
March 11, 2022

ADVICE 4601-E-A
(Southern California Edison - U 338-E)

ADVICE 3860-E-A/3021-G-A
(San Diego Gas & Electric - U 902-M)

ADVICE 5876-G-A
(Southern California Gas Company – U 904 G)

ADVICE 4501-G-A / 6346-E-A
(Pacific Gas and Electric Company – U39 M)

PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA
ENERGY DIVISION

SUBJECT: Supplement to Advice 4601-E et al., Joint Investor-Owned Utilities Advice Letter Pursuant to Decision 21-06-015 for the Online Data Management and Visualization Dashboard Plan

Southern California Edison Company (SCE) submits this Advice Letter (AL) to provide the supplemental details requested by Energy Division staff on February 4, 2022 for the Joint Utilities Online Data Management and Visualization Dashboard Plan.

PURPOSE

Pursuant to California Public Utilities Commission (Commission or CPUC) Decision (D.)21-06-015, SCE on behalf of San Diego Gas and Electric Company (SDG&E), Southern California Gas Company (SoCalGas), and Pacific Gas and Electric Company (PG&E) (collectively the Joint Utilities) respectfully submits this Supplement to Advice Letters 4601-E (SCE), 3860-E/3021-G (SDG&E), 5876-G (SoCalGas), and 4501-G/6346-E (PG&E) (referenced herein as “AL 4601-E et al.”) with additional details to support the original AL for the Joint Utilities Online Data Management and Visualization Dashboard Plan.

These changes are made in accordance with General Order (GO) 96-B, General Rule 7.5.1, which authorizes utilities to make additional changes to an advice letter through

the submittal of a supplemental advice letter. This advice letter supplements in part and does not change the substance of the original AL 4601-E et al.

BACKGROUND

On October 1, 2021, the Joint Utilities submitted AL 4601-E et al. in compliance with D.21-06-015 detailing the plan for an online data management and visualization dashboard. The AL contained the information required in Ordering Paragraph (OP) 187 of D.21-06-015 including:

- Suggested software for hosting the dashboard and options for where the dashboard could be hosted,
- Suggested ESA (Energy Savings Assistance) Program data to be stored on the data management systems,
- Suggested CARE (California Alternate Rates for Energy) and FERA (Family Energy Rate Assistance) data to be stored on the data management systems,
- Discussion of the potential for expansion of data in the future, and how suggested software and hosting location could accommodate expansion without a full rebuild,
- Discussion on whether the online data management system would function simply as a repository of summarized data prepared by the Joint Utilities (i.e., an online format for the current reports), or whether detailed program tracking data on the ESA, CARE and FERA programs would be uploaded into this system and subsequent data summaries would occur by manipulating granular program data,
- Timeline for execution and budget needed for completing the online data management and visualization dashboard (using existing reporting budgets funds).¹

On February 4, 2022, ED staff submitted a request for supplemental details regarding the Joint Utilities' Online Data Management and Visualization Dashboard Plan including: 1) an explanation of responsibilities between the CEDARS (California Energy Data and Reporting System) team and Joint Utilities for development, 2) a sample template for aggregating annual and historical ESA, CARE and FERA data to be represented, and 3) a sample layout of what the visualization dashboard could look like with historical data.² Responses to each of the requested items are provided below.

¹ D.21-06-015, Pg. 436.

² Email from Energy Division Staff dated February 4, 2022.

RESPONSES TO REQUESTED DETAILS

1. Explanation of responsibilities between the CEDARS team and Joint Utilities for development

The role of the CEDARS team will be limited to setting up an I-frame to display the visualization on CEDARS, programming CEDARS with the ESA/CARE/FERA specification, in addition to developing web pages and Application Programming Interface (API) ports (e.g., CEDARS to be the source that Power Business Intelligence (Power BI) pulls from), system notifications, and additional CEDARS-specific work. The required ongoing maintenance and support is expected to be funded by ED as currently established for Energy Efficiency (EE) management programs.

The Joint Utilities will be responsible for the dashboard and visualization work, which may include hiring a data visualization consultant if needed. The Joint Utilities plan to utilize Power BI as originally suggested; however, if a consultant is hired, the IOUs are open to innovative design approaches or other applicable software for the implementation of the dashboard and visualization work. The Joint Utilities will work with the CEDARS team to ensure the final software selection is compatible with the CEDARS interface. Future maintenance required for this software interface during the current program cycle is expected to be funded by the Joint Utilities, subject to available Joint Utilities funding consistent with D.21-06-015.

2. Sample template for aggregating annual and historical ESA, CARE and FERA data to be represented

Attachment A displays sample tables aggregated annually for CARE and FERA. Table 1 includes budget, expenses, and percentage of budget spent. This attachment also includes a sample of annual CARE and FERA penetration, verification, and recertification historically pulled from Tables 2, 3 and 6.

Attachment B displays sample tables aggregated annually for ESA. Table 1 and 1A includes budget, expenses and percentage of budget spent by measure type. Table 2 includes energy and demand savings, expenses, and percentage of expenditures by measure type. Table 4 displays homes treated, energy and demand savings, and expenses by housing type.³

The data provided within the attachments is not actual historical data but is provided to help demonstrate the type of data that may be available through the online data management system.

³ Sample tables and mockups do not display therm savings; however, this data point will be included during development.

3. Sample layout of what the visualization dashboard could look like with historical data

Attachment A and B display visual mock-ups of the annual data found in the tables above.

PROPOSED REVISED SCHEDULE

The proposed schedule (Figure 1) provides the revised estimated timeline for the development of the online data management and visualization dashboard. The revision includes allotted time for the Joint Utilities to complete the dashboard and visualization work, which may include hiring a data visualization consultant if needed. The dates noted are estimates and subject to change.

Figure 1: Joint Utilities Online Data Management and Visualization Revised Timeline

	2021		2022				2023				2024			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Develop Joint Tier 2 AL Pursuant to OP 187														
DV Tier 2 AL Suspended for 120 Days														
IOWs Work with CEDARS Team on Data Gathering and Q&A														
DV Tier 2 AL Suspended for 180 Days														
ED-IOW Develop Tier 2 AL Supplemental														
Determined Scope and New Annual Reports														
Create data definitions and identify a DV Developer														
1st Pass - Develop Templates														
Finalize Templates														
Work with CEDARS Admin to Initiate Implementation														
User Acceptance Testing (UAT)/Stress Test														
Implement Identified Fixes Resulting from Testing, as Applicable														
Post-Implementation, Documentation, Monitoring, and Soliciting ED Feedback														

TIER DESIGNATION

Pursuant to GO 96-B, Energy Industry Rule 5.2, this AL is submitted with a Tier 2 designation.

EFFECTIVE DATE

SCE is requesting AL 4601-E et al. and AL 4601-E-A et al. become effective on April 10, 2022, the 30th day after the submittal of this supplemental.

NOTICE

Anyone wishing to protest this advice letter may do so only electronically. Protests must be received no later than 20 days after the date of this advice letter. Protests should be submitted to the CPUC Energy Division at:

E-mail: EDTariffUnit@cpuc.ca.gov

In addition, protests and all other correspondence regarding this advice letter should also be sent electronically to the attention of:

For SCE:

Shinjini C. Menon
Managing Director, State Regulatory Operations
E-mail: AdviceTariffManager@sce.com

and

Tara S. Kaushik
Managing Director, Regulatory Relations
c/o Karyn Gansecki
E-mail: Karyn.Gansecki@sce.com

For SDG&E:

Attn: Greg Anderson
Regulatory Tariff Manager
E-Mail: GAnderson@sdge.com & SDGETariffs@sdge.com

For SoCalGas:

Attn: Gary Lenart
Regulatory Tariff Manager
E-mail: GLenart@socalgas.com
E-mail: Tariffs@socalgas.com

For PG&E:

Sidney Bob Dietz II
Director, Regulatory Relations
c/o Megan Lawson
E-mail: PGETariffs@pge.com

There are no restrictions on who may submit a protest, but the protest shall set forth specifically the grounds upon which it is based and must be received by the deadline shown above.

In accordance with General Rule 4 of GO 96-B, SCE is serving copies of this advice letter to the interested parties shown on the attached GO 96-B and A.14-11-007 et al,

and A.19-11-003 et al service lists. Address change requests to the GO 96-B service list should be directed by electronic mail to AdviceTariffManager@sce.com or at (626) 302-3719. For changes to all other service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

Further, in accordance with Public Utilities Code Section 491, notice to the public is hereby given by submitting and keeping the advice letter at SCE's corporate headquarters. To view other SCE advice letters submitted with the Commission, log on to SCE's web site at <https://www.sce.com/wps/portal/home/regulatory/advice-letters>.

For questions, please contact Joni Key at (626) 302-5394 or by electronic mail at Joni.Key@sce.com.

Southern California Edison Company

/s/ Shinjini C. Menon
Shinjini C. Menon

SCM:jk:cm
Enclosures



ADVICE LETTER SUMMARY

ENERGY UTILITY



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

Company name/CPUC Utility No.:

Utility type:

- ELC GAS WATER
 PLC HEAT

Contact Person:

Phone #:
E-mail:
E-mail Disposition Notice to:

EXPLANATION OF UTILITY TYPE

ELC = Electric GAS = Gas WATER = Water
 PLC = Pipeline HEAT = Heat

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #:

Tier Designation:

Subject of AL:

Keywords (choose from CPUC listing):

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #:

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

Summarize differences between the AL and the prior withdrawn or rejected AL:

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:

No. of tariff sheets:

Estimated system annual revenue effect (%):

Estimated system average rate effect (%):

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 proposed¹:

Pending advice letters that revise the same tariff sheets:

¹Discuss in AL if more space is needed.

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

California Public Utilities Commission
Energy Division Tariff Unit Email:
EDTariffUnit@cpuc.ca.gov

Contact Name:
Title:
Utility/Entity Name:

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Contact Name:
Title:
Utility/Entity Name:

Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

CPUC
Energy Division Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102

ENERGY Advice Letter Keywords

Affiliate	Direct Access	Preliminary Statement
Agreements	Disconnect Service	Procurement
Agriculture	ECAC / Energy Cost Adjustment	Qualifying Facility
Avoided Cost	EOR / Enhanced Oil Recovery	Rebates
Balancing Account	Energy Charge	Refunds
Baseline	Energy Efficiency	Reliability
Bilingual	Establish Service	Re-MAT/Bio-MAT
Billings	Expand Service Area	Revenue Allocation
Bioenergy	Forms	Rule 21
Brokerage Fees	Franchise Fee / User Tax	Rules
CARE	G.O. 131-D	Section 851
CPUC Reimbursement Fee	GRC / General Rate Case	Self Generation
Capacity	Hazardous Waste	Service Area Map
Cogeneration	Increase Rates	Service Outage
Compliance	Interruptible Service	Solar
Conditions of Service	Interutility Transportation	Standby Service
Connection	LIEE / Low-Income Energy Efficiency	Storage
Conservation	LIRA / Low-Income Ratepayer Assistance	Street Lights
Consolidate Tariffs	Late Payment Charge	Surcharges
Contracts	Line Extensions	Tariffs
Core	Memorandum Account	Taxes
Credit	Metered Energy Efficiency	Text Changes
Curtable Service	Metering	Transformer
Customer Charge	Mobile Home Parks	Transition Cost
Customer Owned Generation	Name Change	Transmission Lines
Decrease Rates	Non-Core	Transportation Electrification
Demand Charge	Non-firm Service Contracts	Transportation Rates
Demand Side Fund	Nuclear	Undergrounding
Demand Side Management	Oil Pipelines	Voltage Discount
Demand Side Response	PBR / Performance Based Ratemaking	Wind Power
Deposits	Portfolio	Withdrawal of Service
Depreciation	Power Lines	

Attachment A

CARE TABLE 1 DATA

Annual Budgets

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outreach	\$2,000,000	\$2,050,000	\$2,100,000	\$2,615,000	\$2,610,000	\$2,625,000	\$ 2,500,000	\$3,700,000	\$3,000,000	\$3,000,000
Automatic Enrollment	\$0	\$0	\$0							
Processing, Certification, Recertification	\$750,000	\$800,000	\$450,000	\$600,000	\$600,000	\$1,080,000	\$ 1,200,000	\$900,000	\$900,000	\$800,000
Post Enrollment Verification			\$3,450,000	\$1,400,000	\$1,400,000	\$1,000,000	\$ 350,000	\$800,000	\$600,000	\$600,000
IT Programming	\$950,000	\$950,000	\$950,000	\$1,000,000	\$1,000,000	\$1,000,000	\$ 4,060,000	\$1,150,000	\$190,337	\$600,000
Cool Centers				\$150,000	\$150,000	\$150,000	\$ 50,000	\$50,000	\$50,000	\$60,000
Pilots	\$200,000	\$2,150,000	\$0	\$216,000	\$216,000	\$368,340	\$ 525,000	\$525,000	\$525,000	\$525,000
Studies								\$0	\$150,000	\$0
Measurement & Evaluation	\$100,000	\$115,000	\$90,000	\$50,000	\$50,000	\$50,000	\$ 150,000	\$0	\$0	\$0
Regulatory Compliance	\$200,000	\$250,000	\$265,000	\$264,000	\$264,000	\$264,000	\$ 380,000	\$470,400	\$550,000	\$450,000
General Administration	\$680,000	\$700,000	\$715,000	\$725,000	\$725,000	\$725,000	\$ 350,000	\$700,000	\$700,000	\$725,000
CPUC Energy Division	\$125,000	\$140,000	\$140,000	\$140,000	\$140,000	\$140,000	\$ 140,000	\$140,000	\$140,000	\$140,000
Program Costs - Budget	\$5,005,000	\$7,155,000	\$8,160,000	\$7,010,000	\$7,005,000	\$7,252,340	\$9,705,000	\$8,385,400	\$6,805,337	\$6,900,000
CARE Rate Discount - Budget	\$330,200,000	\$330,000,000	\$376,900,000	\$416,800,000	\$416,800,000	\$416,800,000	\$450,000,000	\$485,000,000	\$490,000,000	\$490,000,000
Program Costs + Subsidy - Budget	\$335,205,000	\$337,155,000	\$385,060,000	\$423,810,000	\$423,805,000	\$424,052,340	\$459,705,000	\$493,385,400	\$496,805,337	\$496,900,000

Annual Expenses

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outreach	\$1,693,295	\$2,122,786	\$1,656,337	\$1,888,933	\$2,122,786	\$2,256,767	\$2,256,767	\$3,026,935	\$3,025,000	\$2,975,000
Automatic Enrollment	\$23,394		\$0							
Processing, Certification, Recertification	\$1,039,069	\$812,583	\$777,585	\$813,717	\$812,583	\$1,078,914	\$1,078,914	\$1,001,253	\$1,001,253	\$645,981
Post Enrollment Verification		\$518,627	\$484,391	\$462,401	\$518,627	\$589,283	\$589,283	\$815,749	\$815,749	\$665,776
IT Programming	\$314,706	\$234,152	\$735,458	\$1,001,320	\$234,152	\$935,500	\$935,500	\$1,002,194	\$1,002,194	\$12,062
Cool Centers		\$36,053		\$44,180	\$36,053	\$55,441	\$55,441	\$25,000	\$24,749	\$18,951
Pilots	\$238,424	\$300,000	\$175,000	\$218,225	\$258,582	\$333,420	\$333,420	\$500,000	\$350,000	\$414,677
Studies								\$0	\$0	\$0
Measurement & Evaluation	\$53,107	\$3,871	\$167,918	\$0	\$3,871	\$3,373	\$3,373	\$0	\$0	\$0
Regulatory Compliance	\$149,904	\$400,000	\$202,368	\$292,251	\$400,000	\$203,497	\$203,497	\$325,969	\$350,000	\$496,128
General Administration	\$473,620	\$351,406	\$400,000	\$373,016	\$351,406	\$523,447	\$525,000	\$609,509	\$609,509	\$950,000
CPUC Energy Division	\$53,203	\$76,526	\$0	\$44,571	\$76,526	\$90,556	\$90,556	\$83,000	\$65,000	\$160,111
Program Costs - Spend	\$4,038,722	\$4,819,951	\$4,599,057	\$5,138,614	\$4,778,533	\$6,070,197	\$6,071,751	\$7,364,609	\$7,218,705	\$6,338,686
CARE Rate Discount - Spend	\$342,170,176	\$342,170,176	\$358,025,586	\$386,148,028	\$372,593,533	\$348,951,329	\$375,043,839	\$376,226,811	\$400,000,450	\$500,000,000
Program Costs + Subsidy - Spend	\$346,208,897	\$346,990,126	\$362,624,643	\$391,286,642	\$377,372,066	\$355,021,527	\$381,115,590	\$383,591,420	\$407,219,155	\$506,338,686

% of Budget Spent

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outreach	85%	104%	79%	72%	81%	86%	90%	82%	101%	99%
Automatic Enrollment	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Processing, Certification, Recertification	139%	102%	173%	136%	135%	100%	90%	111%	111%	81%
Post Enrollment Verification	0%	0%	14%	33%	37%	59%	168%	102%	136%	111%
IT Programming	33%	25%	77%	100%	23%	94%	23%	87%	527%	2%
Cool Centers	0%	0%	0%	29%	24%	37%	111%	50%	49%	32%
Pilots	119%	14%	0%	101%	120%	91%	64%	95%	67%	79%
Studies	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Measurement & Evaluation	53%	3%	187%	0%	8%	7%	2%	0%	0%	0%
Regulatory Compliance	75%	160%	76%	111%	152%	77%	54%	69%	64%	110%
General Administration	70%	50%	56%	51%	48%	72%	150%	87%	87%	131%
CPUC Energy Division	43%	55%	0%	32%	55%	65%	65%	59%	46%	114%
% Program Costs Spend	81%	67%	56%	73%	68%	84%	63%	88%	106%	92%
% of CARE Rate Discount Spend	104%	104%	95%	93%	89%	84%	83%	78%	82%	102%
Total Program Costs + Subsidy	103%	103%	94%	92%	89%	84%	83%	78%	82%	102%

CARE Penetration, Verifications, and Recertification

	Source	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total CARE Participants	Table 2	1,335,607	1,311,210	1,281,620	1,235,755	1,500,000	1,235,755	1,300,000	1,205,539	1,185,146	1,450,000
Estimated CARE Eligible	Table 2	1,410,534	1,499,830	1,500,000	1,520,058	1,457,787	1,525,000	1,450,000	1,422,225	1,337,092	1,400,000
Penetration Rate	Table 2	95%	87%	85%	81%	103%	81%	90%	85%	89%	104%

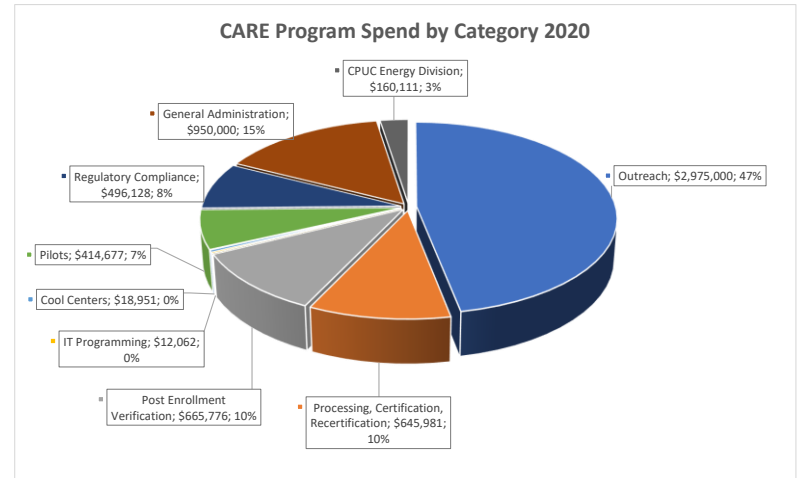
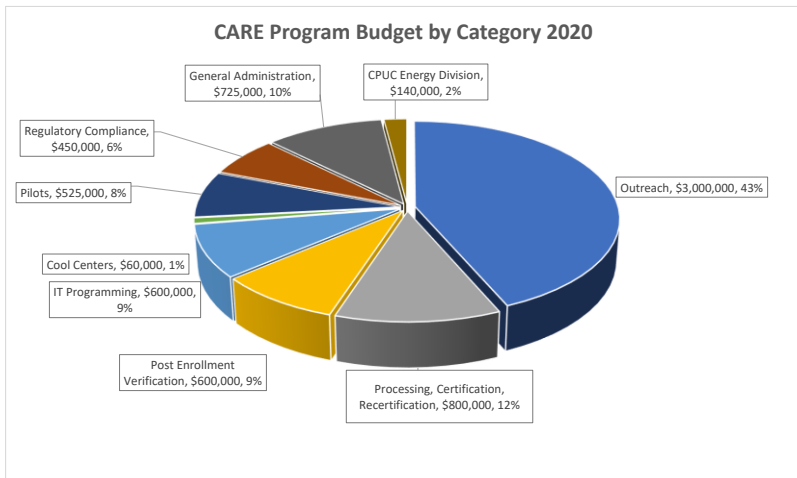
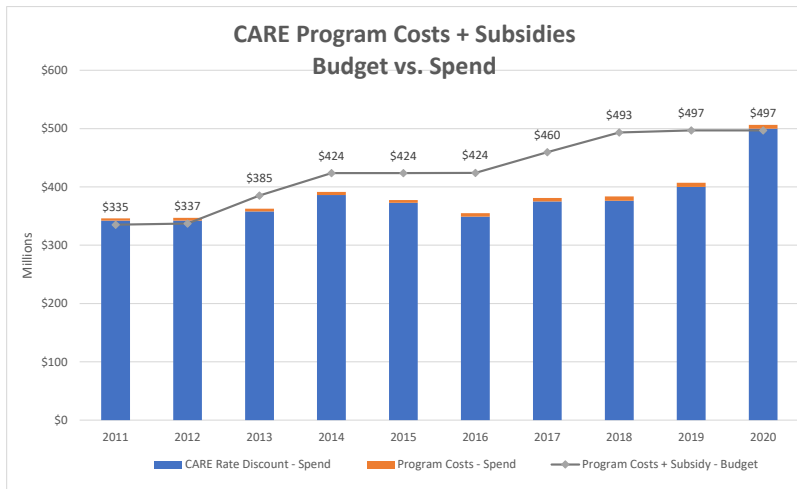
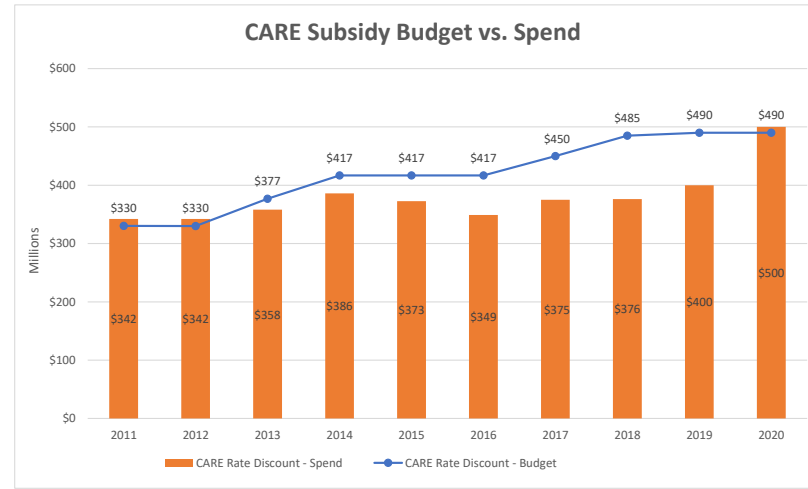
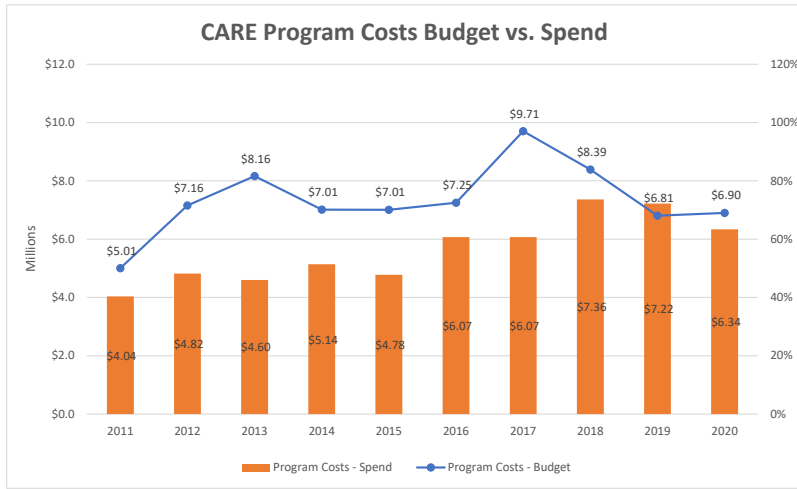
Participants Requested to Verify (Model)	Table 3	68,419	55,453	31,371	56,564	47,196	56,564	47,196	45,996	80,565	47,196
PEV Drop Off	Table 3	41,700	35,730	20,000	32,615	28,557	32,000	28,557	33,726	40,000	28,557
% Dropped thru Random Verification	Table 3	61%	64%	64%	58%	61%	57%	61%	73%	50%	61%

Participants Requested to Verify (HU)	Table 3	25,000	37,996	48,035	37,518	50,000	37,518	49,000	65,000	23,000	20,000
PEV Drop Off	Table 3	23,000	34,784	43,837	34,401	36,458	34,401	36,458	61,982	18,076	5,000
% Dropped thru Random Verification	Table 3	92%	92%	91%	92%	73%	92%	74%	95%	79%	25%

Self-Certification (Income or Categorical)	Table 2	280,000	300,213	230,000	266,265	253,954	266,265	253,954	248,679	201,400	253,954
Participants Requested to Recertify	Table 6	425,000	375,310	336,354	336,354	332,820	336,354	330,000	315,000	290,283	332,826
Participants Recertified	Table 6	260,000	229,748	150,000	239,610	176,399	239,610	176,399	181,943	13,800	178,000
Recertification Rate	Table 6	61%	61%	45%	71%	53%	71%	53%	58%	5%	53%

Attrition (Drop Offs)	Table 2	350,000	324,610	300,000	323,081	305,000	323,081	310,000	3,210,000	275,000	305,000
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2011-2020 CARE Program Table 1 Budget & Expense Overview



2011-2012 CARE Penetration, Verifications, and Recertifications

Table 2

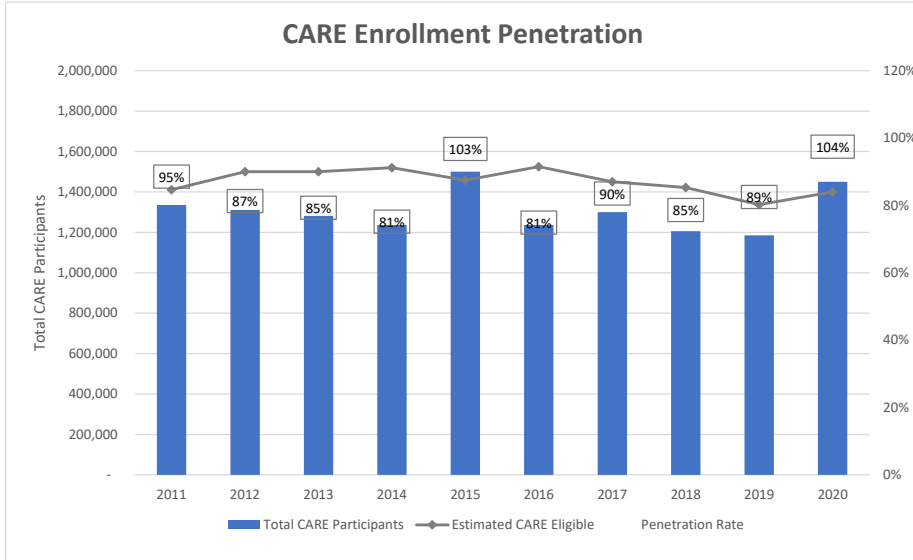


Table 3A

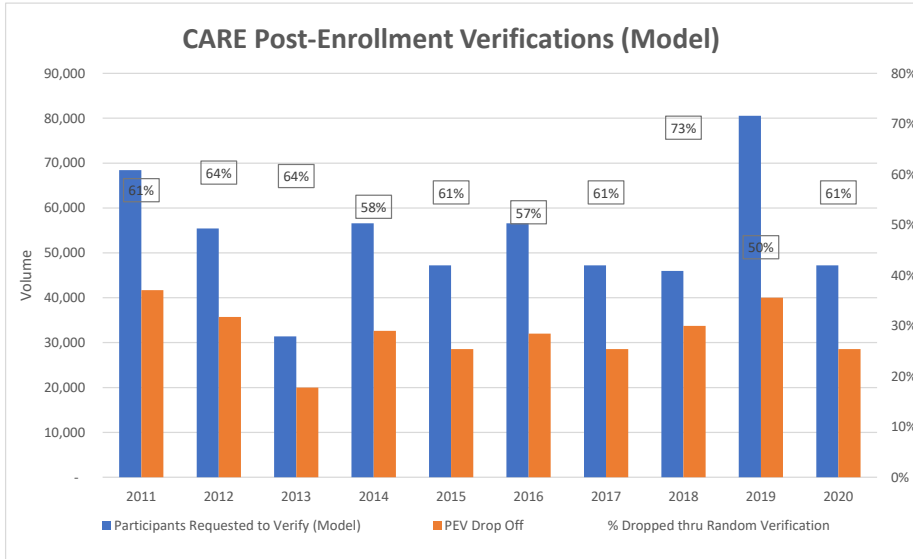


Table 3B

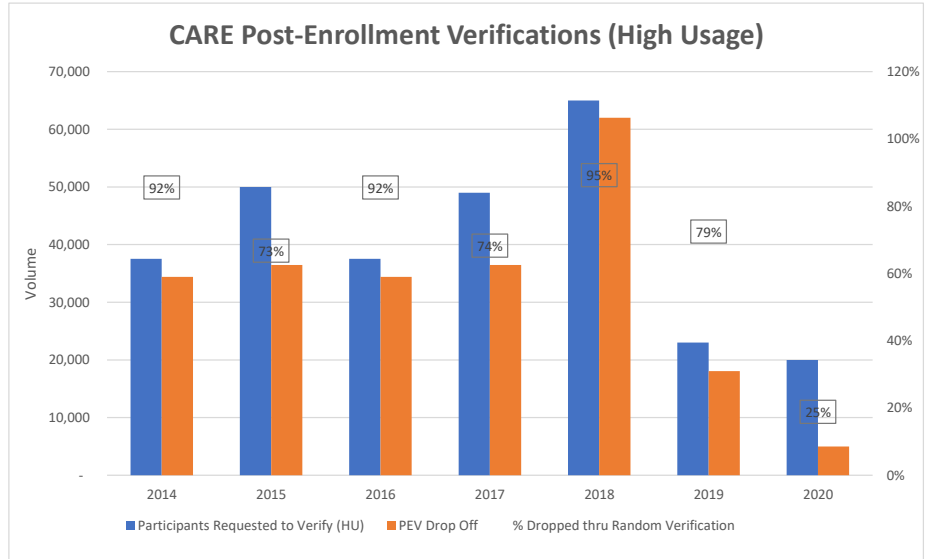


Table 2

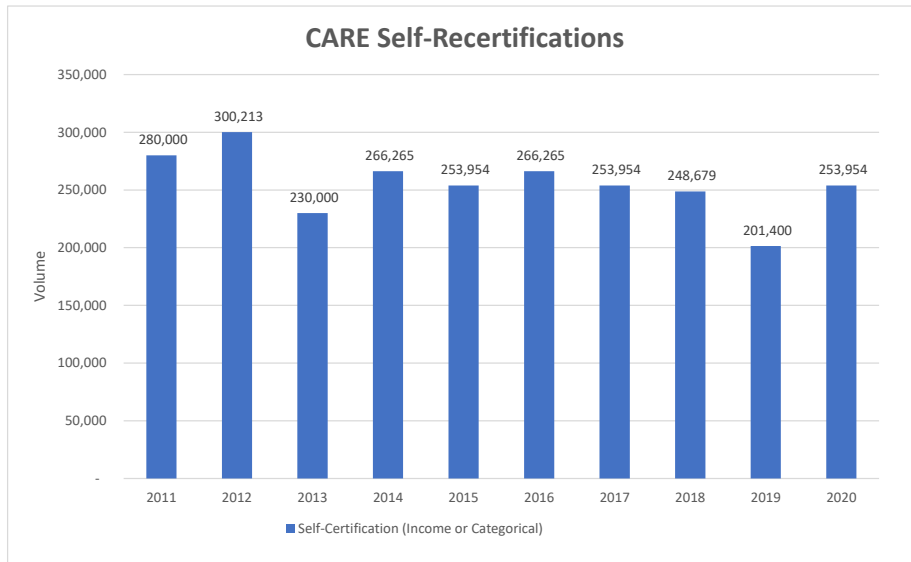
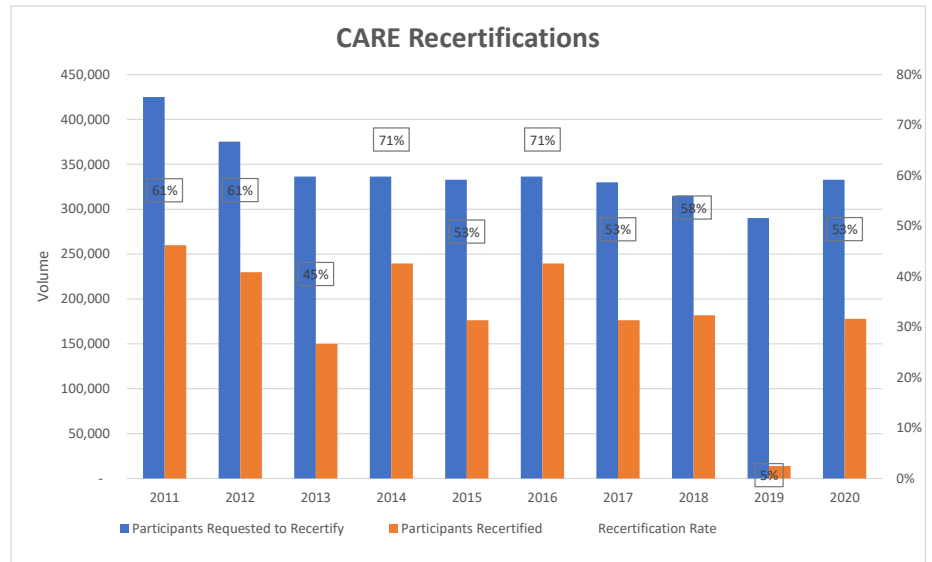


Table 6



FERA TABLE 1 DATA

Annual Budgets

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outreach	\$607,450	\$665,695	\$729,765	\$800,244	\$877,766	\$963,040	\$ 991,931	\$ 1,021,689	\$ 1,052,340	\$ 1,083,910
Processing, Certification, Recertification	\$389,044	\$382,745	\$392,986	\$403,858	\$415,053	\$426,572	\$ 439,369	\$ 452,550	\$ 466,127	\$ 480,111
Verification	\$122,856	\$120,867	\$124,101	\$127,534	\$131,069	\$134,707	\$ 138,748	\$ 142,911	\$ 147,198	\$ 151,614
IT Programming	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$30,000	\$ 30,900	\$ 31,827	\$ 32,782	\$ 33,765
Measurement and Evaluation	\$33,000	\$24,000	\$54,000	\$24,000	\$24,000	\$54,000	\$ 55,620	\$ 57,289	\$ 59,007	\$ 60,777
Regulatory Compliance	\$18,351	\$15,445	\$18,797	\$15,905	\$19,270	\$16,392	\$ 16,884	\$ 17,390	\$ 17,912	\$ 18,449
General Administration	\$41,595	\$43,153	\$44,420	\$45,724	\$47,068	\$48,452	\$ 49,906	\$ 51,403	\$ 52,945	\$ 54,533
CPUC Energy Division Staff	\$4,375	\$4,375	\$4,375	\$4,375	\$4,375	\$4,375	\$ 4,506	\$ 4,641	\$ 4,781	\$ 4,924
Program Costs - Budget	\$1,246,671	\$1,286,280	\$1,398,444	\$1,451,640	\$1,548,601	\$1,677,538	\$1,727,864	\$1,779,700	\$1,833,091	\$1,888,084
FERA Rate Discount - Budget	\$21,014,914	\$28,746,536	\$37,353,692	\$46,164,249	\$50,000,000	\$57,127,419	\$ 58,841,242	\$ 60,606,479	\$ 60,000,000	\$ 60,000,000
Program Costs + Subsidy - Budget	\$22,261,585	\$30,032,816	\$38,752,136	\$47,615,889	\$51,548,601	\$58,804,957	\$60,569,106	\$62,386,179	\$61,833,091	\$61,888,084

Annual Expenses

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outreach	\$665,695	\$729,765	\$700,000	\$800,244	\$877,766	\$900,000	\$ 927,000	\$ 954,810	\$ 983,454	\$ 900,000
Processing, Certification, Recertification	\$382,745	\$350,000	\$403,858	\$403,858	\$415,053	\$400,000	\$ 412,000	\$ 424,360	\$ 437,091	\$ 400,000
Verification	\$120,867	\$124,101	\$127,534	\$127,534	\$131,069	\$134,707	\$ 138,748	\$ 142,911	\$ 140,000	\$ 144,200
IT Programming	\$30,000	\$30,000	\$30,000	\$30,000	\$40,000	\$45,000	\$ 50,000	\$ 51,500	\$ 53,045	\$ 54,636
Measurement and Evaluation	\$24,000	\$54,000	\$24,000	\$24,000	\$24,000	\$54,000	\$ 55,620	\$ 57,289	\$ 59,007	\$ 60,777
Regulatory Compliance	\$15,445	\$18,797	\$15,905	\$15,905	\$19,270	\$16,392	\$ 16,884	\$ 17,390	\$ 20,000	\$ 20,600
General Administration	\$43,153	\$44,420	\$45,724	\$45,724	\$47,068	\$48,452	\$ 49,906	\$ 51,403	\$ 52,945	\$ 54,533
CPUC Energy Division Staff	\$4,250	\$5,000	\$5,000	\$8,000	\$15,000	\$12,000	\$ 12,360	\$ 12,731	\$ 13,113	\$ 13,506
Program Costs - Spend	\$1,286,155	\$1,356,083	\$1,352,021	\$1,455,265	\$1,569,226	\$1,610,551	\$1,662,518	\$1,712,393	\$1,758,655	\$1,648,253
FERA Rate Discount - Spend	\$20,500,300	\$30,000,000	\$35,000,000	\$43,000,000	\$53,000,000	\$55,000,000	\$ 55,000,000	\$ 58,000,000	\$ 59,000,000	\$ 61,000,000
Program Costs + Subsidy - Spend	\$21,786,455	\$31,356,083	\$36,352,021	\$44,455,265	\$54,569,226	\$56,610,551	\$56,662,518	\$59,712,393	\$60,758,655	\$62,648,253

% of Budget Spent

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Outreach	110%	110%	96%	100%	100%	93%	93%	93%	93%	83%
Processing, Certification, Recertification	98%	91%	103%	100%	100%	94%	94%	94%	94%	83%
Verification	98%	103%	103%	100%	100%	100%	100%	100%	95%	95%
IT Programming	100%	100%	100%	100%	133%	150%	162%	162%	162%	162%
Measurement and Evaluation	73%	225%	44%	100%	100%	100%	100%	100%	100%	100%
Regulatory Compliance	84%	122%	85%	100%	100%	100%	100%	100%	112%	112%
General Administration	104%	103%	103%	100%	100%	100%	100%	100%	100%	100%
CPUC Energy Division Staff	97%	114%	114%	183%	343%	274%	274%	274%	274%	274%
% Program Costs Spend	103%	105%	97%	100%	101%	96%	96%	96%	96%	87%
% of FERA Rate Discount Spend	98%	104%	94%	93%	106%	96%	93%	96%	98%	102%
Total Program Costs + Subsidy	98%	104%	94%	93%	106%	96%	94%	96%	98%	101%

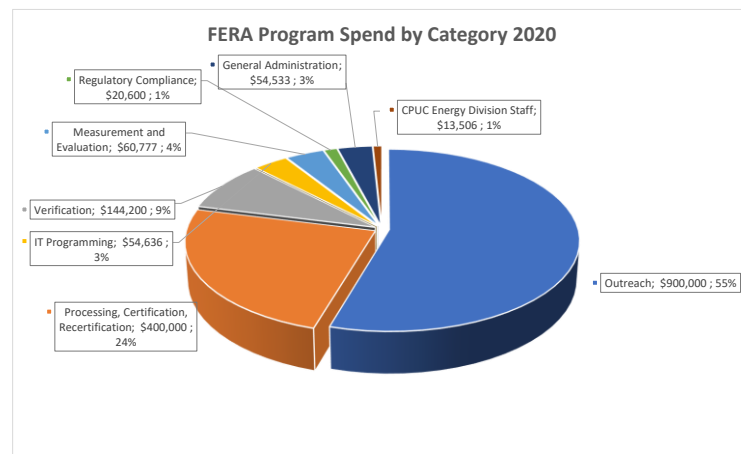
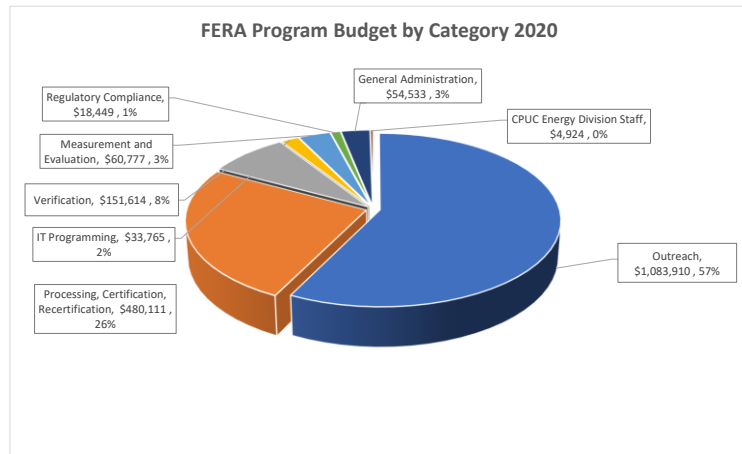
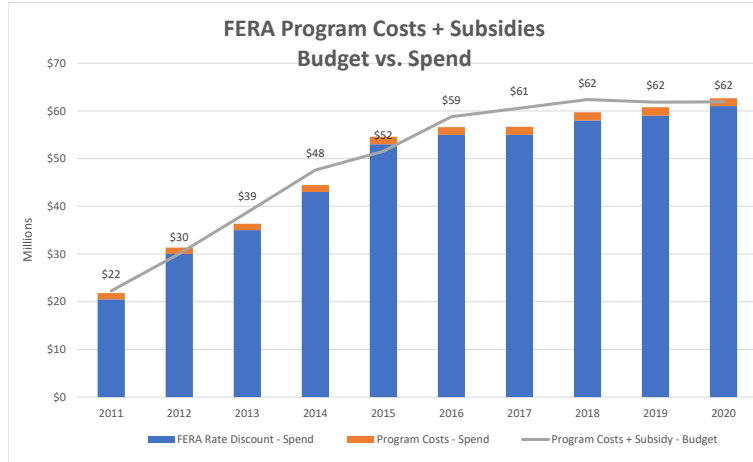
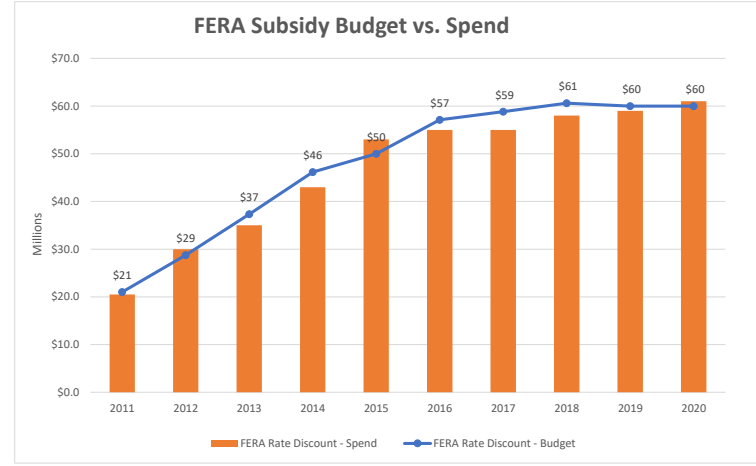
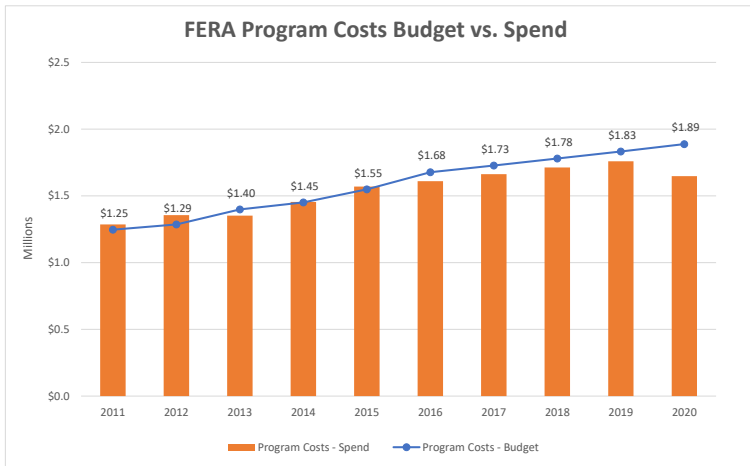
FERA Penetration, Verifications, and Recertification

	Source	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total FERA Participants	Table 2	20,000	25,000	22,000	23,000	25,000	30,000	31,505	29,000	28,000	29,000
Estimated FERA Eligible	Table 2	150,000	157,500	180,000	182,000	188,000	197,500	198,000	200,000	220,000	221,673
Penetration Rate	Table 2	13%	16%	12%	13%	13%	15%	16%	15%	13%	13%

Participants Requested to Verify (Model)	Table 3	1,710	1,386	784	1,414	1,180	1,414	1,180	1,150	2,014	1,180
PEV Drop Off	Table 3	1,043	893	500	815	714	800	714	843	1,000	714
% Dropped thru Random Verification	Table 3	61%	64%	64%	58%	61%	57%	61%	73%	50%	61%

Self-Certification (Income or Categorical)	Table 2	1,373	1,430	1,095	1,268	1,209	1,268	1,209	1,184	959	1,209
Participants Requested to Recertify	Table 6	2,066	1,787	1,602	1,602	1,585	1,602	1,571	1,500	1,382	1,585
Participants Recertified	Table 2	1,276	1,094	714	1,141	840	1,141	840	866	658	848
Recertification Rate	Table 2	62%	61%	45%	71%	53%	71%	53%	58%	48%	53%

2011-2020 FERA Program Table 1 Budget & Expense Overview



2011-2012 FERA Penetration, Verifications, and Recertifications

Table 2

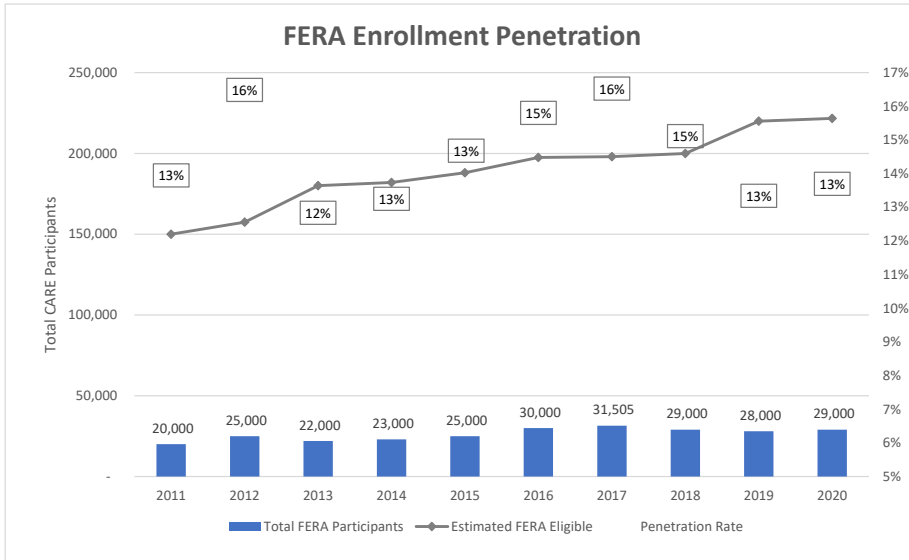


Table 2

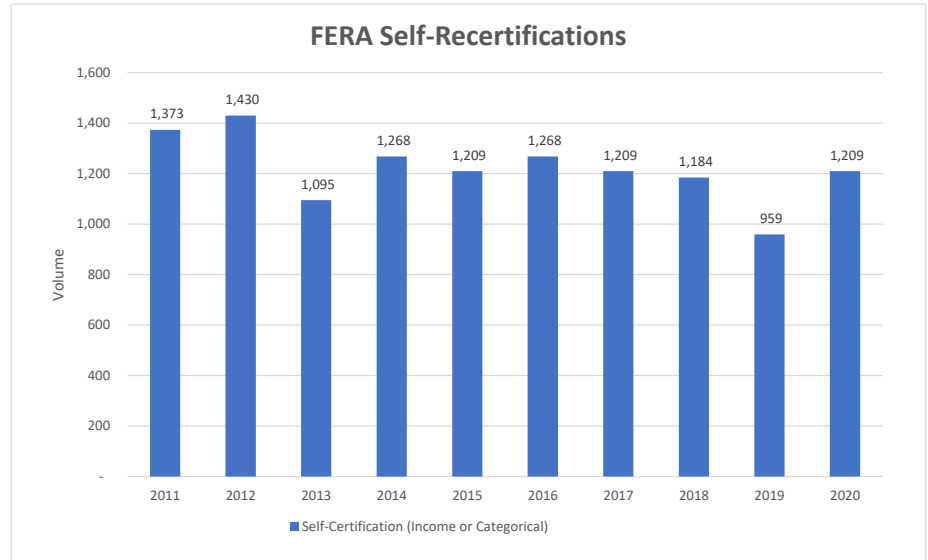


Table 3A

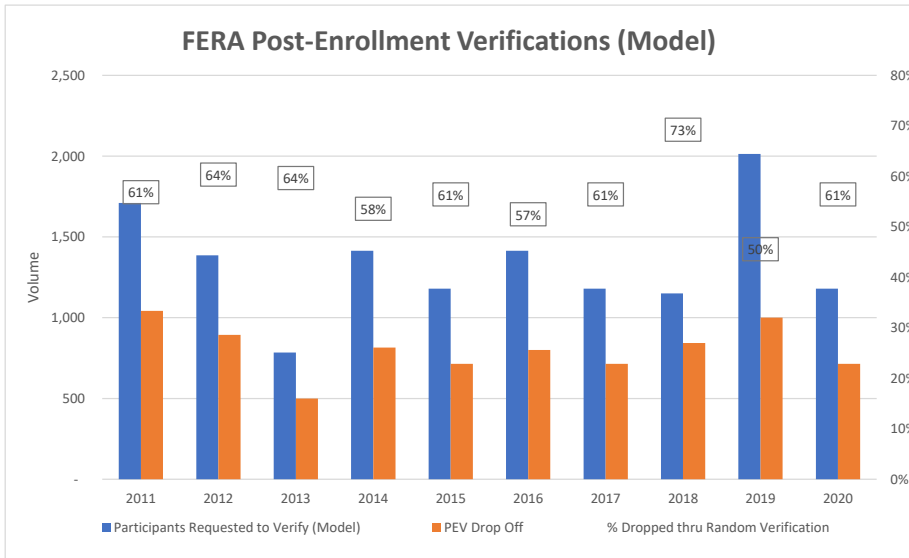
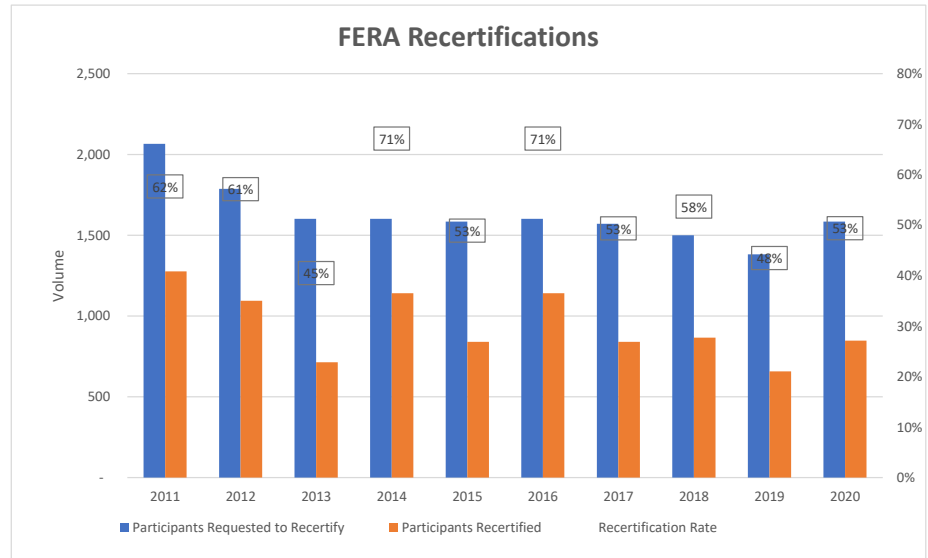


Table 6



Attachment B

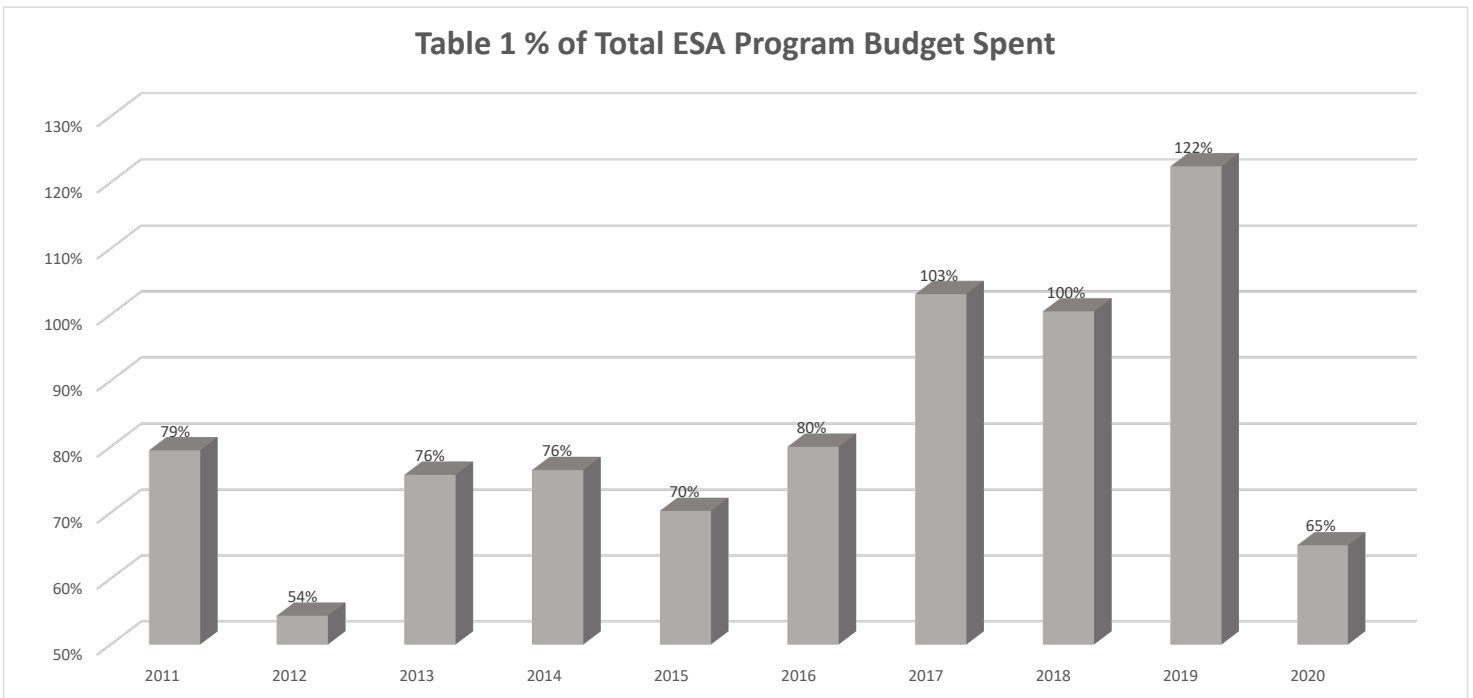
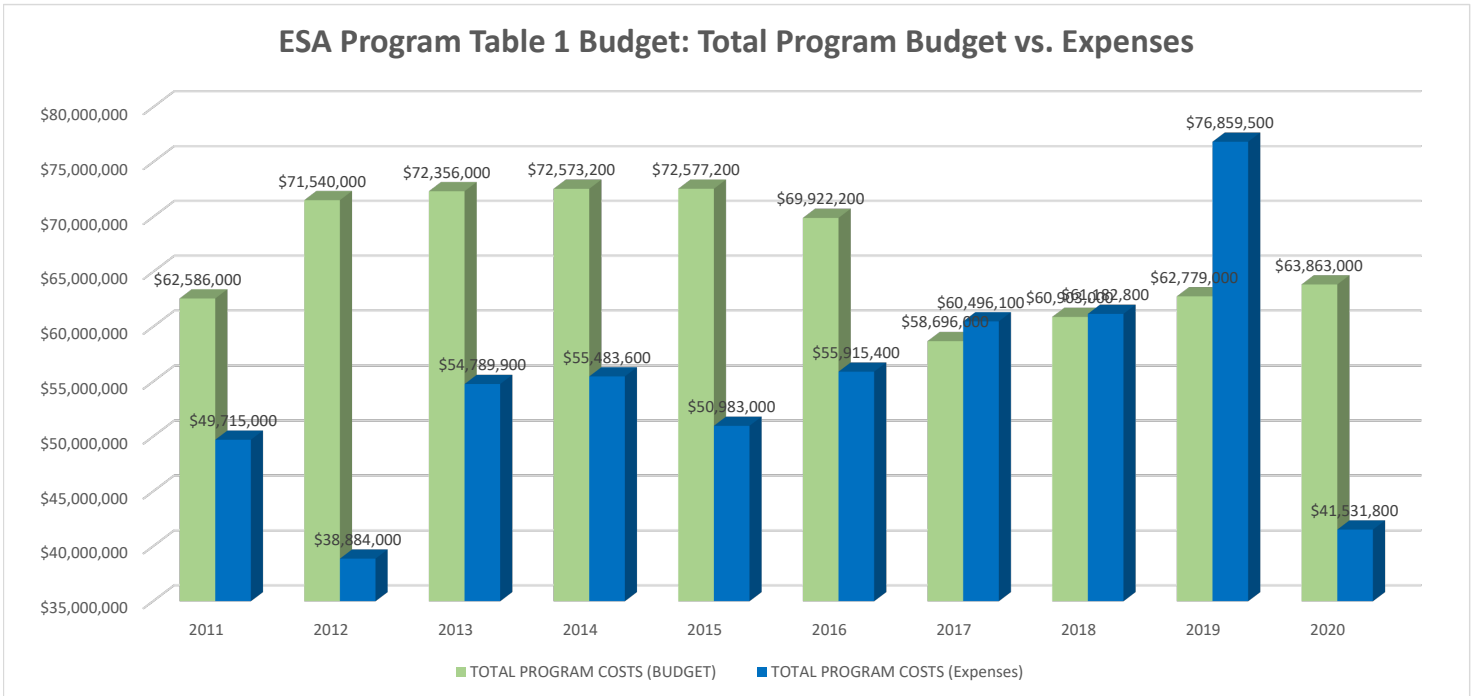
ESA TABLE 1 DATA

	Annual Budgets									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Appliances [3]	\$45,000,000	\$56,000,000	\$21,017,000	\$21,016,000	\$21,018,000	\$21,018,000	\$20,000,000	\$20,500,000	\$21,500,000	\$22,000,000
Domestic Hot Water	\$0	\$0	\$51,000	\$51,200	\$51,200	\$51,200	\$25,000	\$26,000	\$30,000	\$32,000
Enclosure	\$520,000	\$260,000	\$265,000	\$263,000	\$265,000	\$265,000	\$175,000	\$200,000	\$215,000	\$225,000
HVAC	\$0	\$0	\$27,200,000	\$27,300,000	\$27,300,000	\$25,100,000	\$21,000,000	\$23,000,000	\$24,750,000	\$26,100,000
Maintenance	\$0	\$0	\$225,000	\$225,000	\$225,000	\$225,000	\$88,000	\$94,000	\$100,000	\$102,000
Lighting	\$0	\$0	\$3,250,000	\$3,248,000	\$3,248,000	\$3,248,000	\$2,500,000	\$1,900,000	\$1,000,000	\$500,000
Miscellaneous	\$0	\$0	\$4,700,000	\$4,700,000	\$4,700,000	\$4,700,000	\$2,700,000	\$2,500,000	\$2,600,000	\$1,600,000
Customer Enrollment	\$8,000,000	\$5,500,000	\$5,610,000	\$5,609,000	\$5,609,000	\$5,609,000	\$4,000,000	\$4,200,000	\$4,300,000	\$4,700,000
In Home Education	\$2,400,000	\$1,200,000	\$1,240,000	\$1,235,000	\$1,235,000	\$1,235,000	\$1,300,000	\$1,350,000	\$1,400,000	\$1,500,000
Pilot	\$21,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Energy Efficiency TOTAL	\$55,941,000	\$62,960,000	\$63,558,000	\$63,647,200	\$63,651,200	\$61,451,200	\$51,788,000	\$53,770,000	\$55,895,000	\$56,759,000
Training Center	\$275,000	\$400,000	\$345,000	\$323,000	\$323,000	\$323,000	\$480,000	\$510,000	\$525,000	\$550,000
Inspections	\$950,000	\$1,650,000	\$1,500,000	\$1,570,000	\$1,570,000	\$1,570,000	\$1,000,000	\$1,100,000	\$1,110,000	\$1,200,000
Marketing and Outreach	\$325,000	\$1,200,000	\$1,400,000	\$1,370,000	\$1,370,000	\$925,000	\$925,000	\$925,000	\$925,000	\$925,000
Statewide Marketing Education and Outreach	\$200,000	\$110,000	\$110,000	\$110,000	\$110,000		\$0	\$0	\$0	\$0
Measurement and Evaluation Studies	-\$95,000	\$190,000	\$195,000	\$195,000	\$195,000	\$195,000	\$220,000	\$90,000	\$91,000	\$91,000
Regulatory Compliance	\$395,000	\$575,000	\$590,000	\$600,000	\$600,000	\$600,000	\$425,000	\$450,000	\$475,000	\$480,000
General Administration	\$4,500,000	\$4,400,000	\$4,600,000	\$4,700,000	\$4,700,000	\$4,800,000	\$3,800,000	\$4,000,000	\$3,700,000	\$3,800,000
CPUC Energy Division	\$95,000	\$55,000	\$58,000	\$58,000	\$58,000	\$58,000	\$58,000	\$58,000	\$58,000	\$58,000
TOTAL PROGRAM COSTS (BUDGET)	\$62,586,000	\$71,540,000	\$72,356,000	\$72,573,200	\$72,577,200	\$69,922,200	\$58,696,000	\$60,903,000	\$62,779,000	\$63,863,000

	Annual Expenses									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Appliances [3]	\$37,000,000	\$30,000,000	\$14,500,000	\$15,800,000	\$15,000,000	\$14,000,000	\$14,995,000	\$14,200,000	\$16,000,000	\$8,250,000
Domestic Hot Water	\$0	\$0	\$11,000	\$15,000	\$20,000	\$20,100	\$11,000	\$2,800	\$4,500	\$1,800
Enclosure	\$90,000	\$92,000	\$70,000	\$68,000	\$65,000	\$70,000	\$50,000	\$60,000	\$130,000	\$60,000
HVAC	\$0	\$0	\$23,700,000	\$22,600,000	\$18,000,000	\$23,000,000	\$25,000,000	\$25,050,000	\$28,000,000	\$15,000,000
Maintenance	\$0	\$0	\$88,000	\$50,000	\$475,000	\$300	\$100	\$0	\$0	\$0
Lighting	\$0	\$0	\$2,200,000	\$2,500,000	\$2,600,000	\$2,800,000	\$3,600,000	\$6,200,000	\$9,300,000	\$4,000,000
Miscellaneous	\$0	\$0	\$3,200,000	\$3,700,000	\$3,900,000	\$4,500,000	\$4,400,000	\$2,600,000	\$6,000,000	\$1,300,000
Customer Enrollment	\$5,700,000	\$4,000,000	\$5,250,000	\$5,400,000	\$5,100,000	\$5,125,000	\$6,200,000	\$6,500,000	\$7,800,000	\$5,700,000
In Home Education	\$1,300,000	\$780,000	\$680,000	\$740,000	\$750,000	\$800,000	\$1,000,000	\$1,100,000	\$2,200,000	\$1,500,000
Pilot	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000	\$75,000
Energy Efficiency TOTAL	\$44,140,000	\$34,872,000	\$49,699,000	\$50,873,000	\$45,910,000	\$50,315,400	\$55,256,100	\$55,712,800	\$69,444,500	\$35,886,800
Training Center	\$205,000	\$215,000	\$170,000	\$172,000	\$180,000	\$110,000	\$105,000	\$190,000	\$150,000	\$105,000
Inspections	\$1,300,000	\$725,000	\$875,000	\$850,000	\$710,000	\$900,000	\$825,000	\$110,000	\$1,300,000	\$880,000
Marketing and Outreach	\$135,000	\$360,000	\$125,000	\$645,000	\$900,000	\$675,000	\$390,000	\$900,000	\$1,100,000	\$800,000
Statewide Marketing Education and Outreach	\$70,000	\$0	\$130,000	-\$400	\$0	\$0	\$0	\$0		\$0
Measurement and Evaluation Studies	\$385,000	\$65,000	\$1,030,000	-\$300,000	\$75,000	\$100,000	\$15,000	\$140,000	\$200,000	\$40,000
Regulatory Compliance	\$240,000	\$225,000	\$350,000	\$525,000	\$575,000	\$375,000	\$450,000	\$425,000	\$500,000	\$550,000
General Administration	\$3,200,000	\$2,400,000	\$2,410,000	\$2,700,000	\$2,600,000	\$3,400,000	\$3,400,000	\$3,675,000	\$4,100,000	\$3,200,000
CPUC Energy Division	\$40,000	\$22,000	\$900	\$19,000	\$33,000	\$40,000	\$55,000	\$30,000	\$65,000	\$70,000
TOTAL PROGRAM COSTS (Expenses)	\$49,715,000	\$38,884,000	\$54,789,900	\$55,483,600	\$50,983,000	\$55,915,400	\$60,496,100	\$61,182,800	\$76,859,500	\$41,531,800

	% of Budget Spent									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Appliances [3]	82%	54%	69%	75%	71%	67%	75%	69%	74%	38%
Domestic Hot Water	0%	0%	22%	29%	39%	39%	44%	11%	15%	6%
Enclosure	17%	35%	26%	26%	25%	26%	29%	30%	60%	27%
HVAC	0%	0%	87%	83%	66%	92%	119%	109%	113%	57%
Maintenance	0%	0%	39%	22%	211%	0%	0%	0%	0%	0%
Lighting	0%	0%	68%	77%	80%	86%	144%	326%	930%	800%
Miscellaneous	0%	0%	68%	79%	83%	96%	163%	104%	231%	81%
Customer Enrollment	71%	73%	94%	96%	91%	91%	155%	155%	181%	121%
In Home Education	54%	65%	55%	60%	61%	65%	77%	81%	157%	100%
Pilot	238%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Energy Efficiency TOTAL	79%	55%	78%	80%	72%	82%	107%	104%	124%	63%
Training Center	75%	54%	49%	53%	56%	34%	22%	37%	29%	19%
Inspections	137%	44%	58%	54%	45%	57%	83%	10%	117%	73%
Marketing and Outreach	42%	30%	9%	47%	66%	73%	42%	97%	119%	86%
Statewide Marketing Education and Outreach	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Measurement and Evaluation Studies	-405%	34%	528%	-154%	38%	51%	7%	156%	220%	44%
Regulatory Compliance	61%	39%	59%	88%	96%	63%	106%	94%	105%	115%
General Administration	71%	55%	52%	57%	55%	71%	89%	92%	111%	84%
CPUC Energy Division	42%	40%	2%	33%	57%	69%	95%	52%	112%	121%
TOTAL PROGRAM COSTS	79%	54%	76%	76%	70%	80%	103%	100%	122%	65%

2011-2020 ESA Program Table 1 Budget & Expense Overview



2011-2020 ESA Program Table 1 Budgets: Energy Efficiency

ESA Program Table 1 Budget: Energy Efficiency TOTAL

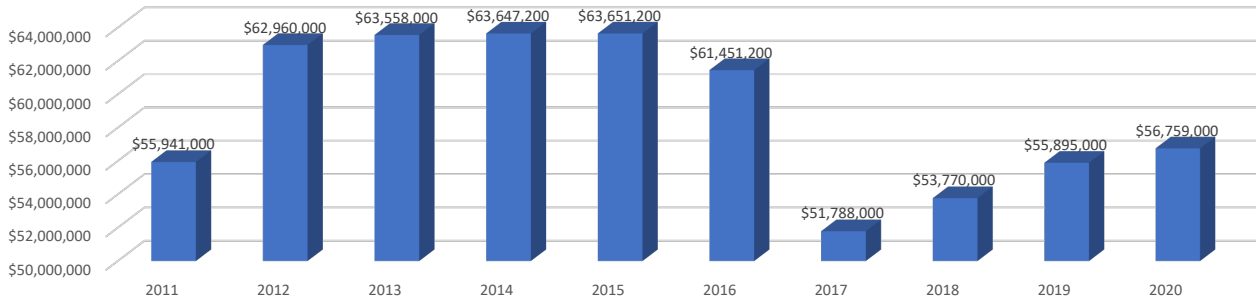
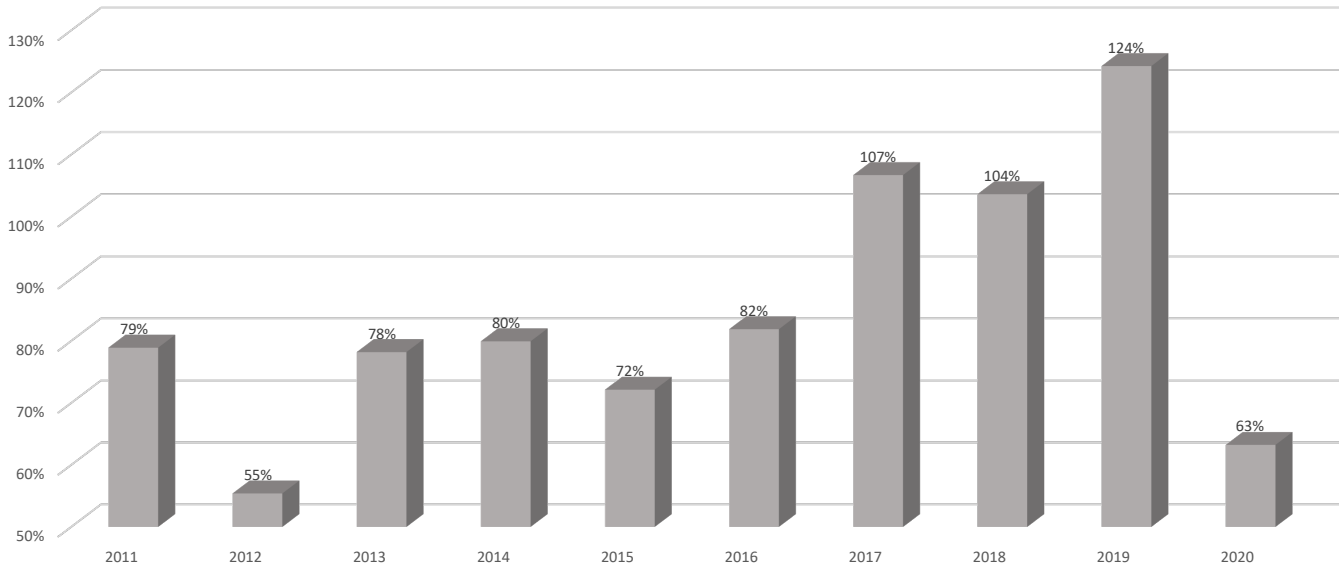
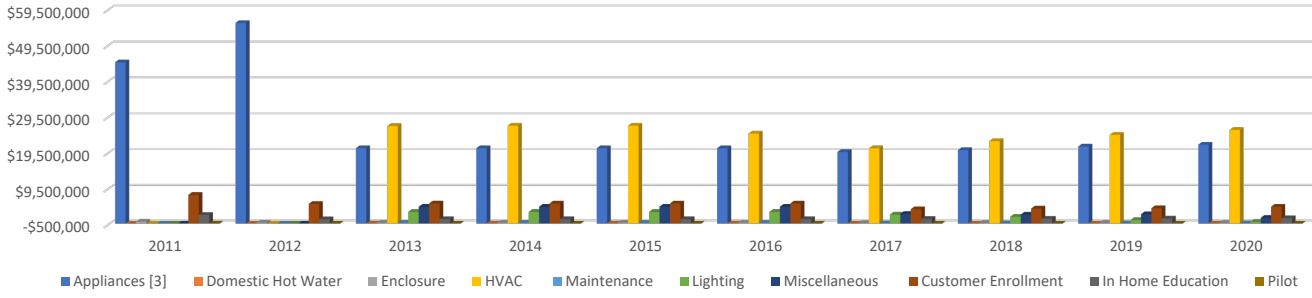


Table 1 % of ESA Program Budget Spent (Energy Efficiency)

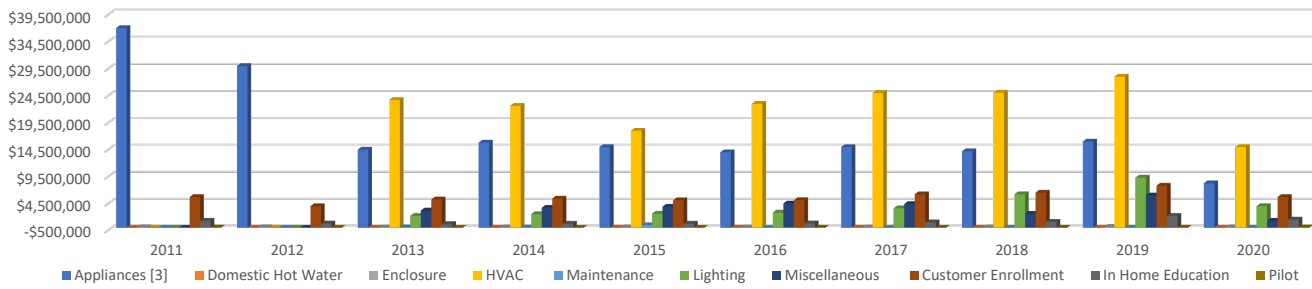


2011-2020 ESA Program Table 1 Budget and Expenses (EE)

ESA Program Table 1 Budget (EE)

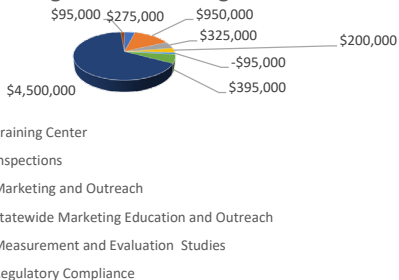


ESA Program Table 1 Expenses (EE)

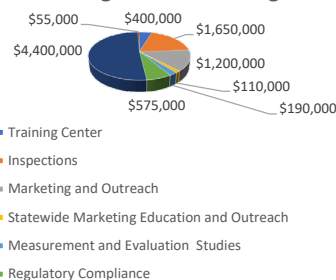


2011-2020 ESA Table 1 Budgets: Admin

2011 ESA Program Table 1 Budget: Admin



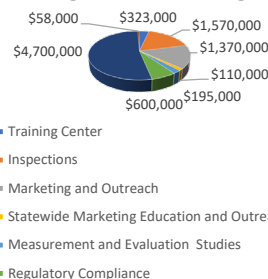
2012 ESA Program Table 1 Budget: Admin



2013 ESA Program Table 1 Budget: Admin



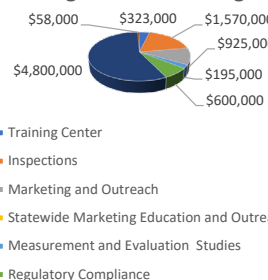
2014 ESA Program Table 1 Budget: Admin



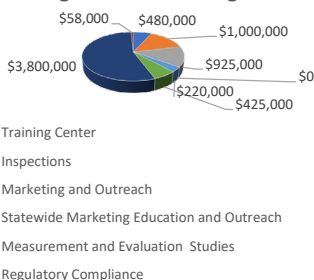
2015 ESA Program Table 1 Budget: Admin



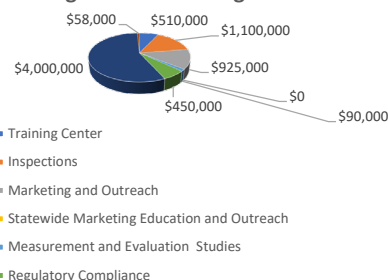
2016 ESA Program Table 1 Budget: Admin



2017 ESA Program Table 1 Budget: Admin



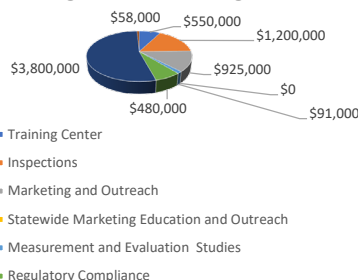
2018 ESA Program Table 1 Budget: Admin



2019 ESA Program Table 1 Budget: Admin

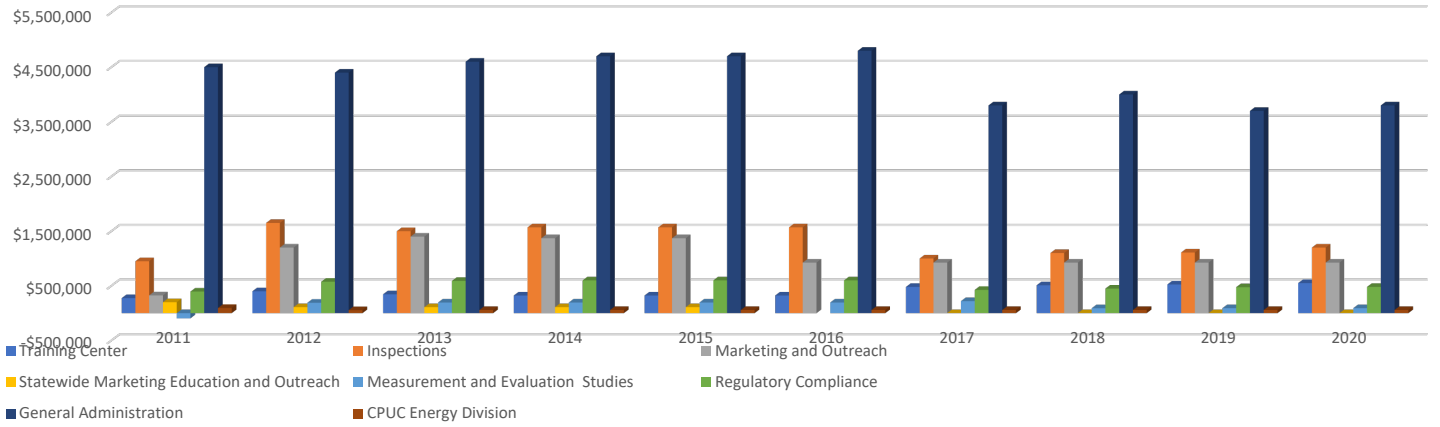


2020 ESA Program Table 1 Budget: Admin

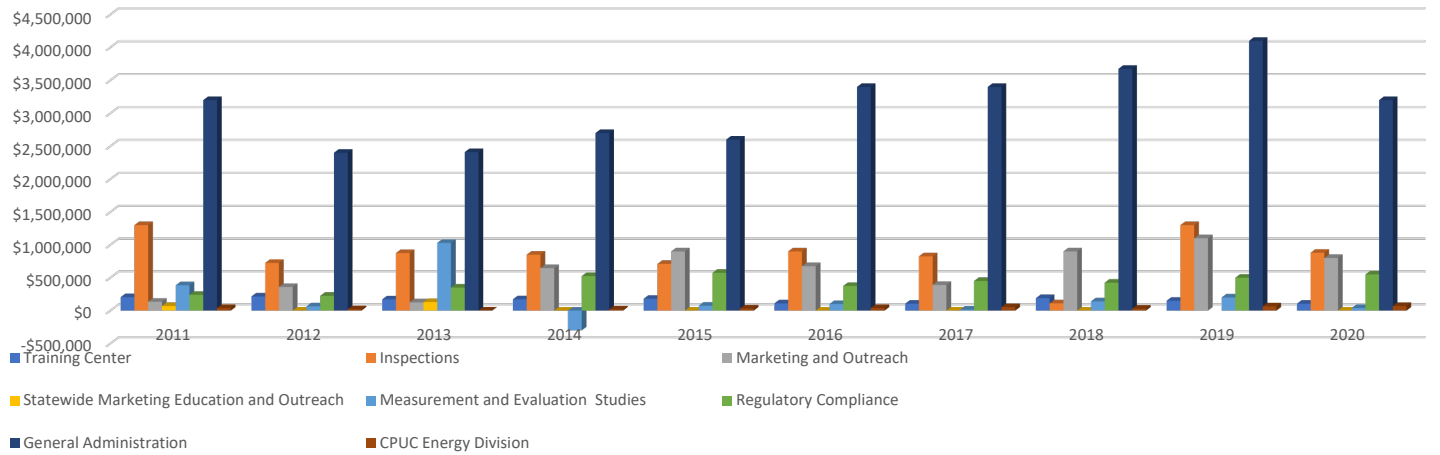


2011-2020 ESA Table 1 Budget and Expenses (Admin)

ESA Program Table 1 Budget (Admin)



ESA Program Table 1 Expenses (Admin)



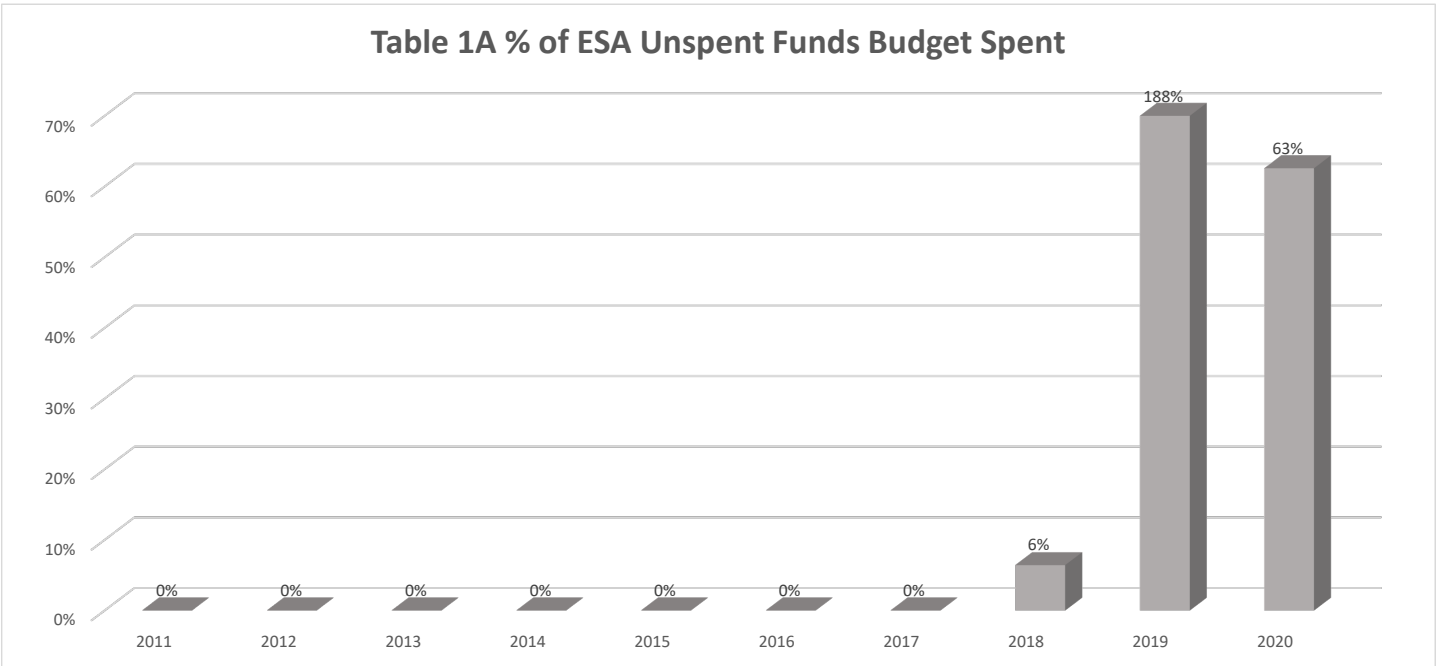
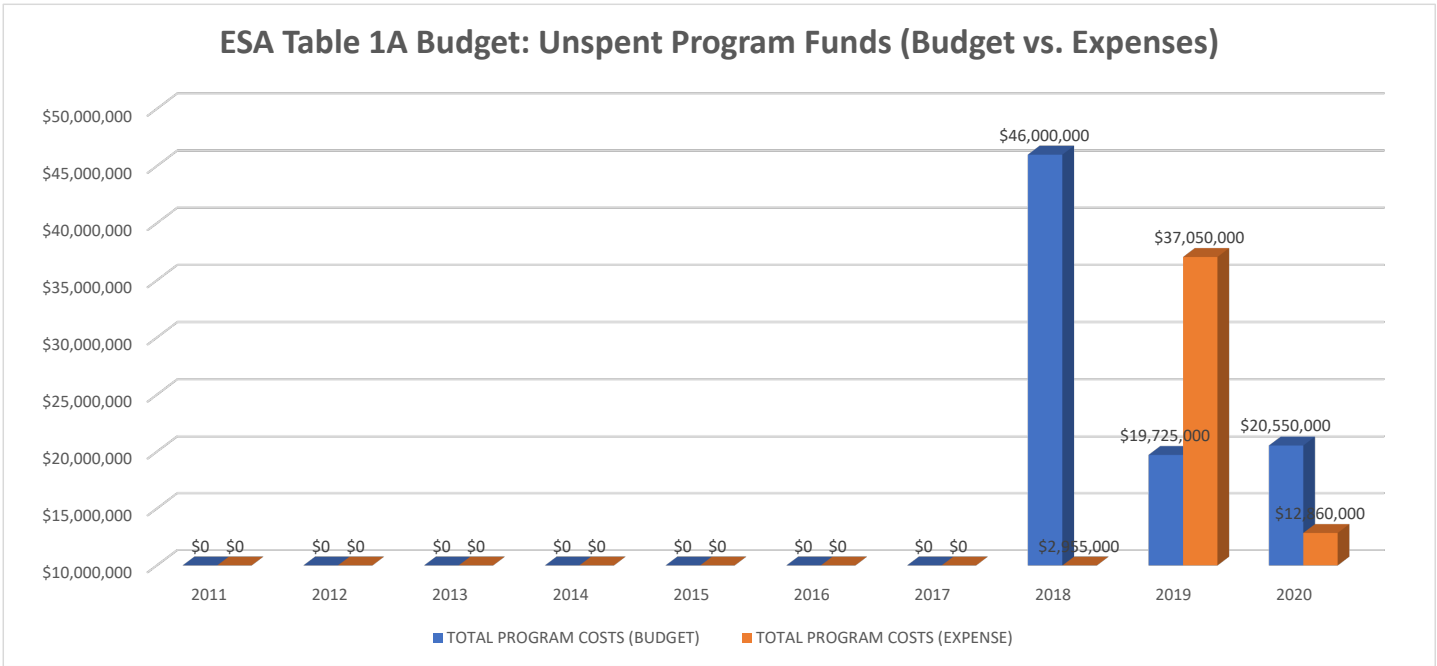
ESA TABLE 1A DATA

	Annual Budgets									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Multi-Family Common Area Measures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,600,000	\$4,500,000	\$4,500,000
Leveraging - CSD	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,100,000	\$1,100,000	\$1,100,000
Climate Zone 13 Central AC and AC related measures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,200,000	\$6,700,000	\$7,100,000
Additional Authorized Funds for Treated customers 3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,750,000	\$1,750,000
Additional Regulatory Compliance Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000	\$0
HE Clothes Washer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$32,000,000	\$3,300,000	\$3,600,000
Powerstrip Tier II	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,100,000	\$2,300,000	\$2,500,000
TOTAL PROGRAM COSTS (BUDGET)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$46,000,000	\$19,725,000	\$20,550,000

	Annual Expenses									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Multi-Family Common Area Measures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$250,000
Leveraging - CSD	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Climate Zone 13 Central AC and AC related measures	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$9,000,000	\$8,500,000
Additional Authorized Funds for Treated customers 3	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Additional Regulatory Compliance Cost	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$55,000	\$0	\$0
HE Clothes Washer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000
Powerstrip Tier II	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,400,000	\$28,000,000	\$4,100,000
TOTAL PROGRAM COSTS (EXPENSE)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,955,000	\$37,050,000	\$12,860,000

	% of Budget Spent									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Multi-Family Common Area Measures	0%	0%	0%	0%	0%	0%	0%	0%	1%	6%
Leveraging - CSD	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Climate Zone 13 Central AC and AC related measures	0%	0%	0%	0%	0%	0%	0%	24%	134%	120%
Additional Authorized Funds for Treated customers 3	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Additional Regulatory Compliance Cost	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
HE Clothes Washer	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Powerstrip Tier II	0%	0%	0%	0%	0%	0%	0%	67%	1217%	164%
TOTAL PROGRAM COSTS (EXPENSE)	0%	0%	0%	0%	0%	0%	0%	6%	188%	63%

2011-2020 ESA Table 1A Budgets: Unspent Program Funds Budget & Expense Overview



ESA TABLE 2 DATA

	Quantity Installed									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Efficiency Clothes Washer	0	0	0	0	0	0	0	0	0	10
Refrigerators	15,000	8,800	17,000	17,000	15,000	13,000	15,000	12,000	14,000	8,000
Freezer	0	0	0	0	0	0	0	0	25	100
Other Hot Water	400	350	475	500	700	750	450	400	450	200
Tank and Pipe Insulation	0	0	80	200	150	125	70	50	20	5
Thermostatic Shower Valves Combined	0	0	0	0	0	0	0	0	0	5
Water Heater Repair/Replacement	0	0	0	0	0	0	0	0	0	0
Thermostatic Shower Valve	0	0	0	0	0	0	0	0	0	10
Air Sealing / Envelope [1]	580	600	625	575	750	700	500	475	680	450
Attic Insulation	5	0	5	5	5	5	5	5	5	5
Smart Thermostat	0	0	0	0	0	0	0	0	1,200	3,600
FAU Standing Pilot Conversion	0	0	0	0	0	0	0	0	0	0
Furnace Repair/Replacement	5	5	0	5	5	0	5	0	0	0
Room A/C Replacement	900	580	700	710	900	950	875	940	650	225
Central A/C Replacement	3,000	2,700	3,200	3,000	1,800	3,100	3,200	3,400	5,000	3,500
Heat Pump Replacement	60	80	50	100	60	125	300	175	250	150
Evaporative Cooler (Replacement)	0	0	0	0	0	0	0	0	0	0
Evaporative Cooler (Installation)	12,000	10,000	12,000	11,000	10,700	10,000	11,000	11,000	10,000	4,300
Duct Testing and Sealing	2,600	2,400	3,000	3,000	1,800	2,900	3,000	3,200	5,200	3,400
Efficient Fan Control	0	0	0	0	0	0	0	0	0	300
Furnace Clean and Tune	0	0	0	0	0	0	0	0	0	0
Central A/C Tune up	5	5	700	400	4,000	5	5	0	0	0
Compact Fluorescent Lights (CFL)	280,000	188,000	261,000	270,000	280,000	290,000	240,000	3,900	300	250
Exterior Hard wired CFL fixture	890	820	625	1,100	2,200	2,500	1,800	80	10	10
Exterior Hard wired LED fixture	0	0	0	0	0	0	0	895	600	165
LED A-Lamps	0	0	0	0	0	0	107,000	590,000	735,000	280,000
LED Reflector Bulbs	0	0	0	0	0	0	0	5,500	12,000	4,700
LED Torchiere	0	0	0	0	0	0	7,200	14,000	34,000	23,000
Torchiere	2,800	1,700	6,000	8,000	100,000	10,100	4,000	10	5	5
Pool Pumps	1,300	1,200	20,000	2,100	2,200	2,500	2,200	20,000	2,000	1,000
Smart Power Strip - Tier 1	0	0	27,000	36,000	36,000	40,000	43,000	62,000	45,000	40,000
Smart Power Strip - Tier 2	0	0	0	0	0	0	700	24,000	43,000	60,000
Outreach and Assessment	95,000	70,000	79,000	81,000	78,000	75,000	90,000	92,000	107,000	78,000
In-Home Education	89,000	68,000	66,000	67,000	52,000	53,000	68,000	77,000	91,000	65,000
Pilot	0	0	0	0	0	0	0	0	0	0
Total Savings/Expenditures	503,545	355,240	497,460	501,695	586,270	504,760	598,310	921,030	1,107,395	576,390

	kWh Savings									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Efficiency Clothes Washer	0	0	0	0	0	0	0	0	0	1,300
Refrigerators	11,100,000	6,100,000	12,000,000	12,000,000	12,100,000	10,600,000	11,600,000	9,900,000	8,200,000	46,000,000
Freezer	0	0	0	0	0	0	0	0	20,000	92,000
Other Hot Water	112,000	30,000	12,000	15,000	94,000	100,000	61,000	50,000	57,000	25,000
Tank and Pipe Insulation	0	0	3,000	5,000	13,000	11,000	6,500	3,900	1,200	100
Thermostatic Shower Valves Combined	0	0	0	0	0	0	0	0	0	25
Water Heater Repair/Replacement	0	0	0	0	0	0	0	0	0	0
Thermostatic Shower Valve	0	0	0	0	0	0	0	0	0	650
Air Sealing / Envelope [1]	24,000	11,000	94,000	53,000	44,000	50,000	80,000	38,000	45,000	13,000
Attic Insulation	0	0	0	0	0	0	0	0	900	215
Smart Thermostat	0	0	0	0	0	0	0	0	430,000	1,100,000
FAU Standing Pilot Conversion	0	0	0	0	0	0	0	0	0	0
Furnace Repair/Replacement	0	0	0	0	0	0	0	0	0	0
Room A/C Replacement	107,000	48,000	38,000	39,000	60,000	95,000	64,000	61,000	-100,000	-40,000
Central A/C Replacement	2,100,000	480,000	250,000	230,000	300,000	540,000	600,000	525,000	17,000,000	1,150,000
Heat Pump Replacement	51,000	60,000	37,000	70,000	42,000	89,000	200,000	125,000	330,000	185,000
Evaporative Cooler (Replacement)	0	0	0	0	0	0	0	0	0	0
Evaporative Cooler (Installation)	2,300,000	5,000,000	5,900,000	5,600,000	5,000,000	4,900,000	5,300,000	4,800,000	54,000,000	2,400,000
Duct Testing and Sealing	810,000	1,300,000	545,000	550,000	37,000	75,000	100,000	80,000	5,200	0
Efficient Fan Control	0	0	0	0	0	0	0	0	0	50,000
Furnace Clean and Tune	0	0	0	0	0	0	0	0	0	0
Central A/C Tune up	15,000	0	128,000	60,000	650,000	600	200	0	0	0
Compact Fluorescent Lights (CFL)	4,500,000	3,700,000	6,600,000	6,900,000	4,500,000	4,800,000	4,000,000	65,000	6,000	4,000
Exterior Hard wired CFL fixture	225,000	57,000	50,000	88,000	78,000	90,000	60,000	3,000	500	300
Exterior Hard wired LED fixture	0	0	0	0	0	0	0	75,000	11,000	2,000
LED A-Lamps	0	0	0	0	0	0	4,200,000	2,300,000	28,000,000	11,000,000
LED Reflector Bulbs	0	0	0	0	0	0	0	90,000	250,000	100,000
LED Torchiere	0	0	0	0	0	0	275,000	550,000	2,400,000	1,600,000
Torchiere	515,000	315,000	1,100,000	1,600,000	875,000	910,000	350,000	1,100	100	175
Pool Pumps	1,800,000	2,100,000	3,300,000	3,800,000	2,750,000	42,000,000	4,000,000	3,200,000	2,000,000	10,000,000
Smart Power Strip - Tier 1	0	0	870,000	1,200,000	900,000	950,000	1,100,000	1,500,000	21,000	300
Smart Power Strip - Tier 2	0	0	0	0	0	0	90,000	3,200,000	6,000,000	8,500,000
Outreach and Assessment	0	0	0	0	0	0	0	0	0	0
In-Home Education	0	0	0	0	0	0	0	0	0	0
Pilot	0	0	0	0	0	0	0	0	0	0
Total Savings/Expenditures	23,659,000	19,201,000	30,927,000	32,210,000	27,443,000	65,210,600	32,086,700	26,567,000	118,677,900	82,184,065

Therm savings is not provided in this sample but will be part of the actual reporting.

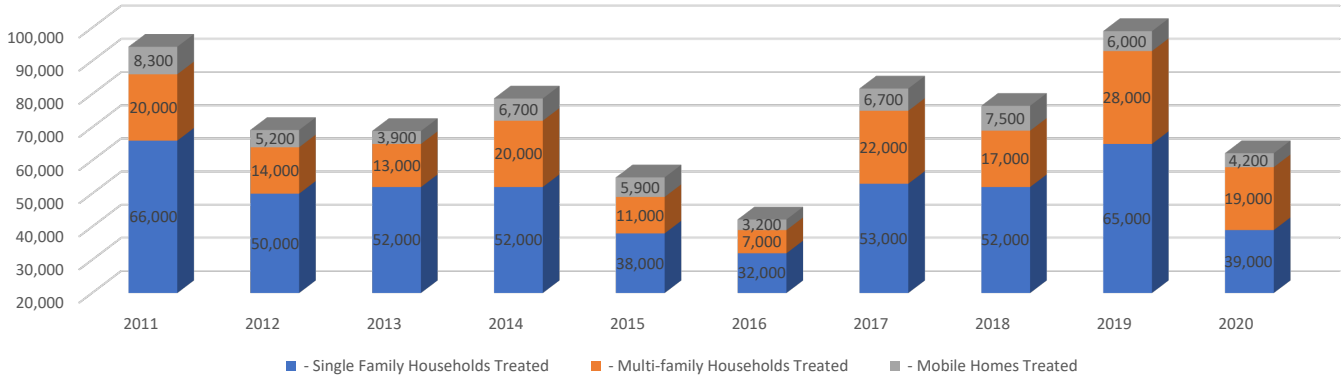
	Expenses									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Efficiency Clothes Washer	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,000
Refrigerators	\$12,500,000	\$7,000,000	\$15,000,000	\$16,000,000	\$15,100,000	\$14,000,000	\$15,000,000	\$13,000,000	\$14,700,000	\$8,300,000
Freezer		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000	\$100,000
Other Hot Water	\$17,000	\$15,000	\$9,000	\$10,000	\$15,000	\$17,000	\$9,000	\$0	\$20,000	\$9,400
Tank and Pipe Insulation	\$0	\$0	\$2,400	\$5,000	\$4,300	\$4,000	\$2,000	\$900	\$700	\$100
Thermostatic Shower Valves Combined	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100
Water Heater Repair/Replacement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Thermostatic Shower Valve	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,000
Air Sealing / Envelope [1]	\$72,000	\$80,000	\$70,000	\$60,000	\$60,000	\$70,000	\$50,000	\$50,000	\$90,000	\$50,000
Attic Insulation	\$1,500	\$0	\$3,000	\$4,000	\$70,000	\$1,000	\$1,400	\$2,500	\$10,000	\$3,000
Smart Thermostat	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000	\$1,200,000
FAU Standing Pilot Conversion	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Furnace Repair/Replacement	\$6,000	\$1,200	\$0	\$2,000	\$500	\$0	\$0	\$0	\$0	\$0
Room A/C Replacement	\$70,000	\$425,000	\$510,000	\$550,000	\$700,000	\$800,000	\$725,000	\$800	\$735,000	\$255,000
Central A/C Replacement	\$10,700,000	\$9,400,000	\$12,500,000	\$10,900,000	\$6,600,000	\$11,000,000	\$12,000,000	\$13,000,000	\$24,000,000	\$16,000,000
Heat Pump Replacement	\$275,000	\$300,000	\$160,000	\$400,000	\$225,000	\$570,000	\$1,100,000	\$700,000	\$1,100,000	\$625,000
Evaporative Cooler (Replacement)	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Evaporative Cooler (Installation)	\$10,800,000	\$9,500,000	\$10,800,000	\$10,300,000	\$10,200,000	\$9,900,000	\$11,000,000	\$11,200,000	\$10,500,000	\$4,500,000
Duct Testing and Sealing	\$626,000	\$540,000	\$655,000	\$625,000	\$375,000	\$610,000	\$700,000	\$750,000	\$1,200,000	\$730,000
Efficient Fan Control	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$125,000
Furnace Clean and Tune	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Central A/C Tune up	\$1,000	\$130	\$92,000	\$50,000	\$475,000	\$400	\$200	\$0	\$0	\$0
Compact Fluorescent Lights (CFL)	\$1,800,000	\$1,200,000	\$1,800,000	\$2,000,000	\$2,000,000	\$2,100,000	\$1,700,000	\$28,000	\$2,500	\$1,800
Exterior Hard wired CFL fixture	\$75,000	\$70,000	\$55,000	\$95,000	\$190,000	\$220,000	\$160,000	\$8,000	\$1,300	\$750
Exterior Hard wired LED fixture	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$80,000	\$50,000	\$16,000
LED A-Lamps	\$0	\$0	\$0	\$0	\$0	\$0	\$970,000	\$5,500,000	\$6,800,000	\$2,500,000
LED Reflector Bulbs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$45,000	\$100,000	\$40,000
LED Torchiere	\$0	\$0	\$0	\$0	\$0	\$0	\$465,000	\$910,000	\$2,400,000	\$1,500,000
Torchiere	\$150,000	\$80,000	\$320,000	\$525,000	\$560,000	\$600,000	\$240,000	\$900	\$50	\$125
Pool Pumps	\$1,400,000	\$1,300,000	\$1,700,000	\$2,500,000	\$2,600,000	\$3,000,000	\$2,700,000	\$2,200,000	\$2,300,000	\$1,200,000
Smart Power Strip - Tier 1	\$0	\$0	\$750,000	\$1,200,000	\$1,300,000	\$1,600,000	\$1,700,000	\$2,500,000	\$3,800,000	\$245,000
Smart Power Strip - Tier 2	\$0	\$0	\$0	\$0	\$0	\$0	\$41,000	\$1,400,000	\$2,800,000	\$4,000,000
Outreach and Assessment	\$5,700,000	\$4,000,000	\$5,400,000	\$5,300,000	\$5,000,000	\$5,100,000	\$6,400,000	\$6,600,000	\$8,000,000	\$5,800,000
In-Home Education	\$1,300,000	\$800,000	\$700,000	\$750,000	\$770,000	\$800,000	\$1,000,000	\$1,140,000	\$2,200,000	\$1,600,000
Pilot	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$0
Total Savings/Expenditures	\$45,493,500	\$34,711,330	\$50,526,400	\$51,276,000	\$46,244,800	\$50,392,400	\$55,963,600	\$59,116,100	\$81,229,550	\$48,812,275

	% of Expenditure									
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
High Efficiency Clothes Washer	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%
Refrigerators	27.48%	20.17%	29.69%	31.20%	32.65%	27.78%	26.80%	21.99%	18.10%	17.00%
Freezer	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%	0.20%
Other Hot Water	0.04%	0.04%	0.02%	0.02%	0.03%	0.03%	0.02%	0.00%	0.02%	0.02%
Tank and Pipe Insulation	0.00%	0.00%	0.00%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%
Thermostatic Shower Valves Combined	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Water Heater Repair/Replacement	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Thermostatic Shower Valve	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Air Sealing / Envelope [1]	0.16%	0.23%	0.14%	0.12%	0.13%	0.14%	0.09%	0.08%	0.11%	0.10%
Attic Insulation	0.00%	0.00%	0.01%	0.01%	0.15%	0.00%	0.00%	0.00%	0.01%	0.01%
Smart Thermostat	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.49%	2.46%
FAU Standing Pilot Conversion	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Furnace Repair/Replacement	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Room A/C Replacement	0.15%	1.22%	1.01%	1.07%	1.51%	1.59%	1.30%	0.00%	0.90%	0.52%
Central A/C Replacement	23.52%	27.08%	24.74%	21.26%	14.27%	21.83%	21.44%	21.99%	29.55%	32.78%
Heat Pump Replacement	0.60%	0.86%	0.32%	0.78%	0.49%	1.13%	1.97%	1.18%	1.35%	1.28%
Evaporative Cooler (Replacement)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Evaporative Cooler (Installation)	23.74%	27.37%	21.37%	20.09%	22.06%	19.65%	19.66%	18.95%	12.93%	9.22%
Duct Testing and Sealing	1.38%	1.56%	1.30%	1.22%	0.81%	1.21%	1.25%	1.27%	1.48%	1.50%
Efficient Fan Control	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.26%
Furnace Clean and Tune	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Central A/C Tune up	0.00%	0.00%	0.18%	0.10%	1.03%	0.00%	0.00%	0.00%	0.00%	0.00%
Compact Fluorescent Lights (CFL)	3.96%	3.46%	3.56%	3.90%	4.32%	4.17%	3.04%	0.05%	0.00%	0.00%
Exterior Hard wired CFL fixture	0.16%	0.20%	0.11%	0.19%	0.41%	0.44%	0.29%	0.01%	0.00%	0.00%
Exterior Hard wired LED fixture	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.14%	0.06%	0.03%
LED A-Lamps	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.73%	9.30%	8.37%	5.12%
LED Reflector Bulbs	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%	0.12%	0.08%
LED Torchiere	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.83%	1.54%	2.95%	3.07%
Torchiere	0.33%	0.23%	0.63%	1.02%	1.21%	1.19%	0.43%	0.00%	0.00%	0.00%
Pool Pumps	3.08%	3.75%	3.36%	4.88%	5.62%	5.95%	4.82%	3.72%	2.83%	2.46%
Smart Power Strip - Tier 1	0.00%	0.00%	1.48%	2.34%	2.81%	3.18%	3.04%	4.23%	4.68%	0.50%
Smart Power Strip - Tier 2	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.07%	2.37%	3.45%	8.19%
Outreach and Assessment	12.53%	11.52%	10.69%	10.34%	10.81%	10.12%	11.44%	11.16%	9.85%	11.88%
In-Home Education	2.86%	2.30%	1.39%	1.46%	1.67%	1.59%	1.79%	1.93%	2.71%	3.28%
Pilot	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Total Savings/Expenditures	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

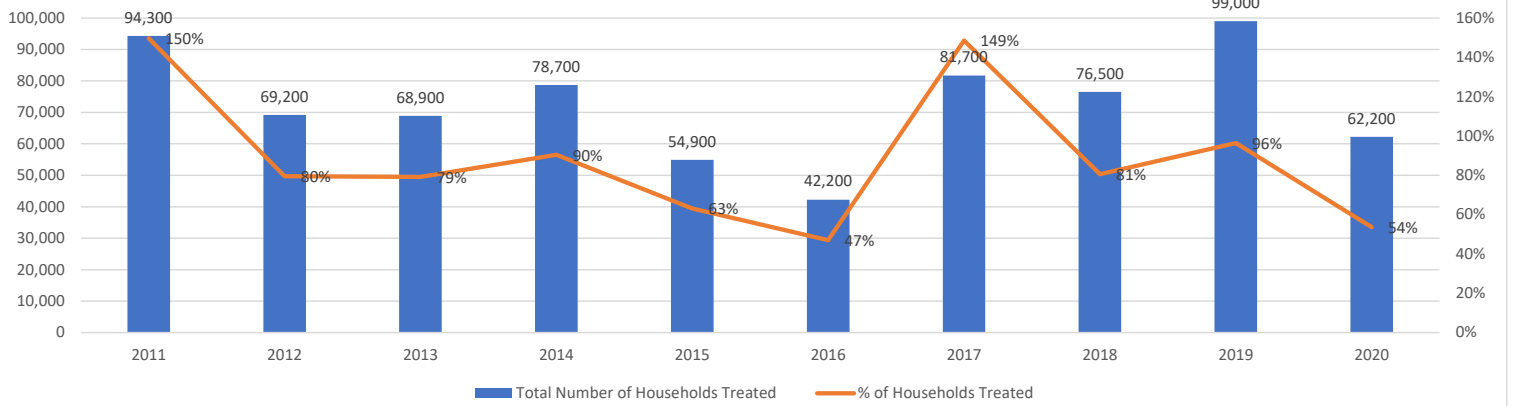
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Households Weatherized	600	700	625,000	600	750	735	500	475	650	500
- Single Family Households Treated	66,000	50,000	52,000	52,000	38,000	32,000	53,000	52,000	65,000	39,000
- Multi-family Households Treated	20,000	14,000	13,000	20,000	11,000	7,000	22,000	17,000	28,000	19,000
- Mobile Homes Treated	8,300	5,200	3,900	6,700	5,900	3,200	6,700	7,500	6,000	4,200
Total Number of Households Treated	94,300	69,200	68,900	78,700	54,900	42,200	81,700	76,500	99,000	62,200
# Eligible Households to be Treated for PY [7]	63,000	87,000	87,000	87,000	87,000	87,000	55,000	95,000	100,000	115,000
% of Households Treated	150%	80%	79%	90%	63%	47%	149%	81%	96%	54%
- Master-Meter Households Treated	5,200	3,200	2,100	5,000	5,900	3,900	12,000	13,000	19,000	16,000

2011-2020 ESA Program Table 2 Total Overview

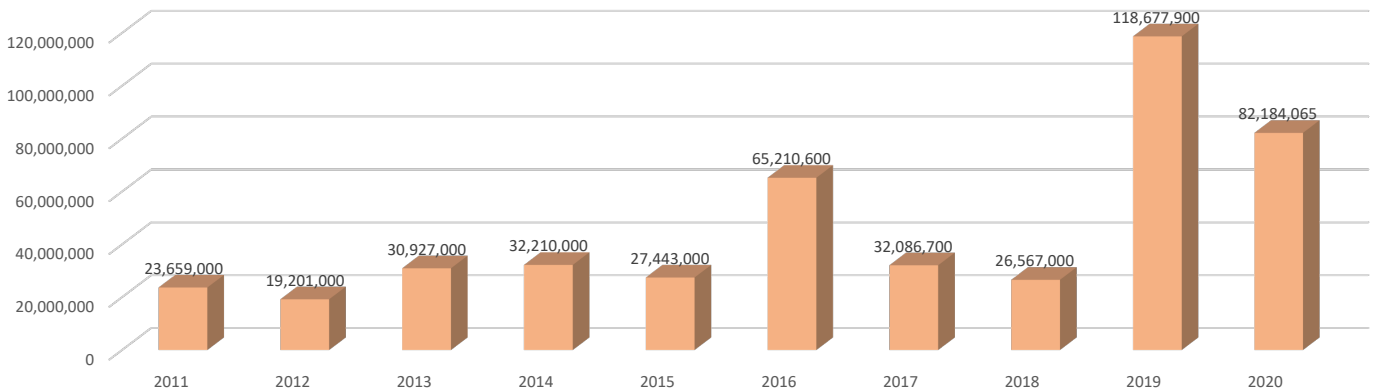
ESA Program Table 2 Total: Homes Treated By Type



ESA Program Table 2: Total # Homes Treated and % of Eligible Homes Treated

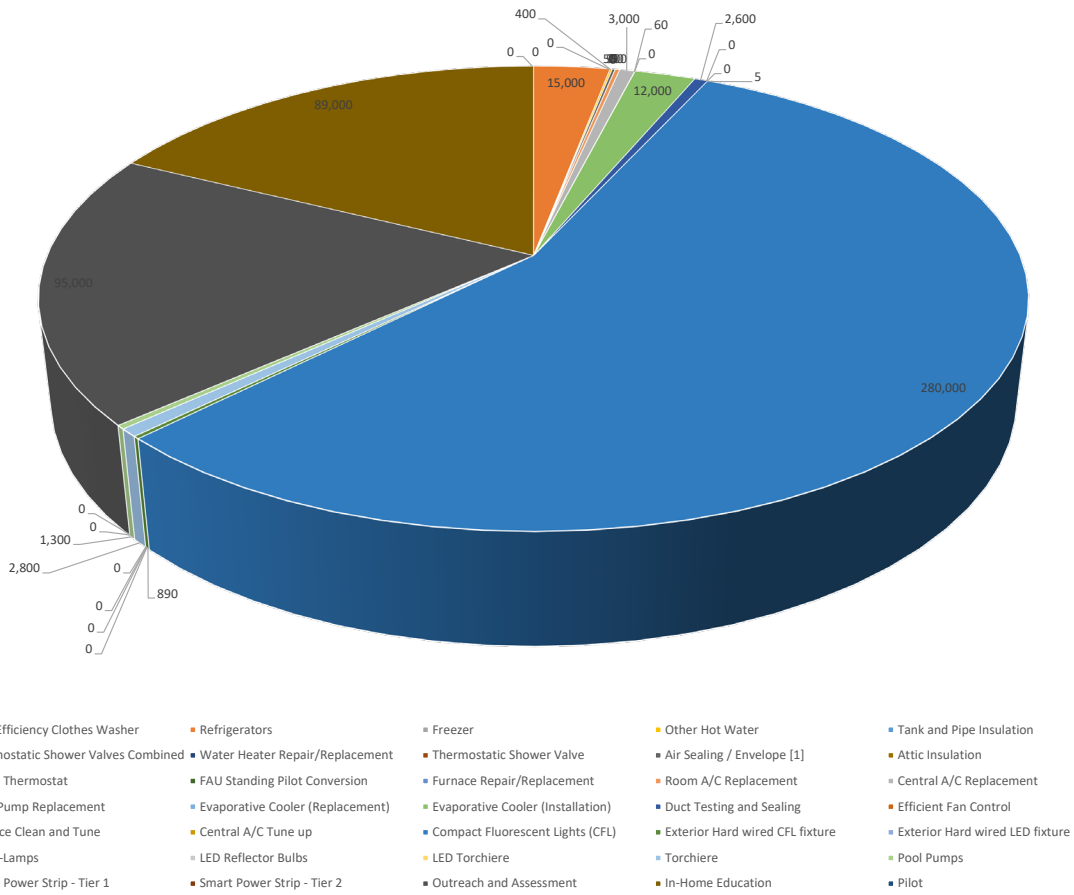


ESA Program Table 2: Total kWh Savings

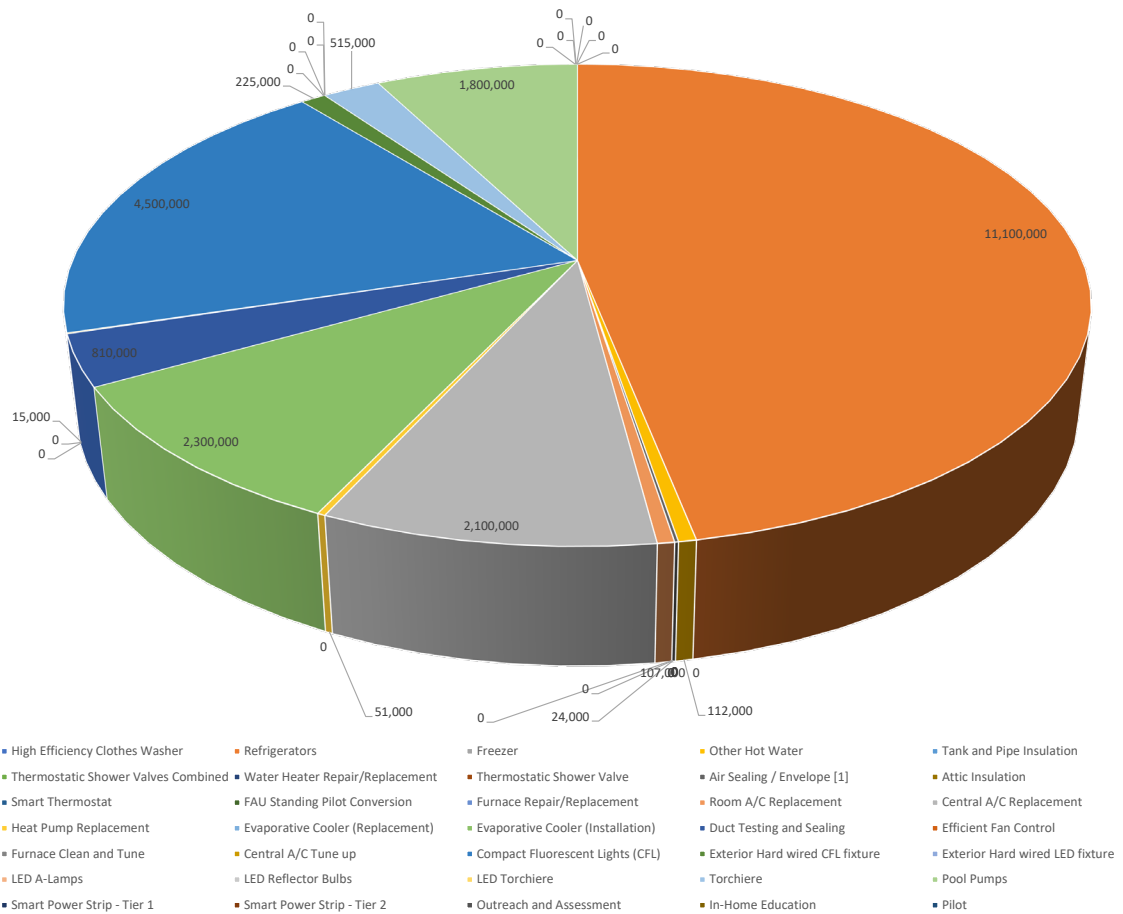


ESA Program: Measure Analysis by Year

2011 ESA Program Table 2 Measures: Quantity Installed

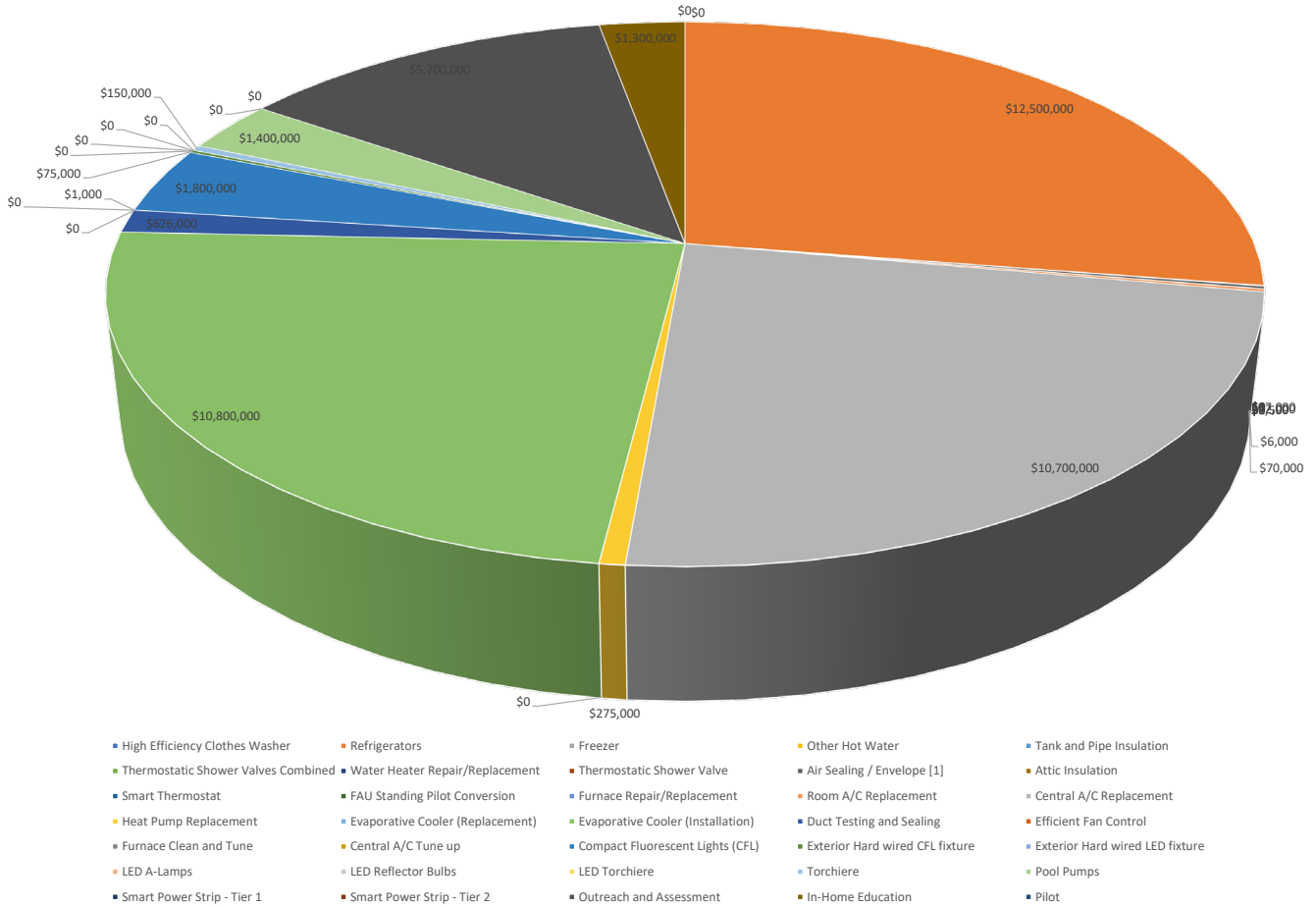


2011 ESA Program Table 2 Measures: kWh Savings

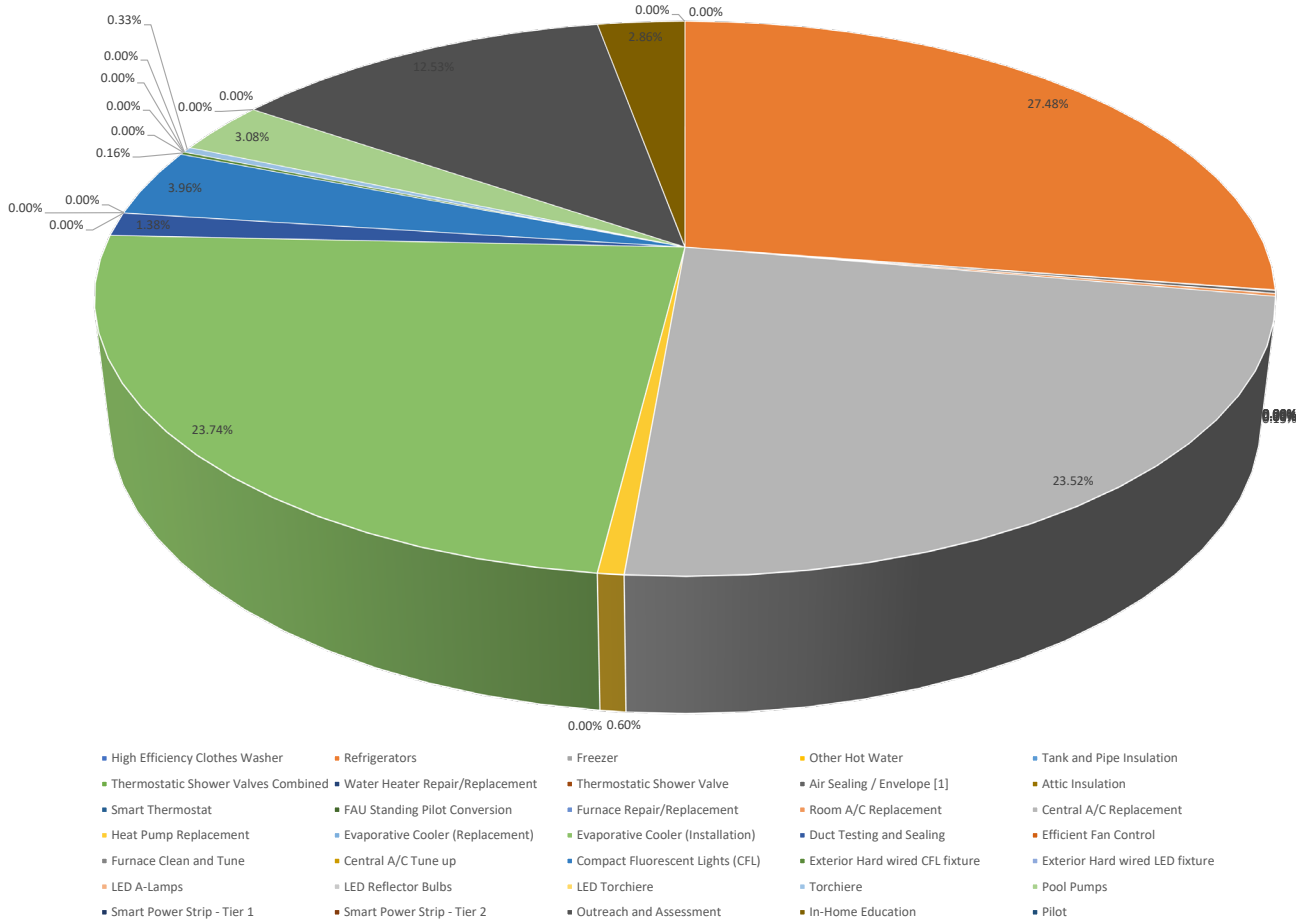


Therm savings is not provided in this sample but will be part of the actual reporting.

2011 ESA Program Table 2 Measures: Expenses



2011 ESA Program Table 2 Measures: % of Expenses



ESA TABLE 4 DATA

Homes Treated - Owners

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	40,000	31,000	33,000	32,000	24,000	20,000	32,000	38,000	37,000	22,000
Multi Family	600	500	400	500	400	300	600	875	900	650
Mobile Homes	7,000	4,300	3,100	5,000	4,800	2,700	5,700	6,000	5,000	3,300

Homes Treated - Renters

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	26,000	18,000	18,000	19,000	13,000	11,000	21,000	23,000	25,000	16,000
Multi Family	19,000	13,000	13,000	18,750	11,000	6,500	20,000	16,000	26,000	18,000
Mobile Homes	1,200	900	750	1,500	990	550	1,000	1,500	1,000	800

mWh - Owners

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	0	0	16,000	15,000	13,000	11,000	15,000	25,000	26,000	13,500
Multi Family	0	0	125	160	150	200	280	450	600	300
Mobile Homes	0	0	1,300	2,800	2,000	5,200	2,400	3,600	3,200	1,700

mWh - Renters

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	0	0	8,600	7,700	7,400	6,000	8,300	11,000	14,000	8,100
Multi Family	0	0	4,700	6,000	4,900	3,900	5,500	7,000	12,000	8,300
Mobile Homes	0	0	400	690	575	1,000	450	600	600	400

MW - Owners

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	0.00	0.00	8.00	7.50	2.40	2.00	2.60	4.00	4.10	2.00
Multi Family	0.00	0.00	0.02	0.02	0.02	0.02	0.06	0.08	0.11	0.04
Mobile Homes	0.00	0.00	0.75	0.90	0.30	0.75	0.35	0.50	0.45	0.28

MW - Renters

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	0.00	0.00	2.90	3.00	1.10	1.20	1.10	1.50	2.00	1.25
Multi Family	0.00	0.00	0.75	0.80	0.70	0.50	0.80	0.90	1.40	1.20
Mobile Homes	0.00	0.00	0.25	0.25	0.10	0.15	0.10	0.10	0.10	0.08

Expenses - Owners

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	\$0	\$0	\$28,000,000	\$0	\$25,600,000	\$27,000,000	\$37,000,000	\$37,500,000	\$50,000,000	\$30,100,000
Multi Family	\$0	\$0	\$200,000	\$0	\$250,000	\$300,000	\$31,000,000	\$800,000	\$900,000	\$400,000
Mobile Homes	\$0	\$0	\$2,500,000	\$0	\$4,000,000	\$6,300,000	\$800,000	\$5,200,000	\$5,100,000	\$3,000,000

Expenses - Renters

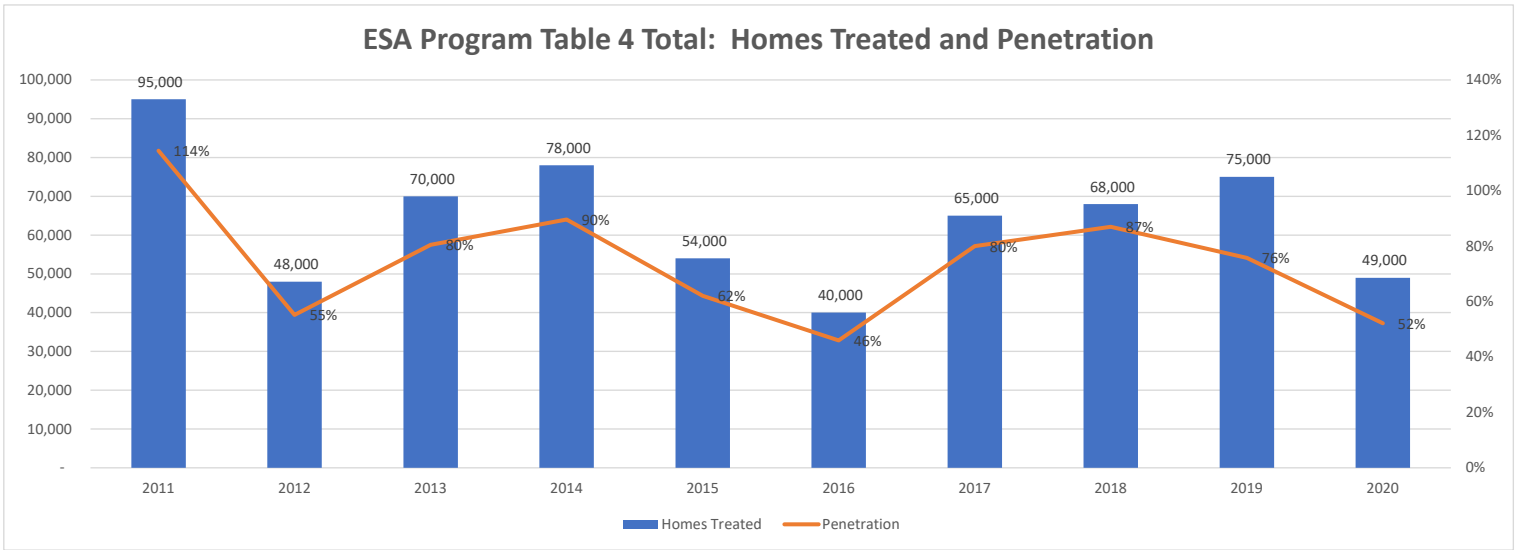
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Single Family	\$0	\$0	\$12,000,000	\$0	\$13,000,000	\$14,200,000	\$14,700,000	\$14,300,000	\$20,000,000	\$11,500,000
Multi Family	\$0	\$0	\$6,800,000	\$0	\$7,500,000	\$6,100,000	\$8,800,000	\$7,500,000	\$13,750,000	\$9,300,000
Mobile Homes	\$0	\$0	\$600,000	\$0	\$950,000	\$1,300,000	\$800,000	\$800,000	\$900,000	\$575,000

Penetration History

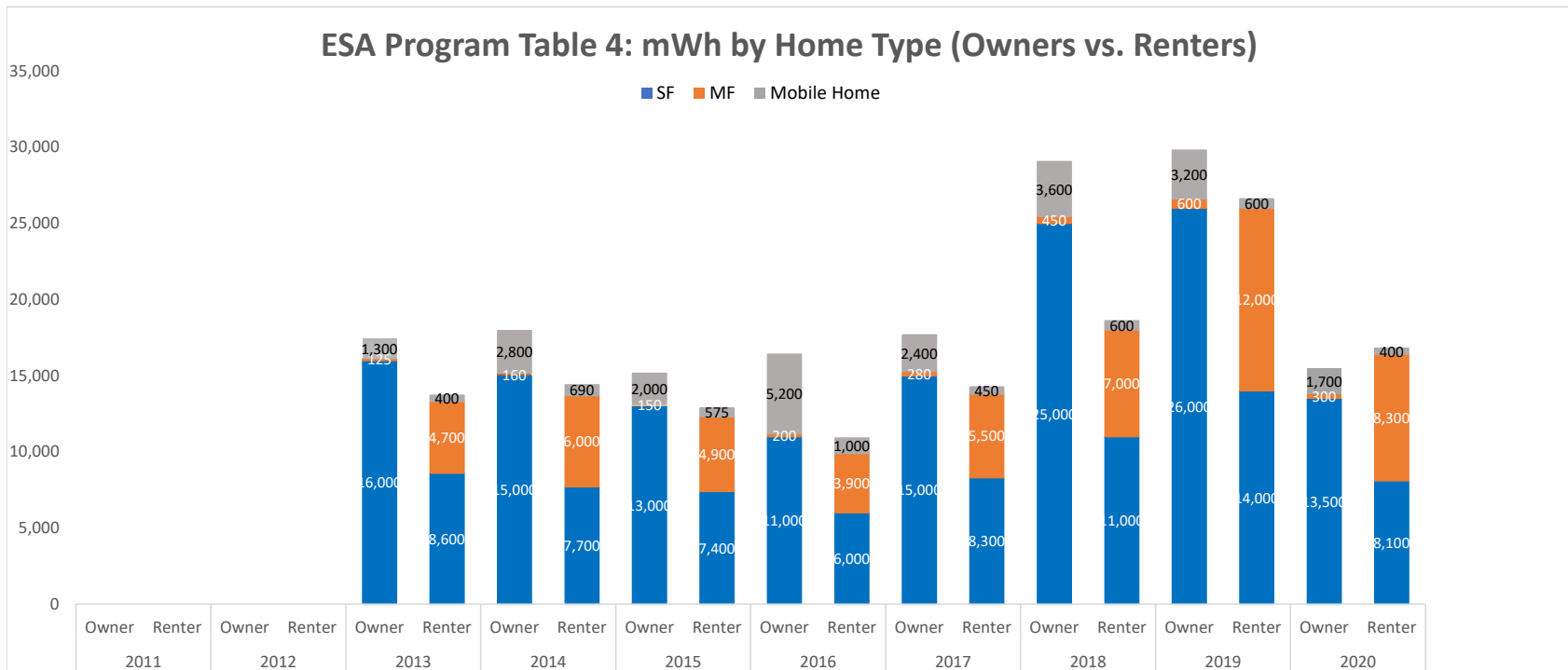
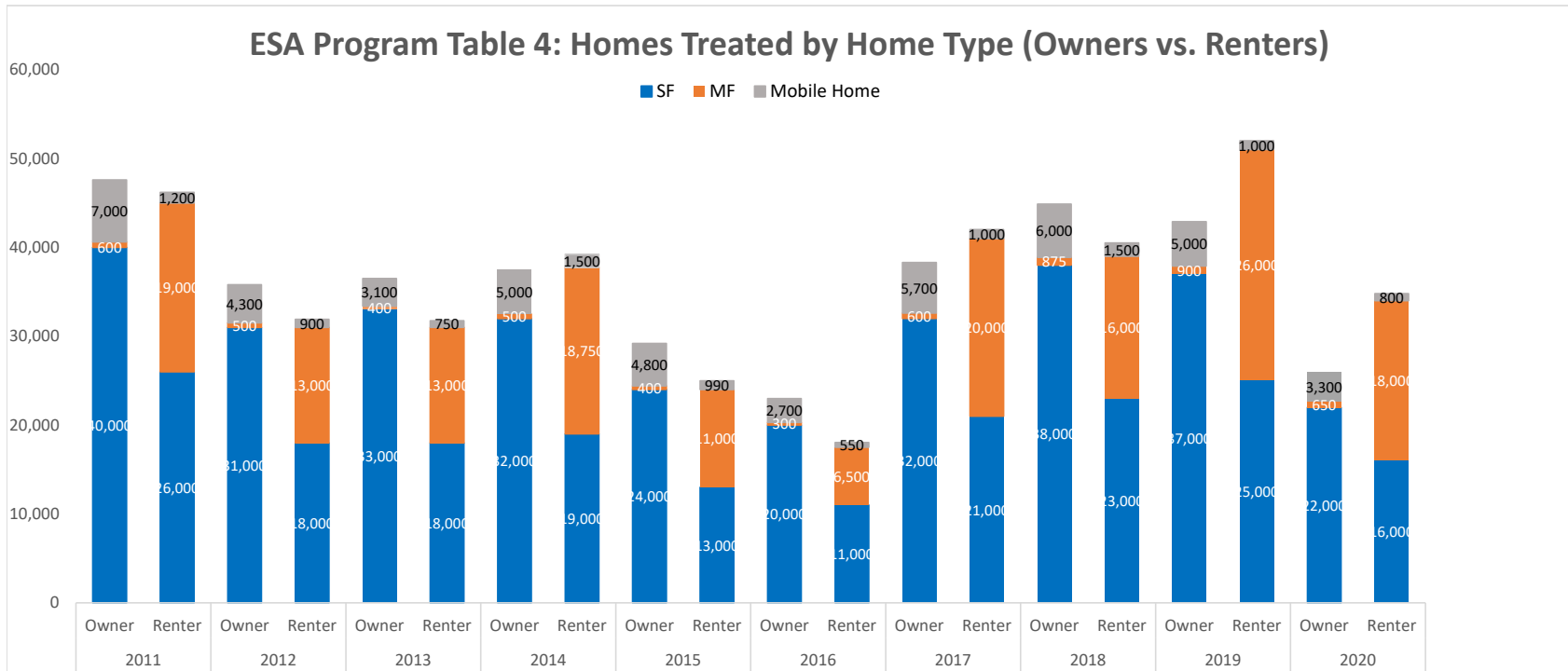
Year	Homes Treated ²	Ineligible & Unwilling ³	Estimated Eligible in Current Year ⁴	Current Year Penetration Rate for Homes Treated
2002	30,000			
2003	33,000			
2004	39,000			
2005	36,000			
2006	53,000			
2007	44,000			
2008	54,000			
2009	60,000	22,000	83,000	72%
2010	120,000	40,000	83,000	145%
2011	95,000	25,000	83,000	114%
2012	48,000	20,000	87,000	55%
2013	70,000	37,000	87,000	80%
2014	78,000	41,000	87,000	90%
2015	54,000	58,000	87,000	62%
2016	40,000	57,000	87,000	46%
2017	65,000	52,000	80,000	80%
2018	68,000	57,000	77,000	87%
2019	75,000	75,000	99,000	76%
2020	49,000	72,000	94,000	52%
Total Homes Treated	1,111,000	556,000	1,034,000	

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Homes Treated	95,000	48,000	70,000	78,000	54,000	40,000	65,000	68,000	75,000	49,000
Penetration	114%	55%	80%	90%	62%	46%	80%	87%	76%	52%

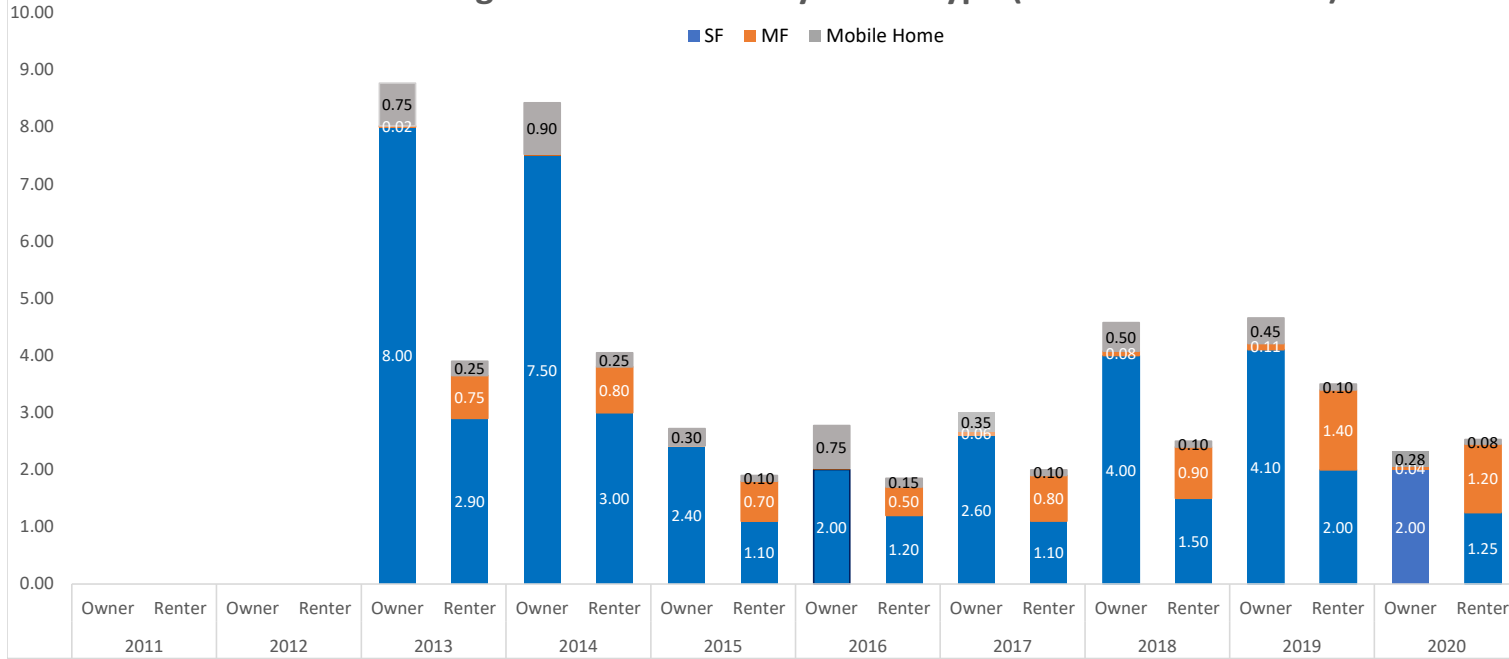
2011-2020 ESA Program Table 4 Total Overview



2011-2020 ESA Program Table 4: Owners vs. Renters Overview



ESA Program Table 4: MW by Home Type (Owners vs. Renters)



ESA Program Table 4: Expenses by Home Type (Owners vs. Renters)

