



**CALIFORNIA
ALTERNATIVE ENERGY AND
ADVANCED TRANSPORTATION
FINANCING AUTHORITY**

**2016 ANNUAL REPORT TO THE
CALIFORNIA STATE LEGISLATURE**

March 2017

About CAEATFA:

The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA or the Authority) was established to advance the state's goals of reducing greenhouse gas emissions, increasing the deployment of sustainable and renewable energy sources, implementing measures that increase the efficiency of the use of energy, creating high quality employment opportunities, and lessening the state's dependence on fossil fuels. To support these goals, CAEATFA provides alternative methods of financing to promote the establishment of facilities that use alternative methods and sources of energy, and facilities needed for the development and commercialization of advanced transportation technologies. CAEATFA has developed and administered various programs, including:

- **Bond Program** – provides low-cost bond financing for eligible projects, which have most recently included Qualified Energy Conservation Bonds (QECBs) and Clean Renewable Energy Bonds (CREBs). As the primary energy bond conduit issuer for the State of California, CAEATFA continues to work with stakeholders on developing innovative approaches to financing gaps.
- **Sales and Use Tax Exclusion Program** – provides a sales and use tax exclusion (STE) on equipment and machinery used in an Advanced Manufacturing process; for the “design, manufacture, production or assembly” of advanced transportation technologies or alternative source products, components or systems, or to process or utilize recycled feedstock.
- **Property Assessed Clean Energy Loss Reserve Program** – supports residential Property Assessed Clean Energy (PACE) programs by addressing concerns raised by the Federal Housing Finance Agency (FHFA) regarding risk to federal mortgage enterprises from PACE financings. The PACE Loss Reserve Program will reimburse first mortgage lenders for specified losses resulting from a PACE lien on a property during foreclosure or forced sale to collect unpaid property taxes.
- **California Hub for Energy Efficiency Financing Pilot Programs** – a series of programs designed to leverage private capital to help customers of the state's investor-owned utilities obtain lower-cost financing for energy efficiency retrofits. This program is being administered in collaboration with the California Public Utilities Commission (CPUC).
- **Clean Energy Upgrade Financing Program** – provided credit enhancements to financial institutions financing energy efficiency and renewable energy improvements on residential properties.

The CAEATFA Board consists of:

John Chiang, Chair
State Treasurer

Betty T. Yee
State Controller

Michael Cohen
Director, Department of Finance

Robert B. Weisenmiller
Chair, California Energy Commission

Michael Picker
President, California Public Utilities Commission

Overview of 2016 Annual Report

In accordance with the provisions of Section 26017 of the Public Resources Code, CAEATFA respectfully submits its Annual Report on program activities for the calendar year ending December 31, 2016.

This Annual Report contains information on the Authority's revenues and expenditures for fiscal year 2015-16 and projections of the Authority's need for the coming fiscal year. The report also includes an overview of activity under CAEATFA's Bond Program, and STE Program.

In addition, pursuant to Public Resources Code Section 26081, prior annual reports contained a summary of CAEATFA's activities related to the Property Assessed Clean Energy (PACE) Bond Reserve Program (SB 99, Pavley, 2010), the Clean Energy Upgrade Financing Program (ABx1 14, Skinner, 2011), and the PACE Loss Reserve Program (SB 96, Committee on Budget and Fiscal Review, 2013). Therefore, this report also includes updates to revenue and expenditure information for these programs.

In 2014, CAEATFA received legislative budgetary authority to administer the California Hub for Energy Efficiency Financing (CHEEF) Pilot Programs. Subsequently, CAEATFA entered into a contract with the state's investor-owned utilities (IOUs) and a memorandum of agreement with the CPUC. Information on the CHEEF Pilot Programs and Staff's progress in developing the infrastructure for the programs is also included in this report.

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REPORT OF AUTHORITY'S FINANCES

This report of the Authority's finances is submitted pursuant to Public Resources Code Section 26017.

REVENUES AND EXPENDITURES – FY 2015-16

The Authority's total revenues for fiscal year 2015-16 were \$2,342,433 and the total expenditures were \$2,360,000.

TABLE 1: REVENUES AND EXPENDITURES - FY 2015-16	
Total Revenues¹:	\$2,342,433
Expenditures:	
Salaries and Wages	\$751,000
Staff Benefits	\$362,000
Operating Expenses and Equipment	\$1,247,000
Total Expenditures²	\$2,360,000

PROJECTED NEEDS AND REQUIREMENTS – FY 2016-17; FY 2017-18

The Authority anticipates it has the financial needs and requirements identified in Table 2 for the 2016-17 and 2017-18 fiscal years.

TABLE 2: PROJECTED NEEDS AND REQUIREMENTS³ – FY 2016-17; FY 2017-18		
	FY 16-17	FY 17-18
Total Salaries and Wages	\$885,000	\$1,325,000
Staff Benefits	\$440,000	\$691,000
Total Operating Expenses and Equipment	\$4,671,000	\$4,681,000
<u>Total Projected Needs and Requirements</u>	<u>\$5,996,000</u>	<u>\$6,697,000</u>

¹ Total revenues include fees collected from the STE and Bond Program. Total revenues listed do not include reimbursements received from the CPUC to cover costs associated with CAEATFA's administration of the CHEEF.

² Total expenditures include expenditures associated with all of CAEATFA's programs, including the administration of the CHEEF on behalf of the CPUC.

³ The values in this section are as reported in the [Governor's Proposed Budget for the 2017-18 fiscal year](#).

BOND FINANCING ACTIVITIES

PROGRAM SUMMARY

CAEATFA has served as the State’s primary energy bond issuer since its inception in the 1980’s. As a conduit bond issuer, CAEATFA has worked with both public and private entities in issuing over \$212 million in bond financing for 26 projects over its lifetime. The projects help to meet federal and state energy goals, and have included solar, hydro electric, geothermal, biomass and cogeneration projects. A list of CAEATFA’s outstanding bonds can be found in Table 3.

Most recently, CAEATFA successfully issued Qualified Energy Conservation Bonds to assist in the financing of a public utility’s one megawatt (MW) solar project in San Diego (2010), and Clean Renewable Energy Bonds on behalf of the California Department of Transportation to install solar on approximately 70 of its properties across the state anticipated to save taxpayers \$52.5 million in energy costs.

The financial assistance and incentives that CAEATFA can provide as a conduit bond issuer are authorized by Federal statute and programs. CAEATFA did not have any new bond issuances in 2016.

CAEATFA continues to collaborate with stakeholders to discuss innovative approaches to meet the financing gaps for renewable energy and energy efficiency projects.

OUTSTANDING BONDS

The Authority has three outstanding bond issues, amounting to a combined total of \$57,838,802 in bond debt, as of December 31, 2016.

TABLE 3: OUTSTANDING BONDS					
Closing Date	Bond Short Name	Bond Type	Final Maturity	Amount of Issue	Outstanding Debt
10/01/1993	Arroyo Energy Project Series 1993A and B	CFRB ⁴	10/01/2020	\$55,000,000	\$50,660,000
06/10/2009	Caltrans Projects Series 2009	CREB ⁵	12/15/2023	\$20,000,000	\$2,982,933
11/18/2010	Fallbrook Public Utility District Solar Project Series	QECP ⁶	11/18/2027	\$7,227,000	\$4,195,869
	<u>TOTAL</u>			\$82,227,000	\$57,838,802

⁴ Cogeneration Facility Revenue Bonds

⁵ Clean Renewable Energy Bond

⁶ Qualified Energy Conservation Bond

SALES AND USE TAX EXCLUSION PROGRAM

PROGRAM SUMMARY

LEGISLATIVE BACKGROUND

In March 2010, Senate Bill 71 (Padilla, Chapter 10, Statutes of 2010) directed CAEATFA to implement the Sales and Use Tax Exclusion Program (STE Program). The legislation authorized CAEATFA to approve eligible projects for a sales and use tax exclusion (STE) on equipment and machinery (Qualified Property) used for the “design, manufacture, production, or assembly” of either advanced transportation technologies or alternative energy source products, components or systems, as defined. The purpose of this program is twofold: to promote the creation of California-based manufacturing jobs that will stimulate the California economy and to incentivize the manufacturing of green technologies that will help reduce greenhouse gases, as well as reductions in air and water pollution or energy consumption.

CAEATFA launched the STE Program in the fourth quarter of 2010; the CAEATFA Board approved the first eight applications for the program at its November 2010 meeting.

Inclusion of Advanced Manufacturing Projects

In September 2012, Senate Bill 1128 (Padilla, Chapter 677, Statutes of 2012) expanded the STE Program to include Advanced Manufacturing projects. The legislation also placed an annual limit of \$100 million in STE awards for each calendar year. The Authority modified its regulations to accommodate the statutory changes and began accepting applications for Advanced Manufacturing projects in October 2013. The CAEATFA Board approved its first two Advanced Manufacturing projects at its December 2013 meeting.

Inclusion of Recycled Feedstock Projects

Signed by Governor Jerry Brown on October 11, 2015, AB 199 (Eggman, Chapter 768, Statutes of 2015) further expanded the scope of the STE Program to include projects that process or utilize recycled feedstock (Recycled Feedstock). The Authority modified its regulations to accommodate the statutory changes and began accepting applications for Recycled Feedstock projects in August 2016. The CAEATFA Board approved its first Recycled Feedstock projects at its October 2016 meeting.

Extension of Statutory Sunset Date

Governor Brown signed AB 1269 (Dababneh, Chapter 788, Statutes of 2015) on October 11, 2015. AB 1269 extended CAEATFA’s authority to grant STE awards for Advanced Manufacturing projects from July 1, 2016 to January 1, 2021, creating a uniform sunset date for the entire STE Program.

PROGRAM DESIGN

Under the STE Program’s statute, all applications are evaluated to determine the extent to which the anticipated benefits to the State from a project exceed the estimated cost of the avoided sales and use tax. Specifically, through the net benefits test established in the STE Program’s regulations, applicants are evaluated based on criteria designed to measure the fiscal and environmental benefits

Sales and Use Tax Exclusion Program

of their projects. The methodology used to evaluate these benefits differs based on the project type. The evaluation of Advanced Manufacturing projects focuses on the benefits resulting from the manufacturing process used to create a product, whereas evaluation of Alternative Source, Advanced Transportation, and Recycled Feedstock projects focuses on the benefits resulting from the end-product being manufactured. See Section 3 of the Report of 2016 Activities on page 14 for a more specific description of the project evaluation methodologies.

HISTORICAL PROGRAM ACTIVITY

Alternative Source and Advanced Transportation

From the program's inception through December 31, 2016, CAEATFA approved a total of 86 Alternative Source or Advanced Transportation project applications, of which 36 are still active, 31 are complete and 19 are not moving forward.⁷ The 67 active and complete projects were approved for a total of \$2.63 billion in anticipated Qualified Property purchases estimated to result in approximately \$220.85 million in STE. These projects are located across 27 counties, and are estimated to result in the retention and creation of 11,145 jobs. Under the program's evaluation process, 793 of these jobs are attributable to the STE Program. The projects are anticipated to produce an estimated \$85.28 million in environmental benefits and \$303.48 million in fiscal benefits, resulting in approximately \$167.93 million in net benefits to the state.⁸

Advanced Manufacturing

CAEATFA has approved 26 Advanced Manufacturing project applications from December 2013 through December 2016, of which 22 are still active, 2 are complete and 2 are not moving forward. The 24 active and complete projects were approved for a total of \$1.85 billion in anticipated Qualified Property purchases, and were estimated to result in approximately \$155.66 million in STE at the time of application submittal. These projects are located in 11 counties, and are estimated to result in the retention and creation of 11,697 jobs. Under the program's evaluation process, 679 of these jobs are attributable to the STE Program. The projects are anticipated to produce an estimated \$260.03 million in fiscal benefits.

Program Oversubscription and Recycled Feedstock Projects

In 2015, the STE Program became oversubscribed by \$66.1 million in application requests for projects under the three pre-existing pathways to eligibility (Alternative Source, Advanced Transportation, Advanced Manufacturing).⁹ In order to address this issue, the CAEATFA Board voted at the November 17, 2015 meeting to suspend the acceptance of new applications while Staff re-evaluated the program regulations and structure, and to consider previously submitted applications in the order in which they were received until the \$100 million cap was reached for 2015. To the extent the last application considered exceeded the \$100 million cap, the Board voted to award the

⁷ One project considered in 2016, Atieva USA, Inc., was approved by the CAEATFA Board but did not execute a Master Regulatory Agreement and is therefore considered "Inactive" (see STE Pipeline in Appendix A).

⁸ These figures include data for Tesla Motors Inc.'s 2016 award only (Resolution No. 16-SM036). The CAEATFA Board voted at the December 13, 2016 meeting to authorize Tesla Motors, Inc. to purchase Qualified Property in an amount up to \$560,917,080 of a requested \$1,169,260,000 in Qualified Property for the production of the Model 3 vehicle. All figures have been adjusted for a ratio of 48%, the percentage of the total award request that Tesla Motors, Inc. received in 2016. See [December 13, 2016 CAEATFA Staff Summary for Tesla Motors, Inc. 16-SM036 Agenda Item 4.A.1](#) for additional details.

⁹ The three existing pathways to eligibility were Alternative Source, Advanced Transportation and Advanced Manufacturing

Sales and Use Tax Exclusion Program

remainder of the 2015 cap, and provided the remainder of the last applicant's STE request from the 2016 annual allocation. This approach allowed CAEATFA to grant its entire 2015 award allocation and prevent the need for an applicant to submit a separate application in 2016.

The adoption of this short-term solution to program oversubscription by the CAEATFA Board was done, in part, to provide an opportunity for staff to evaluate and improve CAEATFA's process for handling this unprecedented oversubscription through a regulatory process.

On July 19, 2016, the CAEATFA Board approved modifications to the existing Program regulations to modify the general program structure to an environment in which the award cap may be routinely oversubscribed. The major program modifications include:

- a per-project cap of \$20 million in STE, with a mechanism for allocating excess STE allocation available at the end of the calendar year to projects that require additional STE beyond the per-project cap;
- a requirement that applicants purchase 15% of Qualified Property within the first year of approval; and
- a ranking system for applications when the Program is oversubscribed, which considers the unemployment rate in the county of the facility, the presence of corporate headquarters in California, the applicant's status as a small business, and being a new applicant to the Program.

The modified regulations also established a methodology for evaluating Recycled Feedstock applications. The Program regulations became effective on August 9, 2016, at which point CAEATFA began accepting applications for Recycled Feedstock projects.

Recycled Feedstock

CAEATFA approved its first Recycled Feedstock projects in October 2016. CAEATFA approved a total of 12 Recycled Feedstock project applications. The 12 projects were approved for a total of \$195.6 million in anticipated Qualified Property purchases estimated to result in approximately \$16.47 million in STE. These projects are located across nine counties, and are estimated to result in the retention and creation of 748 jobs. Under the program's evaluation process, 78 of these jobs are attributable to the STE Program. The projects are anticipated to produce an estimated \$535,323 in environmental benefits and \$21.76 million in fiscal benefits, resulting in approximately \$6.17 million in net benefits to the state.

Detailed information on projects approved under the STE Program since its inception can be found in Appendix A.

REPORT OF 2016 ACTIVITIES

APPLICATIONS RECEIVED

Alternative Source and Advanced Transportation

CAEATFA received 9 new applications for Alternative Source or Advanced Transportation projects in the 2016 calendar year. The projects have a combined value of approximately \$1.22 billion in anticipated Qualified Property purchases, and were estimated to result in over \$102.7 million in STE

Sales and Use Tax Exclusion Program

the time of application submittal.¹⁰ Table 4 on the following page shows the Alternative Source and Advanced Transportation applications received in 2016.

TABLE 4: STE APPLICATIONS RECEIVED IN 2016,¹¹ ALTERNATIVE SOURCE AND ADVANCED TRANSPORTATION							
	Date Received	Applicant Name	Project Location	Use of Proceeds	Qualified Property Amount	Estimated STE Amount at time of Application	Status
1	9/17/16	North Fork Community Power, LLC	North Fork (Madera)	Biomass Processing and Fuel Production	\$6,819,733	\$574,222	Approved at January 17, 2017 CAEATFA Board Meeting
2	9/17/2016	Eslinger Biodiesel, Inc.	Fresno (Fresno)	Biofuels	\$8,394,385	\$706,807	Approved
3	9/17/2016	BYD Coach and Bus, LLC	Lancaster (Los Angeles)	Electric Bus Manufacturing	\$3,189,014	\$268,515	Approved at February 21, 2017 CAEATFA Board Meeting
4	9/30/2016	ABEC #3, LLC	Bakersfield (Kern)	Dairy Biogas	\$2,401,884	\$202,239	Approved
5	10/3/2016	ABEC #4, LLC	Bakersfield (Kern)	Dairy Biogas	\$2,701,502	\$227,466	Approved
6	11/17/2015 & 11/18/16 ¹²	Tesla Motors, Inc.	Fremont (Alameda)	Electric Vehicle Manufacturing	\$1,169,260,000	\$98,451,692	Approved for \$560,917,080 in Qualified Property purchases at December 13, 2016 CAEATFA Board meeting and for \$237,529,691 in Qualified Property purchases at January 2017 CAEATFA Board meeting
7	11/1/2016	Romeo Systems, Inc.	Vernon (Los Angeles)	Lithium Ion Battery Manufacturing	\$10,667,325	\$898,189	Withdrawn
8	12/19/2016	HZIU Kompogas SLO, Inc.	San Luis Obispo (San Luis Obispo)	Biomass Processing and Fuel Production	\$7,104,020	\$598,158	Approved at February 21, 2017 CAEATFA Board Meeting
9	12/21/2016	TAP Power, LLC	Arcata (Humboldt)	Biomass Processing and Fuel Production	\$9,213,514	\$775,778	Approved at February 21, 2017 CAEATFA Board Meeting
				TOTAL	\$1,219,751,377	\$102,703,066	

¹⁰ The estimated sales and use tax exclusion (“STE”) amount is based on the average statewide sales tax average of 8.42 percent.

¹¹ This table does not include the applications for Atieva USA, Inc. and Escondido Bioenergy Facility, LLC that were submitted in 2015, but approved by the CAEATFA Board in January 2016. Atieva USA, Inc. did not move forward with its project and is not included in the calculations for this section; data related to the Escondido Bioenergy Facility, LLC application is included in the sections of the report that refer to applications approved in 2016.

¹² Tesla Motors, Inc. submitted an application on November 17, 2015, just before the CAEATFA Board voted at the November 17, 2015 meeting to suspend the acceptance of new applications while Staff re-evaluated the Program regulations in light of the Program’s oversubscription and to incorporate projects eligible under AB 199. The CAEATFA Board voted at the December 13, 2016 meeting to authorize Tesla Motors, Inc. to purchase Qualified Property in an amount up to \$560,917,080 of a requested \$1,169,260,000 in Qualified Property for an estimated STE value of \$47,229,218 (Resolution No. 16-SM036), with leave to submit applications in the future for additional assistance for the project. Tesla Motors, Inc. submitted a second application for the same project on November 18, 2016 for an additional

Sales and Use Tax Exclusion Program

Advanced Manufacturing

CAEATFA received 6 new applications for Advanced Manufacturing projects. The projects have a combined value of approximately \$60.50 million in anticipated Qualified Property purchases, and were estimated to result in over \$5.09 million in STE at the time of application submittal. Table 5 below shows the Advanced Manufacturing applications received in 2016.

TABLE 5: STE APPLICATIONS RECEIVED IN 2016,¹³ ADVANCED MANUFACTURING							
	Date Received	Applicant Name	Project Location	Use of Proceeds	Qualified Property Amount	Estimated STE Amount at time of Application	Status
1	8/19/2016	XT Green, Inc.	Corona (Riverside)	Advanced Carpet Recycling	\$8,970,500	\$755,316	Approved
2	9/17/2016	Aemerge Redpack Services Southern California, LLC	Hesperia (San Bernardino)	Medical Waste to Energy	\$19,479,000	\$1,640,132	Pending
3	8/19/2016 & 10/7/16	Verdeco Recycling, Inc.	South Gate (Los Angeles)	Food Grade Resin Manufacturing	\$4,014,992	\$338,062	Pending
4	11/18/2016	Atara Biotherapeutics, Inc.	Thousand Oaks (Ventura)	Industrial Biotechnology	\$16,285,217	\$1,371,215	Approved at January 17, 2017 CAEATFA Board Meeting
5	12/22/2016	PolyPeptide Laboratories, Inc.	Torrance (Los Angeles)	Peptide Pharmaceutical Manufacturing	\$8,000,000	\$673,600	Pending
6	12/23/2016	Wynstan USA, Inc.	Carson (Los Angeles)	Home Improvement and Home Security Product Manufacturing	\$3,750,000	\$315,750	Pending
				TOTAL	\$ 60,499,709	\$ 5,094,075	

Recycled Feedstock

CAEATFA received 20 new applications for Recycled Feedstock projects in the 2016 calendar year. The projects have a combined value of approximately \$268.39 million in anticipated Qualified Property purchases and were estimated to result in over \$22.59 million in STE at the time of application submittal. Table 6 on the following page shows the Recycled Feedstock applications received in 2016.

\$237,529,691 in Qualified Property purchases for an estimated STE value of \$20 million under the Program's new regulations limiting applications to \$20 million in STE.

¹³ This table does not include the applications for Gill Corporation; Kite Pharma, Inc.; rPlanet Earth Los Angeles, LLC; California Safe Soil, LLC; and Gilead Sciences, Inc. that were submitted in 2015 but approved by the CAEATFA Board in 2016. Data related to these applications are included in the sections of the report that refer to applications approved in 2016.

Sales and Use Tax Exclusion Program

TABLE 6: STE APPLICATIONS RECEIVED IN 2016, RECYCLED FEEDSTOCK

	Date Received	Applicant Name	Project Location	Use of Proceeds	Qualified Property Amount	Estimated STE Amount at time of Application	Status
1	8/11/2016	Waste Management of Alameda County, Inc.	San Leandro (Alameda)	Mixed Recycling	\$77,272,550	\$6,506,349	Approved
2	8/16/2016	Waste Management Recycling and Disposal Services of California, Inc.	Sun Valley (Los Angeles)	Mixed Recycling	\$3,500,000	\$294,700	Approved
3	8/12/2016	Schnitzer Steel Industries, Inc.	Oakland (Alameda)	Mixed Metal Recycling (?)	\$10,047,508	\$846,000	Withdrawn
4	8/15/2016	SANCO Services, LP	Escondido (San Diego)	Mixed Recycling	\$24,190,000	\$2,036,798	Approved
5	8/19/2016	Recology San Francisco	San Francisco (San Francisco)	Mixed Recycling	\$7,917,170	\$666,626	Approved
6	8/19/2016	Monterey Regional Waste Management District	Marina (Monterey)	Mixed Recycling	\$11,401,677	\$960,021	Approved
7	8/19/2016	CRM Co, LLC	Stockton (San Joaquin)	Crumb Tire Rubber	\$3,400,000	\$286,280	Approved
9	8/19/2016	Mid-Valley Disposal (Fresno)	Fresno (Fresno)	Mixed Recycling	\$6,421,909	\$540,725	Approved
10	8/19/2016	Mid-Valley Disposal (Kerman)	Kerman (Fresno)	Mixed Recycling	\$3,739,543	\$314,870	Approved
11	8/19/2016	MSB Investors, LLC	Santa Barbara (Santa Barbara)	Mixed Recycling	\$32,403,272	\$2,728,356	Approved
12	8/19/2016	Zanker Road Resource Management	San Jose (Santa Clara)	Mixed Recycling	\$1,512,796	\$127,377	Denied
13	8/19/2016	GreenWaste Recovery, Inc.	San Jose (Santa Clara)	Mixed Recycling & Organics	\$4,458,683	\$375,421	Approved
14	8/18/2016	EDCO Disposal Corporation	San Diego (San Diego)	Mixed Recycling	\$10,000,000	\$842,000	Approved
15	8/18/2016	EDCO Transport Services, LLC	Signal Hill (Los Angeles)	Mixed Recycling	\$10,500,000	\$884,100	Approved
16	8/19/2016	Burrtec Waste Industries, Inc.	Victorville (San Bernardino)	Mixed Organics - Composting	\$2,875,000	\$242,075	Pending
17	8/19/2016	Urbaser USA, Inc.	San Leandro (Alameda)	Mixed Organics - Composting	\$29,920,000	\$2,519,264	Pending
18	8/19/2016	CR&R Incorporated	Stanton (Orange County)	Mixed Recycling?	\$18,205,347	\$1,532,890	Pending
19	9/16/2016	Burrtec Waste Industries, Inc.	Victorville (San Bernardino)	Mixed Organics - Composting	\$1,200,000	\$101,040	Pending
20	12/22/2016	TAMCO dbs Gerdau	Rancho Cucamonga (San Bernardino)	Melting Production Environmental Control System? Mixed Metals	\$9,425,500	\$793,627	Pending
				TOTAL	\$268,390,955	\$22,598,518	

APPLICATIONS APPROVED¹⁴

Alternative Source and Advanced Transportation

The Authority approved 5 Alternative Source or Advanced Transportation projects in 2016 for a total dollar amount of \$ \$785,642,423 in Qualified Property purchases.¹⁵ These projects were estimated to

¹⁴ For the purposes of this section, the data includes applications from Gill Corporation; Kite Pharma, Inc.; rPlanet Earth Los Angeles, LLC; Escondido Bioenergy Facility, LLC; California Safe Soil, LLC, and Gilead Sciences, Inc. that were submitted in 2015 and approved by the CAEATFA Board in 2016.

¹⁵ These figures include data for Tesla Motors Inc.'s 2016 award allocation under Resolution No. 15-SM024. The CAEATFA Board voted at the December 15, 2015 meeting to authorize Tesla Motors, Inc. to purchase Qualified Property in an amount up to \$254,297,428 of a requested \$463,625,000 in Qualified Property and, effective January 1, 2016,

Sales and Use Tax Exclusion Program

result in \$66,151,093 in STE over the next three years.¹⁶ The projects span a range of industries, including biogas, biomass processing and fuel production, and electric vehicle manufacturing.

Advanced Manufacturing

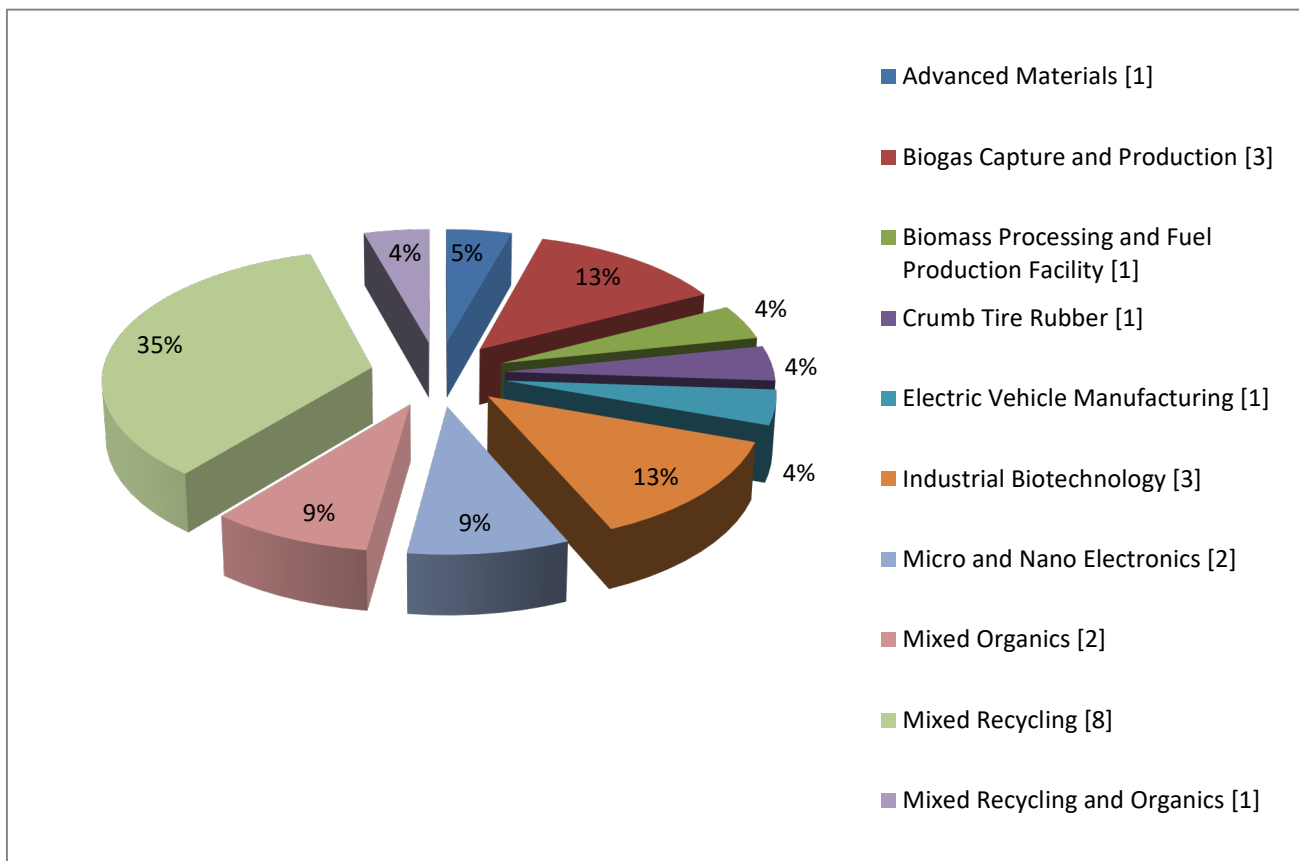
The Authority approved 6 Advanced Manufacturing projects in 2016 for a total of \$206,401,224 in Qualified Property purchases. The projects are anticipated to result in \$17,378,983 in STE over the next three years.

Recycled Feedstock

The Authority approved 12 Recycled Feedstock projects in 2016 for a total dollar amount of \$195,604,804 in Qualified Property purchases. These projects were estimated to result in \$16,469,926 in STE over the next three years. The projects span a range of industries, including mixed recycling, mixed organics, and crumb tire rubber.

Figure 1, below, shows the total number of STE projects approved in 2016, by project type.

FIGURE 1: 2016 NUMBER OF APPROVED STE PROJECTS, BY TYPE



purchases for the remaining Qualified Property amount of \$209,327,572. All figures have been adjusted for a ratio of 45%, the percentage of the total award request that Tesla Motors, Inc. received in 2016. See [December 15, 2015 CAEATFA Staff Summary for Tesla Motors, Inc. 15-SM024 Agenda Item 4.A.3](#) for additional details.

¹⁶ One application approved by the CAEATFA Board in 2016 brought by Atieva USA, Inc. at the January 19, 2016 meeting for \$530,750,000 in Qualified Property did not move forward with the project and is not included in the calculations for this section.

Sales and Use Tax Exclusion Program

PROJECT LOCATIONS AND ANTICIPATED BENEFITS¹⁷

Alternative Source and Advanced Transportation

The 2016 approved Alternative Source and Advanced Transportation projects are located in four different counties throughout California. Table 7 below displays project information by county. It is expected that these projects will provide economic benefits to the state and local jurisdictions in the form of corporate taxes, personal income taxes, sales and property tax revenues, increased employment, and additional economic activity created by the manufacturing facilities and purchases from related suppliers.

Based on the net benefits methodology embodied in the Program regulations and on representation from these applicants, the Authority estimates the six Alternative Source or Advanced Transportation applicants approved in 2016 will produce estimated combined environmental benefits valued at approximately \$10,726,592, and fiscal benefits valued at approximately \$77,718,819. Together, these environmental and fiscal benefits will result in approximately \$22,294,318 in total estimated net benefits. See Table 7 for a breakdown of the various project benefits by county.

**TABLE 7: STE APPROVED PROJECTS BY COUNTY IN 2016,
ALTERNATIVE SOURCE AND ADVANCED TRANSPORTATION**

County ¹⁸	Number	Percentage of Total 2016 Projects (%)	Amount of Anticipated Qualified Property Purchases	Projected STE Amount	Estimated Environmental Benefit Value	Estimated Fiscal Benefit Value	Estimated Net Benefit Value	Total Jobs	Total Jobs Attributed to the STE
Alameda ¹⁹	2	33.33%	\$770,244,652	\$64,854,600	\$10,035,850	\$74,265,347	\$19,446,597	2,232	99
Fresno	1	16.67%	\$8,394,385	\$706,807	\$570,932	\$2,291,152	\$2,155,277	34	2
Kern	2	33.33%	\$5,103,386	\$429,706	\$91,455	\$818,060	\$479,809	49	7
San Diego	1	16.67%	\$1,900,000	\$159,980	\$28,355	\$344,260	\$212,635	11	1
TOTAL	6	100%	\$785,642,423	\$66,151,093	\$10,726,592	\$77,718,819	\$22,294,318	2,326	109

Advanced Manufacturing

CAEATFA approved six Advanced Manufacturing projects in 2016 located in three California counties. It is expected that these projects will provide economic benefits to the state and local jurisdictions in the form of corporate taxes, personal income taxes, sales and property tax revenues,

¹⁷ For the purposes of this section, an application from Pacific Ethanol Madera, LLC is considered approved. This application was submitted in 2014, but was not approved until January 2015.

¹⁸ Several applicants have multiple project sites under their application. For purposes of this table, the data was combined under one county

¹⁹ These figures includes data from Tesla Motors Inc.'s 15-SM024 2016 award and Tesla Motors, Inc.'s 16-SM036 award. As noted above, the CAEATFA Board voted at the December 15, 2015 meeting to authorize Tesla Motors, Inc. to purchase Qualified Property in an amount up to \$254,297,428 of a requested \$463,625,000 in Qualified Property and effective January 1, 2016 purchases for the remaining Qualified Property amount of \$209,327,572. See Tesla Motors, Inc. Staff Summary - December 2015 Board Meeting for additional details. Additionally, as noted above, at the December 13, 2016 meeting, the CAEATFA Board authorized Tesla Motors, Inc to purchase Qualified Property in an amount up to \$560,917,080 of a requested \$1,169,260,000 in Qualified Property. See Tesla Motors, Inc. Staff Summary - December 2016 Board Meeting for additional details

Sales and Use Tax Exclusion Program

increased employment, and additional economic activity created by the manufacturing facilities and purchases from related suppliers.

Based on the net benefits methodology embodied in the Program regulations and on representation from these applicants, the Authority estimates the six Advanced Manufacturing applicants approved in 2016 will produce estimated combined fiscal benefits valued at approximately \$50,513,469. See Table 8 for a breakdown of the various project benefits by county.

TABLE 8: STE APPROVED PROJECTS BY COUNTY IN 2016, ADVANCED MANUFACTURING							
County ²⁰	Number	Percentage of Total 2016 Projects (%)	Amount of Anticipated Qualified Property Purchases	Projected STE Amount	Estimated Fiscal Benefit Value	Total Jobs	Total Jobs Attributed to the STE
Los Angeles	4	66.67%	\$193,680,724	\$16,307,917	\$46,628,886	2,284	161
Riverside	1	16.67%	\$8,970,500	\$755,316	\$2,260,835	84	7
Sacramento	1	16.67%	\$3,750,000	\$315,750	\$1,623,748	22	2
TOTAL	6	100.%	\$206,401,224	\$17,378,983	\$50,513,469	2,390	170

Recycled Feedstock

The 2016 approved Recycled Feedstock projects are located in nine different counties throughout California. Table 9 displays project information by county. It is expected that these projects will provide economic benefits to the state and local jurisdictions in the form of corporate taxes, personal income taxes, sales and property tax revenues, increased employment, and additional economic activity created by the manufacturing facilities and purchases from related suppliers.

Based on the net benefits methodology embodied in the Program regulations and on representation from these applicants, the Authority estimated the 12 Recycled Feedstock applicants approved in 2016 will produce estimated combined environmental benefits valued at approximately \$535,323, and fiscal benefits values at approximately \$21,761,523. Together, these environmental and fiscal benefits will result in approximately \$6,170,855 in total estimated net benefits. See Table 9 for a breakdown of the various project benefits by county.

²⁰ Several applicants have multiple project sites under their application. For purposes of this table, the data was combined under one county

Sales and Use Tax Exclusion Program

**TABLE 9: STE APPROVED PROJECTS BY COUNTY IN 2016,
RECYCLED FEEDSTOCK**

County ²¹	Number	Percentage of Total 2016 Projects (%)	Amount of Anticipated Qualified Property Purchases	Projected STE Amount	Estimated Environmental Benefit Value	Estimated Fiscal Benefit Value	Estimated Net Benefit Value	Total Jobs	Total Jobs Attributed to the STE
Alameda	1	8.33%	\$77,272,550	\$6,506,349	\$141,898	\$8,381,777	\$2,017,327	144	20
Fresno ²²	2	16.67%	\$10,561,452	\$889,275	\$42,912	\$868,078	\$21,717	78	8
Los Angeles	2	16.67%	\$14,000,000	\$1,178,800	\$56,405	\$1,662,726	\$540,331	74	6
Monterey	1	8.33%	\$11,401,677	\$960,021	\$44,567	\$1,310,429	\$394,975	35	4
San Diego	2	16.67%	\$34,190,000	\$2,878,798	\$138,664	\$4,267,557	\$1,527,423	157	17
San Francisco	1	8.33%	\$7,917,170	\$666,626	\$16,789	\$701,902	\$52,065	127	8
San Joaquin	1	8.33%	\$3,400,000	\$286,280	\$5,872	\$1,015,541	\$735,133	32	2
Santa Barbara	1	8.33%	\$32,403,272	\$2,728,356	\$80,208	\$2,985,127	\$336,980	75	11
Santa Clara	1	8.33%	\$4,458,683	\$375,421	\$8,008	\$568,386	\$544,904	26	2
TOTAL	12	100%	\$195,604,804	\$16,469,926	\$535,323	\$21,761,523	\$6,170,855	748	78

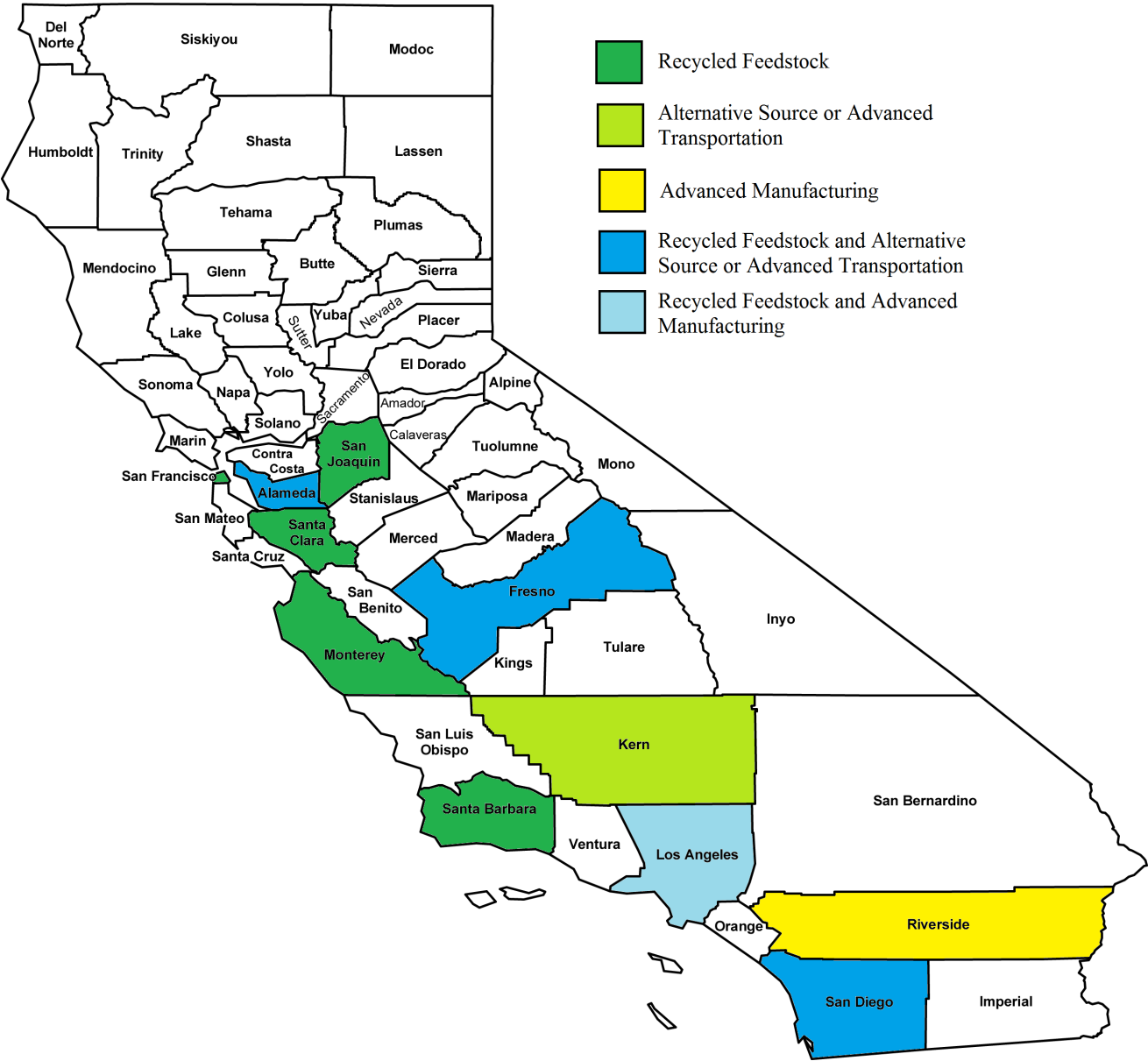
Figure 2, on the following page, shows a geographical representation of all projects approved under the STE program in 2016.

²¹ Several applicants have multiple project sites under their application. For purposes of this table, the data was combined under one county

²² This calculation includes a project by Mid-Valley Disposal that resulted in a Net Benefit Value of -\$26,094. Although the cumulative fiscal and environmental benefits fall short of the estimated Sales and Use Tax Exclusion amount, resulting in a negative Net Benefit Value, the Project has additional employment-related benefits that are not quantifiable in fiscal terms and which increase the Total Score above the qualifying threshold. See [Staff Summary for Mid-Valley Disposal 16-SM018 Agenda Item 4.A.8](#) for additional details.

Sales and Use Tax Exclusion Program

FIGURE 2: STE PROJECTS APPROVED IN 2016, BY COUNTY



Sales and Use Tax Exclusion Program

EVALUATION METHODOLOGY

Alternative Source and Advanced Transportation

For Alternative Source and Advanced Transportation projects, CAEATFA Staff evaluates the fiscal and environmental benefits that stem directly from the sales and use tax exclusion. Only the anticipated marginal additional production (and resulting fiscal and environmental benefits) associated with the sales and use tax exclusion are included for purposes of evaluating applications. The marginal additional production resulting from the sales and use tax exclusion is determined based on an estimated increase in equipment purchases resulting from the sales and use tax exclusion. That is, because the sales and use tax exclusion in effect lowers the cost of purchasing capital equipment, applicants are assumed to purchase more such equipment than would be the case in the absence of the sales and use tax exclusion.

The net present value of the total *fiscal benefits* over the lifetime of the Qualified Property is derived from the applicant's projected sale taxes, personal income taxes paid by the applicant's employees, corporation taxes on profits, property taxes and other indirect fiscal benefits of the applicant.

The *environmental benefits* include estimates of the dollar value of greenhouse gas reductions and reduction on dependence of fossil fuels. The environmental benefits are also derived from the capacity of manufactured products to generate electricity from alternative sources, thereby reducing the need for traditionally generated electricity.

Advanced Manufacturing

For Advanced Manufacturing projects, the fiscal benefits are scored using the methods described above, however, the environmental benefits are scored in a different manner due to the nature of the Advanced Manufacturing projects. Specifically, for Alternative Source or Advanced Transportation applicants, the products themselves produce environmental benefits, whereas the products produced by an Advanced Manufacturing process need not yield any such benefits. Instead, for Advanced Manufacturing applicants environmental benefits will generally stem from the improvements to the manufacturing process itself.

As a result, the environmental benefits for Advanced Manufacturing projects are not monetized in the application scoring process as they are with Alternative Source and Advanced Transportation projects. Instead, points are given for specific environmental process improvements, such as reductions in energy and water consumption, solid and hazardous waste, and air and other pollutants.

Recycled Feedstock

For Recycled Feedstock projects, the fiscal benefits are scored using the methods described above, and similar to Alternative Source and Advanced Transportation projects, CAEATFA Staff evaluates the environmental benefits of Recycled Feedstock projects based on the product produced. The environmental benefits include estimates of the dollar value of greenhouse gas reductions resulting from the increased total amount of recycled materials produced. CAEATFA relies on models from the U.S. EPA, California Air Resources Board, and other state agencies for quantifying the environmental benefits of recycling the various types of materials.

Sales and Use Tax Exclusion Program

QUALIFIED PROPERTY TRANSACTIONS

Applicants generally have three years to purchase their machinery and equipment (Qualified Property). CAEATFA tracks the Qualified Property purchases of STE program participants through conveyance/reconveyance agreements or semi-annual reports. The conveyance/reconveyance of Qualified Property is a legal transaction that takes place between the applicant and CAEATFA that initially provided the formal structure under which an applicant could use the sales and use tax exclusion. As mentioned above, Senate Bill 1128 (Padilla, Chapter 677, Statutes of 2012) made several substantive statutory changes to the STE Program, one of which was to eliminate the conveyance/reconveyance requirement. As such, applicants approved on or after December 17, 2013 are no longer required to submit conveyance/reconveyance transactions in order to participate in the STE Program. In place of the conveyance/reconveyance requirement, approved applicants now submit semi-annual reports that include the Qualified Property purchased in the prior two quarters.

Since the launch of the program through December 31, 2016, CAEATFA has approved a total of 124 applications of which 103 are still active or complete. The 103 active or complete applications have been approved for \$4.675 billion in anticipated Qualified Property purchases. In 2016, 37 of these projects purchased approximately \$514 million in Qualified Property, resulting in approximately \$43.3 million in STE. Table 10, on the following page, shows the total amount of Qualified Property that each approved applicant has purchased and conveyed in 2016.

Sales and Use Tax Exclusion Program

Table 10: STE Transactions by Applicants in 2016			
	Approved Applicant	Qualified Property Purchased	Estimated STE
1	AltAir Paramount	\$ 240,310.72	\$ 20,234.16
2	Bloom	\$ 1,770,360.00	\$ 149,064.31
3	Buster Biofuels	\$ 317,807.86	\$ 26,759.42
4	CA Safe Soil	\$ 780,573.41	\$ 65,724.28
5	Cal Renewable Power	\$ 1,959,419.40	\$ 164,983.11
6	CalTech	\$ 188,434.22	\$ 15,866.16
7	Crimson Renewable	\$ 1,334,678.10	\$ 112,379.90
8	Crimson Renewable	\$ 884,052.15	\$ 74,437.19
9	E&J Gallo	\$ 320,225.68	\$ 26,963.00
10	Efficient Drivetrains	\$ 32,391.59	\$ 2,727.37
11	Enovix	\$ 227,444.88	\$ 19,150.86
12	Gilead Sciences	\$ 14,254,740.00	\$ 1,200,249.11
13	Gill Corporation	\$ 153,778.71	\$ 12,948.17
14	GKN	\$ 6,683,817.29	\$ 562,777.42
15	Hanford Renewable	\$ 2,148,082.07	\$ 180,868.51
16	Hi-Shear	\$ 7,014,503.00	\$ 590,621.15
17	Karma Automotive	\$ 6,634,177.54	\$ 558,597.75
18	Kite Pharma	\$ 7,241,016.35	\$ 609,693.58
19	Madera Renewable	\$ 882,314.73	\$ 74,290.90
20	Millenium Space	\$ 141,077.11	\$ 11,878.69
21	nanoPrecision	\$ 235,986.42	\$ 19,870.06
22	nanoPrecision	\$ 154,600.80	\$ 13,017.39
23	Niagara Bottling	\$ 3,302,689.60	\$ 278,086.46
24	North State Rendering	\$ 1,039,324.00	\$ 87,511.08
25	Orbital ATK, Inc.	\$ 1,796,205.80	\$ 151,240.53
26	Pixley Biogas	\$ 43,472.21	\$ 3,660.36
27	Rolls-Royce	\$ 2,572,053.87	\$ 216,566.94
28	rPlanet Earth	\$ 8,455,145.00	\$ 711,923.21
29	Sanco Services	\$ 12,420,219.70	\$ 1,045,782.50
30	Silevo	\$ 5,977,535.63	\$ 503,308.50
31	Soraa	\$ 1,407,041.94	\$ 118,472.93
32	Space Systems/Loral	\$ 1,769,315.70	\$ 148,976.38
33	SpaceX	\$ 21,308,476.41	\$ 1,794,173.71
34	Tesla (2015)	\$ 393,975,440.96	\$ 33,172,732.13
35	Waste Management RDSC	\$ 792,800.00	\$ 66,753.76
36	Weber Metals	\$ 5,387,897.00	\$ 453,660.93
37	WM Renewable	\$ 1,101,889.62	\$ 92,779.11
	TOTAL²³	\$ 514,949,299.47	\$ 43,358,731.02

²³ Semi-Annual Reports for the July through December 2016 reporting period are currently under review; therefore, these figures may vary slightly.

Sales and Use Tax Exclusion Program

PROPERTY ASSESSED CLEAN ENERGY (PACE) LOSS RESERVE PROGRAM

PROGRAM SUMMARY

LEGISLATIVE BACKGROUND

The Property Assessed Clean Energy (PACE) Loss Reserve Program (the Program) was authorized in September 2013 to assist residential single family PACE financing by helping to increase its acceptance in the marketplace and protect against the risk of default and foreclosure. PACE allows local jurisdictions to finance renewable energy installations, energy and water efficiency retrofits, and electric vehicle charging infrastructure by issuing bonds that are repaid by participating property owners through their property tax assessments.

PACE initially launched as a financing mechanism for energy efficiency and renewable retrofits in 2008. However, on July 6, 2010, the Federal Housing Finance Agency (FHFA) issued a pronouncement that PACE programs “present significant safety and soundness concerns” and violated standard mortgage provisions since PACE tax liens have priority over any other loan or mortgage. The concerns expressed by FHFA caused the majority of the residential PACE programs throughout the country to be placed on hold at that time, including many of the existing residential PACE programs in California.

In response to FHFA’s concerns and to further support the development of PACE in California, Senate Bill 96 (Committee on Budget and Fiscal Review, Chapter 356, Statutes of 2013) authorized CAEATFA to develop and administer the PACE Loss Reserve Program with an initial allocation of \$10 million. The program will assist in addressing FHFA financial concerns to first mortgage lenders and collect data to better quantify actual risk, while helping the State reach its energy efficiency and renewable goals by supporting residential PACE.

PROGRAM DESIGN

The goal of the Program is to put first mortgage lenders in the same position they would be in without the PACE lien on the property. The PACE Loss Reserve makes first mortgage lenders whole for any direct losses incurred due to the existence of a PACE lien on a property. To that end, the Loss Reserve covers the following losses:

1. PACE payments paid while a first mortgage lender is in possession of a property subject to a PACE assessment.
2. Any losses to the first mortgage lender up to the amount of outstanding PACE assessments in a forced sale for unpaid taxes or special assessments.

PACE administrators may participate in the Program by applying to CAEATFA and demonstrating that they meet the Program’s minimum underwriting criteria as established in statute and regulation.

Once enrolled, each eligible financing originated by an enrolled PACE administrator and included in its semi-annual reports may be covered by the Loss Reserve for its full term, or until the Loss Reserve is exhausted. Additionally, PACE administrators that applied to the Program on or before June 9, 2014 were allowed to enroll their existing portfolios under the Loss Reserve to maximize the

Property Assessed Clean Energy Loss Reserve Program

Program's effectiveness. To allow new PACE programs (created on or after March 10, 2014) to enroll in the Program without delaying their operations, the Loss Reserve also covers financings originated up to 30 days before their enrollment date.

Enrolled PACE administrators must report to CAEATFA on the size and status of their portfolios in March and October of each year. Each report includes detailed information on the financings issued during the reporting period, including the assessor's parcel number, principal amount, annual assessment amount and term. The October reports also include information on the size and value of the cumulative financing portfolio and information on energy and water savings resulting from the funded projects, to the extent that information is available.

REPORT ON 2016 ACTIVITY

PROGRAM ENROLLMENT

CAEATFA launched the Program in March 2014 and initially enrolled eight PACE programs in June: mPOWER Placer, mPOWER Folsom, Berkeley Financing Initiative for Renewable and Solar Technology (FIRST), Sonoma County Energy Independence Program (SCEIP), CaliforniaFIRST, Western Riverside Council of Governments (WRCOG) Home Energy Renovation Opportunity (HERO) Program, San Bernardino Associated Governments (SANBAG) HERO Program, and California HERO Program. In 2015, the Program enrolled four new PACE programs: AllianceNRG, Los Angeles HERO, CaliforniaFIRST in Los Angeles County, and Ygrene Works.

During the initial program enrollment in June 2014, participating PACE programs enrolled 17,401 PACE financings with a total principal value of over \$350,000,000. To date, the Loss Reserve covers 115,326 PACE financings with a total outstanding principal value of \$2,683,957,617.85. For the 2016 reporting periods, participating PACE programs enrolled 65,169 PACE financings with a total principal value of \$1,467,533,585.61. A chart of all Program enrollment activity as of December 30, 2016 can be found in Appendix B.²⁴

CLAIMS ON THE LOSS RESERVE

To date, no claim has been made on the Loss Reserve. At Program development, CAEATFA Staff initially estimated that the \$10 million Loss Reserve would last between eight to twelve years. Now that the Program has been active for almost three years, CAEATFA is working to analyze the Loss Reserve's potential long-term liability and longevity based on activity to date.

PROGRAM IMPACT AND RESULTS

As of December 2016, fourteen PACE administrators have enrolled in the PACE Loss Reserve Program and offer residential PACE financing in a growing number of areas in California. As of February 2017, the enrolled PACE administrators offer residential PACE financing in 512 communities in 53 counties.

A list of all communities currently served by enrolled PACE programs can be found in Appendix C.

²⁴ Semi-Annual Reports for the July through December 2016 reporting period are currently under review; therefore, these figures may vary slightly.

Property Assessed Clean Energy Loss Reserve Program

FIGURE 3: COUNTIES SERVED BY ENROLLED PACE PROGRAMS



Property Assessed Clean Energy Loss Reserve Program

The Loss Reserve covers PACE financings for energy and water efficiency improvements, electric vehicle charging infrastructure, and clean energy improvements. Table 11 details the estimated annual environmental savings from enrolled financings issued as of June 30, 2016, as reported by each PACE administrator.

TABLE 11: ENVIRONMENTAL SAVINGS FROM ENROLLED PACE FINANCINGS	
Program	Estimated Annual Environmental Savings²⁵
mPOWER Placer	429,378 KWh annually 79.4 MTCO2 annually
mPOWER Folsom	16,534,408 KWh annually 3,058.9 MTCO2 annually
Berkeley FIRST	54,408 kWh annually
SCEIP	10,928,827 kWh over lifetime 58,964.85 MTCO2 over lifetime 94,593 Therms over lifetime
CaliforniaFIRST	18,933,880 kWh generated annually 7,894,463 kWh saved annually 575,332 Therms annually 11,425,764 gal annually
WRCOG HERO	120,925,639 kWh annually 24,555,058 gal annually
SANBAG HERO	60,882,289 kWh annually 13,456,125 gal annually
California HERO	89,361,397 kWh annually 45,173,529 gal annually
AllianceNRG	23,126 kWh annually
LA HERO	6,102,724 kWh annually 8,608,965 gal annually
CaliforniaFIRST in LA County	4,458,851 kWh generated annually 2,241,737 saved annually 163,373 Therms annually 5,108,368 gal annually
Ygrene Works	10.5 MW generated over lifetime 1.1 Billion kWh saved over lifetime 202K MTCO2 saved over lifetime 758M gal over lifetime
PACEfunding	59,003 kWh annually

²⁵ Administrators use various distinct methodologies to assess environmental impact of their program.

Property Assessed Clean Energy Loss Reserve Program

CAEATFA adopted the federal standard for job retention and creation estimates, which assumes that \$92,000 of government spending creates one job.²⁶ Using this methodology, the Program has facilitated the creation of approximately 13,870 jobs.

²⁶ https://www.whitehouse.gov/assets/documents/Job-Years_Revised5-8.pdf

CALIFORNIA HUB FOR ENERGY EFFICIENCY FINANCING (CHEEF)

PROGRAM SUMMARY

Through a series of pilot programs spanning the residential, multifamily, and non-residential market sectors, CAEATFA is partnering with the CPUC, the investor-owned utilities (IOUs)²⁷, and the California private capital markets to support the development of new, *scalable and leveraged financing products for consumers to help them produce deeper and broader energy efficiency projects than previously achieved through traditional program approaches*. The pilots aim to bring broader access to private capital and will assist in removing the upfront cost barrier of financing for consumers to undertake energy efficiency retrofits.

In September 2013, the CPUC approved Decision 13-09-044 (D.13-09-044), which authorized two-year pilot programs to be supported by \$66 million of IOU ratepayer funds and serving four market segments:²⁸

- Single-family, with one-third of funds reserved for low and moderate income households,
- Multi-family, affordable housing with master meters,
- Small businesses, and
- On-Bill Repayment of financing by non-residential energy users, without credit enhancement.

The pilot programs were established with a myriad of goals, all of which are intended to support the State's broader energy efficiency and environmental policy goals using an innovative approach. The design of the California Hub for Energy Efficiency Financing Pilot will create a centralized and standardized platform to develop an open-market infrastructure to encourage additional private capital investment, while also lowering costs and expanding access to capital. The pilots offer various forms of credit enhancements (CEs) to provide additional security to participating financial institutions, thereby attracting more private capital to energy efficiency finance and expanding consumer access to enhanced loan terms. The pilots will also include on-bill repayment (OBR) mechanisms, which will "test whether payment on the utility bill increases debt service performance across market sectors." Both CEs and OBR are implemented across multiple sectors, as further described in the Pilot Program descriptions below. Primarily, the pilots are designed to:

- (a) attract a greater amount of private capital to the energy efficiency retrofit market by reducing risk to lenders;
- (b) broaden the availability of financing to individuals who might not have been able to access it otherwise; and
- (c) address the upfront cost barrier to energy efficiency retrofit projects.

²⁷ The IOUs consist of Pacific Gas & Electric (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison (SCE), and Southern California Gas Company (SoCalGas).

²⁸ In June 2015 the CPUC approved Decision 15-06-008, which clarified that the 24-month term for the Pilot Programs "should align with the enrollment of the first loan in each finance pilot launch." That is, each finance pilot will have an independent 24-month schedule initiated by the enrollment of the first loan in that particular finance pilot.

California Hub For Energy Efficiency Financing

Under the CHEEF, CAEATFA serves as the administrator of the program for the CPUC, operating under both CAEATFA’s authorizing statute and standard state procedures, and under the governance process and requirements as established by the CPUC and further interpreted by the IOUs as regulated entities. The nature of the pilots relies on leveraging the IOU infrastructure, while establishing an incentive/risk-insurance program that works with private financing business models and the needs of the energy efficiency retrofit marketplace. This effort is anticipated to be the first open-market (multiple lenders) on-bill repayment platform in the nation.

While the pilots were initially authorized for a two –year period, subsequent CPUC actions recognized that the pilots would be launched in sequence, with an anticipated timetable through fiscal year 19-20. A breakdown of the overall pilot budget is provided below.

TABLE 12 : BUDGET TABLE FOR CHEEF EXPENDITURES²⁹ (SEPTEMBER 2014 THROUGH DECEMBER 31, 2016)	
CHEEF Start-Up Cost	
Includes CAEATFA administrative, direct implementation, and contracting costs	\$ 5,000,000
<i>Subtotal CHEEF Start-Up Costs</i>	<i>\$ 5,000,000</i>
Marketing, Education, Outreach (MEO)	
Statewide MEO plan	\$ 8,000,000
CAEATFA outreach and training to financial institutions and Contractors	\$ 2,000,000
<i>Subtotal Marketing, Education, and Outreach</i>	<i>\$ 10,000,000</i>
Residential pilots	
Single family loan loss reserve	\$ 25,000,000
Energy Financing Line Item Charge (EFLIC, funding to PG&E)	\$ 1,000,000
Multi-Family	\$ 2,900,000
<i>Subtotal Residential Pilots</i>	<i>\$ 28,900,000</i>
Non-Residential Pilots	
Small business sector OBR with credit enhancement	\$ 14,000,000
Sub-pilot: OBR for lease providers	\$ -
Sub-pilot: Off-bill for lease providers	\$ -
Non-residential OBR without credit enhancement	\$ -
<i>Subtotal Non-Residential Pilots</i>	<i>\$ 14,000,000</i>
Information Technology (IT)	
IT Funding to IOUs ³⁰	\$ 8,000,000
<i>Subtotal IT Funding to IOUs</i>	<i>\$ 8,000,000</i>
CHEEF Pilot Reserve	
CHEEF Pilot Reserve	\$ 7,000,000
Adjustment to reconcile to D.12-11-015 and IOU Compliance	\$ 2,344,931
<i>Subtotal CHEEF Pilot Reserve</i>	<i>\$ 9,344,931</i>
TOTAL	<u>\$ 75,244,931</u>

²⁵ More detailed program budgets can be found in the program implementation plans.

³⁰ IT Funding to IOUs reports only the initial allocation and does not reflect current IOU expenditures.

California Hub For Energy Efficiency Financing

POLICY BACKGROUND

Achieving comprehensive and cost-effective energy efficiency in all existing buildings is state policy, and one of three primary approaches to meet California's aggressive energy and environmental targets [e.g., Senate Bill 32 (Pavley, 2016), Assembly Bill 802 (Williams, 2015), Senate Bill 350 (De Leon, 2015), Assembly Bill 758 (2009, Skinner), Assembly Bill 32 (Nunez, 2006)]. The California Global Warming Solutions Act of 2006 (AB 32, Nunez) requires the reduction of greenhouse gas emissions in the state to 1990 levels by the year 2020 (approximately a 25% reduction of 2006 levels). The September 2016 Senate Bill 32 (SB 32, Pavley) expands and extends this required reduction to 40% below the 1990 level by 2030.

According to a gap analysis prepared for the CPUC and completed by Harcourt Brown & Carey (HB&C) in July 2011, meeting California's targets requires mobilizing an estimated \$50 billion of investments in energy efficiency improvements over the next 15-20 years.³¹ At the time it was estimated that public or ratepayer funded investments were less than half this level and would be insufficient to meet these goals; therefore, market-sourced capital and solutions are required. While there has been some growth in the market, these gaps and needs largely remain today. Lack of access to affordable capital is a key hurdle to investment in energy efficiency improvements across all sectors of the economy.

The CHEEF offers the first open-market On-Bill Repayment (OBR) infrastructure to support increased energy efficiency financing in the nation. The pilots were established with a myriad of goals, which are intended to support the State's broader energy efficiency and environmental policy goals using an innovative approach. Primarily, the pilots are designed to: (a) attract a greater amount of private capital to the energy efficiency retrofit market by reducing risk to lenders; (b) broaden the availability of financing to individuals who might not have been able to access it otherwise; and (c) address the upfront cost barrier to energy efficiency retrofit projects.

CAEATFA'S ROLE

CAEATFA was requested to administer the CHEEF pilots by the CPUC because of its statutory and statewide authority and experience with both financial and energy efficiency markets. CAEATFA's transparent processes facilitate collection of public input to support program development and ensure efficient and responsible use of ratepayer funds.

CAEATFA is creating a streamlined, statewide platform for lenders and energy efficiency retrofit contractors to participate in the uptake of energy efficiency projects through increased access to financing. As the manager of the CHEEF, CAEATFA is developing uniform program requirements, standardized documentation and processes, and a central administrative entity to facilitate investment in energy efficiency projects and implementation of the pilot programs. Additionally, CAEATFA is collaborating with the CPUC, Center for Sustainable Energy, and the IOUs to deliver a \$10 million marketing, education, outreach and training campaign that leverages the existing Energy Upgrade California efforts and will further encourage lender and contractor participation in these types of projects.

PROGRAM DESIGN

The pilot programs are structured to use two key mechanisms to support the program goals: credit enhancements and OBR. Credit enhancements (CEs) serve as a risk mitigation to encourage increased

³¹ http://www.caleefinance.com/wp-content/uploads/2014/04/CPUC_FinancingReport_HBC_Jul8v2.pdf

California Hub For Energy Efficiency Financing

lending in energy efficiency retrofits. As a result of this decreased risk, lenders are expected to extend financing options to a wider array of borrower risk profiles, or to enhance the loan terms that they otherwise would have offered for energy efficiency projects. Several of the pilots will also include OBR mechanisms that will allow borrowers to repay their eligible project financing obligations through a payment on their utility bill. Including OBR in the pilots will help test whether payment on the utility bill will increase debt service performance across market sectors.

Residential

The residential pilots implement credit enhancements and limited on-bill repayment features for single-family and multi-family residences.

- Residential Energy Efficiency Loan (REEL) Assistance Program. The REEL Assistance Program offers a loan loss reserve to participating financial institutions (PFIs) for financings of residential³² energy efficiency upgrades. Because the loan loss reserve helps mitigate a participating financial institution's risk, lenders offer more attractive loan terms, such as lower interest rates or extended terms. One-third of the available credit enhancements is targeted to low-to-moderate income borrowers. In addition, this program allows alternative underwriting criteria – such as utility bill payment history – to be considered to further expand access to financing. The REEL Assistance Program incorporates a sub-pilot, the Energy Financing Line-Item Charge (EFLIC), to be conducted in the PG&E service area only, designed to evaluate the attractiveness of OBR to customers in the residential sector, and to identify the impact of OBR on residential loan performance. Customers participating in the EFLIC program will not be subject to utility disconnection as a result of non-payment of the charge on their utility bill. In addition, the financing obligation will not transfer with the meter, from one property occupant to another.
- Master-Metered Multifamily Program (MMMFP). The MMMFP will offer on-bill repayment for master-metered multifamily properties, primarily within the low-to-moderate income sector (deed restriction that requires affordable rent pricing with at least 50% of units occupied by income-qualifying households). The program includes a credit enhancement as well. Similarly to the EFLIC Program, borrowers participating in this program will not be subject to utility disconnection as a result of non-payment of the OBR charge on their utility bill. However, the financing obligation can transfer with the meter upon consent from future property owners/managers.

Non-residential

The non-residential pilots will implement on-bill repayment for the commercial sector. Unlike the residential programs, customers participating in the non-residential programs will be subject to utility disconnection as a result of non-payment of the OBR charge on their utility bill. For these programs, the financing obligation may remain and transfer with the utility meter upon consent from future property owners/customers.

- Small Business with Credit Enhancement. This program will offer on-bill repayment of financings drawn for energy efficiency improvements to small businesses. The program will also include a credit enhancement (likely in the form of a loss reserve), and will support types of financing that have proven to be effective within the energy efficiency industry, such as equipment leases, energy service agreements, and loans. The Decision also authorized an off-bill version for a leases and energy service agreements.

³² Four (4) units or fewer.

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- Non-Residential OBR (without credit enhancement). This program will target medium and large businesses, and public buildings. The program serves as an opportunity to evaluate the effects of on-bill repayment as a single feature. No credit enhancements will be offered through this program.

REPORT OF 2016 ACTIVITY

CAEATFA launched the Residential Energy Efficiency Loan (REEL) Assistance Program in July 2016, is in the process of developing the on-bill repayment infrastructure and regulations for the remaining pilots, and will solicit public input throughout its development and implementation of the pilot programs. As the pilots will be launched in sequence, CAEATFA staff is working to implement the first pilot while also developing subsequent programs.

In addition, under these efforts, the pilot activity data – loan, project, and energy savings – will be provided to the public. Ultimately, the database will include information from the IOUs' on-bill financing programs, local government ARRA-funded programs, and other efforts throughout the State to provide the data on the energy efficiency investment and financing activity.

RESIDENTIAL ENERGY EFFICIENCY LOAN (REEL) ASSISTANCE PROGRAM

The Residential Energy Efficiency Loan (REEL) Assistance Program launched and enrolled its first loan in July 2016. REEL's initial pilot term is expected to last through July 15, 2018.

Regulatory Development

The initial REEL regulations were approved by the CAEATFA Board in February 2015, and enacted by the Office of Administrative Law in March 2015, after substantive public and stakeholder input. In response to experience gained in early REEL program operationalization with its Master Servicer (Concord or MS), IOUs, CPUC and early lenders in Q4 2015 and Q1 2016, CAEATFA released a modified version of the proposed regulations under the required rulemaking process. The CAEATFA board approved the updated regulations on February 16, 2016 and the California Office of Administrative Law (OAL) approved them on April 13, 2016. The regulations included updates to streamline program participation and administration.

In April 2016, Concord had established the operational infrastructure for REEL, testing of the loan enrollments process was completed, the list of eligible energy efficiency measures (EEEMs) was improved and revised regulations were enacted.

Lender Recruitment and Training

CAEATFA has been recruiting Participating Financial Institutions (PFIs) and Participating Finance Lenders (PFLs)³³ throughout program development, and was able to enroll its first lender when the initial program regulations were approved. To date, CAEATFA has received lender applications from seven (7) entities; of the applications received to date, five have been approved as of December 31, 2016. Currently, four (4) approved participating lenders have established their internal process modifications and infrastructure and can enroll CHEEF supported loans.

CAEATFA is continuing to recruit additional lenders, advocating the REEL lender value proposition, assisting with obtaining lenders' internal support to develop a CHEEF product within their institutions,

³³ A PFL is a lender that operates under authority of the California Department of Business Oversight and that holds Finance Lender license. It is distinct from a Participating Financial Institution that operates under the federal Riegle Act.

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and supporting the development of their applications. Table 13 provides a list of lenders that have applied under the program.

TABLE 13: REEL LENDER GEOGRAPHICAL COVERAGE AND LENDING STATUS			
Lender Name	Approval Date	Geographical Coverage	Lending Status
Viewtech Financial Services	June 2015	Statewide	Approved, developing internal infrastructure and revamping product
Valley Oak Credit Union	August 2015	Tulare, Kings, Madera, and Fresno Counties	Active
Matadors Community Credit Union	March 2016	Statewide	Active
Desert Valleys Federal Credit Union	September 2016	Parts of Kern, Inyo and San Bernardino Counties	Approved, currently in on-boarding process
California Coast Credit Union	September 2016	Statewide	Approved, currently in on-boarding process
allU.S. Credit Union	Pending Review	Monterey, Santa Cruz, and San Benito Counties	Pending – Application Under Review
Terra Green Community Development Corporation	Pending Review	Statewide	Pending – Application Under Review (incomplete application)

Participating lenders are lowering their interest rates, extending loan tenors, and broadening access to financing. The table below provides an overview of participating lenders’ terms of their REEL financing product in comparison to their standard unsecured financing product.

TABLE 14: SUMMARY PROFILE OF ALL ACTIVE FINANCIAL INSTITUTIONS CURRENTLY APPROVED TO OFFER LOANS TO CONSUMER FOR THE CHEEF								
DETAILS	MATADORS COMMUNITY CREDIT UNION		CALIFORNIA COAST CREDIT UNION		VALLEY OAK CREDIT UNION		DESERT VALLEYS FEDERAL CREDIT UNION	
	UNSECURED	REEL	UNSECURED	REEL	UNSECURED	REEL	UNSECURED	REEL
Available Areas	STATEWIDE		STATEWIDE		Tulare and Madera Counties		Some Cities in Kern, Inyo and San Bernardino Counties	
Min FICO	660	640	600	600	580	580	580	580
Min Interest Rate	9.90%	5.99%	6.85%	5.88%	8.95%	6.77%	8.49%	4.50%
Max Interest Rate	12.40%	7.99%	18.85%	7.88%	15.95%	9.27%	18.00%	8.50%
Max Term	1 year	15 year	5 year	15 year	5 year	15 year	5 year	15 year
Min Loan Amount	n/a	\$2,500	\$5,000	\$2,500	n/a	\$2,500	\$2,500	\$2,500
Min Loan Amount (10yr)	n/a	\$2,500	n/a	\$2,500	n/a	\$10,000	n/a	\$10,000
Min Loan Amount (15yr)	n/a	\$2,500	n/a	\$2,500	n/a	\$25,000	n/a	\$25,000
Max Loan Amount	\$5,000	\$50,000	\$20,000	\$50,000	\$20,000	\$50,000	\$15,000	\$50,000
Max Loan Amount (No FICO Score)	n/a	n/a	n/a	\$35,000	n/a	n/a	\$2,500	\$35,000

Contractor Recruitment and Training

Home energy efficiency retrofit contractors are a key component of residential energy efficiency programs. The REEL program is designed to leverage the existing IOU contractor networks and partnerships, as well as encourage broader engagement. CAEATFA is in the process of selecting a third-party contractor manager through a competitive process, which will ultimately be responsible for the recruitment and program training of contractors, and will also conduct quality assurance reviews on

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projects that do not participate in an IOU rebate or incentive program. Until that point, CAEATFA is conducting the contractor enrollment program training.

In collaboration with the Center for Sustainable Energy and the IOUs, it was determined the program contractor recruitment would begin once the first lender had built its infrastructure and was able to offer their REEL product. Contractor training began on April 13, 2016 with a first, in-person contractor training event being held in Tulare, California. Since then, CAEATFA has conducted several in-person trainings across the State in coordination with the four IOUs, and also conducts weekly webinars. The current online contractor training schedule can be found at www.thecheef.com.

As of December 31, 2016, 171 contractors/contractor companies have completed the REEL required training; 76 of those contractors have enrolled in the REEL program, and at least six projects have been completed.

PG&E REEL Sub-Pilot: Energy Finance Line Item Charge (EFLIC)

CAEATFA is concurrently developing EFLIC, a sub-pilot of REEL. EFLIC, only available in PG&E territory, will initially focus on “small dollar” loans to encourage low-mid income homeowners to purchase energy efficiency equipment from retailers. In the initial phase of the project, CAEATFA staff worked with PG&E and interested financiers to propose an initial draft of the program structure. While analyzing various operational elements of the program (eligibility, data exchange and servicing requirements), staff identified initial eligibility and operational requirements that interested retailers could participate in.

In 2017, once PG&E has built its technology infrastructure, CAEATFA will develop regulations for EFLIC.

ON-BILL REPAYMENT (OBR)

CAEATFA has concurrently been planning for and assisting in the development of the on-bill repayment infrastructure, which is a fundamental element of the remaining pilots.

Infrastructure Development and Operations

The Data Exchange Protocol (DEP) – a key element of the OBR infrastructure -- which establishes specific data points, file layout and frequency under which data and payments will be exchanged between the IOUs and the master servicer was approved by the impacted parties in January 2016. The DEP outlines the process allowing for secure transmission of payments and repayment data between the IOUs, MS and lenders. The development of DEP was a time-intensive, high priority requiring numerous meetings and hundreds of hours of work by the MS, IOUs and their IT teams, and CAEATFA staff. Establishing these requirements allowed the IOUs to start development of their respective IT systems. DEP is a critical component in collecting and sharing customer energy consumption data from current and future pilot programs. OBR, CHEEF infrastructure and REEL are being developed concurrently.

The MS and the IOUs worked independently, and in close coordination to develop their respective IT systems to accommodate the DEP. Additionally, the IOUs modified their billing systems to accept energy efficiency financing charges on their bills. In March of 2016, CAEATFA, the MS and the IOUs launched the planning and testing phases of DEP and the OBR infrastructure. The parties identified several information technology risks and gaps related to the testing plan that had been initially developed. These risks were addressed by developing several mitigation strategies to ensure a robust testing plan approach and process.

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From Summer 2016 to Fall 2016, three of our four partner IOUs successfully completed the majority of their scheduled OBR testing. The fourth IOU is scheduled to complete OBR testing during Q2 of 2017.

DEVELOPMENT OF SMALL BUSINESS, COMMERCIAL AND MULTIFAMILY PILOTS

CAEATFA staff continued development of the CHEEF commercial pilots, hosting several workshops to discuss the relevant financial and project requirements.

- July 20, 2016 – Commercial Financing Program Parameters
 - Credit enhancement structure for small business pilots
 - Financial product eligibility
 - Finance provider eligibility
 - Borrower/Customer underwriting guidelines

- October 28, 2016 – Commercial Project Program Parameters
 - Eligible measures and eligible projects
 - Contractor requirements
 - Project Quality Assurance/Quality Control requirements
 - Data reporting
 - Finance-only (non-rebate) pathway

- January 31, 2017 – On-Bill Repayment Program Parameters
 - On-bill governance and agreement structures
 - Eligibility guidelines
 - On-bill infrastructure and communication with the Master Servicer
 - Details and timing of cash flows and payments

In 2017, CAEATFA will develop regulations for the commercial pilots, and will launch the development of the multifamily pilot. The timeframe for implementing the remaining pilots has several dependencies, including 1) incorporating anticipated modifications and streamlining efforts currently being considered by the CPUC and 2) the progress in developing the OBR infrastructure.

PILOT MODIFICATIONS AND CPUC ACTIVITY

The timetable for pilot implementation was extended due to the complexity of the pilots and development of the OBR infrastructure. In August 2016, CAEATFA estimated that the combined two-year implementation period of the pilots, as they launch sequentially, will run through fiscal year (FY) 2019-2020 (June 30, 2020). This timetable was based on CAEATFA’s best estimates at the time, and was developed relying on certain reasonable assumptions about issue resolutions/deliverables, and CAEATFA’s staffing resources.

FIGURE 4: ANTICIPATED CHEEF PILOT IMPLEMENTATION SCHEDULE

Anticipated Pilot Implementation Schedule					
Pilot Implementation Period	FY 15-16	FY 16-17	FY 17-18	FY 18-19	FY 19-20
Residential Pilot (CE)					
Small Business Pilot (CE)					
Multifamily Pilot (CE)					
Non-Residential OBR ONLY					

California Hub For Energy Efficiency Financing

CAEATFA and CPUC staff began discussion on CAEATFA's resource needs to complete the pilots as they are currently designed – as well as challenges and opportunities of the pilots -- over the summer of 2016. While CAEATFA only expended \$2,724,080 of the \$7 million allocated to it under D.13-09-044, its current legislative budget authority expires June 30, 2017. Due to CAEATFA's role as a state agency, it was concurrently required to submit a legislative budget request and extension for consideration and approval in the 2017 Budget.

CAEATFA has requested an additional \$8.36 million of the \$9 million existing contingency fund to implement the pilots through FY 2019-2020. These costs include:

- administrative costs, including its contracts with the MS, Trustee Bank, Contractor Manager, and Technical Advisors;
- right-sizing the number and level of CAEATFA staff to more effectively implement the scope of work of the CHEEF, including the establishment of 4 permanent staff positions necessary for continuity in implementation and long-term administration through the term of enrolled loans (15 years).

On November 14, 2016, the CPUC hosted a mid-point review of the CHEEF pilots as required by D. 13-19-044, at which CAEATFA:

- provided information on the history and state of CHEEF pilot development and implementation;
- illustrated opportunities and risks to be mitigated;
- identified and requested potential modifications to the current pilot program design for consideration and input; and
- outlined the details of its budget request.

On November 22, 2016, a *Joint Ruling of Assigned Commissioner and Administrative Law Judge on Financing Pilots and Associated Marketing, Education and Outreach Activities* was issued, which:

- released the contingency funds and approved CAEATFA's budget request, and requested comments on potential next steps for the pilots;
- addressed short-term and longer-term actions necessary to continue marketing, education, and outreach activities related to the financing pilots.

Comments were requested by December 12, 2016, with reply comments due no later than December 19, 2016. The CPUC is currently considering comments and is expecting to release a proposed decision in early 2017 that is anticipated to consider several issues to streamline the pilots.

Additional information on the CHEEF pilots can be found in this [LAO Report](#) (<http://treasurer.ca.gov/caeatfa/cheef/suppl.pdf>) and at www.thecheef.com.

CLEAN ENERGY UPGRADE FINANCING PROGRAM

PROGRAM SUMMARY

LEGISLATIVE BACKGROUND

Assembly Bill of the First Extraordinary Session 14 (ABX1 14, Skinner, Chapter 9, Statutes of 2011) authorized CAEATFA to administer a Clean Energy Upgrade Financing Program (CEUFP or the Program) using \$25 million from funds previously appropriated to the PACE Bond Reserve Program. The Program was intended to increase access to capital and to lower financing costs for energy efficiency retrofits and renewable energy installations. Funding for the Program was made available through January 1, 2015.

FIGURE 5: ENERGY EFFICIENCY MEASURES UNDER THE CLEAN ENERGY UPGRADE FINANCING PROGRAM



Pursuant to Public Resources Code Section 26081, in 2012, CAEATFA transferred an initial \$5,000,000 to its trustee bank to launch the Clean Energy Upgrade Financing Program. As of the program's sunset, \$599,051.18 in loss reserve contributions had been encumbered on behalf of lenders for their enrolled loans, and one claim in the amount of \$33,012.58 was subsequently received and paid. Of the initial \$5,000,000 transferred to the trustee bank, \$4,400,948.82 in unencumbered funds was returned to the California Energy Commission in April 2015. In May 2015, the remaining loss reserves, totaling \$599,051.18, were transferred from the trustee bank to CAEATFA to support program obligations to lenders through the loan enrollment terms.

PROGRAM DESIGN

The Program offered a credit enhancement, in the form of a loan loss reserve, to help leverage private capital and improve financing terms (e.g. lower interest rates and extend loan terms) for energy efficiency and renewable energy loans. Eligible loans were made on residential properties of three units or fewer, and must equal less than 10 percent (10%) of the value of the property.

For each loan enrolled in the program, CAEATFA provided a contribution to a loss reserve account for the associated lender. The Program was designed with a tiered structure for loss reserve contributions. This assisted lenders by providing a high loss reserve contribution, equal to 15 percent

Clean Energy Upgrade Financing Program

of the enrolled loan value, early in the process as they built their loss reserve accounts. The loss reserve contribution decreased to 10 percent of the enrolled loan value as each lender enrolled more loans in the Program.

If a borrower defaults on an enrolled loan, resulting in that loan being charged off, the lender may recover up to 100% of the outstanding principal amount of the loan from its loss reserve account for the Program. CAEATFA's regulations for the program include a specific process for lenders to use when claiming reimbursement for a charged-off loan, and to reimburse the Authority if loan proceeds are ever recovered.

REPORT ON 2016 PROGRAM ACTIVITY

Four lenders were enrolled in the Program: Sacramento Municipal Utility District, SAFE Credit Union, Matadors Community Credit Union, and Provident Credit Union.

Lenders reported that participation in the Program has allowed them to modify their lending terms in various ways, including:

- Lowering the required FICO credit score criteria;
- Increasing maximum loan amounts
- Extending loan terms; and
- Lowering interest rates

From program launch in December 2012 through its sunset in December 2014, CAEATFA enrolled 386 energy efficiency retrofit loans across 11 counties in the Program.³⁴ Participating lenders enrolled loans for borrowers with FICO credit scores ranging from 653 to 818, with a median FICO score of 776. Loan amounts ranged from \$3,917 to \$50,000, with a median value of \$13,847. The majority of enrolled loans had a 10-year term; however, participating lenders enrolled loans with terms ranging from 5 to 15 years.³⁵ Lenders estimated that their borrowers would save, on average, \$1,615.50 in financing costs and 24% in annual energy savings (in kilowatt-hours).³⁶

In 2015, CAEATFA received one claim from an enrolled lender for \$33,012.58, which was paid to the lender pursuant to program regulations. No further claims have been made against the loss reserve to date, and the remaining loss reserve totals \$566,038.60.

CAEATFA adopted the federal standard for job retention and creation estimates, which assumes that \$92,000 of government spending creates one job. Using this methodology, the Program facilitated the creation of approximately 62 jobs.

³⁴ Two of the loans were enrolled in the 2012 calendar year, 203 were enrolled in the 2013 calendar year, and the remaining 181 loans were enrolled in the 2014 calendar year. Loans were enrolled in the following counties: Alameda, Contra Costa, Los Angeles, Marin, Placer, Sacramento, San Francisco, San Luis Obispo, Santa Clara, Shasta, and Ventura.

³⁵ The loan loss reserve covers loans for 10 years; loans with longer terms will not have access to the loss reserve after that period.

³⁶ The energy saving values provided in this report are estimates reported by contractors that participated in the program, and their evaluation tools varied. For some projects, energy savings were estimated using the Energy Pro software, while others used methodologies provided by the borrower's utility company.

**APPENDIX A: SALES AND USE TAX EXCLUSION
APPLICATIONS APPROVED TO DATE**

Appendix A: Sales And Use Tax Exclusion Applications Approved To Date

Application Number	Date of Board Consideration	Applicant Name	City	County	Use of Proceeds	QP Amount	STE Amount (Anticipated) ¹	STE Used to Date ¹	QP Amount Conveyed	% Conveyed	Estimated Environmental Benefit ²	Estimated Fiscal Benefit ²	Estimated Net Benefit ³	Expected Total Jobs	Expected Total Jobs from STE ²	
ALTERNATIVE SOURCE AND ADVANCED TRANSPORTATION APPLICATIONS PREVIOUSLY APPROVED - ACTIVE																
1	10-SM002	11/17/2010	ABEC Bidart Stockdale, LLC	Bakersfield	Kern	Biogas Capture & Production	\$ 1,131,584	\$ 102,974	\$ 90,622	\$ 1,118,794	99%	\$ 228,808	\$ 73,809	\$ 199,643	26	3
2	10-SM004	11/17/2010	First Solar, Inc.	Santa Clara	Santa Clara	Solar Photovoltaic Manufacturing	\$ 37,700,000	\$ 3,430,700	\$ 3,409,567	\$ 37,692,991	100%	\$ 1,668,971	\$ 1,971,559	\$ 209,831	174	17
3	10-SM007	11/17/2010	The Solaria Corporation	Fremont	Alameda	Solar Photovoltaic Manufacturing	\$ 7,800,000	\$ 709,800	\$ 375,885	\$ 4,474,135	57%	\$ 834,403	\$ 1,564,665	\$ 1,689,268	180	17
4	10-SM009	11/17/2010	Nanosolar Inc.	San Jose	Santa Clara	Solar Photovoltaic Manufacturing	\$ 140,187,900	\$ 12,757,099	\$ 4,306,412	\$ 53,035,063	38%	\$ 10,527,415	\$ 6,992,728	\$ 4,763,045	410	36
5	10-SM013	11/17/2010	NuvoSun Incorporated	Milpitas	Santa Clara	Solar Photovoltaic Manufacturing	\$ 20,000,000	\$ 1,820,000	\$ 1,736,128	\$ 19,996,323	100%	\$ 2,137,232	\$ 2,594,509	\$ 2,911,741	160	18
6	10-SM015	11/17/2010	Bloom Energy Corporation	Sunnyvale	Santa Clara	Solid Oxide Fuel Cell Systems Manufacturing	\$ 37,447,693	\$ 3,407,740	\$ 2,791,571	\$ 33,120,259	88%	\$ 562,054	\$ 11,144,189	\$ 8,298,503	1,004	83
7	10-SM020	12/15/2010	Ameresco Butte County LLC	Paradise	Butte	Landfill Gas Capture and Production	\$ 1,085,554	\$ 98,785	\$ 62,105	\$ 759,410	70%	\$ 71,701	\$ 185,955	\$ 158,870	12	1
8	10-SM022	12/15/2010	Ameresco Forward LLC	Manteca	San Joaquin	Landfill Gas Capture and Production	\$ 2,227,596	\$ 202,711	\$ 119,409	\$ 1,447,556	65%	\$ 37,823	\$ 277,169	\$ 112,281	11	1
9	10-SM023	12/15/2010	Ameresco Johnson Canyon LLC	Gonzales	Monterey	Landfill Gas Capture and Production	\$ 766,293	\$ 69,733	\$ 53,372	\$ 658,910	86%	\$ 33,124	\$ 168,912	\$ 132,303	12	1
10	10-SM024	12/15/2010	Ameresco San Joaquin LLC	Linden	San Joaquin	Landfill Gas Capture and Production	\$ 1,723,486	\$ 156,837	\$ 113,649	\$ 1,378,738	80%	\$ 99,894	\$ 419,234	\$ 362,292	12	1
11	10-SM025	12/15/2010	Ameresco Vasco Road LLC	Livermore	Alameda	Landfill Gas Capture and Production	\$ 1,828,204	\$ 166,367	\$ 112,036	\$ 1,358,331	74%	\$ 66,258	\$ 333,415	\$ 233,306	11	1
12	10-SM026	12/15/2010	BioFuels Point Loma, LLC	San Diego	San Diego	Wastewater Treatment Biogas Capture and Production	\$ 6,236,024	\$ 567,478	\$ 449,162	\$ 5,512,428	88%	\$ 120,126	\$ 509,292	\$ 61,939	25	3
13	10-SM027	12/15/2010	Alta Devices, Inc.	Sunnyvale	Santa Clara	Solar Photovoltaic Manufacturing	\$ 40,845,000	\$ 3,716,895	\$ 1,108,616	\$ 13,653,538	33%	\$ 561,404	\$ 5,025,666	\$ 1,870,175	322	37
14	10-SM028	12/15/2010	California Institute of Technology	Pasadena	Los Angeles	Research & Development of Solar Fuel Generator Systems	\$ 13,400,000	\$ 1,219,400	\$ 996,694	\$ 11,899,376	89%	\$ -	\$ 702,662	\$ (516,738)	133	15
15	10-SM012	12/15/2010	SunPower Corporation	Milpitas	Santa Clara	Solar Photovoltaic Manufacturing	\$ 8,000,000	\$ 728,000	\$ 704,816	\$ 7,745,227	97%	\$ 903,595	\$ 1,877,730	\$ 2,053,325	94	11
16	11-SM001	1/25/2011	Leyden Energy, Inc.	Fremont	Alameda	Lithium Ion Battery Manufacturing	\$ 1,306,525	\$ 118,894	\$ 99,647	\$ 1,213,373	93%	\$ 21,400	\$ 944,754	\$ 847,260	26	2
17	11-SM002	1/25/2011	MiaSolé	Sunnyvale	Santa Clara	Solar Photovoltaic Manufacturing	\$ 26,092,000	\$ 2,374,372	\$ 881,599	\$ 10,883,941	42%	\$ 3,246,664	\$ 1,363,913	\$ 2,236,206	56	3
18	11-SM003	1/25/2011	Alameda-Contra Costa Transit District	Emeryville	Alameda	Demonstration Hydrogen Fuel Production	\$ 5,387,950	\$ 490,303	\$ 362,320	\$ 4,473,087	83%	\$ 16,040	\$ 274,173	\$ (200,090)	6	1
19	10-SM010	12/15/2010 2/22/2011	Simbol, Inc.	Calipatria, Niland, Brawley	Imperial	Lithium and Battery Material Manufacturing	\$ 42,484,174	\$ 3,866,060	\$ 164,278	\$ 1,938,796	5%	\$ 558,363	\$ 9,552,414	\$ 6,244,717	212	23
20	11-SM006	3/22/2011	Mt. Poso Cogeneration Company, LLC	Bakersfield	Kern	Biomass Processing and Fuel Production	\$ 14,374,000	\$ 1,308,034	\$ 1,164,294	\$ 14,374,000	100%	\$ 197,027	\$ 3,470,273	\$ 2,359,266	97	11
21	11-SM005	6/28/2011	Recology East Bay	Oakland	Alameda	Biomass Processing and Fuel Production	\$ 3,703,090	\$ 336,981	\$ -	\$ -	0%	\$ 111,243	\$ 506,852	\$ 281,113	46	5
22	11-SM009	6/28/2011	DTE Stockton, LLC	Stockton	San Joaquin	Biomass Processing and Fuel Production	\$ 10,120,000	\$ 920,920	\$ 823,638	\$ 10,120,000	100%	\$ 2,221,793	\$ 4,297,636	\$ 5,598,509	62	7
23	11-SM010	7/26/2011	SCS Energy	Fresno	Fresno	Biogas Capture & Production	\$ 3,155,300	\$ 255,579	\$ 247,020	\$ 3,049,632	97%	\$ 40,230	\$ 271,233	\$ 55,884	9	1
24	11-SM012	8/23/2011	CE Obsidian Energy, LLC	Imperial	Imperial	Geothermal Brine Extraction	\$ 174,453,978	\$ 14,130,772	\$ -	\$ -	0%	\$ 7,487,143	\$ 11,697,269	\$ 5,053,640	381	39
25	11-SM014	8/23/2011	SoloPower Inc.	San Jose	Santa Clara	Solar Photovoltaic Manufacturing	\$ 8,411,240	\$ 681,310	\$ 494,484	\$ 6,104,736	73%	\$ 419,024	\$ 575,484	\$ 313,197	40	1
26	11-SM019	11/15/2011	Zero Waste Energy Development Company, LLC	San Jose	Santa Clara	Biogas Capture & Production	\$ 17,156,875	\$ 1,389,707	\$ 942,179	\$ 11,273,784	66%	\$ 1,355,423	\$ 2,233,575	\$ 2,199,291	174	17
27	11-SM016	12/13/2011	Tesla Motors, Inc.	Hawthorne, Palo Alto, Menlo Park	Los Angeles; Santa Clara; San Mateo	Electric Vehicle Manufacturing	\$ 292,000,000	\$ 23,652,000	\$ 24,546,045	\$ 291,889,530	100%	\$ 2,386,636	\$ 35,023,610	\$ 13,758,246	1,237	108
28	12-SM001	2/21/2012	Soraa, Inc.	Fremont	Alameda	Energy Efficient LED Lighting Manufacturing	\$ 57,002,457	\$ 4,617,199	\$ 1,590,122	\$ 18,973,342	33%	\$ 30,775,968	\$ 2,368,664	\$ 28,527,434	180	14

Appendix A: Sales And Use Tax Exclusion Applications Approved To Date

Application Number	Date of Board Consideration	Applicant Name	City	County	Use of Proceeds	QP Amount	STE Amount (Anticipated) ¹	STE Used to Date ¹	QP Amount Conveyed	% Conveyed	Estimated Environmental Benefit ²	Estimated Fiscal Benefit ²	Estimated Net Benefit ²	Expected Total Jobs	Expected Total Jobs from STE ²	
29	12-SM003	3/20/2012	Stion Corporation	San Jose	Santa Clara	Solar Photovoltaic Manufacturing	\$ 6,417,810	\$ 519,843	\$ 490,542	\$ 6,056,069	94%	\$ 277,896	\$ 253,546	\$ 11,600	28	3
30	12-SM006	5/15/2012	John Galt Biogas Inc.	Galt	Sacramento	Biogas Capture & Production	\$ 1,025,769	\$ 83,087	\$ 61,712	\$ 735,019	72%	\$ 112,933	\$ 128,931	\$ 158,777	19	2
31	12-SM004	5/15/2012	Soitec Solar Industries LLC	San Diego	San Diego	Concentrated Photovoltaic Manufacturing	\$ 104,381,342	\$ 8,454,889	\$ 7,351,987	\$ 90,047,265	86%	\$ 3,706,841	\$ 10,302,813	\$ 5,554,765	399	44
32	12-SM007	5/15/2012	Reflexite Soitec Optical Technology LLC	San Diego	San Diego	Concentrated Photovoltaic Manufacturing	\$ 24,500,000	\$ 1,984,500	\$ 2,005,024	\$ 24,200,004	99%	\$ 357,750	\$ 1,704,725	\$ 77,975	114	8
33	12-SM008	6/19/2012	North Star Biofuels LLC	Watsonville	Santa Cruz	Biodiesel Production	\$ 4,115,500	\$ 343,866	\$ 343,220	\$ 4,115,500	100%	\$ 84,522	\$ 2,616,810	\$ 2,367,976	30	1
34	12-SM010	10/16/2012	Electric Vehicles International, LLC	Stockton	San Joaquin	Electric Vehicle Manufacturing	\$ 5,744,962	\$ 465,342	\$ 256,836	\$ 3,170,809	55%	\$ 83,283	\$ 906,571	\$ 524,512	114	8
35	12-SM011	10/16/2012	Clean World Partners LLC	Sacramento	Sacramento	Biomass Processing and Fuel Production	\$ 11,796,759	\$ 955,537	\$ -	\$ -	0%	\$ 204,651	\$ 977,083	\$ 226,196	24	3
36	12-SM009	10/16/2012	ABEC New Hope LLC	Galt	Sacramento	Biogas Capture & Production	\$ 2,633,359	\$ 213,302	\$ 84,096	\$ 1,004,735	38%	\$ 41,150	\$ 208,573	\$ 36,421	22	3
37	12-SM012	11/13/2012	Zero Waste Energy, LLC	Marina	Monterey	Biogas Capture & Production	\$ 1,187,000	\$ 96,147	\$ 94,295	\$ 1,126,587	95%	\$ 18,139	\$ 95,062	\$ 17,054	5	1
38	12-SM013	11/13/2012	Oberon Fuels, Inc.	Brawley	Imperial	Biogas Capture & Bio DME Production	\$ 13,500,000	\$ 1,093,500	\$ 47,558	\$ 568,196	4%	\$ 423,866	\$ 679,196	\$ 9,561	17	3
39	13-SM001	1/15/2013	CleanWorld	Davis	Yolo	Biomass Processing and Fuel Production	\$ 5,851,298	\$ 489,754	\$ 459,934	\$ 5,462,394	93%	\$ 106,588	\$ 506,088	\$ 122,923	24	3
40	13-SM002	3/19/2013	Buster Biofuels, LLC	Escondido	San Diego	Biodiesel Production	\$ 1,905,343	\$ 159,477	\$ 160,430	\$ 1,905,343	100%	\$ 103,496	\$ 786,032	\$ 730,051	32	2
41	13-SM004	4/16/2013	EJ Harrison and Sons Rentals, Inc.	Oxnard	Ventura	Biogas Capture & Production	\$ 1,212,095	\$ 101,452	\$ -	\$ -	0%	\$ 19,311	\$ 108,487	\$ 26,345	6	1
42	13-SM005	4/16/2013	Vitriflex, Inc.	Milpitas	Santa Clara	Photovoltaic Solar Component Manufacturing	\$ 16,330,000	\$ 1,366,821	\$ 372,404	\$ 4,422,853	27%	\$ 1,256,397	\$ 886,066	\$ 775,642	47	4
43	13-SM007	6/18/2013	ABEC Bidart-Old River, LLC	Bakersfield	Kern	Biogas Capture & Production	\$ 6,254,045	\$ 523,464	\$ 328,667	\$ 3,926,732	63%	\$ 351,613	\$ 523,038	\$ 351,188	28	2
44	13-SM009	8/20/2013	North State Rendering Co Inc.	Oroville	Butte	Biomass Processing and Fuel Production Facility	\$ 7,355,324	\$ 615,641	\$ 619,318	\$ 7,355,324	100%	\$ 305,075	\$ 422,917	\$ 112,351	12	2
45	13-SM010	9/17/2013	Central Valley Ag Power, LLC	Oakdale	Stanislaus	Biomass Processing and Fuel Production Facility	\$ 3,481,313	\$ 291,386	\$ -	\$ -	0%	\$ 38,218	\$ 394,801	\$ 141,634	23	2
46	13-SM011	10/15/2013	Blue Line Transfer, Inc.	S. San Francisco	San Mateo	Biomass Processing and Fuel Production Facility	\$ 4,976,469	\$ 416,530	\$ 326,788	\$ 3,881,088	78%	\$ 43,980	\$ 423,841	\$ 51,291	20	3
47	13-SM013	11/19/2013	Crimson Renewable Energy, LP	Bakersfield	Kern	Biomass Processing and Fuel Production Facility	\$ 14,065,000	\$ 1,177,241	\$ 654,131	\$ 7,768,777	55%	\$ 136,306	\$ 2,737,899	\$ 1,696,964	38	2
48	13-SM015	12/17/2013	Tesla Motors, Inc.	Fremont, Palo Alto, Hawthorne	Alameda, Santa Clara, Los Angeles	Electric Vehicle Manufacturing	\$ 415,000,000	\$ 34,735,500	\$ 34,929,532	\$ 414,840,044	100%	\$ 4,847,406	\$ 54,306,869	\$ 24,418,775	2,050	115
49	14-SM004	5/20/2014	Pixley Biogas, LLC	Pixley	Tulare	Biogas Capture and Production	\$ 3,363,238	\$ 283,185	\$ 270,061	\$ 3,207,376	95%	\$ 287,308	\$ 321,007	\$ 325,130	9	2
50	14-SM005	5/20/2014	MSB Investors, LLC	Santa Barbara	Santa Barbara	Biogas Capture and Production	\$ 17,696,003	\$ 1,490,003	\$ -	\$ -	0%	\$ 319,442	\$ 1,392,985	\$ 222,423	75	5
51	14-SM006	5/20/2014	Recology, Inc.	Vacaville	Solano	Biogas Capture and Production	\$ 25,967,035	\$ 2,186,424	\$ -	\$ -	0%	\$ 271,168	\$ 2,747,503	\$ 832,247	57	8
52	14-SM007	5/20/2014	E&J Gallo Winery	Livingston	Merced	Biogas Capture and Production	\$ 17,592,381	\$ 1,481,278	\$ 1,033,049	\$ 12,850,506	73%	\$ 356,059	\$ 1,120,550	\$ 4,670	57	8
53	14-SM010	8/19/2014	AltAir Paramount, LLC	Paramount	Los Angeles	Renewable Diesel Production	\$ 16,325,984	\$ 1,374,648	\$ 911,002	\$ 10,819,502	66%	\$ 287,233	\$ 6,023,164	\$ 4,935,750	141	3
54	14-SM014	8/19/2014	Mendota Bioenergy, LLC	Mendota	Fresno	Biogas Capture & Production	\$ 2,200,000	\$ 185,240	\$ 10,045	\$ 119,300	5%	\$ 165,281	\$ 304,456	\$ 285,037	40	2

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55	14-SM011	9/16/2014	Rialto Bioenergy Facility, LLC	Bloomington	San Bernardino	Biogas Capture & Production	\$ 14,722,168	\$ 1,239,607	\$ -	0%	\$ 765,232	\$ 1,662,628	\$ 1,188,254	35	3	
56	14-SM012	9/16/2014	Anaheim Energy, LLC	Anaheim	Orange	Biogas Capture & Production	\$ 19,143,601	\$ 1,611,891	\$ 93,153	6%	\$ 568,979	\$ 1,938,411	\$ 895,499	40	5	
57	14-SM019	10/21/2014	Solevel, Inc.	Milpitas	Santa Clara	Solar Photovoltaic Manufacturing	\$ 20,500,000	\$ 1,726,100	\$ 1,726,100	100%	\$ 1,261,678	\$ 475,809	\$ 11,387	128	11	
58	14-SM022	12/16/2014	Bowerman Power LFG, LLC	Irvine	Orange	Landfill Gas Capture and Production	\$ 7,030,000	\$ 591,926	\$ 520,311	88%	\$ 273,723	\$ 1,091,792	\$ 773,589	30	3	
59	14-SM023	1/20/2015	WM Renewable Energy, LLC	Novato	Marin	Biogas Capture & Production	\$ 2,004,360	\$ 168,767	\$ 39,630	23%	\$ 71,130	\$ 347,143	\$ 249,507	19	1	
60	14-SM025	2/17/2015	Silevo, Inc.	Fremont	Alameda	Solar Photovoltaic Manufacturing	\$ 106,551,184	\$ 8,971,610	\$ 5,824,877	65%	\$ 3,402,597	\$ 9,175,513	\$ 3,606,500	319	33	
61	15-SM001	4/21/2015	California Renewable Power, LLC	Perris	Riverside	Biogas Capture and Production	\$ 13,079,755	\$ 1,101,315	\$ 934,815	85%	\$ 137,797	\$ 1,839,848	\$ 876,329	48	4	
62	15-SM006	6/16/2015	Efficient Drivetrains, Inc.	Milpitas	Santa Clara	Advanced Transportation	\$ 5,008,800	\$ 421,741	\$ 634	0%	\$ 1,434,548	\$ 970,990	\$ 1,983,797	57	4	
63	15-SM009	7/21/2015	Las Gallinas Valley Sanitary District	San Rafael	Marin	Alternative Source	\$ 788,757	\$ 66,413	\$ 66,413	100%	\$ 10,707	\$ 44,765	\$ (10,941)	7	0	
64	15-SM014	10/20/2015	Madera Renewable Energy, LLC	Madera	Madera	Biogas Capture & Production	\$ 1,999,507	\$ 168,358	\$ -	0%	\$ 418,611	\$ 201,299	\$ 451,481	7	1	
65	15-SM015	10/20/2015	Hanford Renewable Energy, LLC	Hanford	Kings	Biogas Capture & Production	\$ 3,748,012	\$ 315,583	\$ -	0%	\$ 974,447	\$ 435,837	\$ 1,094,701	9	1	
66	15-SM013	12/15/2015	ABEC #2 LLC	Buttonwillow	Kern	Biogas Capture & Production	\$ 5,990,614	\$ 504,410	\$ -	0%	\$ 180,513	\$ 618,883	\$ 294,986	14	0	
67	11-SM016	12/15/2015	Tesla Motors, Inc.	Hawthorne; Palo Alto; Menlo Park,	Los Angeles; Santa Clara; San Mateo,	Electric Vehicle Manufacturing	\$ 463,625,000	\$ 39,037,225	\$ 33,172,732	85%	\$ 4,766,289	\$ 61,843,129	\$ 27,572,193	1,439	41	
68	16-SM005	1/19/2016	Escondido Bioenergy Facility, LLC	Escondido	San Diego	Biogas Capture and Production	\$ 1,900,000	\$ 159,980	\$ -	0%	\$ 28,355	\$ 344,260	\$ 212,635	11	1	
69	16-SM036	12/13/2016	Tesla Motors, Inc.	Hawthorne; Palo Alto; Menlo Park,	Los Angeles; Santa Clara; San Mateo,	Electric Vehicle Manufacturing	\$ 1,169,260,000	\$ 98,451,692	\$ -	0%	\$ 16,434,307	\$ 96,604,442	\$ 14,587,057	3,304	167	
70	16-SM031	12/13/2016	Eslinger Biodiesel Inc.	Fresno	Fresno	Biomass Processing and Fuel Production Facility	\$ 8,394,385	\$ 706,807	\$ -	0%	\$ 570,932	\$ 2,291,152	\$ 2,155,277	34	2	
71	16-SM033	12/13/2016	ABEC #3 LLC dba Lake View Farms Dairy Biogas	Bakersfield	Kern	Biogas Capture & Production	\$ 2,401,884	\$ 202,239	\$ -	0%	\$ 33,640	\$ 311,256	\$ 142,657	25	3	
72	16-SM034	12/13/2016	ABEC #4 LLC dba CE&S Dairy Biogas	Bakersfield	Kern	Biogas Capture & Production	\$ 2,701,502	\$ 227,467	\$ -	0%	\$ 57,815	\$ 506,804	\$ 337,152	24	4	
TOTAL OF ACTIVE ALTERNATIVE SOURCE AND ADVANCED TRANSPORTATION APPLICATIONS APPROVED							\$ 3,559,754,481	\$ 300,057,840	\$ -	\$ 1,679,038,295	-	\$ 112,286,974	\$ 378,004,318	\$ 190,253,775	14,093	1,001

ADVANCED MANUFACTURING APPLICATIONS PREVIOUSLY APPROVED--ACTIVE															
1	13-SM012	12/17/2013	CE&P Imperial Valley 1, LLC	Brawley	Imperial	Industrial Biotechnology	\$ 444,811,275	\$ 37,230,704	\$ -	0%	\$ -	\$ 51,344,220	\$ -	650	84
2	13-SM014	12/17/2013	Boxer Industries, Inc.	Redwood City	San Mateo	Advanced Materials	\$ 6,553,000	\$ 548,486	\$ 420,466	76%	\$ -	\$ 539,522	\$ -	12	1
3	14-SM001	2/18/2014	Enovix Corporation	Fremont	Alameda	Advanced Materials	\$ 16,234,215	\$ 1,358,804	\$ 233,463	17%	\$ -	\$ 1,920,567	\$ -	55	4
4	14-SM008	6/17/2014	Niagara Bottling, LLC	San Bernardino	San Bernardino	Integrated Computational Materials Engineering - Water Bottling Facility	\$ 30,000,000	\$ 2,526,000	\$ 2,423,376	96%	\$ -	\$ 7,988,338	\$ -	86	6
5	14-SM009	7/15/2014	nanoPrecision Products, Inc.	El Segundo, Camarillo	Los Angeles, Ventura	Advanced Materials	\$ 7,963,792	\$ 670,566	\$ 370,391	60%	\$ -	\$ 840,081	\$ -	50	4

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6	14-SM013	9/16/2014	Lockheed Martin Corporation	Palmdale, Helendale	Los Angeles, San Bernardino	Advanced Materials	\$ 345,296,354	\$ 29,073,953	\$ -	\$ -	0%	\$ -	\$ 38,053,138	\$ -	1,213	91
7	14-SM021	1/20/2015	Pacific Ethanol Madera, LLC	Madera	Madera	Industrial Biotechnology - Corn Oil Production	\$ 4,763,500	\$ 401,087	\$ 271,375	\$ 3,222,977.51	68%	\$ -	\$ 988,793	\$ -	3	0
8	15-SM002	4/21/2015	GKN Aerospace Chemtronics, Inc.	Santa Ana	Orange	Advanced Materials	\$ 118,687,529	\$ 9,993,490	\$ 1,445,089	\$ 17,162,581.68	14%	\$ -	\$ 8,483,497	\$ -	231	13
9	15-SM003	5/19/2015	Weber Metals, Inc.	Paramount	Los Angeles	Advanced Materials	\$ 167,661,606	\$ 14,117,107	\$ 49,771	\$ 591,100.00	0%	\$ -	\$ 35,048,735	\$ -	192	18
10	15-SM005	6/16/2015	U.S. Corrugated of Los Angeles, Inc.	Santa Fe Springs	Los Angeles	Integrated Computational Materials	\$ 23,969,087	\$ 2,018,197	\$ 2,018,197	\$ 23,969,087.00	100%	\$ -	\$ 7,825,890	\$ -	160	13
11	15-SM007	6/16/2015	The Monadnock Company	Industry	Los Angeles	Advanced Materials	\$ 6,475,000	\$ 545,195	\$ 30,590	\$ 363,300.02	6%	\$ -	\$ 1,847,167	\$ -	299	10
12	15-SM008	7/21/2015	Hi Shear Corporation	Torrance	Los Angeles	Advanced Materials	\$ 39,385,000	\$ 3,316,217	\$ 306,366	\$ 3,638,553.00	9%	\$ -	\$ 3,432,623	\$ -	1,117	43
13	15-SM011	8/18/2015	Orbital ATK, Inc.	Northridge	Los Angeles	Advanced Materials	\$ 16,275,154	\$ 1,370,368	\$ 244,819	\$ 2,907,587.17	18%	\$ -	\$ 3,648,303	\$ -	320	10
14	15-SM012	9/15/2015	Rolls-Royce High Temperature Composites, Inc.	Huntington Beach	Orange	Advanced Materials	\$ 8,728,000	\$ 734,898	\$ 167,506	\$ 1,989,386.97	23%	\$ -	\$ 788,866	\$ -	105	6
15	15-SM010	10/20/2015	Karma Automotive LLC	Moreno Valley	Riverside	Integrated Computational Materials Engineering	\$ 38,194,860	\$ 3,216,007	\$ 207,987	\$ 2,470,154.94	6%	\$ -	\$ 4,025,187	\$ -	205	16
16	15-SM016	10/20/2015	Space Exploration Technologies Corp.	Hawthorne	Los Angeles	Additive Manufacturing	\$ 360,169,639	\$ 30,326,284	\$ 84,139	\$ 999,278.00	0%	\$ -	\$ 40,537,040	\$ -	4,200	183
17	15-SM017	11/17/2015	Space Systems/Loral LLC	Palo Alto	Santa Clara	Micro and Nanoelectronics	\$ 5,586,000	\$ 470,341	\$ -	\$ -	0%	\$ -	\$ 812,787	\$ -	354	3
18	15-SM020	12/15/2015	Millennium Space Systems, Inc.	El Segundo	Los Angeles	Advanced Materials	\$ 4,284,672	\$ 360,769	\$ -	\$ -	0%	\$ -	\$ 1,389,088	\$ -	55	4
19	16-SM003	1/19/2016	Kite Pharma, Inc.	El Segundo	Los Angeles	Industrial Biotechnology	\$ 13,763,050	\$ 1,158,849	\$ -	\$ -	0%	\$ -	\$ 5,393,473	\$ -	305	18
20	16-SM004	1/19/2016	rPlanet Earth, LLC	Vernon	Los Angeles	Micro and Nano Electronics	\$ 119,800,000	\$ 10,087,160	\$ -	\$ -	0%	\$ -	\$ 34,955,481	\$ -	625	59
21	16-SM006	1/19/2016	California Safe Soil	McClellan	Sacramento	Industrial Biotechnology	\$ 3,750,000	\$ 315,750	\$ -	\$ -	0%	\$ -	\$ 1,623,748	\$ -	22	2
22	16-SM002	2/16/2016	The Gill Corporation and Its Subsidiary, Castle Industries	El Monte, Ontario	Los Angeles, San Bernardino	Advanced Materials	\$ 8,472,000	\$ 713,342	\$ -	\$ -	0%	\$ -	\$ 2,371,545	\$ -	608	36
23	16-SM037	12/13/2016	Gilead Sciences, Inc.	La Verne	Los Angeles	Industrial Biotechnology	\$ 51,645,674	\$ 4,348,566	\$ 1,200,249	\$ 14,254,740.00	0%	\$ -	\$ 3,908,387	\$ -	746	48
24	16-SM026	12/13/2016	XT Green, Inc.	Corona	Riverside	Micro and Nano Electronics	\$ 8,970,500	\$ 755,316	\$ -	\$ -	0%	\$ -	\$ 2,260,835	\$ -	84	7
TOTAL OF ACTIVE ADVANCED MANUFACTURING APPLICATIONS APPROVED						\$ 1,851,439,907	\$ 155,657,455	\$ 9,473,785	\$ 112,909,374.19	-	\$ -	\$ 260,027,311	\$ -	11,697	679	

RECYCLED RESOURCE EXTRACTION APPLICATIONS PREVIOUSLY APPROVED - ACTIVE																
Application Number	Date of Board Consideration	Applicant Name	City	County	Use of Proceeds	QP Amount	STE Amount (Anticipated) ¹	STE Used to Date ¹	QP Amount Conveyed	% Conveyed	Estimated Environmental Benefit ²	Estimated Fiscal Benefit ²	Estimated Net Benefit ²	Expected Total Jobs	Expected Total Jobs from STE ²	
1	16-SM008	10/18/2016	Waste Management of Alameda County	San Leandro	Alameda	Mixed Recycling	\$ 77,272,550	\$ 6,506,349	\$ -	\$ -	0%	\$ 141,898	\$ 8,381,777	\$ 2,017,327	144	20
2	16-SM009	10/18/2016	Waste Management Recycling and Disposal Services of California, Inc.	Sun Valley	Los Angeles	Mixed Organics	\$ 3,500,000	\$ 294,700	\$ 66,754	\$ 792,800	0%	\$ 8,008	\$ 568,386	\$ 281,694	37	1
3	16-SM011	10/18/2016	SANCO Services, LP	Escondido	San Diego	Mixed Recycling	\$ 24,190,000	\$ 2,036,798	\$ 1,045,782	\$ 12,420,220	0%	\$ 91,615	\$ 3,306,064	\$ 1,360,881	112	12

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4	16-SM013	10/18/2016	Recology San Francisco	San Francisco	San Francisco	Mixed Recycling	\$ 7,917,170	\$ 666,626	\$ -	\$ -	0%	\$ 16,789	\$ 701,902	\$ 52,065	127	8
5	16-SM014	10/18/2016	Monterey Regional Waste Management District	Marina	Monterey	Mixed Recycling	\$ 11,401,677	\$ 960,021	\$ -	\$ -	0%	\$ 44,567	\$ 1,310,429	\$ 394,975	35	4
6	16-SM015	10/18/2016	CRM Co., LLC.	Stockton	San Joaquin	Crumb Tire Rubber	\$ 3,400,000	\$ 286,280	\$ -	\$ -	0%	\$ 5,872	\$ 1,015,541	\$ 735,133	32	2
7	16-SM017	10/18/2016	Mid-Valley Disposal	Fresno	Fresno	Mixed Recycling	\$ 6,821,909	\$ 574,405	\$ -	\$ -	0%	\$ 29,922	\$ 592,293	\$ 47,811	54	5
8	16-SM018	10/18/2016	Mid-Valley Disposal	Kerman	Fresno	Mixed Organics	\$ 3,739,543	\$ 314,870	\$ -	\$ -	0%	\$ 12,990	\$ 275,785	\$ (26,094)	24	3
9	16-SM019	10/18/2016	MSB Investors, LLC	Santa Barbara	Santa Barbara	Mixed Recycling	\$ 32,403,272	\$ 2,728,356	\$ -	\$ -	0%	\$ 80,208	\$ 2,985,127	\$ 336,980	75	11
10	16-SM022	10/18/2016	EDCO Disposal Corporation	San Diego	San Diego	Mixed Recycling	\$ 10,000,000	\$ 842,000	\$ -	\$ -	0%	\$ 47,049	\$ 961,493	\$ 166,542	45	5
11	16-SM023	10/18/2016	EDCO Transport Services	Signal Hill	Los Angeles	Mixed Recycling	\$ 10,500,000	\$ 884,100	\$ -	\$ -	0%	\$ 48,397	\$ 1,094,340	\$ 258,637	37	5
12	16-SM021	11/15/2016	GreenWaste Recovery, Inc.	San Jose	Santa Clara	Mixed Recycling and Organics	\$ 4,458,683	\$ 375,421	\$ -	\$ -	0%	\$ 8,008	\$ 568,386	\$ 544,904	26	2
TOTAL OF ACTIVE APPLICATIONS APPROVED AND CONSIDERED (RECYCLED RESOURCE EXTRACTION)							\$ 195,604,804	\$ 16,469,925	\$ 1,112,536	\$ 13,213,020	\$ -	\$ 535,324	\$ 21,761,523	\$ 6,170,855	748	78

TOTAL OF ACTIVE APPLICATIONS APPROVED AND CONSIDERED (ALTERNATIVE SOURCE, ADVANCED TRANSPORTATION, ADVANCED MANUFACTURING, RECYCLED RESOURCE EXTRACTION)							\$ 5,606,799,192	\$ 472,185,219	\$ 10,586,322	\$ 1,805,160,688	-	\$ 112,822,298	\$ 659,793,152	\$ 196,424,630	26,538	1,758
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ALTERNATIVE SOURCE, ADVANCED TRANSPORTATION, ADVANCED MANUFACTURING, AND RECYCLED FEEDSTOCK APPLICATIONS PREVIOUSLY APPROVED - INACTIVE																
1	10-SM003	11/17/2010	ABEC Bidart Old River, LLC	Bakersfield	Kern	Biogas Capture & Production	\$ 4,738,000	\$ 431,158	\$ -	\$ -	0%	\$ 3,080,806	\$ 438,844	\$ 3,088,491	50	6
2	10-SM005	11/17/2010	Gallo Cattle Company	Atwater	Merced	Biogas Capture & Production	\$ 1,245,000	\$ 113,295	\$ -	\$ -	0%	\$ 791,959	\$ 130,374	\$ 809,038	30	3
3	10-SM006	11/17/2010	Solyndra LLC	Fremont	Alameda	Solar Photovoltaic Manufacturing	\$ 381,776,000	\$ 34,741,616	\$ 25,127,322	\$ 277,309,757.00	73%	\$ 22,202,363	\$ 20,765,274	\$ 8,226,021	2,084	225
4	10-SM011	11/17/2010	Stion Corporation	San Jose	Santa Clara	Solar Photovoltaic Manufacturing	\$ 105,473,402	\$ 9,598,080	\$ -	\$ -	0%	\$ 3,512,324	\$ 6,207,404	\$ 121,648	493	47
5	10-SM014	11/17/2010	Calisolar Inc.	Sunnyvale	Santa Clara	Solar Photovoltaic Manufacturing	\$ 39,000,000	\$ 3,549,000	\$ -	\$ -	0%	\$ 1,971,609	\$ 1,975,797	\$ 398,407	273	13
6	10-SM016	12/15/2010	Quantum Fuel Systems Technologies Worldwide, Inc.	Irvine	Orange	Solar Photovoltaic Manufacturing	\$ 8,945,858	\$ 814,073	\$ -	\$ -	0%	\$ 508,282	\$ 5,895,571	\$ 5,589,780	94	11
7	10-SM018	12/15/2010	Green Vehicles, Inc.	Salinas	Monterey	Electric Vehicle Manufacturing	\$ 3,708,050	\$ 337,433	\$ -	\$ -	0%	\$ 65,608	\$ 3,018,494	\$ 2,746,669	126	14
8	10-SM019	12/15/2010	Soliant Energy, Inc.	Monrovia	Los Angeles	Solar Photovoltaic Manufacturing	\$ 9,966,500	\$ 906,952	\$ -	\$ -	0%	\$ 1,142,989	\$ 1,709,894	\$ 1,945,932	38	5
9	10-SM021	12/15/2010	SCE Crazy Horse LLC	Salinas	Monterey	Landfill Gas Capture and Production	\$ 1,558,460	\$ 141,820	\$ -	\$ -	0%	\$ 103,093	\$ 432,228	\$ 393,501	12	1
10	11-SM007	5/18/2011	Amonix, Inc.	Seal Beach	Orange	Solar Photovoltaic Manufacturing	\$ 2,278,900	\$ 207,380	\$ -	\$ -	0%	\$ 244,895	\$ 557,789	\$ 595,304	153	2
11	11-SM015	8/23/2011	Amonix, Inc	Seal Beach; Milpitas	Orange; Santa Clara	Solar Photovoltaic Manufacturing	\$ 7,879,667	\$ 638,253	\$ -	\$ -	0%	\$ 740,148	\$ 2,884,021	\$ 2,985,916	200	12

Appendix A: Sales And Use Tax Exclusion Applications Approved To Date

Application Number	Date of Board Consideration	Applicant Name	City	County	Use of Proceeds	QP Amount	STE Amount (Anticipated) ¹	STE Used to Date ¹	QP Amount Conveyed	% Conveyed	Estimated Environmental Benefit ²	Estimated Fiscal Benefit ²	Estimated Net Benefit ²	Expected Total Jobs	Expected Total Jobs from STE ²
12	10-SM001	11/17/2010	Bowerman Power LFG, LLC	Irvine	Orange	Landfill Gas Capture & Production	\$ 9,240,000	\$ 840,840	\$ -	0%	\$ 398,492	\$ 1,008,052	\$ 565,704	30	3
13	14-SM002	3/18/2014	CleanWorld	San Bernardino	San Bernardino	Biomass Processing and Fuel Production	\$ 6,698,715	\$ 564,032	\$ -	0%	\$ 163,485	\$ 858,211	\$ 457,665	26	3
14	14-SM024	3/17/2015	Haas Automation, Inc.	Oxnard	Ventura	Advanced Materials	\$ 81,426,200	\$ 6,856,086	\$ -	0%	\$ -	\$ 38,174,218	\$ -	1,235	51
15	15-SM004	6/16/2015	T2Energy, LLC	Vista	San Diego	Industrial Biotechnology	\$ 4,737,500	\$ 398,898	\$ -	0%	\$ -	\$ 1,881,353	\$ -	48	3
16	16-SM001	1/19/2016	Atieva USA Inc	Menlo Park, Tracy, Sacramento	San Mateo, San Joaquin, Sacramento	Electric Vehicle Manufacturing	\$ 530,750,000	\$ 44,689,150	\$ -	0%	\$ 5,593,675	\$ 137,469,584	\$ 98,374,109	1,547	98
TOTAL OF INACTIVE APPROVED APPLICATIONS						\$ 1,199,422,252	\$ 104,828,064	\$ 25,127,322	\$ 277,309,757	\$ 1	\$ 40,519,728	\$ 223,407,108	\$ 126,298,185	6,439	497
TOTAL ACTIVE & INACTIVE APPLICATIONS APPROVED						\$ 6,806,221,444	\$ 577,013,284	\$ 35,713,644	\$ 2,082,470,445.45		\$ 153,342,026	\$ 883,200,260	\$ 322,722,815	32,977	2,255

APPLICATIONS DENIED BY CAEATFA BOARD															
1	16-SM020	11/15/2016	Zanker Road Resource Management	San Jose	Santa Clara	Mixed Recycling	\$ 1,512,796	\$ 127,377	\$ -	0%	\$ 689	\$ 227,254	\$ 100,565	14	2
SUBTOTAL:						\$ 1,512,796	\$ 127,377	\$ -	\$ -	\$ -	\$ 689	\$ 227,254	\$ 100,565	14	2
TOTAL OF APPLICATIONS DENIED BY CAEATFA BOARD						\$ 1,512,796	\$ 127,377	\$ -	\$ -	\$ -	\$ 689	\$ 227,254	\$ 100,565	14	2

³⁷ Under the Program the value of a specific project's sales and use tax exclusion is calculated using the statewide sales and use tax average. The statewide average was estimated at 9.1% through June 2011 and changed to 8.1% in July 2011, 8.37% in January 2013, and 8.42% in March 2014.

³⁸ These benefits are estimates that are calculated under the Program's evaluation system at the time of Board approval. Applicants are required to provide annual reports to CAEATFA on actual project activity.

**APPENDIX B : PACE LOSS RESERVE PROGRAM
ENROLLMENT ACITIVTY TO DATE**

Appendix B: PACE Loss Reserve Program Enrollment Activity to Date

TABLE B.1: PACE LOSS RESERVE PROGRAM ENROLLMENT ACTIVITY TO DATE									
Year	Program	New Financings January 1st – June 30th		Actual Total Outstanding Portfolio Through June 30th*		New Financings July 1st – December 31st		Estimated Total Enrolled Portfolio Through December 31st*	
2014	1 mPOWER Placer			464	\$10,502,382.62	312	\$9,540,534.04	776	\$20,042,916.66
	2 mPOWER Folsom			3	\$54,181.18	4	\$86,847.90	7	\$141,029.08
	3 Berkeley FIRST**	<i>Not available - PACE Programs</i>		13	\$299,233.74	-	\$0.00	13	\$299,233.74
	4 CaliforniaFIRST	<i>enrolled entire outstanding</i>		-	\$0.00	151	\$3,435,462.04	151	\$3,435,462.04
	5 Sonoma County	<i>portfolios during initial</i>		1,550	\$43,702,974.25	65	\$1,524,472.34	1,615	\$45,227,446.59
	6 WRCOG HERO	<i>application period in June 2014</i>		9,911	\$189,339,784.00	1,757	\$34,971,957.65	11,668	\$224,311,741.65
	7 SANBAG HERO			4,286	\$80,398,364.90	1,763	\$32,056,560.00	6,049	\$112,454,924.90
	8 California HERO			1,174	\$25,974,938.48	2,970	\$67,054,570.85	4,144	\$93,029,509.33
	Total:				17,401	\$350,271,859.17	7,022	\$148,670,404.82	24,423
2015	1 mPOWER Placer	313	\$9,007,272.29	878	\$44,537,362.74	361	\$10,422,668.14	1,239	\$54,960,030.88
	2 mPOWER Folsom	12	\$358,423.79	19	\$858,358.59	10	\$229,578.67	29	\$1,087,937.26
	3 Berkeley FIRST	-	\$0.00	12	\$272,231.98	-	\$0.00	12	\$272,231.98
	4 CaliforniaFIRST	1,044	\$23,904,858.49	1,195	\$27,195,540.14	2,231	\$55,875,048.47	3,426	\$83,070,588.61
	5 Sonoma County	67	\$1,659,819.77	1,475	\$41,157,542.98	46	\$1,288,617.74	1,521	\$42,446,160.72
	6 WRCOG HERO	1,535	\$33,837,187.89	12,795	\$252,378,022.05	2,361	\$53,783,476.55	15,156	\$306,161,498.60
	7 SANBAG HERO	3,968	\$80,548,862.92	7,602	\$143,822,030.98	2,550	\$54,760,955.71	10,152	\$198,582,986.69
	8 California HERO	6,035	\$138,783,046.73	10,326	\$240,306,305.35	8,032	\$191,433,540.91	18,358	\$431,739,846.26
	9 AllianceNRG					1	\$25,474.99	1	\$25,474.99
	10 CaliforniaFIRST (LA)					282	\$8,663,915.65	282	\$8,663,915.65
	11 LA HERO					5,050	\$126,779,290.63	5,050	\$126,779,290.63
	12 Ygrene					911	\$22,277,536.89	911	\$22,277,536.89
Total:		12,974	\$288,099,471.88	34,302	\$750,527,394.81	21,835	\$525,540,104.35	56,137	\$1,276,067,499.16
2016	1 mPOWER Placer	311	\$9,312,194.68	1,493	\$44,558,408.98	252	\$8,194,751.80	1,745	\$52,753,160.78
	2 mPOWER Folsom	26	\$713,934.71	54	\$732,306.69	9	\$187,784.35	63	\$920,091.04
	3 Berkeley FIRST	-	\$0.00	11	\$246,745.00	-	\$0.00	11	\$246,745.00
	4 CaliforniaFIRST	3,531	\$90,107,437.45	6,957	\$169,216,761.62	3,898	\$110,028,160.88	10,855	\$279,244,922.50
	5 Sonoma County	51	\$1,776,171.84	1,378	\$38,507,299.21	50	\$1,415,174.67	1,428	\$39,922,473.88
	6 WRCOG HERO	2,222	\$46,649,263.50	15,624	\$320,840,795.46	2,393	\$49,380,509.74	18,017	\$370,221,305.20
	7 SANBAG HERO	2,289	\$46,363,907.06	11,518	\$227,139,077.08	2,584	\$51,629,199.72	14,102	\$278,768,276.80
	8 California HERO	8,533	\$183,279,942.82	25,306	\$574,336,722.18	10,901	\$232,821,387.83	36,207	\$807,158,110.01
	9 AllianceNRG	2	\$95,960.41	3	\$121,435.40	-	\$0.00	3	\$121,435.40
	10 CaliforniaFIRST (LA)	1,088	\$32,228,028.12	1,451	\$43,224,206.38	1,886	\$64,810,556.67	3,337	\$108,034,763.05
	11 LA HERO	6,529	\$166,552,162.84	10,032	\$252,287,718.07	5,721	\$150,665,091.33	15,753	\$402,952,809.40
	12 Ygrene	6,940	\$168,538,045.39	7,852	\$190,829,604.99	5,774	\$145,963,023.05	13,626	\$336,792,628.04
	13 PACE Funding	9	\$251,239.75	9	\$251,239.75	123	\$4,036,153.52	132	\$4,287,393.27
	14 CMFA PACE					47	\$2,533,503.48	47	\$2,533,503.48
Total:		31,531	\$745,868,288.57	81,688	\$1,862,292,320.81	33,638	\$821,665,297.04	115,326	\$2,683,957,617.85

* The total enrolled portfolio through December 31st is an estimate because the numbers do not take into account any payments made since July 1st. PACE Programs report the actual outstanding portfolio value through June 30th each year.

** Berkeley FIRST is a pilot program that is no longer accepting new applications.

**APPENDIX C: COMMUNITIES SERVED BY
ENROLLED PACE PROGRAMS**

Appendix C: Communities Served by Enrolled PACE Programs

TABLE C.1: COMMUNITIES SERVED BY ENROLLED PACE PROGRAMS

Adelanto	Camarillo	Dinuba	Healdsburg	Loma Linda	Oakdale	Ripon	Shasta Lake	Wildomar
Agoura Hills	Cambria	Dixon	Hemet	Lomita	Oakland	Riverbank	Sierra Madre	Williams
Alameda	Campbell	Dorris	Hercules	Lompoc	Oakley	Riverside	Signal Hill	Willits
Albany	Canyon Lake	Dos Palos	Hermosa Beach	Long Beach	Oceano	Rocklin	Simi Valley	Willows
Alhambra	Capitola	Downey	Hesperia	Loomis	Oceanside	Rohnert Park	Solana Beach	Windsor
Aliso Viejo	Carlsbad	Duarte	Hidden Hills	Los Altos	Ojai	Rolling Hills	Soledad	Winters
Alturas	Carmel By The Sea	Dublin	Highland	Los Altos Hills	Ontario	Rolling Hills Estates	Sonoma	Winton
Amador City	Carson	Dunsmuir	Hillsborough	Los Angeles	Orange Cove	Rosemead	South El Monte	Woodlake
American Canyon	Cathedral City	East Palo Alto	Hilmar	Los Banos	Orland	Roseville	South Gate	Woodland
Anaheim	Cayucos	Eastern Riverside	Hollister	Los Gatos	Oroville	Ross	South Lake Tahoe	Woodside
Anderson	Ceres	Eastvale	Holtville	Los Osos	Oxnard	Sacramento	South Pasadena	Yorba Linda
Antioch	Cerritos	El Cajon	Hughson	Loyalton	Pacific Grove	Salinas	South San Francisco	Yountville
Apple Valley	Chico	El Centro	Huntington Beach	Lynwood	Pacifica	San Anselmo	St. Helena	Yreka
Arcadia	Chino	El Cerrito	Huntington Park	Madera	Palm Desert	San Bernardino	Stanton	Yuba City
Arcata	Chino Hills	El Monte	Huron	Malibu	Palm Springs	San Bruno	Stevinson	Yucaipa
Arroyo Grande	Chowchilla	El Nido	Imperial	Mammoth Lakes	Palmdale	San Buenaventura	Stockton	Yucca Valley
Artesia	Chula Vista	El Paso De Robles	Imperial Beach	Manetca	Palo Alto	San Carlos	Suisun City	Unincorporated Areas:
Arvin	Citrus Heights	El Segundo	Indian Wells	Manhattan Beach	Palos Verdes Estates	San Clemente	Sunnyvale	Alameda County
Atascadero	City of Corcoran	Elk Grove	Indio	Manteca	Paradise	San Diego	Susanville	Butte County
Atherton	City of Industry	Emeryville	Industry	Marina	Paramount	San Dimas	Sutter Creek	Colusa County
Atwater	City of Lemoore	Encinitas	Inglewood	Martinez	Parlier	San Fernando	Taft	Contra Costa County
Auburn	Claremont	Escondido	Ione	Maywood	Pasadena	San Francisco	Tehachapi	Del Norte County
Avalon	Clayton	Etna	Irwindale	McFarland	Paso Robles	San Gabriel	Tehama	El Dorado County
Avenal	Clearlake	Eureka	Isleton	Mendota	Patterson	San Jacinto	Temecula	Fresno County
Avila Beach	Cloverdale	Exeter	Jackson	Menifee	Perris	San Joaquin	Temple City	Glenn County
Azusa	Clovis	Fairfax	Jurupa Valley	Menlo Park	Petaluma	San Jose	Thousand Oaks	Humboldt County
Bakersfield	Coachella	Fairfield	Kerman	Merced	Pico Rivera	San Juan Bautista	Tiburon	Imperial County
Baldwin Park	Coalinga	Farmersville	King City	Mill Valley	Piedmont	San Leandro	Torrance	Kern County
Banning	Colfax	Ferndale	Kingsburg	Millbrae	Pinole	San Luis Obispo	Tracy	Kings County
Barstow	Colma	Fillmore	La Canada Flintridge	Milpitas	Pittsburg	San Marcos	Trinidad	Los Angeles County
Beaumont	Colton	Firebaugh	La Habra	Mission Viejo	Placentia	San Marino	Tulare	Madera County
Bell	Commerce	Folsom	La Habra Heights	Modesto	Placerville	San Mateo	Turlock	Marin County
Bell Gardens	Compton	Fontana	La Mesa	Monrovia	Planada	San Miguel	Tustin	Mariposa County
Bellflower	Concord	Fort Bragg	La Mirada	Montclair	Pleasant Hill	San Pablo	Twenty Nine Palms	Mendocino County
Belmont	Corcoran	Fortuna	La Palma	Monte Sereno	Pleasanton	San Rafael	Twentynine Palms	Merced County
Belvedere	Corning	Foster City	La Puente	Montebello	Plymouth	San Ramon	Ukiah	Mono County
Benicia	Corona	Fountain Valley	La Quinta	Monterey	Point Arena	San Simeon	Union City	Monterey County
Berkeley	Coronado	Fowler	La Verne	Monterey Park	Pomona	Sand City	Upland	Napa County
Beverly Hills	Corte Madera	Fremont	Lafayette	Moorpark	Port Hueneme	Sanger	Vacaville	Riverside County
Big Bear Lake	Costa Mesa	Fresno	Laguna Beach	Moraga	Porterville	Santa Ana	Vallejo	Sacramento County

Appendix C: Communities Served by Enrolled PACE Programs

Bishop	Cotati	Galt	Laguna Hills	Moreno Valley	Portola Valley	Santa Clara	Ventura	San Benito County
Blue Lake	Covina	Garden Grove	Lake Elsinore	Morgan Hill	Poway	Santa Clarita	Victorville	San Bernardino County
Blythe	Crescent City	Gardena	Lake Forest	Morro Bay	Rancho Cordova	Santa Cruz	Visalia	San Diego County
Bradbury	Creston	Gilroy	Lakewood	Mount Shasta	Rancho Cucamonga	Santa Fe Springs	Vista	San Joaquin County
Brawley	Cudahy	Glendale	Lancaster	Mountain View	Rancho Mirage	Santa Margarita	Walnut	San Luis Obispo
Brea	Culver City	Glendora	Larkspur	Murrieta	Rancho Palos Verdes	Santa Monica	Walnut Creek	San Luis Obispo County
Brentwood	Cupertino	Gonzales	Lathrop	Napa	Rancho Santa Margarita	Santa Paula	Wasco	San Mateo County
Brisbane	Cypress	Grand Terrace	Lawndale	National City	Redding	Santa Rosa	Waterford	Santa Cruz County
Buena Park	Daly City	Grass Valley	Le Grand	Needles	Redlands	Santee	Watsonville	Shasta County
Burbank	Danville	Greenfield	Lemon Grove	Nevada City	Redondo Beach	Saratoga	Weed	Siskiyou County
Burlingame	Davis	Grover Beach	Lemoore	Newark	Redwood City	Sausalito	West Covina	Solano County
Calabasas	Del Mar	Gustine	Lincoln	Newman	Reedley	Scotts Valley	West Hollywood	Sonoma County
Calxico	Del Rey Oaks	Half Moon Bay	Lindsay	Newport Beach	Rialto	Seaside	West Sacramento	Tehama County
California City	Delano	Hanford	Live Oak	Nipomo	Richmond	Sebastopol	Westlake Village	Tulare County
Calimesa	Delhi	Hawaiian Gardens	Livermore	Norco	Ridgecrest	Selma	Westminster	Ventura County
Calipatria	Desert Hot Springs	Hawthorne	Livingston	Norwalk	Rio Dell	Shafter	Wheatland	Yolo County
Calistoga	Diamond Bar	Hayward	Lodi	Novato	Rio Vista	Shandon	Whittier	Yuba County