								
Sector	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Residential	1,172	384	365	312	346	380	595	595
Commercial	N/A	656	529	605	746	850	937	1,040
Industrial								
Agriculture								
Emerging Tech								
Public								
Codes and Standards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WE&T								
Finance	N/A							
OBF Loan Pool								
Total Forecast Portfolio Savings	1,172	1,041	894	917	1,091	1,229	1,533	1,636
CPUC Goal*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
% of Goal*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Not applicable to CCA/REN as of 2018, in template for future ABAL when applicable

Table 5: Annual Rolling Portfolio Savings Forecast True-Up (Net therms)

Table 5: Annual Rolling Portfolio Savings Forecast - True-up (Net therms)								
Sector	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**
Residential	304,917	218,663	242,202	228,035	247,029	287,468	443,345	443,345
Commercial	N/A	11,801	23,631	25,964	30,613	33,731	35,050	35,874
Industrial								
Agriculture								
Emerging Tech								
Public								
Codes and Standards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WE&T								
Finance	N/A							
OBF Loan Pool								
Total Forecast Portfolio Savings	304,917	230,464	265,833	253,999	277,642	321,199	478,395	479,219
CPUC Goal*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
% of Goal*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

* Not applicable to CCA/REN as of 2018, in template for future ABAL when applicable

2. Discussion of Proposed Program and Portfolio Changes

Except as discussed below, the BayREN portfolio of programs will remain primarily the same as 2018 offerings with an increase in current activities consistent with the slight increase in program budgets. Two programs, Single Family and Commercial, will be revised to more closely align with the criteria established in D.12-11-005.

Single Family

BayREN will redesign the Single Family program by offering holistic solutions to both homeowners and renters to save energy, while also improving comfort and occupant health. The new program will focus on lower to middle income[8] homeowners and renters in the Bay Area, a population that is consistently under-represented in ratepayer energy efficiency programs in our territory as well as across the state. We will phase out implementation of Home Upgrade starting in Q1 2019. While Home Upgrade has allowed for deeper savings, the average project cost of approximately $15,000 is cost prohibitive for many in our targeted income group. Home Upgrade also does not address the 32% of the Bay Area renter population within the middle income group. The program design will rely on the findings of the BayREN Single Family Moderate Income Market Characterization Study (scheduled to be complete by September 2018), so that the barriers of entry and the identified priorities of this market will be adequately addressed in the revised program.

The key approach to the offering is to fill the gap and to meet the lower to middle-income customer where they are. This will be done by offering incremental and affordable energy efficiency measures that are better aligned with their needs than are current energy efficiency programs. BayREN will offer a wide range of measures to its customers (both homeowners and renters) to achieve deep savings over the multiyear life of the program. The measures will range from low cost/no cost self-install measures to expensive professionally installed measures, allowing customers more flexibility and control over the project. Meter-based performance incentives will also be offered to the customer to facilitate implementation of energy management type measures. These proposed changes will allow for more realized savings with smaller entry-point improvements while also continuing to promote deeper savings through a whole-house approach.

Contractors and Community Based Organizations (CBOs) partnerships will be developed and/or enhanced to scale customer participation. BayREN will offer trainings to contractors on workforce standards (in conjunction with and coordination with the statewide Workforce Education and Training activities). BayREN will also help to expand specialty contractors' services to full building performance and/or partner with other firms to achieve a better business model that supports deeper whole house upgrades. One key program objective is to get the homeowner on an incremental path to achieve Zero Net Energy by phasing in new measures as they are feasible and providing education along the way.

An integral part of the implementation of the current and new single family program is the Home Energy Advisor service. Advisors assist both homeowners and renters and maintain contact with the customers after they have assisted with the initial contact in order to see the customer through a full energy-efficiency journey until the customer has reached ZNE. The Advisors also assist contractors with understanding program requirements and when needed, help mediate issues that may arise with the property owners. Advisors will refer customers to complementary programs offered by utilities and other organizations and help customers understand their financing options.

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[8] Households with annual income range of $48,000 – 125,000.

Like all of BayREN programs, outreach will continue to be done primarily by local governments, who are seen as trusted messengers. This also allows for the seamless layering of other climate programs and activities. Local governments will also reach out to local CBOs to better understand specific target audience and provide custom solutions to the community.

Commercial

The BayREN SMB Commercial program is designed to empower building owners to take a holistic and longer-term approach in incorporating energy efficiency within their buildings. Applicants in the nine county area will receive whole building technical analysis, attractive financing options, and ongoing project support from a network of qualified industry partners and trusted local government partnerships.

BayREN recognizes that whole-building retrofit projects can be complex and costly, so we intend to meet SMB owners where they are and break down market barriers when possible:

- Our dual pathway approach will assure that each customer receives the level of support that suits their needs. Each project will be resourced with a Building Performance Advisor, who can offer a range of advisory services to busy customers, their contractors, and service providers.
- The program will first identify "low-hanging fruit," by leveraging existing, complementary energy efficiency and financing program opportunities. Next, it will identify custom measures, with a focus on HVAC improvements, and provide "Pay-for-Performance" incentives based on actual, metered savings.
- Prospective partners will be vetted and selected by the program via a non-competitive Request for Qualifications. Preference will be given to partners who can absorb some or all of the project performance risk on the customer's behalf.

Financial incentives will be available, with 50% of the incentive paid up front based on modeled savings, and the remaining 50% tied to actual metered performance after one year. Other financing options that will be promoted will be Commercial PACE, and the current Microloan product offered in three of the BayREN counties will expanded throughout our territory.

A fundamental feature of the Subprogram is "program layering" via referrals to complimentary EE and financing programs (e.g. PG&E's offerings) to harvest deeper energy savings. Program layering serves not only to amplify the Subprogram's ability to develop comprehensive projects with a small budget, but also helps other utility programs achieve the 5% small commercial penetration target in D.18-05-014.

3. Strategies for increased cost-effectiveness

Given BayREN's directive to focus on filling gaps, piloting different or unique approaches that have the potential to scale and/or targeting hard-to-reach customers, we are not held to a particular cost-effectiveness threshold. However, we do strive to be more cost-effective and will utilize new strategies in 2019 to help our savings. BayREN has three resource programs. Strategies for increasing the cost effectiveness of these programs in 2019 are:

1. Single Family

New innovative tools and approaches will be introduced to scale up participation while improving cost effectiveness. New measures and methods for savings calculations will used, as well as a meter based performance incentive. Customer participation will be scaled by leveraging existing customer relationships and partnerships with community-based organizations, rather than starting from scratch. These new approaches will result in greater realized savings for smaller entry-point improvements while continuing to promote a whole-house approach. BayREN will continue to support a long-term customer

journey that will effectively reduce the cost of customer acquisition while driving deeper energy savings over time.

There is a drop in the energy savings for this program from 2018 to 2019, in large part due to the change in program with 2019 being the beginning of the ramp up. Under the new program design, most new participants will be undertaking simpler, lower cost measures at the outset of their energy efficiency journey. We thus forecast only 450 Home Upgrade type projects in 2019, amounting to 167 net kW. The other measures forecasted to be implemented in 2019, while numerous, have a much lower average kW-savings/measure. In fact, the weighted average of the other measures is <0.001 net kW per unit and 102 kW overall.

Some of the new program measures will produce substantial kW savings, notably high performance windows and efficient AC/heat pump. However, the number of such measures expected to be implemented in the early years of the new program is relatively small. It is also worth noting, that those measures still claim less than ½ of the kW savings as the typical Home Upgrade package. However, we have seen in the Home Upgrade impact evaluations that the realization rate on kW savings is very low. So, as savings ramp up with the new program measures based on their different savings estimation methodologies, we anticipate more kW over time, with better realization rates.

With a continued focus on improving cost effectiveness, we anticipate greater energy savings following the early ramp of year of 2019.

2. Multifamily

As detailed in the Business Plan, steps will be taken to continue streamlining the participation process, phase out rebates over time and replacing them with other market drivers. For immediate next steps, we are creating a pathway for a market of raters to be able to provide technical assistance at a lower cost than the program-provided technical assistance. This means also introducing our simplified property assessment process and modeling tools to a broader set of users in the industry. These changes should all reduce the total cost of going through an energy upgrade.

While we are using the same kW savings per unit (0.03kW) in 2018 and 2019, there is a drop in overall net savings. This is due to there being 450 more units in 2018 than in 2019. A more significant explanation is that for 2019, we reduced the NTG ratio from 0.85 to 0.70, which impacts the net savings.[9]

3. Commercial

A significant portion of customer incentives will be tied to metered-verified savings. This will help to ensure that incentives are actually going towards energy savings. As designed, many of the traditional implementation tasks will be performed by program partners and/or contractors, thereby reducing implementation expenditures. Additionally, there will be dual enrollment pathways that will allow for program layering.

4. Metrics

Per D.18-05-041, Ordering Paragraphs 9 and 11, the metrics, targets and indicators for BayREN's program portfolio, and for the specific programs, were filed and served to the service list of A.17-01-013, et. al. on August 6, 2018. Pursuant to Energy Division direction, attached hereto as Attachment B is 2017 metrics for BayREN's programs.

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[9] The reduction in Net savings is not a one-to-one ratio with the NTG values.

5. Program Implementation Plans/Implementation Plans

BayREN has uploaded to CEDARS revised redlined and clean versions of the Program Implementation Plans (PIPs) for Codes and Standards, Multifamily, and Water Bill Savings Program. The changes were minor and primarily reflect the changes in program budgets as approved in the Business Plan. BayREN will submit Implementation Plans (IPs) for the Single Family and Commercial programs during the time line prescribed in D.18-05-041. Similarly, an IP will be submitted for Green Labeling, which had previously been part of the single family program, but is now a standalone program as approved in the Business Plan.

Protest

Anyone may protest this Advice Letter. The protest must state the grounds upon which it is based. The protest must be made in writing and received by the Commission within 20 days of the date this Advice Letter was filed with the Commission, or September 24, 2018. There is no restriction on who may file a protest. The address for mailing or delivering a protest to the Commission is:

Public Utilities Commission
CPUC Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

Copies of the protest should also be sent via e-mail to the attention of the Energy Division at EDTariffUnit@cpuc.ca.gov. It is also requested that a copy of the protest be sent by email to address shown below on the same date it is mailed or delivered to the Commission.

Gerald Lahr
Assistant Director - Energy Programs
Association of Bay Area Governments
375 Beale Street
7th Floor
San Francisco, CA 94105
JLahr@bayareametro.gov

Effective Date

BayREN requests that this Tier 2 advice filing become effective on regular notice, October 4, 2018, which is 30 calendar days from the date of this filing.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service list for R.13-11-005. Address changes to the General Order 96-B service list should be directed to Jennifer K. Berg at jberg@bayareametro.gov or by calling 415-820-7947.

Gerald L. Lahr
Assistant Director – Energy Programs

Attachment:
A: CEDARS Filing Submission Receipt
B: BayREN 2017 Metrics

ATTACHMENT A TO BAYREN AL-9-E

CEDARS FILING SUBMISSION RECEIPT

The BAY portfolio filing has been submitted and is now under review. A summary of the filing is provided below.

PA: Bay Area Regional Energy Network (BAY)

Filing Year: 2019

Submitted: 09:56:14 on 04 Sep 2018

By: Qua Vallery

Advice Letter Number: 9-E

* Portfolio Filing Summary *

- TRC: 0.2223
- PAC: 0.254
- TRC (no admin): 0.4719
- PAC (no admin): 0.6423
- RIM: 0.254
- Budget: $23,336,847.11

* Programs Included in the Filing *

- BAYREN02: Multi Family
- BAYREN03: Codes and Standards Program
- BAYREN04: Water/Energy Nexus
- BAYREN05-A: Evaluation Measurement and Verification - BAYREN
- BAYREN06: Commercial
- BAYREN07: Green Labeling
- BAYREN08: Single Family

ATTACHMENT B TO BAYREN AL-9-E

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
0	BayREN	A03	PL1	G	MT CO2eq	GHG	Metric	RSF2-G••Greenhouse gasses (MT CO2eq) Net kWh savings, reported on an annual basis••	CO2-equivalent of net annual kWh savings	Portfolio Level (PL)– All Sectors	2016	1,171	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
1	BayREN	A02	PL1	S1	First year annual kW gross	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kW gross	Portfolio Level (PL)– All Sectors	2016	1,589	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
2	BayREN	A02	PL1	S1	First year annual kW net	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kW net	Portfolio Level (PL)– All Sectors	2016	1,311	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
3	BayREN	A02	PL1	S1	First year annual kWh gross	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kWh gross	Portfolio Level (PL)– All Sectors	2016	2,720,630	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
4	BayREN	A02	PL1	S1	First year annual kWh net	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kWh net	Portfolio Level (PL)– All Sectors	2016	2,370,542	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
5	BayREN	A02	PL1	S1	First year annual Therm gross	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual Therm gross	Portfolio Level (PL)– All Sectors	2016	277,123	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
6	BayREN	A02	PL1	S1	First year annual Therm net	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual Therm net	Portfolio Level (PL)– All Sectors	2016	228,707	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
7	BayREN	A02	PL1	S1	Lifecycle ex-ante kW gross	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kW gross	Portfolio Level (PL)– All Sectors	2016	24,321	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	

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8	BayREN	A02	PL1	S1	Lifecycle ex-ante kW net	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kW net	Portfolio Level (PL)– All Sectors	2016	18,788	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
9	BayREN	A02	PL1	S1	Lifecycle ex-ante kWh gross	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kWh gross	Portfolio Level (PL)– All Sectors	2016	2,720,630	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
10	BayREN	A02	PL1	S1	Lifecycle ex-ante kWh net	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kWh net	Portfolio Level (PL)– All Sectors	2016	28,824,445	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
11	BayREN	A02	PL1	S1	Lifecycle ex-ante Therm gross	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante Therm gross	Portfolio Level (PL)– All Sectors	2016	4,105,390	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
12	BayREN	A02	PL1	S1	Lifecycle ex-ante Therm net	S1: Energy Savings	Metric	PL1-S1- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante Therm net	Portfolio Level (PL)– All Sectors	2016	3,379,571	N/A	N/A		CEDARS Online CET Ouput	Per CEDARS	None	
13	BayREN	A02	PL2	S3	First year annual kW gross	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	First year annual kW gross in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	41.65	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
14	BayREN	A02	PL2	S3	First year annual kW net	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	First year annual kW net in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	40.38	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
15	BayREN	A02	PL2	S3	First year annual kWh gross	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	First year annual kWh gross in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	275,058	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	

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16	BayREN	A02	PL2	S3	First year annual kWh net	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	First year annual kWh net in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	247,552	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
17	BayREN	A02	PL2	S3	First year annual Therm gross	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	First year annual Therm gross in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	17,387	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
18	BayREN	A02	PL2	S3	First year annual Therm net	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	First year annual Therm net in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	15,649	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
19	BayREN	A02	PL2	S3	Lifecycle ex-ante kW gross	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	Lifecycle ex-ante kW gross in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	548	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
20	BayREN	A02	PL2	S3	Lifecycle ex-ante kW net	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	Lifecycle ex-ante kW net in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	466	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
21	BayREN	A02	PL2	S3	Lifecycle ex-ante kWh gross	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	Lifecycle ex-ante kWh gross in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	3,484,979	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
22	BayREN	A02	PL2	S3	Lifecycle ex-ante kWh net	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	Lifecycle ex-ante kWh net in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	3,136,481	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
23	BayREN	A02	PL2	S3	Lifecycle ex-ante Therm gross	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	Lifecycle ex-ante Therm gross in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	250,440	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	

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24	BayREN	A02	PL2	S3	Lifecycle ex-ante Therm net	S3: DAC Savings	Metric	PL2-S3- First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in disadvantaged communities••	Lifecycle ex-ante Therm net in Disadvantaged Communities	Portfolio Level (PL)– All Sectors	2016	225,396	N/A	N/A	% of DAC savings for MF + SF	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
25	BayREN	A02	PL3	S4	First year annual kW gross	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	First year annual kW gross in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
26	BayREN	A02	PL3	S4	First year annual kW net	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	First year annual kW net in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
27	BayREN	A02	PL3	S4	First year annual kWh gross	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	First year annual kWh gross in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A	Lifecycle DAC= ((% of DAC Savings MF * YearX_Lifecycle Savings MF) + (% of DAC Savings SF * YearX_Lifecycle Savings SF)) Lifecycle HTR = ((% of HTR Savings COM * YearX_Lifecycle Savings COM) + (% of HTR Savings SF * YearX_Lifecycle Savings SF))	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
28	BayREN	A02	PL3	S4	First year annual kWh net	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	First year annual kWh net in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A	Lifecycle DAC= ((% of DAC Savings MF * YearX_Lifecycle Savings MF) + (% of DAC Savings SF * YearX_Lifecycle Savings SF)) Lifecycle HTR = ((% of HTR Savings COM * YearX_Lifecycle Savings COM) + (% of HTR Savings SF * YearX_Lifecycle Savings SF))	CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
29	BayREN	A02	PL3	S4	First year annual Therm gross	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	First year annual Therm gross in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
30	BayREN	A02	PL3	S4	First year annual Therm net	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	First year annual Therm net in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
31	BayREN	A02	PL3	S4	Lifecycle ex-ante kW gross	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	Lifecycle ex-ante kW gross in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	

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32	BayREN	A02	PL3	S4	Lifecycle ex-ante kW net	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	Lifecycle ex-ante kW net in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
33	BayREN	A02	PL3	S4	Lifecycle ex-ante kWh gross	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	Lifecycle ex-ante kWh gross in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
34	BayREN	A02	PL3	S4	Lifecycle ex-ante kWh net	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	Lifecycle ex-ante kWh net in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
35	BayREN	A02	PL3	S4	Lifecycle ex-ante Therm gross	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	Lifecycle ex-ante Therm gross in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
36	BayREN	A02	PL3	S4	Lifecycle ex-ante Therm net	S4: Hard to reach markets	Metric	PL3-S4 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) in hard-to-reach markets••	Lifecycle ex-ante Therm net in Hard-to-Reach Markets	Portfolio Level (PL)– All Sectors	2016	0	N/A	N/A		CEDARS Online CET Ouput	Data pull from PA databases	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
37	BayREN	A02	PL4	LC	PAC Levelized Cost ($/kW)	Cost per unit saved	Metric	PL4-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kW)	Portfolio Level (PL)– All Sectors	2016	$415.57	N/A	N/A	Calculated from CET Outputs (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW	CEDARS Online CET Ouput	Per CEDARS	None	
38	BayREN	A02	PL4	LC	PAC Levelized Cost ($/kWh)	Cost per unit saved	Metric	PL4-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kWh)	Portfolio Level (PL)– All Sectors	2016	$0.35	N/A	N/A	Using CET Outputs and formula (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kWh	CEDARS Online CET Ouput	Per CEDARS	None	
39	BayREN	A02	PL4	LC	PAC Levelized Cost ($/therm)	Cost per unit saved	Metric	PL4-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/therm)	Portfolio Level (PL)– All Sectors	2016	$1.31	N/A	N/A	Using CET Outputs and formula (PAC Cost x Gas Benefits/Total Benefits)/Lifecycle Net therm	CEDARS Online CET Ouput	Per CEDARS	None	

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40	BayREN	A02	PL4	LC	TRC Levelized Cost ($/kW)	Cost per unit saved	Metric	PL4-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kW)	Portfolio Level (PL)– All Sectors	2016	$853.70	N/A	N/A	Calculated from CET outputs (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW	CEDARS Online CET Ouput	Per CEDARS	None	
41	BayREN	A02	PL4	LC	TRC Levelized Cost ($/kWh)	Cost per unit saved	Metric	PL4-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kWh)	Portfolio Level (PL)– All Sectors	2016	$0.56	N/A	N/A	Using CET Outputs and formula (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kWh	CEDARS Online CET Ouput	Per CEDARS	None	
42	BayREN	A02	PL4	LC	TRC Levelized Cost ($/therm)	Cost per unit saved	Metric	PL4-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/therm)	Portfolio Level (PL)– All Sectors	2016	$2.08	N/A	N/A	Using CET Outputs and formula (TRC Cost x Gas Benefits/Total Benefits)/Lifecycle Net therm	CEDARS Online CET Ouput	Per CEDARS	None	
43	BayREN	A02	RSF1	S1	First year annual kW gross	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	First year annual kW gross	Residential (RSF)	2016	792	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	None	
44	BayREN	A02	RSF1	S1	First year annual kW net	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	First year annual kW net	Residential (RSF)	2016	594	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	None	
45	BayREN	A02	RSF1	S1	First year annual kWh gross	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	First year annual kWh gross	Residential (RSF)	2016	520,164	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	None	
46	BayREN	A02	RSF1	S1	First year annual kWh net	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	First year annual kWh net	Residential (RSF)	2016	390,123	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	None	
47	BayREN	A02	RSF1	S1	First year annual Therm gross	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	First year annual Therm gross	Residential (RSF)	2016	138,024	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	None	

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48	BayREN	A02	RSF1	S1	First year annual Therm net	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	First year annual Therm net	Residential (RSF)	2016	103,518	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	"ex ante" refers to claimed savings	
49	BayREN	A02	RSF1	S1	Lifecycle ex-ante kW gross	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	Lifecycle ex-ante kW gross	Residential (RSF)	2016	12,565	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	"ex ante" refers to claimed savings	
50	BayREN	A02	RSF1	S1	Lifecycle ex-ante kW net	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	Lifecycle ex-ante kW net	Residential (RSF)	2016	8,795	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	"ex ante" refers to claimed savings	
51	BayREN	A02	RSF1	S1	Lifecycle ex-ante kWh gross	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	Lifecycle ex-ante kWh gross	Residential (RSF)	2016	4,976,796	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	"ex ante" refers to claimed savings	
52	BayREN	A02	RSF1	S1	Lifecycle ex-ante kWh net	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	Lifecycle ex-ante kWh net	Residential (RSF)	2016	3,732,597	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	"ex ante" refers to claimed savings	
53	BayREN	A02	RSF1	S1	Lifecycle ex-ante Therm gross	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	Lifecycle ex-ante Therm gross	Residential (RSF)	2016	2,101,867	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	"ex ante" refers to claimed savings	
54	BayREN	A02	RSF1	S1	Lifecycle ex-ante Therm net	S1: Energy Savings	Metric	RSF1-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for Single Family Customers••	Lifecycle ex-ante Therm net	Residential (RSF)	2016	1,576,400	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	"ex ante" refers to claimed savings	
55	BayREN	A03	RSF2	G	MT CO2eq	GHG	Metric	RSF2-G••Greenhouse gasses (MT CO2eq) Net kWh savings, reported on an annual basis••	CO2-equivalent of net annual kWh savings	Residential (RSF)	2016	114	N/A	N/A	Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Ouput	Per CEDARS	Definition: Single family are defined as Service account on residential rates, with dwelling code of single family home or single family dwelling.	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
56	BayREN	A03	RSF3	D1-D	Lifecycle NET kW	D1: Depth of interventions ••Per downstream participant	Metric	RSF3-D1D - Average savings per participant in both opt-in and opt-out programs (broken down by **downstream,** midstream and upstream, as feasible)••	Average lifecycle ex-ante kW net savings per participant - Opt-in - Downstream	Residential (RSF)	2016	6.33	8,795	1,389	Applicable CET result divided by forecast participation	CEDARS Online CET Ouput	D1D: Downstream methodology- - Numerator: Total downstream savings claimed - Denominator: Total number of downstream participants	Per ED: "Energy savings" = lifecycle NET savings.	
57	BayREN	A03	RSF3	D1-D	Lifecycle NET kWh	D1: Depth of interventions ••Per downstream participant	Metric	RSF3-D1D - Average savings per participant in both opt-in and opt-out programs (broken down by **downstream,** midstream and upstream, as feasible)••	Average lifecycle ex-ante kWh net savings per participant - Opt-in - Downstream	Residential (RSF)	2016	2,687	3,732,597	1,389	Applicable CET result divided by forecast participation	CEDARS Online CET Ouput	D1D: Downstream methodology- - Numerator: Total downstream savings claimed - Denominator: Total number of downstream participants	Per ED: "Energy savings" = lifecycle NET savings.	
58	BayREN	A03	RSF3	D1-D	Lifecycle NET Therms	D1: Depth of interventions ••Per downstream participant	Metric	RSF3-D1D - Average savings per participant in both opt-in and opt-out programs (broken down by **downstream,** midstream and upstream, as feasible)••	Average lifecycle ex-ante Therm net savings per participant - Opt-in - Downstream	Residential (RSF)	2016	1,135	1,576,400	1,389	Applicable CET result divided by forecast participation	CEDARS Online CET Ouput	D1D: Downstream methodology- - Numerator: Total downstream savings claimed - Denominator: Total number of downstream participants	Per ED: "Energy savings" = lifecycle NET savings.	
59	BayREN	A03	RSF3	D1-M	Lifecycle NET kW	D1: Depth of interventions ••Per midstream participant	Metric	RSF3-D1M - Average savings per participant in both opt-in and opt-out programs (broken down by downstream, **midstream** and upstream, as feasible)••	Average lifecycle ex-ante kW net savings per participant - Opt-in - Midstream	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1M: Midstream methodology –Numerator: Total midstream savings claimed	Per discussion with ED, this metric not feasible and PAs agreed instead to report total upstream and midstream savings. "Energy savings" = lifecycle NET savings.	
60	BayREN	A03	RSF3	D1-M	Lifecycle NET kWh	D1: Depth of interventions ••Per midstream participant	Metric	RSF3-D1M - Average savings per participant in both opt-in and opt-out programs (broken down by downstream, **midstream** and upstream, as feasible)••	Average lifecycle ex-ante kWh net savings per participant - Opt-in - Midstream	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1M: Midstream methodology –Numerator: Total midstream savings claimed	Per discussion with ED, this metric not feasible and PAs agreed instead to report total upstream and midstream savings. "Energy savings" = lifecycle NET savings.	
61	BayREN	A03	RSF3	D1-M	Lifecycle NET Therms	D1: Depth of interventions ••Per midstream participant	Metric	RSF3-D1M - Average savings per participant in both opt-in and opt-out programs (broken down by downstream, **midstream** and upstream, as feasible)••	Average lifecycle ex-ante Therm net savings per participant - Opt-in - Midstream	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1M: Midstream methodology –Numerator: Total midstream savings claimed	Per discussion with ED, this metric not feasible and PAs agreed instead to report total upstream and midstream savings. "Energy savings" = lifecycle NET savings.	
62	BayREN	A03	RSF3	D1-O	Lifecycle NET kW	D1: Depth of interventions ••Per opt out participant	Metric	RSF3-D1O - Average savings per participant in both opt-in and **opt-out** programs (broken down by downstream, midstream and upstream, as feasible)••	Average lifecycle ex-ante kW net savings per participant - Opt-out	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1O Methodology: Only ex post savings can be claimed. Per participant savings will be calculated in the EM&V study.	D1O Key Definitions: 1) The only opt-out program is the Home Energy Report using social norming through neighborhood comparisons 2) Per ED: "Energy savings" = lifecycle NET savings.	
63	BayREN	A03	RSF3	D1-O	Lifecycle NET kWh	D1: Depth of interventions ••Per opt out participant	Metric	RSF3-D1O - Average savings per participant in both opt-in and **opt-out** programs (broken down by downstream, midstream and upstream, as feasible)••	Average lifecycle ex-ante kWh net savings per participant - Opt-out	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1O Methodology: Only ex post savings can be claimed. Per participant savings will be calculated in the EM&V study.	D1O Key Definitions: 1) The only opt-out program is the Home Energy Report using social norming through neighborhood comparisons 2) Per ED: "Energy savings" = lifecycle NET savings.	

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64	BayREN	A03	RSF3	D1-O	Lifecycle NET Therms	D1: Depth of interventions ••Per opt out participant	Metric	RSF3-D1O - Average savings per participant in both opt-in and **opt-out** programs (broken down by downstream, midstream and upstream, as feasible)••	Average lifecycle ex-ante Therm net savings per participant - Opt-out	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1O Methodology: Only ex post savings can be claimed. Per participant savings will be calculated in the EM&V study.	D1O Key Definitions: 1) The only opt-out program is the Home Energy Report using social norming through neighborhood comparisons 2) Per ED: "Energy savings" = lifecycle NET savings.	
65	BayREN	A03	RSF3	D1-U	Lifecycle NET kW	D1: Depth of interventions ••Per upstream participant	Metric	RSF3-D1U- Average savings per participant in both opt-in and opt-out programs (broken down by downstream, midstream and **upstream,** as feasible)••	Average lifecycle ex-ante kW net savings per participant - Opt-in - Upstream	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1U: Upstream methodology– Numerator: Total upstream savings claimed	Per discussion with ED, this metric not feasible and PAs agreed instead to report total upstream and midstream savings. "Energy savings" = lifecycle NET savings.	
66	BayREN	A03	RSF3	D1-U	Lifecycle NET kWh	D1: Depth of interventions ••Per upstream participant	Metric	RSF3-D1U- Average savings per participant in both opt-in and opt-out programs (broken down by downstream, midstream and **upstream,** as feasible)••	Average lifecycle ex-ante kWh net savings per participant - Opt-in - Upstream	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1U: Upstream methodology– Numerator: Total upstream savings claimed	Per discussion with ED, this metric not feasible and PAs agreed instead to report total upstream and midstream savings. "Energy savings" = lifecycle NET savings.	
67	BayREN	A03	RSF3	D1-U	Lifecycle NET Therms	D1: Depth of interventions ••Per upstream participant	Metric	RSF3-D1U- Average savings per participant in both opt-in and opt-out programs (broken down by downstream, midstream and **upstream,** as feasible)••	Average lifecycle ex-ante Therm net savings per participant - Opt-in - Upstream	Residential (RSF)	2016	N/A	N/A	N/A	BayREN does not have any residential midstream, upstream or opt-out programs.		D1U: Upstream methodology– Numerator: Total upstream savings claimed	Per discussion with ED, this metric not feasible and PAs agreed instead to report total upstream and midstream savings. "Energy savings" = lifecycle NET savings.	
68	BayREN	A03	RSF4	P1	Percent	P1: Penetration of energy efficiency programs in the eligible market ••Percent of Participation	Metric	RSF-P1••Percent of participation relative to eligible population••	Percent of participation relative to eligible population	Residential (RSF)	2016	0.074%	1,389	1,870,311	Forecast participation divided by applicable population	Eligible population from number of Single Family Accounts supplied by PG&E	P1 Methodology: - Numerator: Number of downstream participants) - Denominator: total number of service accounts in the sector	Definition: "Eligible population" refers to Total number of service accounts in sector/segment, excluding CARE. "Participation" is defined as the first instance of participation, should a customer participate more than once or participate in multiple programs in the calendar year.	
69	BayREN	A03	RSF4	P3	Percent	P3: Penetration of energy efficiency programs in the eligible market - DAC	Metric	RSF-P3 - Percent of participation in disadvantaged communities••	Percent of participation in disadvantaged communities	Residential (RSF)	2016	0%	0.00	74,906	Assumed same participation rate as non-DAC	DAC population derived from 2017 US Census data	Numerator: Number of participants in disadvantaged communities. - - Denominator: Total number of customers in disadvantaged communities.	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores.	
70	BayREN	A03	RSF4	P4	Percent	P4: Penetration of energy efficiency programs in the HTR market	Metric	RSF-P4 - Percent of participation by customers defined as "hard-to-reach"••	Percent of participation by customers defined as "hard-to-reach"	Residential (RSF)	2016	0%	0.00	47,212	Participation rate assumed to be half that of other groups due to HTR status	RTR population derived from 2017 US Census data	P4 Methodology: - Numerator: number of participants in HTR geographic area - Denominator: Total number of service accounts in HTR geographic area	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
71	BayREN	A03	RSF5	LC	PAC Levelized Cost ($/kW)	Cost per unit saved	Metric	RSF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kW)	Residential (RSF)	2016	$224.53	N/A	N/A	(PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Ouput	Per CEDARS	None	

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72	BayREN	A03	RSF5	LC	PAC Levelized Cost ($/kWh)	Cost per unit saved	Metric	RSF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kWh)	Residential (RSF)	2016	$0.53	N/A	N/A	(PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Ouput	Per CEDARS	None	
73	BayREN	A03	RSF5	LC	PAC Levelized Cost ($/therm)	Cost per unit saved	Metric	RSF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/therm)	Residential (RSF)	2016	$2.34	N/A	N/A	(PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Ouput	Per CEDARS	None	
74	BayREN	A03	RSF5	LC	TRC Levelized Cost ($/kW)	Cost per unit saved	Metric	RSF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kW)	Residential (RSF)	2016	$381.21	N/A	N/A	(PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Ouput	Per CEDARS	None	
75	BayREN	A03	RSF5	LC	TRC Levelized Cost ($/kWh)	Cost per unit saved	Metric	RSF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kWh)	Residential (RSF)	2016	$0.90	N/A	N/A	(PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Ouput	Per CEDARS	None	
76	BayREN	A03	RSF5	LC	TRC Levelized Cost ($/therm)	Cost per unit saved	Metric	RSF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/therm)	Residential (RSF)	2016	$3.97	N/A	N/A	(PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Ouput	Per CEDARS	None	
77	BayREN	A03	RSF6i	EI1	BTU	Energy intensity per SF household	Indicator	RSF-EI1(Indicator) - Average energy use intensity of single family homes (average usage per household – not adjusted)••	Average first year annual kWh gross per household	Residential (RSF)	2016	N/A - Indicator	N/A - Indicator	N/A - Indicator	These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies		Numerator: Total energy used in sector - Denominator: number of service accounts	Definition: Household refers to a service account	
78	BayREN	A03	RMF1	S1-IU	First year annual kW gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	First year annual kW gross - In Unit	Residential Sector – Multi-family (RMF)	N/A - Indicator	197	N/A	N/A	These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
79	BayREN	A03	RMF1	S1-IU	First year annual kW net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	First year annual kW net - In Unit	Residential Sector – Multi-family (RMF)	2016	211	N/A	N/A	InUnit % kW savings * CET First Year Annual kW Net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	

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80	BayREN	A03	RMF1	S1-IU	First year annual kWh gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	First year annual kWh gross - In Unit	Residential Sector – Multi-family (RMF)	2016	321,096	N/A	N/A	InUnit % kWh savings * CET First Year Annual kWh gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
81	BayREN	A03	RMF1	S1-IU	First year annual kWh net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	First year annual kWh net - In Unit	Residential Sector – Multi-family (RMF)	2016	288,986	N/A	N/A	InUnit % kWh savings * CET First Year Annual kWh. net Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
82	BayREN	A03	RMF1	S1-IU	First year annual Therm gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	First year annual Therm gross - In Unit	Residential Sector – Multi-family (RMF)	2016	25,291	N/A	N/A	InUnit % Therms savings * CET First Year Annual Therms gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
83	BayREN	A03	RMF1	S1-IU	First year annual Therm net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	First year annual Therm net - In Unit	Residential Sector – Multi-family (RMF)	2016	22,762	N/A	N/A	InUnit % Therms savings * CET First Year Annual Therm Net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
84	BayREN	A03	RMF1	S1-IU	Lifecycle ex-ante kW gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	Lifecycle ex-ante kW gross - In Unit	Residential Sector – Multi-family (RMF)	2016	2,866	N/A	N/A	InUnit % kW savings * CET Lifecycle kW gross Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
85	BayREN	A03	RMF1	S1-IU	Lifecycle ex-ante kW net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	Lifecycle ex-ante kW net - In Unit	Residential Sector – Multi-family (RMF)	2016	2,436	N/A	N/A	InUnit % kW savings * CET Lifecycle kW net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
86	BayREN	A03	RMF1	S1-IU	Lifecycle ex-ante kWh gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	Lifecycle ex-ante kWh gross - In Unit	Residential Sector – Multi-family (RMF)	2016	4,068,272	N/A	N/A	InUnit % kWh savings * CET Lifecycle kWh gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
87	BayREN	A03	RMF1	S1-IU	Lifecycle ex-ante kWh net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	Lifecycle ex-ante kWh net - In Unit	Residential Sector – Multi-family (RMF)	2016	3,661,445	N/A	N/A	InUnit % kWh savings * CET Lifecycle kWh net Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
88	BayREN	A03	RMF1	S1-IU	Lifecycle ex-ante Therm gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	Lifecycle ex-ante Therm gross - In Unit	Residential Sector – Multi-family (RMF)	2016	364,274.91	N/A	N/A	InUnit % Therms savings * CET Lifecycle Therms gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
89	BayREN	A03	RMF1	S1-IU	Lifecycle ex-ante Therm net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers **(in-unit**, common area, and master metered accounts)••	Lifecycle ex-ante Therm net - In Unit	Residential Sector – Multi-family (RMF)	2016	327,847	N/A	N/A	InUnit % Therms savings * CET Lifecycle Therms net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
90	BayREN	A03	RMF1	S1-MM	First year annual kW gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	First year annual kW gross - Master Metereed	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
91	BayREN	A03	RMF1	S1-MM	First year annual kW net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	First year annual kW net - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
92	BayREN	A03	RMF1	S1-MM	First year annual kWh gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	First year annual kWh gross - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
93	BayREN	A03	RMF1	S1-MM	First year annual kWh net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	First year annual kWh net - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
94	BayREN	A03	RMF1	S1-MM	First year annual Therm gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	First year annual Therm gross - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
95	BayREN	A03	RMF1	S1-MM	First year annual Therm net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	First year annual Therm net - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	

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96	BayREN	A03	RMF1	S1-MM	Lifecycle ex-ante kW gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	Lifecycle ex-ante kW gross - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
97	BayREN	A03	RMF1	S1-MM	Lifecycle ex-ante kW net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	Lifecycle ex-ante kW net - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
98	BayREN	A03	RMF1	S1-MM	Lifecycle ex-ante kWh gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	Lifecycle ex-ante kWh gross - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
99	BayREN	A03	RMF1	S1-MM	Lifecycle ex-ante kWh net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	Lifecycle ex-ante kWh net - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
100	BayREN	A03	RMF1	S1-MM	Lifecycle ex-ante Therm gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	Lifecycle ex-ante Therm gross - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
101	BayREN	A03	RMF1	S1-MM	Lifecycle ex-ante Therm net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, common area, and **master metered** accounts)••	Lifecycle ex-ante Therm net - Master Metered	Residential Sector – Multi-family (RMF)	2016	0	0	0	BayREN does not have access to master metered data. BayREN tracks measures for In-Unit and common areas. Moving forward in 2018 BayREN will track master metered data separate from common area. Proxy 0.		Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
102	BayREN	A03	RMF1	SI-CA	First year annual kW gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	First year annual kW gross - Common Area	Residential Sector – Multi-family (RMF)	2016	105	N/A	N/A	Common % kW savings * CET First Year Annual kW Gross Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
103	BayREN	A03	RMF1	SI-CA	First year annual kW net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	First year annual kW net - Common Area	Residential Sector – Multi-family (RMF)	2016	112	N/A	N/A	Common % kW savings * CET First Year Annual kW Net Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
104	BayREN	A03	RMF1	SI-CA	First year annual kWh gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	First year annual kWh gross - Common Area	Residential Sector – Multi-family (RMF)	2016	1,879,371	N/A	N/A	Common % kWh savings * CET First Year Annual kWh Gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
105	BayREN	A03	RMF1	SI-CA	First year annual kWh net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	First year annual kWh net - Common Area	Residential Sector – Multi-family (RMF)	2016	1,691,433	N/A	N/A	Common % kWh savings * CET First Year Annual kWh Net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
106	BayREN	A03	RMF1	SI-CA	First year annual Therm gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	First year annual Therm gross - Common Area	Residential Sector – Multi-family (RMF)	2016	113,808	N/A	N/A	Common % Therms savings * CET First Year Annual Therms Gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
107	BayREN	A03	RMF1	SI-CA	First year annual Therm net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	First year annual Therm net - Common Area	Residential Sector – Multi-family (RMF)	2016	102,427	N/A	N/A	Common % Therms savings * CET First year annual Therm net. Calculate out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
108	BayREN	A03	RMF1	SI-CA	Lifecycle ex-ante kW gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	Lifecycle ex-ante kW gross - Common Area	Residential Sector – Multi-family (RMF)	2016	1,522	N/A	N/A	Common % kW savings * CET Lifecycle kW Gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
109	BayREN	A03	RMF1	SI-CA	Lifecycle ex-ante kW net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	Lifecycle ex-ante kW net - Common Area	Residential Sector – Multi-family (RMF)	2016	3,249	N/A	N/A	Common % kW savings * CET Lifecycle kW Net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
110	BayREN	A03	RMF1	SI-CA	Lifecycle ex-ante kWh gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	Lifecycle ex-ante kWh gross - Common Area	Residential Sector – Multi-family (RMF)	2016	23,811,559	N/A	N/A	Common % kWh savings * CET Lifecycle kWh gross Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
111	BayREN	A03	RMF1	SI-CA	Lifecycle ex-ante kWh net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	Lifecycle ex-ante kWh net - Common Area	Residential Sector – Multi-family (RMF)	2016	21,430,403	N/A	N/A	Common % kWh savings * CET Lifecycle kWh Net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	

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112	BayREN	A03	RMF1	SI-CA	Lifecycle ex-ante Therm gross	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	Lifecycle ex-ante Therm gross - Common Area	Residential Sector – Multi-family (RMF)	2016	1,639,248.29	N/A	N/A	Common % Therms savings * CET Lifecycle Therms Gross. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
113	BayREN	A03	RMF1	SI-CA	Lifecycle ex-ante Therm net	S1: Energy Savings	Metric	RMF-S1-First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) for multifamily customers (in-unit, **common area**, and master metered accounts)••	Lifecycle ex-ante Therm net - Common Area	Residential Sector – Multi-family (RMF)	2016	1,475,323	N/A	N/A	Common % Therms savings * CET Lifecycle Therms Net. Calculated out percentage of savings In-Unit Measures and Common Measures from BayREN MF Total Project level savings. Values extracted from CET runs for a sample measure mix and number of projects believed to be representative of future program design.	CEDARS Online CET Output & MF PA Database	Savings calculated using CET; MF designations, including common areas, can be determined by dwelling codes, rate codes, and/or tags in the PA databases	Definition: Multi-family refers to any building or property with at least two residential housing units.	
114	BayREN	A03	RMF2	G	MT CO2eq	GHG	Metric	RMF-G•• Greenhouse gasses (MT CO2eq) Net kWh savings, reported on an annual basis••	CO2-equivalent of net annual kWh savings	Residential Sector – Multi-family (RMF)	2016	1,057	N/A	N/A	CET NetElecCO2	CEDARS Online CET Output & MF PA Database	Per CEDARS	Definition: Multi-family refers to any building or property with at least two residential housing units.	
115	BayREN	A04	RMF3	D3a	Lifecycle NET kW	D3: Depth of interventions per building	Metric	RMF-D3 - Energy savings (kWh, kw, therms) per project (building)••••	Lifecycle ex-ante kW net per project (building)	Residential Sector – Multi-family (RMF)	2016	46	9,993	217	CET Lifecycle NET kW/ Average # of Buildings per Year. Determined average # of buildings/project and #units/project from 2014-2017 BayREN MF program data. For future year projections divided CET Total Num Units by Avg# of Buildings.	Per CEDARS CET Input Total Number Units and BayREN MF Program data.	- D3 Methodology: - Numerator: Total Savings claimed for MF building retrofits - Denominator: Number of buildings that have been retrofitted, per application.	D3 Key Definitions: Project applications are made at the property level (premise ID and service account number) not the building level; building information will be used as is available on project applications - "Energy savings" = Lifecycle NET savings	
116	BayREN	A04	RMF3	D3a	Lifecycle NET kWh	D3: Depth of interventions per building	Metric	RMF-D3 - Energy savings (kWh, kw, therms) per project (building)••••	Lifecycle ex-ante kWh net per project (building)	Residential Sector – Multi-family (RMF)	2016	115,631	25,091,848	217	CET Lifecycle NET kWh/ Average # of Buildings per year Determined average # of buildings/project and #units/project from 2014-2017 BayREN MF program data. For future year projections divided CET Total Num Units by Avg# of Buildings.	Per CEDARS CET Input Total Number Units and BayREN MF Program data.	- D3 Methodology: - Numerator: Total Savings claimed for MF building retrofits - Denominator: Number of buildings that have been retrofitted, per application.	D3 Key Definitions: Project applications are made at the property level (premise ID and service account number) not the building level; building information will be used as is available on project applications - "Energy savings" = Lifecycle NET savings	
117	BayREN	A04	RMF3	D3a	Lifecycle NET Therms	D3: Depth of interventions per building	Metric	RMF-D3 - Energy savings (kWh, kw, therms) per project (building)••••	Lifecycle ex-ante Therm net per project (building)	Residential Sector – Multi-family (RMF)	2016	8,310	1,803,171	217	CET Lifecycle NET Therms/ Average # of Buildings per year Determined average # of buildings/project and #units/project from 2014-2017 BayREN MF program data. For future year projections divided CET Total Num Units by Avg# of Buildings.	Per CEDARS CET Output Lifecycle Net kWh and BayREN MF Program data.	- D3 Methodology: - Numerator: Total Savings claimed for MF building retrofits - Denominator: Number of buildings that have been retrofitted, per application.	D3 Key Definitions: Project applications are made at the property level (premise ID and service account number) not the building level; building information will be used as is available on project applications - "Energy savings" = Lifecycle NET savings	
118	BayREN	A04	RMF3	D4	Lifecycle NET kW	D4: Depth of interventions per property	Metric	RMF-D4 - Average savings per participant Savings per project (property)••	Lifecycle ex-ante kW net per project (property)	Residential Sector – Multi-family (RMF)	2016	156	9,993	64	CET Lifecycle NET kW/ Average # of Buildings per year Determined average # of buildings/project and #units/project from 2014-2017 BayREN MF program data. For future year projections divided CET Total Num Units by Avg# of Projects.	Per CEDARS CET Output Lifecycle Net Therms and BayREN MF Program data.	- D4 Methodology: - Numerator - Total downstream savings - - Denominator - number of participating properties {i.e., premise ID x service account} -	D4 Definition: "Project (property)" is defined by a unique combination of premise ID and service account. "Energy savings" = Lifecycle NET savings	
119	BayREN	A04	RMF3	D4	Lifecycle NET kWh	D4: Depth of interventions per property	Metric	RMF-D4 - Average savings per participant Savings per project (property)••	Lifecycle ex-ante kWh net per project (property)	Residential Sector – Multi-family (RMF)	2016	392,060	25,091,848	64	CET Lifecycle NET kWh/ Average # of Buildings per year Determined average # of buildings/project and #units/project from 2014-2017 BayREN MF program data. For future year projections divided CET Total Num Units by Avg# of Projects.	Per CEDARS CET Lifecycle NET kWh and BayREN MF Program data.	- D4 Methodology: - Numerator - Total downstream savings - - Denominator - number of participating properties (i.e., premise ID x service account} -	D4 Definition: "Project (property)" is defined by a unique combination of premise ID and service account. "Energy savings" = Lifecycle NET savings	

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120	BayREN	A04	RMF3	D4	Lifecycle NET Therms	D4: Depth of interventions per property	Metric	RMF-D4 - Average savings per participant Savings per project (property)••	Lifecycle ex-ante Therm net per project (property)	Residential Sector – Multi-family (RMF)	2016	28,175	1,803,171	64	CET Lifecycle NET Therms/ Average # of Buildings per year Determined average # of buildings/project and #units/project from 2014-2017 BayREN MF program data. For future year projections divided CET Total Num Units by Avg# of Projects.	Per CEDARS Lifecycle NET Therms and BayREN MF Program data.	- D4 Methodology: - Numerator - Total downstream savings - - Denominator - number of participating properties (i.e., premise ID x service account} -	D4 Definition: "Project (property)" is defined by a unique combination of premise ID and service account. "Energy savings" = Lifecycle NET savings	
121	BayREN	A04	RMF3	D5	Lifecycle NET kW	D5: Depth of interventions ••Per square foot	Metric	RMF-D5•• Energy savings (kWh, kw, therms) per square foot••	Lifecycle ex-ante kW net per square foot	Residential Sector – Multi-family (RMF)	2016	0.0024	9,993	4,156,000	CET Lifecycle NET kW/ Average square feet per year of participating accounts. Determined average square feet per unit by multiplying # average units*Average square feet per unit, 800 sq.ft (2014-2017 MF BayREN program data)	Per CEDARS Lifecycle NET kW and BayREN MF Program data. Average square feet per unit from 2014-2017 MF BayREN program data = 800 sq.ft.	D5 Methodology: - [Numerator] Total downstream savings - - [Denominator] Total number of MF service accounts participating. x average square footage of MF service account.	Per ED: "Energy savings" = lifecycle NET savings.	
122	BayREN	A04	RMF3	D5	Lifecycle NET kWh	D5: Depth of interventions ••Per square foot	Metric	RMF-D5•• Energy savings (kWh, kw, therms) per square foot••	Lifecycle ex-ante kWh net per square foot	Residential Sector – Multi-family (RMF)	2016	6.04	25,091,848	4,156,000	CET Lifecycle NET kWh/ Average square feet per year of participating accounts. Determined average square feet per unit by multiplying # average units*Average square feet per unit, 800 sq.ft (2014-2017 MF BayREN program data)	Per CEDARS Lifecycle NET kW and BayREN MF Program data. Average square feet per unit from 2014-2017 MF BayREN program data = 800 sq.ft.	D5 Methodology: - [Numerator] Total downstream savings - - [Denominator] Total number of MF service accounts participating. x average square footage of MF service account.	Per ED: "Energy savings" = lifecycle NET savings.	
123	BayREN	A04	RMF3	D5	Lifecycle NET Therms	D5: Depth of interventions ••Per square foot	Metric	RMF-D5•• Energy savings (kWh, kw, therms) per square foot••	Lifecycle ex-ante Therm net per square foot	Residential Sector – Multi-family (RMF)	2016	0.4339	1,803,171	4,156,000	CET Lifecycle NET Therms/ Average square feet per year of participating accounts. Determined average square feet per unit by multiplying # average units*Average square feet per unit, 800 sq.ft (2014-2017 MF BayREN program data)	Per CEDARS Lifecycle NET Therms and BayREN MF Program data. Average square feet per unit from 2014-2017 MF BayREN program data = 800 sq.ft.	D5 Methodology: - [Numerator] Total downstream savings - - [Denominator] Total number of MF service accounts participating. x average square footage of MF service account.	Per ED: "Energy savings" = lifecycle NET savings.	
124	BayREN	A04	RMF4	P1-P	Percent	P1: Penetration of energy efficiency programs in the eligible market ••Percent of Participation	Metric	RMF-P1P ••Percent of participation relative to eligible population (by unit, and **property**)••	Percent of participation relative to eligible population by property	Residential Sector – Multi-family (RMF)	2016	0.004%	64	1,431,478	Average #of Projects(Properties)/ PG&E Total MF Units in BayREN Territory. The denominator represents the number of Multi Family Accounts, data provided by PG&E This number describes the number of Multi-Family units not properties, which is why the percentage is so small. We do not have access to number of Multifamily properites available in BayREN territory	The denominator represents the number of Multi Family Accounts, data provided by PG&E. Average # of projects calculated from BayREN MF Program data 2014-2017	P1 Methodology: - Numerator: Number of downstream participating properties (service accounts x premise ID) - Denominator: total number of properties in the sector.	"Eligible Population" Total number of service accounts in sector/segment, excluding CARE. - "Participation" is defined as the first instance of participation, should a customer participate more than once or participate in multiple programs in the calendar year. PAs also need to have enough information about a customer to determine if the customer is in the eligible population and service territory. "Service account" for households are tagged, coded, and/or have a different rate class in PA databases than "service accounts" for MF properties themselves.	
125	BayREN	A04	RMF4	P1-U	Percent	P1: Penetration of energy efficiency programs in the eligible market ••Percent of Participation	Metric	RMF-P1U ••Percent of participation relative to eligible population (by **unit,** and property)••	Percent of participation relative to eligible population by unit	Residential Sector – Multi-family (RMF)	2016	0.363%	5195	1,431,478	CET Input Total Number Units/ PG&E Total MF Units in BayREN Territory	The denominator represents the number of Multi Family Accounts data provided by PG&E in the BayREN territory. This number describes the number of Multi-Family units. Per CEDARS Input Total Number of Units	P1 Methodology: - Numerator: Number of downstream participating MF units (this may be self-reported on application for building-level retrofits) - Denominator: total number of units (residential service accounts x premise IDs) in the sector.	"Eligible Population" Total number of service accounts in sector/segment, excluding CARE. - "Participation" is defined as the first instance of participation, should a customer participate more than once or participate in multiple programs in the calendar year. PAs also need to have enough information about a customer to determine if the customer is in the eligible population and service territory. "Service account" for households are tagged, coded, and/or have a different rate class in PA databases than "service accounts" for MF properties themselves.	

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126	BayREN	A04	RMF4	P2	Percent	P2: Penetration of energy efficiency programs in terms of **square feet of eligible population**	Metric	RMF-P2 - Percent of square feet of eligible population participating (by property)••	Percent of square feet of eligible population participating (by property)	Residential Sector – Multi-family (RMF)	2016	0.363%	4,156,000	1,145,182,400	Expected square feet of projects/ PG&E Total MF Units in BayREN Territory* 800. The average square footage of units from 2014-2017 who have particpated in the MF BayREN program is 800 square feet, This was used to calculate the expected number of square feet of estimated for PG&E Total MF Units in BayREN Territory .	The denominator represents the number of Multi Family Accounts data provided by PG&E in the BayREN territory. This number describes the number of Multi-Family units. BayREN MF Program data, 2014-2017.	P2 Methodology: - - Numerator: square footage of participating service accounts (x Premise IDs) - - Denominator: Square footage of all eligible accounts (x Premise IDs)		
127	BayREN	A04	RMF4	P3: DAC	Percent	P3: Penetration of energy efficiency programs in the eligible market - DAC	Metric	RMF-P3 - Percent of participation in disadvantaged communities••	Percent of participation in disadvantaged communities	Residential Sector – Multi-family (RMF)	2016	12.5%	8	64	CET Input Total Number Units* Average DAC Participation (units) BayREN MF / PG&E Total MF Units in estimated DAC BayREN Territory	The denominator represents the number of Multi Family Accounts data provided by PG&E in the BayREN territory. This number describes the number of Multi-Family units. Data from CalEnviroScreen 3.0 census tracts shows that 7% of Bay Area population are DA C. Divided	Numerator: Number of participants in disadvantaged communities. - - Denominator: Total number of customers in disadvantaged communities.	D.18-05-041: DAC = Service accounts in zip codes corresponding to census tracts in the top quartile of CalEnviroScreen 3.0 scores. - "Participant" is defined as a unique person or entity identified through a combination of service account and premise ID and who participants in a ratepayer funded energy efficiency intervention	
128	BayREN	A04	RMF4	P4: HTR	Percent	P4: Penetration of energy efficiency programs in the HTR market	Metric	RMF-P4•• Percent of participation by customers defined as "hard-to-reach"••	Percent of participation by customers defined as "hard-to-reach"	Residential Sector – Multi-family (RMF)	2016	0%	0	0	BayREN does not have hard to reach based on D.18-05-041. With definition of Hard to Reach BayREN is excluded and we are not targeting Hard to Reach.		P4 Methodology: - Numerator: number of participants in HTR geographic area - Denominator: Total number of service accounts in HTR geographic area	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers." "Participant" is defined as a unique person or entity identified through a combination of service account and premise ID and who participants in a	
129	BayREN	A04	RMF5	B1	Percent	B1: MF Benchmarking Penetration	Metric	RMF-B1 - Percent of benchmarked multi-family properties relative to the eligible population••••	Percent of benchmarked multi-family properties relative to the eligible population	Residential Sector – Multi-family (RMF)	2016	0%	0	0	Determined average percentage of units >17 from 2014 to 2017 and multiplied by expected # projects based past participation. Eligible number of MF Accounts supplied by PG&E. This number describes Multi-Family units not properties, which is why the percentage is so small. We do not have access to number of Multifamily properties available in BayREN territory. We have not benchmarked in 2016 but will benchmark 30 in 2018 that meet AB802 requirements. PG&E has tracked 379 MF benchmarked for 2016 but we do not know which ones are in BayREN specific territory. Proxy=0	The denominator represents the number of Multi Family Accounts, data provided by PG&E and BayREN MF program data, 2014-2017.	Numerator: Total number of RMF properties benchmarked via Portfolio Manager. Denominator: Total number of MF properties in the PA territory		
130	BayREN	A04	RMF5	B6	Percent	B6: Benchmarking of HTR Properties	Metric	B6(RMF) - Percent of benchmarking by properties defined as "hard-to-reach"••••	Percent of benchmarking by properties defined as "hard-to-reach"	Residential Sector – Multi-family (RMF)	2016	0%	0	0	BayREN does not have hard to reach based on D.18-05-041. With definition of Hard to Reach BayREN is excluded and we are not targeting Hard to Reach.		Numerator: Total number of HTR RMF properties benchmarked via Portfolio Manager. Denominator: Total number of MF properties in the PA territory	"Benchmarking" is defined as benchmarked by Portfolio Manager. Participants are defined as those with Service accounts x premise IDs in HTR market -	
131	BayREN	A04	RMF6	LC	PAC Levelized Cost ($/kW)	Cost per unit saved	Metric	RMF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kW)	Residential Sector – Multi-family (RMF)	2016	$497.23	N/A	N/A	Levelized costs formulas provided by Metrics Working Group (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Output	Per CEDARS	None	
132	BayREN	A04	RMF6	LC	PAC Levelized Cost ($/kWh)	Cost per unit saved	Metric	RMF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kWh)	Residential Sector – Multi-family (RMF)	2016	$0.20	N/A	N/A	Levelized costs formulas provided by Metrics Working Group (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Output	Per CEDARS	None	
133	BayREN	A04	RMF6	LC	PAC Levelized Cost ($/therm)	Cost per unit saved	Metric	RMF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/therm)	Residential Sector – Multi-family (RMF)	2016	$0.70	N/A	N/A	Levelized costs formulas provided by Metrics Working Group (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Output	Per CEDARS	None	

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134	BayREN	A04	RMF6	LC	TRC Levelized Cost ($/kW)	Cost per unit saved	Metric	RMF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kW)	Residential Sector – Multi-family (RMF)	2016	$863.40	N/A	N/A	Levelized costs formulas provided by Metrics Working Group (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Output	Per CEDARS	None	
135	BayREN	A04	RMF6	LC	TRC Levelized Cost ($/kWh)	Cost per unit saved	Metric	RMF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kWh)	Residential Sector – Multi-family (RMF)	2016	$0.34	N/A	N/A	Levelized costs formulas provided by Metrics Working Group (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Output	Per CEDARS	None	
136	BayREN	A04	RMF6	LC	TRC Levelized Cost ($/therm)	Cost per unit saved	Metric	RMF-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/therm)	Residential Sector – Multi-family (RMF)	2016	$1.21	N/A	N/A	Levelized costs formulas provided by Metrics Working Group (PAC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms and (TRC Cost x Electric Benefits/Total Benefits)/Lifecycle Net kW/kWh/Therms	CEDARS Online CET Output	Per CEDARS	None	
137	BayREN	A04	RMF7i	EI2	BTU/unit	Energy Intensity per MF unit	Indicator	RMF-E12[Indicator] - and Average energy use intensity of multifamily units. including in-unit accounts)	Average first year ex-ante kWh gross per unit	Residential Sector – Multi-family (RMF)	2016	N/A - Indicator	N/A - Indicator	N/A - Indicator	These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies, which can be found in the ED Template.		Numerator: Total usage of Res MF sector - - Denominator: total units in Res MF sector		
138	BayREN	A04	RMF7i	EI3	BTU/sqft	Energy Intensity per MF unit square foot	Indicator	RMF-E13[Indicator] Average energy use intensity of multifamily buildings (average usage per square foot – not adjusted ••	Average first year ex-ante kWh gross per square foot	Residential Sector – Multi-family (RMF)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies, which can be found in the ED Template.		Numerator: Total usage of Res MF sector - - Denominator: (total units in the Res MF Sector times the average square footage per unit). - Avg sq footage is taken from either 1) PA databases,Each PA is deciding which data source is most representative of their		
139	BayREN	A05	C1	S1	First year annual kW gross	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kW gross	Commercial Sector (C)	N/A - Indicator	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
140	BayREN	A05	C1	S1	First year annual kW net	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kW net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
141	BayREN	A05	C1	S1	First year annual kWh gross	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kWh gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	

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142	BayREN	A05	C1	S1	First year annual kWh net	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual kWh net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
143	BayREN	A05	C1	S1	First year annual Therm gross	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual Therm gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
144	BayREN	A05	C1	S1	First year annual Therm net	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	First year annual Therm net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
145	BayREN	A05	C1	S1	Lifecycle ex-ante kW gross	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kW gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
146	BayREN	A05	C1	S1	Lifecycle ex-ante kW net	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kW net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
147	BayREN	A05	C1	S1	Lifecycle ex-ante kWh gross	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kWh gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
148	BayREN	A05	C1	S1	Lifecycle ex-ante kWh net	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante kWh net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
149	BayREN	A05	C1	S1	Lifecycle ex-ante Therm gross	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante Therm gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	

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150	BayREN	A05	C1	S1	Lifecycle ex-ante Therm net	S1: Energy Savings	Metric	C-S1•• - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net)••	Lifecycle ex-ante Therm net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		per CEDARS	None	
151	BayREN	A05	C1	S2	Percent first year annual kW gross	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent first year annual kW gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
152	BayREN	A05	C1	S2	Percent first year annual kW net	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent first year annual kW net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
153	BayREN	A05	C1	S2	Percent first year annual kWh gross	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent first year annual kWh gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
154	BayREN	A05	C1	S2	Percent first year annual kWh net	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent first year annual kWh net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
155	BayREN	A05	C1	S2	Percent first year annual Therm gross	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent first year annual Therm gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
156	BayREN	A05	C1	S2	Percent first year annual Therm net	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent first year annual Therm net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
157	BayREN	A05	C1	S2	Percent lifecycle ex-ante kW gross	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent lifecycle ex-ante kW gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	

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158	BayREN	A05	C1	S2	Percent lifecycle ex-ante kW net	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent lifecycle ex-ante kW net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
159	BayREN	A05	C1	S2	Percent lifecycle ex-ante kWh gross	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent lifecycle ex-ante kWh gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
160	BayREN	A05	C1	S2	Percent lifecycle ex-ante kWh net	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent lifecycle ex-ante kWh net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
161	BayREN	A05	C1	S2	Percent lifecycle ex-ante Therm gross	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent lifecycle ex-ante Therm gross	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
162	BayREN	A05	C1	S2	Percent lifecycle ex-ante Therm net	S2: Percent Overall Sectoral Savings	Metric	C-S2 - First year annual and lifecycle ex-ante (pre-evaluation) gas, electric, and demand savings (gross and net) as a percentage of overall sectoral usage••	Percent lifecycle ex-ante Therm net	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		S2 Methodology: - Numerator = Metric C1 - Denominator = Total sectoral usage, from PA billing database	None	
163	BayREN	A05	C2	G	MT CO2eq	GHG	Metric	C-G••Greenhouse gasses (MT CO2eq) Net kWh savings, reported on an annual basis	CO2-equivalent of net annual kWh savings	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on				
164	BayREN	A05	C3	D2	Percent lifecycle gross kW	D2: Depth of interventions by project	Metric	Energy savings (gross kWh, therms) as a fraction of total project consumption.	Percent lifecycle gross kW	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		N/A - Please disregard this unit of measurement, kW was not required by the Attachment A metric.	N/A - Please disregard this unit of measurement, kW was not required by the Attachment A metric.	
165	BayREN	A05	C3	D2	Percent lifecycle gross kWh	D2: Depth of interventions by project	Metric	Energy savings (gross kWh, therms) as a fraction of total project consumption.	Percent lifecycle gross kWh	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		D2 Methodology (ED Ok)**Numerator: Energy savings claimed for project**Denominator: Energy Usage Baseline on application	Definition: “Project” is defined as “per application”	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
166	BayREN	A05	C3	D2	Percent lifecycle gross Therms	D2: Depth of interventions by project	Metric	Energy savings (gross kWh, therms) as a fraction of total project consumption.	Percent lifecycle gross Therms	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		D2 Methodology (ED Ok)**Numerator: Energy savings claimed for project**Denominator: Energy Usage Baseline on application	Definition: “Project” is defined as “per application”	
167	BayREN	A05	C4	P1L	Percent	P1: Penetration of energy efficiency programs in the eligible market ••Percent of Participation	Metric	•••C-P1M•••Percent of participation relative to eligiblepopulation for small, medium, and **large** customers••	Percent of participation relative to eligible population for large customers	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		P1 Methodology: - Numerator: Number of downstream participating (service accounts x premise ID) - Denominator: total number of service accounts in the sector.	Participation is defined as the first instance of participation, should a customer participate more than once or participate in multiple programs in the calendar year. PAs also need to have enough information about a customer to determine if the customer is in the eligible population and service territory. -	
168	BayREN	A05	C4	P1M	Percent	P1: Penetration of energy efficiency programs in the eligible market ••Percent of Participation	Metric	•••C-P1M•••Percent of participation relative to eligiblepopulation for small, **medium,** and large customers••	Percent of participation relative to eligible population for medium customers	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		P1 Methodology: - Numerator: Number of downstream participating (service accounts x premise ID) - Denominator: total number of (service accounts x premise IDs) in the sector.	Participation is defined as the first instance of participation, should a customer participate more than once or participate in multiple programs in the calendar year. PAs also need to have enough information about a customer to determine if the customer is in the eligible population and service territory. -	
169	BayREN	A05	C4	P1S	Percent	P1: Penetration of energy efficiency programs in the eligible market ••Percent of Participation	Metric	•C-P1L••Percent of participation relative to eligible population for **small,** medium, and large customers••	Percent of participation relative to eligible population for small customers	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		P1 Methodology: - Numerator: Number of downstream participating (service accounts x premise ID) - Denominator: total number of (service accounts x premise IDs) in the sector.	Participation is defined as the first instance of participation, should a customer participate more than once or participate in multiple programs in the calendar year. PAs also need to have enough information about a customer to determine if the customer is in the eligible population and service territory. -	
170	BayREN	A05	C4	P2	Percent	P2: Penetration of energy efficiency programs in terms of **square feet of eligible population**	Metric	C-P2 - Percent of square feet of eligible population••	Percent of square feet of eligible population	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		P2 Methodology: Numerator: square footage of all participating service accounts (x Premise IDs if needed to distinguish a particular participant) Denominator: Square footage of all eligible accounts	"Sq footage" is defined the same way as defined in Energy Star Portfolio Manager, and will be taken (in order of preference) from 1) PA customer databases, or 2) project application forms. Service account number and premise ID number may both be used to determine unique participants.	
171	BayREN	A05	C4	P4	Percent	P4: Penetration of energy efficiency programs in the HTR market	Metric	C-P4- Percent of participation by customers defined as “hard-to-reach”••	Percent of participation by customers defined as “hard-to-reach”	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		P4 Methodology: - Numerator: number of participants in HTR geographic area - Denominator: Total number of service accounts in HTR geographic area.	D.18-05-041 p. 43 - HTR as defined in Resolution G-3497, modified to "include disadvantaged communities (as designated by CalEPA) in the geographic criteria for hard to reach customers."	
172	BayREN	A05	C5	B2	Percent	Square Footage of Commercial Benchmarking Penetration	Metric	C-B2 - Percent of benchmarked square feet of eligible population••	Percent of benchmarked square feet of eligible population	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Method: - - Numerator: Total square footage of benchmarked commercial buildings in Portfolio Manager - - Denominator: Total square footage of commercial sector (average square footage of commercial sector building x number of service accounts)	Average square footage information is being obtained through a combination of utility records, market studies (such as the California Saturation Survey), and publicly available sources.	

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173	BayREN	A05	C5	B5L	Percent	Benchmarking Penetration for Commercial Sector	Metric	B5(C)L Percent of benchmarked customers relative to eligible population for large customers	Percent of benchmarked customers relative to eligible population for large customers	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Methodology: - - Numerator: Number of large commercial customers that have been benchmarked on Portfolio Manager - - Denominator: Total number of S, M, and L commercial customer accounts.		
174	BayREN	A05	C5	B5M	Percent	Benchmarking Penetration for Commercial Sector	Metric	B5(C)M Percent of benchmarked customers relative to eligible population for medium customers	Percent of benchmarked customers relative to eligible population for medium customers	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Methodology: - - Numerator: Number of Medium commercial customers that have been benchmarked on Portfolio Manager - - Denominator: Total number of S, M, and L commercial customer accounts.		
175	BayREN	A05	C5	B5S	Percent	Benchmarking Penetration for Commercial Sector	Metric	B5(C)S••Percent of benchmarked customers relative to eligible population for small customers	Percent of benchmarked customers relative to eligible population for small customers	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Methodology: - - Numerator: Number of Small commercial customers that have been benchmarked on Portfolio Manager - - Denominator: Total number of S, M, and L commercial customer accounts.		
176	BayREN	A05	C5	B6		B6: Benchmarking of HTR Properties	Metric	B6(C) - Percent of benchmarking by customers defined as “hard-to-reach”••	Percent of benchmarking by customers defined as “hard-to-reach”	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Benchmarking per Portfolio Manager. Service accounts x premise IDs in HTR market - - Proxy, if characteristics other than size and geo location aren’t known, develop proxy using just size and geo location. -		
177	BayREN	A05	C6	LC	PAC Levelized Cost ($/kW)	Cost per unit saved	Metric	C-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kW)	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Per CEDARS	None	
178	BayREN	A05	C6	LC	PAC Levelized Cost ($/kWh)	Cost per unit saved	Metric	C-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/kWh)	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Per CEDARS	None	
179	BayREN	A05	C6	LC	PAC Levelized Cost ($/therm)	Cost per unit saved	Metric	C-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	PAC Levelized Cost ($/therm)	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Per CEDARS	None	
180	BayREN	A05	C6	LC	TRC Levelized Cost ($/kW)	Cost per unit saved	Metric	C-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kW)	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Per CEDARS	None	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
181	BayREN	A05	C6	LC	TRC Levelized Cost ($/kWh)	Cost per unit saved	Metric	C-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/kWh)	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Per CEDARS	None	
182	BayREN	A05	C6	LC	TRC Levelized Cost ($/therm)	Cost per unit saved	Metric	C-LC - Levelized cost of energy efficiency per kWh, therm and kW (use both TRC and PAC)••	TRC Levelized Cost ($/therm)	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Per CEDARS	None	
183	BayREN	A06	C7i	N1	Percent	NMEC	Indicator	C-N1[Indicator] Fraction of total projects utilizing Normalized Metered Energy Consumption (NMEC) to estimate savings••	Percent of total projects utilizing Normalized Metered Energy Consumption (NMEC) to estimate savings	Commercial Sector (C)	2019	N/A	N/A	N/A	BayREN did not have a commericial program in 2017, so no data to report on		Numerator: Total number of custom projects in the CMPA utilizing NMEC to estimate savings. Denominator: Total number of projects in the CMPA. See Key Definitions	"Projects" for this metric refers to custom projects. Data will be collected from the CMPA (Custom Measure and Project Archive)	
184	BayREN	A06	C7i	N2	Percent	NMEC	Indicator	C-N2[Indicator] Fraction of total savings (gross kWh and therm) derived from NMEC analysis••	Percent of total savings (gross kWh and therm) derived from NMEC analysis	Commercial Sector (C)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	BayREN did not have a commericial program in 2017, so no data to report on		Per CAEECC Meeting: "Fraction of total custom savings derived from NMEC analysis". - - Data from CMPA. - Mona to check		
185	BayREN	A06	C8i	CS	Percent	Satisfaction	Indicator	C-CS[Indicator] Improvement in customer satisfaction••	Percent Improvement in customer satisfaction	Commercial Sector (C)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	BayREN did not have a commericial program in 2017, so no data to report on		Per CAEECC Meeting: M&E will develop and field a consistent survey instrument annually.	Survey development process has not been determined but could be led by PA Measurement & Evaluation staff, with ED oversight; once developed, survey could be fielded continuously as part of PA program implementation. Survey could be ready as soon as Q4 of 2018 for implementation during 2019, metrics data could be available for the 2019 reporting year..	
186	BayREN	A06	C8i	TS	Percent	Satisfaction	Indicator	C-TS[Indicator] Improvement in trade ally satisfaction••	Percent Improvement in trade ally satisfaction	Commercial Sector (C)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	BayREN did not have a commericial program in 2017, so no data to report on		Per CAEECC Meeting: M&E will develop and field a consistent survey instrument annually.	Survey development process has not been determined but could be led by PA Measurement & Evaluation staff, with ED oversight; once developed, survey could be fielded continuously as part of PA program implementation. Survey could be ready as soon as Q4 of 2018 for implementation during 2019, metrics data could be available for the 2019 reporting year..	
187	BayREN	A06	C9i	F1	Percent	Investment in energy efficiency	Indicator	C-F - [Indicator] Fraction of total investments made by ratepayers and private capital••	Percent of total investments made by ratepayers and private capital	Commercial Sector (C)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	BayREN did not have a commericial program in 2017, so no data to report on		Numerator: Dollars invested in EE through ratepayer-funded finance programs (minus other incentive programs) Denominator: Total dollars invested in EE (sum of both private		
282	BayREN	A10	CS1	S1	Net GWh	S1: Energy Savings	Metric	Net Energy Savings: GWH, M Therms and MW (demand)	Net GWh savings	Codes & Standards (CS)	N/A - Indicator	N/A	N/A	N/A	N/A BayREN does not claim any savings for Codes and Standards Program		EM&V study	2018-2025 consistent with adopted goals from D.17-09-025, Tables 1, 2, and 3, p. 37-39; 2016 from CEDARS (spillover not included). Values summed across all four IOUs. "Savings" is defined as Net First year savings.	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
283	BayREN	A10	CS1	S1	Net MMTherms	S1: Energy Savings	Metric	Net Energy Savings: GWH, M Therms and MW (demand)	Net MMTherms savings	Codes & Standards (CS)	2016	N/A	N/A	N/A	N/A BayREN does not claim any savings for Codes and Standards Program		EM&V study	2018-2025 consistent with adopted goals from D.17-09-025, Tables 1, 2, and 3, p. 37-39; 2016 from CEDARS (spillover not included). Values summed across all four IOUs. "Savings" is defined as Net First year savings.	
284	BayREN	A10	CS1	S1	Net MW	S1: Energy Savings	Metric	Net Energy Savings: GWH, M Therms and MW (demand)	Net MW savings	Codes & Standards (CS)	2016	N/A	N/A	N/A	N/A BayREN does not claim any savings for Codes and Standards Program		EM&V study	2018-2025 consistent with adopted goals from D.17-09-025, Tables 1, 2, and 3, p. 37-39; 2016 from CEDARS (spillover not included). Values summed across all four IOUs. "Savings" is defined as Net First year savings.	
285	BayREN	A10	CS2	1	Count	Advocacy-Building	Metric	Number of measures supported by CASE studies in rulemaking cycle (current work)	Number of measures supported by CASE studies in rulemaking cycle (current work)	Codes & Standards (CS)	2016	N/A	N/A	N/A	BayREN does not perform an Advocacy work and this metric is for SW codes		Measures supported by CASE	Baseline and targets for measures supported are for 3 year cycle rather than annual.	
286	BayREN	A10	CS2	2	Count	Advocacy-Building	Metric	Number of measures adopted by CEC in rulemaking cycle (indicator of past work)	Number of measures adopted by CEC in rulemaking cycle (indicator of past work)	Codes & Standards (CS)	2016	N/A	N/A	N/A	BayREN does not perform an Advocacy work and this metric is for SW codes		Measures adopted by CEC	Baseline and targets for measures supported are for 3 year cycle rather than annual.	
287	BayREN	A10	CS3	1	Count	Advocacy-Appliance	Metric	Number of T-20 measures supported by CASE studies in rulemaking cycle (current work)	Number of T-20 measures supported by CASE studies in rulemaking cycle (current work)	Codes & Standards (CS)	2016	N/A	N/A	N/A	BayREN does not perform an Advocacy work and this metric is for SW codes		T-20 measures supported by CASE	Baseline is annual. Targets for measures supported are for 3 year cycle rather than annual. 2017 chosen as baseline since 2016 was zero.	
288	BayREN	A10	CS3	2	Count	Advocacy-Appliance	Metric	Number of measures adopted by CEC in current year	Number of measures adopted by CEC in current year	Codes & Standards (CS)	2017	N/A	N/A	N/A	BayREN does not perform an Advocacy work and this metric is for SW codes		Measures adopted by CEC	Baseline is annual. Targets for measures adopted are for 3 year cycle rather than annual.	
289	BayREN	A10	CS4	1	Count	Advocacy-Federal	Metric	Number of federal standards adopted for which a utility advocated (IOUs to list advocated activites)	Number of federal standards adopted for which a utility advocated (IOUs to list advocated activites)	Codes & Standards (CS)	2016	N/A	N/A	N/A	BayREN does not perform an Advocacy work and this metric is for SW codes		Standards adopted	Baselines and targets are annual. Any federal standards based upon Title 20 that were adopted will still be included in the federal count.	
290	BayREN	A10	CS4	2	Count	Advocacy-Federal	Metric	Percent of federal standards adopted for which a utility advocated (#IOU supported / # DOE adopted)	Percent of federal standards adopted for which a utility advocated (#IOU supported / # DOE adopted)	Codes & Standards (CS)	2016	N/A	N/A	N/A	BayREN does not perform an Advocacy work and this metric is for SW codes		# IOUs supported ÷ # DOE adopted	Baselines and targets are annual.	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
291	BayREN	A10	CS5	1	Count	Reach Codes	Metric	The number of local government Reach Codes implemented (this is a joint IOU and REN effort)	The number of local government Reach Codes implemented (this is a joint IOU and REN effort)	Codes & Standards (CS)	2016	N/A	N/A	N/A	BayREN does not track reach codes, as the IOUs track and report in SW metrics		Reach Code ordinances implemented	Targets are total for a three-year Title 24 code cycle. Jurisdictions having multiple reach codes will be counted by reach code rather than by jurisdiction. Accomplishments will be reported from the CEC Reach Codes website (http://www.energy.ca.gov/title24/2013standards/ordinances/).	
292	BayREN	A11	CS6	1	Count	Compliance Improvement	Metric	Number of training activities (classes, webinars) held, number of market actors participants by segment (e.g. building officials, builders, architects, etc.) and the the total size (number of the target audience) by sector. (M) Number of training activities	Number of training activities (classes, webinars) held, number of market actors participants by segment (e.g. building officials, builders, architects, etc.) and the the total size (number of the target audience) by sector. (M) Number of training activities	Codes & Standards (CS)	2016	N/A	N/A	N/A	Not applicable to BayREN		Number of training activities	118 live training sessions and 20 webinars in 2017; short, mid, and long-term targets are annual	
293	BayREN	A11	CS6	2	Count	Compliance Improvement	Metric	Number of training activities (classes, webinars) held, number of market actors participants by segment (e.g. building officials, builders, architects, etc.) and the the total size (number of the target audience) by sector. (M) Number of participants	Number of training activities (classes, webinars) held, number of market actors participants by segment (e.g. building officials, builders, architects, etc.) and the the total size (number of the target audience) by sector. (M) Number of participants	Codes & Standards (CS)	2017	N/A	N/A	N/A	Not applicable to BayREN		Number of participants	3000 attendees for live training and 600 attendees for webinars in 2017; short, mid, and long-term targets are annual. Attendees will be shown by major segment (i.e., building officials, builders, architects, HERS raters) and target size of each segment will be provided during first metrics reporting.	
294	BayREN	A11	CS6	3	Score	Compliance Improvement	Metric	Increase in code compliance knowledge pre/post training	Increase in code compliance knowledge pre/post training	Codes & Standards (CS)	2017	N/A	N/A	N/A	Not applicable to BayREN		Knowledge score	Code compliance knowledge increase will be tested via pre and post training questionnaires. Surveys will be conducted for training that lasts longer than three hours (in order to preserve time for instruction in shorter training sessions). Questionnaires will be made available during the first metrics reporting.	
295	BayREN	A11	CS6R	1	Percent	Compliance Improvement	Metric	The percentage increase in closed permits for building projects triggering energy code compliance within participating jurisdictions	The percentage increase in closed permits for building projects triggering energy code compliance within participating jurisdictions	Codes & Standards (CS)	2018	N/A	N/A	N/A	For this metric, BayREN intends to develop a project in partnership with one or two jurisdictions to increase the percentage of closed permits for a particular type of building project triggering energy code compliance. At this time, we have not identified either the participating jurisdictions or the type(s) of project that will be addressed. BayREN estimates a cost of approximately $150,000 in 2018 and 2019 to conduct a literature review, assess data availability, carry out initial data collection and analysis, analyze jurisdiction-specific data once the participating jurisdictions have been identified, develop the project, establish the baseline and targets, and develop a data tracking system, although the exact cost is still to be determined. Additional costs would likely be incurred to implement the project.The initial phase of this study will be to conduct a literature review and assessment of sources of building permit data, and BayREN is already working with a consultant to finalize a scope of work for that initial phase. Additional follow-on studies would occur to collect and analyze data, including jurisdiction-specific data, to help design the project, to determine a reasonable approach and set up a system for tracking progress on this metric over time, and to establish the baseline and targets. The territory will be narrowed as work progresses and as jurisdictional partners are found, and the sample size will be determined as part of that process.We anticipate having the baseline and targets by the end of 2019.	• "Compliance rate reported as low as 10%" – CEC presentation for workshop on SB 1414 implementation, June 2018, CEC Docket 17-EBP-01• 8-29% permit rate for residential HVAC installations – DNV GL Final Report: 2014-16 HVAC Permit and Code Compliance Market Assessment, September 2017• "95% of furnace replacements in the state are completed without permits" -- Mitsubishi Electric Comments on HVAC System compliance, referencing the California Contractor State License Board, 7/12/18, CEC Docket 17-EBP-01• 10% of work is permitted: 2013 estimate from Institute of Heating and Air Conditioning, quoted in DNV GL report• Less than 30% of air conditioning units are permitted in Sacramento region – 2012 Proctor Engineering Group estimate, quoted in DNV GL report			
296	BayREN	A11	CS6Ri	1	Count	Compliance Improvement	Indicator	Number and percent of jurisdictions with staff participating in an Energy Policy Forum	Number and percent of jurisdictions with staff participating in an Energy Policy Forum	Codes & Standards (CS)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	Number of City of County local government jurisdictions participating. These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies, which can be found in the ED Template.			"Energy Policy Forum": a BayREN hosted event addressing energy use, energy efficiency, and or Title 24 compliance	

Spreadsheet Index	PA	AttA Page	AttA Order	Method Code	Units of Measurement	Metric Type	Metric/ Indicator	Business Plan Att A Description	Metric	Sector	Baseline Year	2017 Reporting Year	2017 Numerator	2017 Denominator	BayREN Notes, assumptions, methodology	Data Source	Methodology	Key Definitions	Proxy Explanation
297	BayREN	A11	CS6Ri	1	Percent	Compliance Improvement	Indicator	Number and percent of jurisdictions with staff participating in an Energy Policy Forum	Number and percent of jurisdictions with staff participating in an Energy Policy Forum	Codes & Standards (CS)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	Numerator: Number of City or County local government jurisdictions participating; Denominator: Number of City of County local government jurisdictions in BayREN territory (110). These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies, which can be found in the ED Template.			"Energy Policy Forum": a BayREN hosted event addressing energy use, energy efficiency, and or Title 24 compliance	
298	BayREN	A11	CS6Ri	2	Count	Compliance Improvement	Indicator	Number and percent of jurisdictions receiving Energy Policy technical assistance.	Number and percent of jurisdictions receiving Energy Policy technical assistance.	Codes & Standards (CS)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	Number of City of County local government jurisdictions participating. These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies, which can be found in the ED Template.			"Energy Policy technical assistance": BayREN facilitated technical assistance services to assist with local government activities including but not limited to implementation of energy and energy efficiency related requirements for Title 24 or development of local policies and ordinances that meet or exceed energy and energy efficiency related requirements of Title 24	
299	BayREN	A11	CS6Ri	2	Percent	Compliance Improvement	Indicator	Number and percent of jurisdictions receiving Energy Policy technical assistance.	Number and percent of jurisdictions receiving Energy Policy technical assistance.	Codes & Standards (CS)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	Numerator: Number of City or County local government jurisdictions participating; Denominator: Number of City of County local government jurisdictions in BayREN territory (110). These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies, which can be found in the ED Template.			"Energy Policy technical assistance": BayREN facilitated technical assistance services to assist with local government activities including but not limited to implementation of energy and energy efficiency related requirements for Title 24 or development of local policies and ordinances that meet or exceed Title 24	
300	BayREN	A11	CS6Ri	3	Count	Compliance Improvement	Indicator	Buildings receiving enhanced code compliance support and delivering compliance data to program evaluators	Buildings receiving enhanced code compliance support and delivering compliance data to program evaluators	Codes & Standards (CS)	N/A - Indicator	N/A - Indicator	N/A - Indicator	N/A - Indicator	Number of buildings. These are Indicators and not metrics. Per the Decision (D.18-05-041) on the Business Plans, Program Administrators do not have to provide data on Indicators only definitions and methodologies, which can be found in the ED Template.			"Enhanced code compliance support": BayREN facilitated compliance improvement services. "Compliance data": may include but is not limited to completed CEC Title 24 Part 6 Compliance Forms and CBECC or other compliance software calculated compliance margins	