



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

**2017 ANNUAL REPORT TO THE  
CALIFORNIA STATE LEGISLATURE**

*March 2018*

## 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.. CAEATFA has developed and administered various programs, including:

- **Bond Program** – provides lower-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).

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 2017 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, 2017.

This Annual Report contains information on the Authority's revenues and expenditures for fiscal year 2016-17 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, Sales and Use Tax Exclusion (STE) Program, Property Assessed Clean Energy (PACE) Loss Reserve Program, and the California Hub for Energy Efficiency Financing (CHEEF) Pilot Programs.

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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 2016-17**

The Authority's total revenues for fiscal year 2016-17 were \$3,506,136 and the total expenditures were \$3,033,000.

<b>TABLE 1: REVENUES AND EXPENDITURES - FY 2016-17</b>	
<b>Total Revenues<sup>1</sup>:</b>	<b>\$3,506,136</b>
<b>Expenditures:</b>	
Salaries and Wages	\$962,000
Staff Benefits	\$480,000
Operating Expenses and Equipment	\$1,591,000
<b>Total Expenditures<sup>2</sup></b>	<b>\$3,033,000</b>

## **PROJECTED NEEDS AND REQUIREMENTS – FY 2017-18; FY 2018-19**

The Authority anticipates it has the financial needs and requirements identified in Table 2 for the 2017-18 and 2018-19 fiscal years.

<b>TABLE 1: PROJECTED NEEDS AND REQUIREMENTS<sup>3</sup> – FY 2017-18; FY 2018-19</b>		
	<b>FY 17-18</b>	<b>FY 18-19</b>
Total Salaries and Wages	\$1,390,000	\$1,401,000
Staff Benefits	\$738,000	\$681,000
Total Operating Expenses and Equipment	\$3,680,000	\$8,249,000
<b><u>Total Projected Needs and Requirements</u></b>	<b><u>\$5,808,000</u></b>	<b><u>\$10,331,000</u></b>

<sup>1</sup> 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.

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

<sup>3</sup> The values in this Section are as reported in the [Governor's Proposed Budget for the 2018-19 fiscal year](#).

# BOND FINANCING ACTIVITIES

## PROGRAM SUMMARY

CAEATFA has served as the State's primary energy bond issuer since its inception in the 1980s. 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, hydroelectric, 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 2017.

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 had three outstanding bond issues in 2017, amounting to a combined total to \$6,473,508 in bond debt as of December 31, 2017.

TABLE 2: 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 <sup>4</sup>	10/01/2020	\$55,000,000	\$0 <sup>5</sup>
06/10/2009	Caltrans Projects Series 2009	CREB <sup>6</sup>	12/15/2023	\$20,000,000	\$2,556,800
11/18/2010	Fallbrook Public Utility District Solar Project Series	QECP <sup>7</sup>	11/18/2027	\$7,227,000	\$3,916,708
<b><u>TOTAL:</u></b>				<b><u>\$82,227,000</u></b>	<b><u>\$6,473,508</u></b>

<sup>4</sup> Cogeneration Facility Revenue Bonds

<sup>5</sup> Arroyo Energy Project 1993 Series A and 1993 Series B Cogeneration Facility Revenue Bonds were redeemed in December, 2017 by General Electric Corporation for \$50,660,000.

<sup>6</sup> Clean Renewable Energy Bond

<sup>7</sup> 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 AND EVALUATION METHODOLOGY**

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

## Sales and Use Tax Exclusion Program

are evaluated based on criteria designed to measure the fiscal and environmental benefits of their 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 associated with 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 methodology used to evaluate the *environmental 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.

For Alternative Source and Advanced Transportation projects, 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. For Recycled Feedstock projects, 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.

Because the environmental benefits of Advanced Manufacturing projects generally stem from the improvements to the manufacturing process itself, 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.

### **HISTORICAL PROGRAM ACTIVITY**

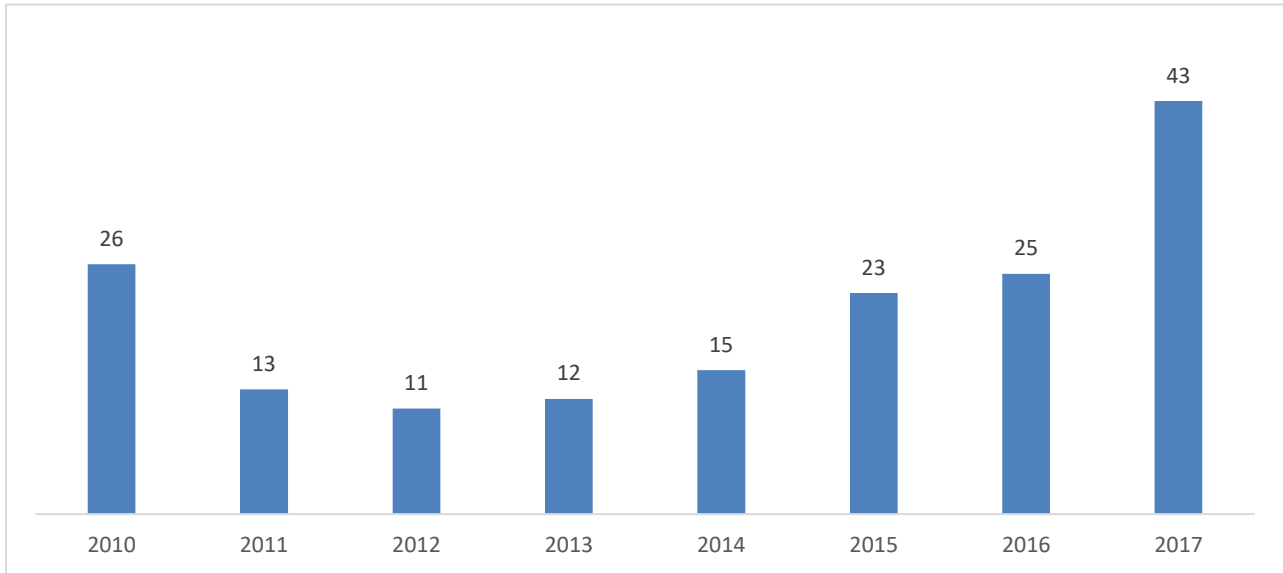
From the STE Program's inception through December 31, 2017, CAEATFA approved a total of 167 project applications, of which 98 are active, 38 are complete and 31 are not moving forward. The 136 active and complete projects were approved for a total of \$5.51 billion in anticipated Qualified Property purchases estimated to result in approximately \$462.23 million in STE. These projects are located across 31 counties, and are estimated to result in the retention and creation of 33,921 jobs. Under the program's evaluation process, 1,879 of these jobs are attributable to the STE Program. The projects are anticipated to produce an estimated \$100.03 million in environmental benefits and \$763.68 million in fiscal benefits, resulting in approximately \$214.96 million in net benefits to the state.



## Sales and Use Tax Exclusion Program

Figure 1, below, shows the total number of STE projects considered each calendar year.

**FIGURE 1. NUMBER OF APPLICATIONS BROUGHT TO THE BOARD FOR CONSIDERATION**



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

## **REPORT OF 2017 ACTIVITIES**

### **APPLICATIONS RECEIVED**

CAEATFA received 55 new applications in the 2017 calendar year. The projects had a combined value of approximately \$2.07 billion in anticipated Qualified Property purchases, and were estimated to result in over \$174.56 million in STE at the time of application submittal.<sup>8</sup> Table 4 on the following page shows the applications received in 2017.

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<sup>8</sup> The estimated sales and use tax exclusion (“STE”) amount for applications considered prior to January 2018 is based on the average statewide sales tax rate of 8.42 percent used by CAEATFA at the time. For applications considered on or after January 1, 2018, the estimated STE amount is based on the current average statewide sales tax rate of 8.36%.

## Sales and Use Tax Exclusion Program

**TABLE 4: STE APPLICATIONS RECEIVED IN 2017**

	<b>Date Received</b>	<b>Applicant Name</b>	<b>Project Location</b>	<b>Use of Proceeds</b>	<b>Qualified Property Amount</b>	<b>Estimated STE Amount</b>	<b>Status</b>
<b>1</b>	11/18/2016 & 11/17/2017	Tesla Motors, Inc.	Fremont, (Alameda)	Electric Vehicle Manufacturing	\$1,169,260,000	\$98,451,692	Approved for \$237,529,691 in Qualified Property purchases at the January 17, 2017 Board meeting. Conditionally approved for an additional \$49,792,637 in Qualified Property purchases pursuant to 4 CCR Section 10032 at the December 19, 2017 Board meeting, final approval of which was granted at the March 20, 2018 Board meeting. Approved for \$239,234,449 in Qualified Property purchases under the 2018 STE allocation at the March 20, 2018 Board meeting.
<b>2</b>	1/9/2017	Colony Energy Partners Tulare, Inc.	Tulare (Tulare)	Biomass Processing and Fuel Production	\$20,800,000	\$1,751,360	Approved
<b>3</b>	1/19/2017	Foodservice Partners, LLC.	Richmond (Contra Costa)	Advanced Food Production	\$8,500,000	\$715,700	Approved
<b>4</b>	1/20/2017	Calgren Dairy Fuels, Inc.	Pixley (Tulare)	Biomass Processing and Fuel Production	\$20,373,200	\$1,715,423	Approved
<b>5</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Pleasanton (Alameda)	Alternative Energy Production	\$6,677,770	\$562,268	Withdrawn
<b>6</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Los Angeles (Los Angeles)	Alternative Energy Production	\$2,217,190	\$186,687	Withdrawn
<b>7</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Westminster (Orange)	Alternative Energy Production	\$1,099,862	\$92,608	Withdrawn
<b>8</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Pittsburg (Contra Costa)	Alternative Energy Production	\$1,108,595	\$93,344	Withdrawn
<b>9</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Encinitas (San Diego)	Alternative Energy Production	\$1,099,862	\$92,608	Withdrawn
<b>10</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	San Leandro (Alameda)	Alternative Energy Production	\$11,173,280	\$940,790	Withdrawn
<b>11</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	San Diego (San Diego)	Alternative Energy Production	\$1,649,794	\$138,913	Withdrawn
<b>12</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Ridgecrest (Kern)	Alternative Energy Production	\$1,357,516	\$114,303	Withdrawn
<b>13</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Tehachapi (Kern)	Alternative Energy Production	\$1,349,196	\$113,602	Withdrawn

## Sales and Use Tax Exclusion Program

	<b>Date Received</b>	<b>Applicant Name</b>	<b>Project Location</b>	<b>Use of Proceeds</b>	<b>Qualified Property Amount</b>	<b>Estimated STE Amount</b>	<b>Status</b>
<b>14</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Tustin (Orange)	Alternative Energy Production	\$1,354,742	\$114,069	Withdrawn
<b>15</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Carson (Los Angeles)	Alternative Energy Production	\$1,108,595	\$93,344	Withdrawn
<b>16</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Vallejo (Solano)	Alternative Energy Production	\$2,210,641	\$186,136	Withdrawn
<b>17</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Anaheim (Orange)	Alternative Energy Production	\$12,098,486	\$1,018,693	Withdrawn
<b>18</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Lake Forest (Orange)	Alternative Energy Production	\$1,099,862	\$92,608	Withdrawn
<b>19</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Richmond (Contra Costa)	Alternative Energy Production	\$2,782,404	\$234,278	Withdrawn
<b>20</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Napa (Napa)	Alternative Energy Production	\$27,496,560	\$2,315,210	Withdrawn
<b>21</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	Downey (Los Angeles)	Alternative Energy Production	\$3,880,083	\$326,703	Withdrawn
<b>22</b>	1/27/2017	2016 ESA PROJECT COMPANY, LLC	North Hollywood (Los Angeles)	Alternative Energy Production	\$3,325,786	\$280,031	Withdrawn
<b>23</b>	2/17/2017	Chargepoint, Inc.	Campbell (Santa Clara)	Electric Vehicle Charging Station Production	\$1,660,000	\$139,772	Approved
<b>24</b>	2/17/2017	Calamco NH3, LLC	Taft (Kern)	Fertilizer Production	\$107,607,827	\$9,060,579	Approved
<b>25</b>	2/21/2017	Aranda Tooling, Inc.	Chino (San Bernardino)	Tooling and Metal Stamping	\$10,035,231	\$844,966	Approved
<b>26</b>	3/8/2017	Advance International, Inc.	Livermore (Alameda)	Advanced Food Production	\$2,283,000	\$192,229	Approved
<b>27</b>	3/15/2017	SJV Biodiesel, LLC	Pixley (Tulare)	Biodiesel Production	\$6,680,600	\$562,507	Approved
<b>28</b>	3/16/2017	Boehringer Ingelheim Fremont, Inc.	Fremont (Alameda)	Biopharmaceutical Manufacturing	\$214,040,484	\$18,022,209	Approved
<b>29</b>	3/17/2017	Organic Energy Solutions	San Bernardino (San Bernardino)	Biomass Processing and Fuel Production	\$24,440,000	\$2,057,848	Approved
<b>30</b>	3/23/2017	Sunergy California, LLC	McClellan (Sacramento)	Solar Photovoltaic Manufacturing	\$7,823,286	\$658,721	Approved
<b>31</b>	4/20/2017	U.S. Corrugated of Los Angeles, Inc.	Cerritos (Los Angeles)	Corrugated Packaging Manufacturing	\$5,834,792	\$491,289	Approved

## Sales and Use Tax Exclusion Program

	<b>Date Received</b>	<b>Applicant Name</b>	<b>Project Location</b>	<b>Use of Proceeds</b>	<b>Qualified Property Amount</b>	<b>Estimated STE Amount</b>	<b>Status</b>
<b>32</b>	4/20/2017	Pacific Ethanol Stockton, Inc.	Stockton (San Joaquin)	Biogas Capture and Production	\$5,932,500	\$499,517	Approved
<b>33</b>	4/20/2017	Crimson Renewable Energy, LP	Bakersfield (Kern)	Biodiesel Production	\$21,833,100	\$1,838,347	Approved
<b>34</b>	4/20/2017	Tracy Renewable Energy, LP	Tracy (San Joaquin)	Ethanol Production	\$52,246,456	\$4,399,152	Approved
<b>35</b>	4/21/2017	Circular Polymers, LLC	Lincoln (Placer)	Advanced Carpet Recycling	\$7,548,500	\$635,584	Approved
<b>36</b>	4/21/2017	eco.logic Brands, Inc.	Manteca (San Joaquin)	Recycled Paper Bottle Manufacturing	\$6,944,000	\$584,685	Approved
<b>37</b>	4/21/2017	Schlosser Forge Company	Rancho Cucamonga (San Bernardino)	Aero Engine Ring Manufacturing	\$53,568,357	\$4,510,456	Approved
<b>38</b>	5/18/2017	Sanitation Districts of Los Angeles County	Whittier and Carson (Los Angeles)	Biomass Processing and Fuel Production	\$11,928,310	\$1,004,364	Approved
<b>39</b>	5/19/2017	Recology San Francisco	San Francisco (San Francisco)	Mixed Recycling	\$3,633,145	\$305,911	Approved
<b>40</b>	6/16/2017	AMRO Fabricating Corporation	South El Monte (Los Angeles)	Aerospace Manufacturing	\$5,120,000	\$431,104	Approved
<b>41</b>	7/20/2017	National Steel and Shipbuilding Company	San Diego (San Diego)	Thin Steel Plate Manufacturing	\$40,500,000	\$3,410,100	Approved
<b>42</b>	7/21/2017	TBC – The Boring Company	Hawthorne (Los Angeles)	Specialized Concrete Ring Manufacturing	\$3,160,000	\$266,072	Approved
<b>43</b>	7/21/2017	Lollicup USA, Inc.	Chino (San Bernardino)	Food Grade Recycled Packaging Manufacturing	\$10,345,200	\$871,066	Approved
<b>44</b>	8/16/2017	SunLine Transit Agency	Thousand Palms (Riverside)	Renewable Hydrogen Production	\$7,000,000	\$589,400	Approved
<b>45</b>	8/17/2017	CalPlant 1, LLC	Willows (Glenn)	Medium Density Fiberboard Manufacturing	\$92,278,983	\$7,769,890	Approved
<b>46</b>	8/18/2017	QuantumScape Corporation	San Jose (Santa Clara)	Electric Vehicle Battery Manufacturing	\$18,243,000	\$1,536,061	Approved
<b>47</b>	9/14/2017	Ontario CNG Station, Inc.	Ontario (San Bernardino)	Renewable Hydrogen Production	\$2,000,000	\$168,400	Approved
<b>48</b>	9/15/2017	Trademark Brewing, LLC	Long Beach (Los Angeles)	Beverage Production	\$1,854,741	\$156,169	Approved
<b>49</b>	9/15/2017	CR&R Incorporated	Stanton (Orange)	Mixed Organics	\$8,389,685	\$706,411	Approved
<b>50</b>	10/19/2017	WIE-Agron Bioenergy, LLC	Watsonville (Santa Cruz)	Biodiesel Production	\$3,500,000	\$294,700	Approved
<b>51</b>	10/19/2017	Sila Nanotechnologies, Inc.	Alameda (Alameda)	Silicon Anode Powder Manufacturing	\$11,018,845	\$927,787	Approved

## Sales and Use Tax Exclusion Program

	<b>Date Received</b>	<b>Applicant Name</b>	<b>Project Location</b>	<b>Use of Proceeds</b>	<b>Qualified Property Amount</b>	<b>Estimated STE Amount</b>	<b>Status</b>
<b>52</b>	10/20/2017	Sierra Institute for Community and Environment	Quincy (Plumas)	Biomass Processing and Fuel Production	\$516,286	\$43,162	Approved at March 20, 2018 Board Meeting
<b>53</b>	11/17/2017	Mid-Valley Recycling, LLC	Kerman (Fresno)	Mixed Organics	\$1,970,000	\$164,692	Approved at January 16, 2018 Board Meeting
<b>54</b>	11/17/2017	IF Copack, LLC	Sanger (Fresno)	Advanced Food Production	\$17,115,645	\$1,430,868	Approved at January 16, 2018 Board meeting
<b>55</b>	12/20/2017	Best Express Foods, Inc.	Stockton (San Joaquin)	Advanced Food Production	\$4,293,330	\$358,992	Approved at February 20, 2018 Board Meeting
				<b><u>TOTAL</u></b>	<b><u>\$2,073,368,727</u></b>	<b><u>\$174,563,380</u></b>	

### APPLICATIONS APPROVED<sup>9</sup>

The Authority approved 42 projects<sup>10</sup> in 2017 for a total dollar amount of 1,187,648,456 in Qualified Property purchases, estimated to result in \$100,000,000 in STE over the next three years.

Table 5 on the next page shows the total number of STE projects approved in 2017, by project type.

<sup>9</sup> For the purposes of this section, the data includes applications from North Fork Community Power; Atara Biotherapeutics, Inc.; Tesla Motors, Inc.; BYD Coach & Bus, LLC; HZIU Kompogas SLO, Inc.; Best Express Foods, Inc.; Aemerge RedPak Services Southern California, LLC; Verdec Recycling, Inc.; Polypeptide Laboratories, Inc.; and CR&R Incorporated that were submitted in 2016 and approved by the CAEATFA Board in 2017.

<sup>10</sup> TAP Power, LLC was approved by the CAEATFA Board at the February 21, 2017 meeting for \$9,213,514 in Qualified Property, but did not move forward with the project and is therefore not included in the calculations of anticipated benefits in this section.

## Sales and Use Tax Exclusion Program

<b>TABLE 5: NUMBER OF APPROVED STE PROJECTS, BY TYPE</b>			
	<b>Type of Project</b>	<b>Number Approved</b>	<b>Percentage of Total Projects Approved</b>
<b>1</b>	Advanced Carpet Recycling	1	2.4%
<b>2</b>	Advanced Food Production	3	7%
<b>3</b>	Aero Engine Ring Forging	1	2.4%
<b>4</b>	Aerospace Manufacturing	1	2.4%
<b>5</b>	Beverage Production	1	2.4%
<b>6</b>	Biodiesel Production	3	7%
<b>7</b>	Biogas Capture and Production	1	2.4%
<b>8</b>	Biomass Processing and Fuel Production	7	16.6%
<b>9</b>	Biopharmaceutical	3	7%
<b>10</b>	Corrugated Packaging Manufacturing	1	2.4%
<b>11</b>	Electric Vehicle Manufacturing	2	4.8%
<b>12</b>	Electric Vehicle Battery	1	2.4%
<b>13</b>	Electric Vehicle Charging Station	1	2.4%
<b>14</b>	Ethanol Production	1	2.4%
<b>15</b>	Fertilizer Production	1	2.4%
<b>16</b>	Food Grade Recycled Packaging	1	2.4%
<b>17</b>	Medical Waste Recycling	1	2.4%
<b>18</b>	Medium Density Fiberboard	1	2.4%
<b>19</b>	Mixed Organic and Recycling	2	4.8%
<b>20</b>	Recycled Paper Bottles Manufacturing	1	2.4%
<b>21</b>	Recycled PET Food Packaging	1	2.4%
<b>22</b>	Renewable Hydrogen Production	2	4.8%
<b>23</b>	Silicon Anode Powder Manufacturing	1	2.4%
<b>24</b>	Solar Photovoltaic Manufacturing	1	2.4%
<b>25</b>	Specialized Concrete	1	2.4%
<b>26</b>	Thin Steel Plate Manufacturing	1	2.4%
<b>27</b>	Tooling and Metal Stamping	1	2.4%

## Sales and Use Tax Exclusion Program

### PROJECT LOCATIONS AND ANTICIPATED BENEFITS

The 2017 approved projects are located in 19 different counties throughout California. It is expected 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 STE Program regulations and on representation from these applicants, the Authority estimates the applicants approved in 2017 will produce estimated combined environmental benefits valued at approximately \$13,820,209 and fiscal benefits valued at approximately \$227,155,468 over the lifetime of the projects. Together, these environmental and fiscal benefits will result in approximately \$49,448,041 in total estimated net benefits over the lifetime of the projects. See Table 6, below, for a breakdown of the various project benefits by county.

**TABLE 6: STE APPROVED PROJECTS BY COUNTY IN 2017<sup>11</sup>**

County <sup>12</sup>	Number	Percentage of Total 2017 Projects (%)	Amount of Anticipated Qualified Property Purchases	Projected STE Amount	Estimated Environmental Benefit Value <sup>13</sup>	Estimated Fiscal Benefit Value	Estimated Quantifiable Net Benefit Value <sup>14</sup>	Total Jobs	Total Jobs Attributed to the STE
Alameda	4	9.3%	\$514,664,657	\$43,334,765	\$2,796,551.08	\$81,585,165	(\$398,467)	1,979	73
Contra Costa	1	2.3%	\$8,500,000	\$715,700	N/A	\$6,165,933	N/A	240	15
Glenn	1	2.3%	\$92,278,983	\$7,769,890	N/A	\$15,697,094	N/A	412	31
Kern	2	4.7%	\$129,440,927	\$10,898,926	\$641,781	\$24,178,863	\$6,056,996	146	17
Los Angeles	8	18.6%	\$48,777,207	\$4,107,040	\$1,823,373	\$22,798,903	\$15,300,362	1,829	66
Madera	1	2.3%	\$6,819,733	\$574,222	\$267,774	\$940,730	\$643,283	24	3
Orange	1	2.3%	\$8,389,685	\$706,411	\$42,700	\$1,438,924	\$775,213	34	2
Placer	1	2.3%	\$7,548,500	\$635,584	N/A	\$1,177,470	N/A	78	6
Riverside	2	4.7%	\$18,610,900	\$1,567,038	\$211,352	\$1,609,603	\$253,917	51	7
Sacramento	1	2.3%	\$7,823,286	\$658,721	\$2,877,987	\$3,761,032	\$5,980,298	195	12
San Bernardino	6	14%	\$137,389,464	\$11,568,193	\$606,316	\$20,806,152	\$193,221	1,013	65
San Diego	1	2.3%	\$40,500,000	\$3,410,100	N/A	\$8,549,758	N/A	5,220	72
San Francisco	1	2.3%	\$3,633,145	\$305,911	\$6,194	\$259,894	\$60,177	119	3
San Joaquin	4	9.3%	\$68,625,932	\$5,778,305	\$1,894,287	\$18,550,648	\$13,602,963	272	24
San Luis Obispo	1	2.3%	\$7,104,020	\$598,158	\$38,784	\$529,337	(\$30,037)	33	5
Santa Clara	2	4.7%	\$19,903,000	\$1,675,833	N/A	\$1,554,888	N/A	170	15
Santa Cruz	1	2.3%	\$3,500,000	\$294,700	\$116,974	\$909,611	\$731,885	18	1
Tulare	3	7%	\$47,853,800	\$4,029,290	\$2,496,136	\$7,811,384	\$6,278,230	137	21
Ventura	1	2.3%	\$16,285,217	\$1,371,215	N/A	\$8,830,079	N/A	103	6
<b>TOTAL</b>	<b>42</b>	<b>100%</b>	<b>\$1,187,648,456</b>	<b>\$100,000,000</b>	<b>\$13,820,209</b>	<b>\$227,155,468</b>	<b>\$49,448,041</b>	<b>12,073</b>	<b>444</b>

<sup>11</sup> Projected STE Amounts and estimated benefits may not add up correctly due to rounding.

<sup>12</sup> There are applicants with multiple project sites under their application. For purposes of this table, the data was applied to the county in which most of the Qualified Property will be located.

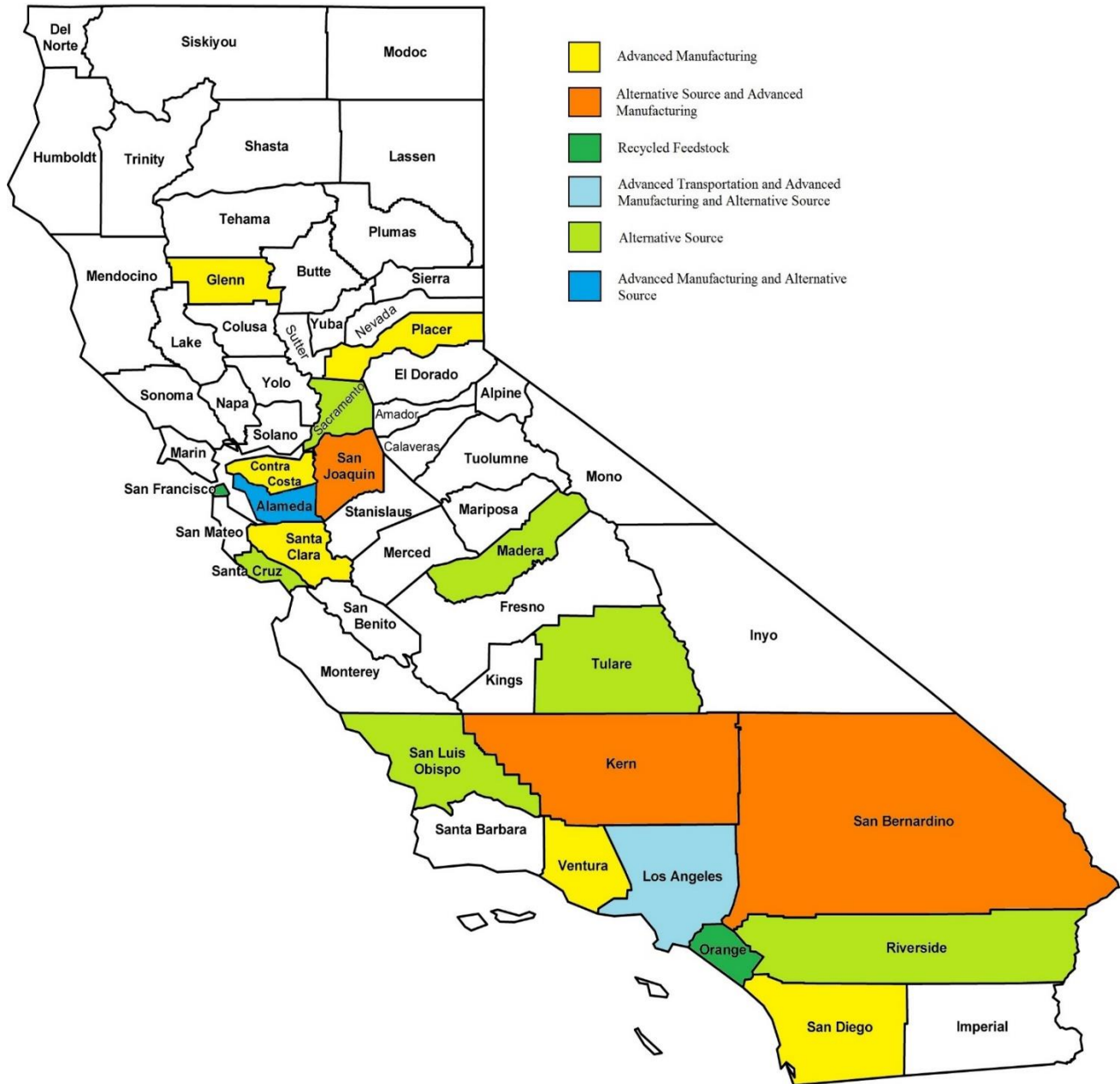
<sup>13</sup> The environmental benefits for Advanced Manufacturing projects are not monetized in the application scoring process as they are with Alternative Source and Advanced Transportation projects. Instead, points are given for specific environmental process improvements, such as reductions in energy and water consumption, solid and hazardous waste, and air and other pollutants.

<sup>14</sup> Although the cumulative fiscal and environmental benefits fell short of the estimated STE amount for Tesla Motors, Inc. and HZIU Kompogas SLO, Inc., resulting in a negative net benefit, the projects received additional employment related

## Sales and Use Tax Exclusion Program

Figure 2, below, shows a geographical representation of all projects approved under the STE Program in 2017.

**FIGURE 2. STE PROJECTS APPROVED IN 2017, BY COUNTY**



benefits that are not quantifiable in fiscal terms, and which increased the Total Scores above the qualifying threshold required pursuant to California Code of Regulations Title 4, Division 13, Section 10033(c)(6). Additionally, because the environmental benefits for Advanced Manufacturing projects are not monetized in the application, Advanced Manufacturing projects are not assigned a quantifiable net benefit value.



## 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 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.

In 2017, 45 of the previously approved projects purchased approximately \$1.43 billion in Qualified Property, resulting in approximately \$119.98 million in STE. Table 7, below, shows the total amount of Qualified Property that each approved applicant has purchased and reported in 2017.

<b>TABLE 7: STE TRANSACTIONS BY APPLICANTS IN 2017<sup>15</sup></b>			
	<b>Approved Applicant</b>	<b>Qualified Property Purchased</b>	<b>Estimated STE</b>
1	ABEC #2 LLC	\$2,022,995.12	\$170,336.19
2	ABEC #3 LLC	\$1,986,842.18	\$167,292.11
3	ABEC #4 LLC	\$404,485.94	\$34,057.72
4	Atara Biotherapeutics, Inc.	\$5,319,487.18	\$447,900.82
5	Boehringer Ingelheim Pharmaceuticals	\$18,270,037.00	\$1,527,375.09
6	Calgren Dairy Fuels LLC	\$23,275,270.37	\$1,958,036.08
7	CalPlant I, LLC	\$40,434,523.00	\$3,380,326.12
8	Colony Energy Partners- Tulare, LLC	\$20,800,000.00	\$1,751,360.00
9	CR&R Incorporated (17-SM006)	\$8,788,446.00	\$739,987.15
10	Crimson Renewable Energy LP (2013)	\$610,130.65	\$51,006.92
11	Crimson Renewable Energy LP (2017)	\$2,265.56	\$189.40
12	eco.logic Brands, Inc.	\$1,108,977.00	\$93,375.86
13	Efficient Drivetrains, Inc.	\$5,138,539.91	\$432,665.06
14	Enovix Corporation	\$150,755.60	\$12,687.58
15	Gilead Sciences, Inc.	\$29,152,482.00	\$2,454,638.98
16	Green waste Recovery Inc.	\$1,532,510.72	\$129,037.40
17	Hi-Shear Corporation	\$10,194,855.00	\$858,406.80
18	HZIU Kompogas SLO Inc.	\$1,589,434.84	\$132,882.82
19	Kite Pharma, Inc.	\$1,881,150.12	\$158,392.84
20	Lollicup USA, Inc.	\$3,421,937.57	\$286,073.98
21	Mid-Valley Disposal (Fresno)	\$6,056,775.70	\$506,346.45
22	Monterey Regional Waste Management District	\$11,401,677.00	\$960,021.20
23	nanoPrecision Products, Inc.	\$260,123.35	\$21,859.99

<sup>15</sup> Semi-Annual Reports are currently under review therefore final figures may adjust in the future.

## Sales and Use Tax Exclusion Program

24	Orbital ATK, Inc.	\$1,756,018.00	\$147,856.74
25	Organic Energy Solutions	\$1,118,284.00	\$94,159.51
26	QuantumScape Corporation	\$2,355,181.35	\$196,893.16
27	Rolls-Royce High Temp Composites, Inc.	\$691,610.60	\$58,233.61
28	rPlanet Earth, LLC	\$18,621,608.05	\$1,559,302.45
29	SANCO Services, LP	\$4,696,678.49	\$395,460.33
30	Sanitation Districts of Los Angeles County	\$176,928.00	\$14,897.34
31	SJV Biodiesel, LLC	\$2,978,882.10	\$250,821.87
32	Space Exploration Technologies Inc.	\$378,789,041.31	\$31,894,037.67
33	Sunergy California, LLC	\$1,842,852.63	\$154,062.48
34	SunLine Transit Agency	\$10,000.00	\$836.00
35	Tesla, Inc. (16-SM036)	\$560,917,080.00	\$46,892,667.81
36	Tesla, Inc. (17-SM003)	\$156,099,313.39	\$13,049,902.57
37	The Monadnock Company	\$2,712,243.00	\$228,370.86
38	U.S Corrugated of Los Angeles (Cerritos)	\$2,004,447.92	\$168,774.51
39	Waste Management RDSC	\$2,707,200.00	\$227,946.24
40	Waste Management of Alameda County	\$21,098,598.77	\$1,776,502.02
41	Weber Metals, Inc.	\$72,564,491.83	\$6,109,930.21
42	XT Green, Inc.	\$1,633,025.00	\$137,500.71
43	Crimson Renewable Energy, LP (2013)	\$588,095.91	\$49,517.68
44	Millennium Space Systems, Inc.	\$771,028.45	\$64,920.60
45	North Fork Community Power, LLC	\$2,736,317.00	\$230,397.89
	<b>TOTAL</b>	<b>\$1,430,672,627.61</b>	<b>\$119,977,248.83</b>

# 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’s 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 Program’s effectiveness. To allow new PACE programs (created on or after March 10, 2014) to enroll in the

## Property Assessed Clean Energy Loss Reserve Program

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 2017 ACTIVITY**

#### **PROGRAM ENROLLMENT**

As of December 31, 2017, 18 PACE programs have enrolled in the PACE Loss Reserve Program. In 2017, CAEATFA Staff enrolled four PACE programs: CSCDA HERO Program; Figtree PACE Program; Spruce PACE; and mPOWER.

Table 8, below, shows all of the PACE programs enrolled each year.

<b>TABLE 8: PACE PROGRAMS ENROLLED EACH YEAR</b>			
<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
<ul style="list-style-type: none"> <li>- mPOWER Placer</li> <li>- mPOWER Folsom</li> <li>- Berkeley FIRST</li> <li>- Sonoma County Energy Independence Program</li> <li>- CaliforniaFIRST</li> <li>- WRCOG HERO</li> <li>- SANBAG HERO</li> <li>- California HERO</li> </ul>	<ul style="list-style-type: none"> <li>- AllianceNRG</li> <li>- LA HERO</li> <li>- CaliforniaFIRST in LA County</li> <li>- Ygrene</li> </ul>	<ul style="list-style-type: none"> <li>- PACE Funding</li> <li>- CMFA PACE</li> </ul>	<ul style="list-style-type: none"> <li>- CSCDA HERO Program</li> <li>- Figtree PACE Program</li> <li>- Spruce PACE</li> <li>- mPOWER</li> </ul>

During initial program enrollment in June 2014, the 8 participating PACE programs enrolled 17,401 PACE financings with a total principal value of over \$350,000,000. To date, the Loss Reserve covers 145,450 PACE financings with a total outstanding principal value of \$3,456,091,949.12. For the 2017 reporting periods, participating PACE programs enrolled 51,514 PACE financings with a total principal value of \$1,311,838,879.76. A chart of all Program enrollment activity as of December 30, 2017 can be found in Appendix B.<sup>16</sup>

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<sup>16</sup> Semi-Annual Reports for the July through December 2017 reporting period are currently under review; therefore, these figures may vary slightly.

## Property Assessed Clean Energy Loss Reserve Program

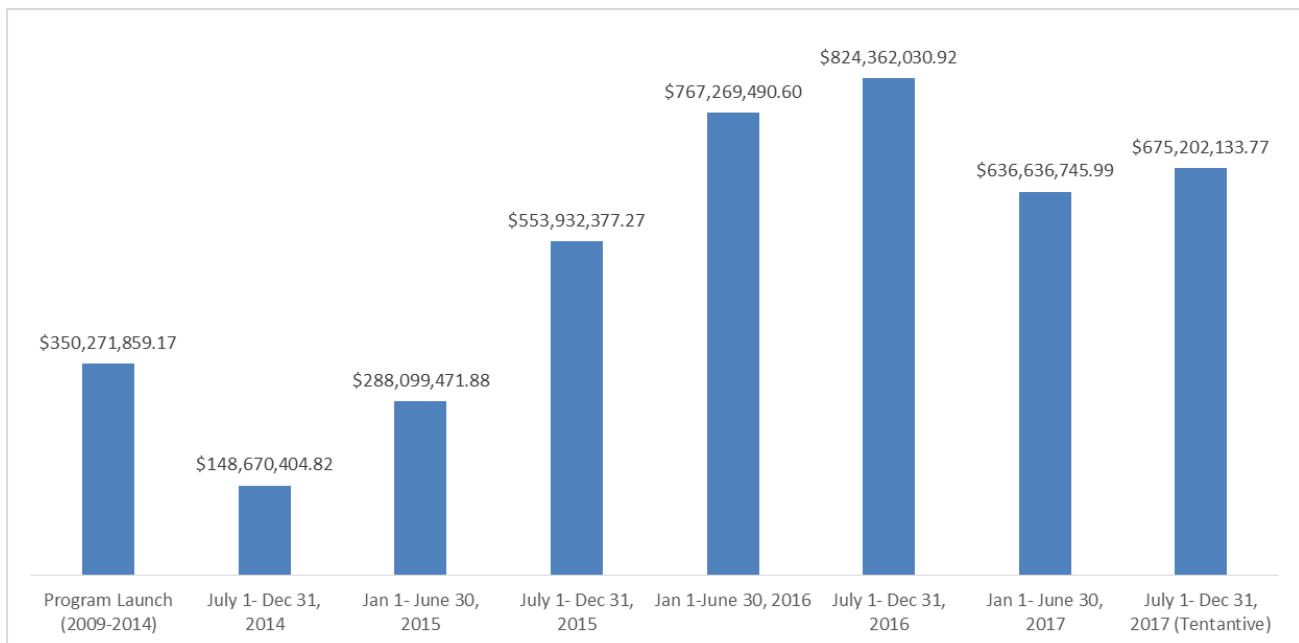
### CLAIMS ON THE LOSS RESERVE

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. CAEATFA is working to analyze the Loss Reserve's potential long-term liability and longevity based on activity to date. A risk analysis of the Loss Reserve is planned in 2018.

### PROGRAM IMPACT AND RESULTS

Since the Program's launch, residential PACE has seen a significant increase in origination activity, with residential PACE administrators offering PACE financing in most counties in California. Figure 3, below, shows the growth of the enrolled portfolio of PACE financings in the Loss Reserve.

**FIGURE 3. PACE ORIGINATION ACTIVITY**



## 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 9, below, details the estimated environmental savings from enrolled financings issued as of June 30, 2017, as reported by each PACE program administrator.

<b>TABLE 9: ESTIMATED ENVIRONMENTAL SAVINGS FROM ENROLLED PACE FINANCINGS</b>	
<b>Program</b>	<b>Estimated Environmental Savings<sup>17</sup></b>
mPOWER Placer	21,429,442 kWh saved annually 3,964.4 MTCO2 saved annually
mPOWER Folsom	463,012 kWh saved annually 85.7 MTCO2 saved annually
Berkeley FIRST	54,408 kWh annually
SCEIP	20,201,411 kWh saved over lifetime 69,600 MTCO2 saved over lifetime 130,726 therms saved over lifetime
CaliforniaFIRST	9,268,480 kWh generated annually 4,576,453 kWh saved annually 333,522 therms saved annually 13,461,767 gal saved annually
WRCOG HERO	189,358,151 kWh saved annually 109,334,791 gal saved annually
SANBAG HERO	20,156,283 kWh saved annually 15,781,445 gal saved annually
California HERO	359,929,583 kWh saved annually 258,012,129 gal saved annually
LA HERO	159,816,875 kWh saved annually 148,745,389 gal saved annually
CaliforniaFIRST in LA County	3,056,919 kWh generated annually 3,815,368 saved annually 278,056 therms annually 13,609,917 gal annually
Ygrene Works	7.894 MW generated over lifetime 857,613,335 kWh saved over lifetime 151,559 K MTCO2 saved over lifetime 545,613,335 gal saved over lifetime
PACE Funding	63,984 kWh saved annually 4,909 therms saved annually 18,000 gal saved annually

<sup>17</sup> Administrators use various distinct methodologies to assess the environmental impact of their program.

# CALIFORNIA HUB FOR ENERGY EFFICIENCY FINANCING (CHEEF)

## **PROGRAM SUMMARY**

The California Hub for Energy Efficiency Financing was first authorized by the California Public Utilities Commission in Decision (D.) 13-09-044 (September 2013), as later modified by D. 15-06-008, D. 15-12-002, and D. 17-03-026. The financing pilots were established to "test new and innovative strategies to help leverage ratepayer and private financing to assist in achieving our aggressive energy efficiency goals, as later articulated by Senate Bill 350 (DeLéon, 2015) which calls for a doubling of energy efficiency in buildings by 2030."<sup>18</sup> The pilots focus on attracting and leveraging private capital, given the challenge in meeting the State's energy efficiency goals using traditional approaches of IOU rebates and incentives.

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 up to \$75.2 million of IOU ratepayer funds and serving four market segments:<sup>19</sup>

- Single-family, with one-third of funds targeted to low and moderate income households,
- Affordable multifamily housing
- Small businesses, and
- Non-residential On-Bill Repayment (OBR), without credit enhancement.

The design of the California Hub for Energy Efficiency Financing Pilot creates a centralized and standardized platform for an open-market infrastructure to encourage additional private capital investment, while also lowering costs and expanding access to capital. The pilots offer 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 outlined 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.

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<sup>18</sup> D. 17-03-026, page 2.

<sup>19</sup> 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

## 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 (an approximate 25% reduction from 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.<sup>20</sup> 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. Homeowners, business owners and contractors have reported to CAEATFA through its outreach and workshop processes that this affordable capital access gap continues to stand in the way of energy efficiency investments.

The CHEEF pilots will also include the first open-market On-Bill Repayment (OBR) infrastructure to support increased energy efficiency financing in the nation. The pilots are intended to support the State's broader energy efficiency and environmental policy goals using an innovative approach.

## CAEATFA'S ROLE

### *Residential*

The residential pilots implement credit enhancements for single-family and multi-family residences up to four units.

- Residential Energy Efficiency Loan (REEL) Assistance Program, supports energy efficiency loans on single family properties (four units or less). A loss reserve fund encourages broader access and lower cost financing for residential energy efficiency retrofits; with a deeper incentive for low-and-moderate income borrowers. REEL currently has four active lenders participating in the program, and enrolled its first loan in 2016. There is a sub-pilot in PG&E territory that will include on-bill repayment functionality, which remains under development.
- The Affordable Multifamily Financing Program is expected to offer a credit enhancement for energy efficiency and demand response improvements on affordable housing properties. This pilot is expected to launch in 2018, and will support loans, leases and energy service agreements.

### *Non-residential*

The non-residential pilots will implement an on-bill and an off-bill repayment option for the commercial and Municipal, University, Schools, and Hospital (MUSH) sectors. For these on-bill programs, the financing obligation may remain and transfer with the utility meter upon consent from future property owners/customers.

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<sup>20</sup> [http://www.caleefinance.com/wp-content/uploads/2014/04/CPUC\\_FinancingReport\\_HBC\\_Jul8v2.pdf](http://www.caleefinance.com/wp-content/uploads/2014/04/CPUC_FinancingReport_HBC_Jul8v2.pdf)



## California Hub For Energy Efficiency Financing

- The Small Business Program will offer an on-bill and an off-bill repayment option and will include a credit enhancement to help small businesses lower their energy-efficiency financing costs. This pilot is expected to launch in 2018, and will support loans, leases, and energy service agreements.
- Non-Residential OBR (without credit enhancement) 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.

### 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.

At the CPUC's midpoint workshop in November of 2016, CAEATFA presented a list of suggested modifications to the pilot programs, including REEL. CAEATFA was concerned about the low uptake in REEL loans during the first several months of implementation and continued to identify program constraints, and suggested modifications to either:

- remove hurdles for participants; or
- make the pilots more responsive to the marketplace.

On March 29, 2017, the CPUC released D. 17-03-026 that approved several of CAEATFA's requested modifications and provided the following directives:

- the CPUC further commits to continued funding for CAEATFA to administer the pilot program throughout the life of the pilots;
- all financing pilots will be launched by no later than December 31, 2019;
- CAEATFA is fully authorized as the decision-maker for these pilots including program design, financing mechanism designs, finance credit support, measure eligibility, on-bill repayment implementation including lender enrollment, outreach to contractors and lenders, and database tasks, utilizing its own public input and rulemaking processes, as needed;
- CAEATFA financing pilot programs will be kept separate from the much larger energy efficiency rolling portfolio business plans filed on January 17, 2017;
- each pilot program will be subject to a mid-point evaluation at or around one year of operation;
- pilot programs will be continued during the evaluation stage, beyond the original concept of a two-year timeframe;
- funding authorized for CAEATFA's use for the pilot programs and its administrative expenses prior to this decision should last through at least 2020, when we may need to reevaluate the need for additional funding for ongoing support of the pilot programs;

## California Hub For Energy Efficiency Financing

- solar and distributed generation<sup>21</sup> repayment will be allowed on-bill for small business, in addition to other non-residential customers;
- CAEATFA should be allowed to true up its credit enhancement funds less frequently than quarterly, at its discretion.
- CAEATFA should not be required to maintain separate credit enhancement pools or track spending by IOU service territory.
- to continue momentum of successful pilot programs, a hard stop of program operation after two years should not occur. Pilot programs should continue until such time as the Commission makes a determination about whether a pilot program should be continued, taken to full-scale implementation, or terminated.
- SoCal Gas will conduct a competitive solicitation for continuation of the ME&O work to support the financing pilot programs currently being conducted by the Center for Sustainable Energy (CSE).

With the new flexibility, CAEATFA targeted its resources and time on improving REEL - the pilot currently being implemented – while continuing the development of the remaining pilots with the resources available. With the CPUC’s commitment of long-term funding, CAEATFA began the process of converting existing temporary positions to permanent positions and on-board additional staff. These staffing changes will roll out over time, and the CHEEF program expects to be fully staffed by Q2 2018.

CAEATFA staff began to explore ways to incorporate several of these modifications into the REEL pilot, specifically:

- simplifying measure eligibility for the program and moving toward a statewide list of eligible energy efficiency measures;
- consolidating lenders’ separate loan loss reserve accounts by IOU into a single loan loss reserve account for lenders;
- shifting from a quarterly to an annual rebalance of loan loss reserve accounts.

## **REPORT OF 2017 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, thereby allowing the pilot term to last through July 15, 2018 and throughout its evaluation period, which is expected to last an additional year at which point the CPUC will determine whether or not the pilot will be made permanent.

In 2017, the CHEEF program enrolled 108 new loans throughout California, totaling over \$1.7 million with an average loan size of \$16,341. With interest rates for all loans averaging 6.84%, the REEL program played an important role in saving Californians an average of \$1,654 in total interest charges over the life of their loans. The most common projects included upgrades to more energy efficient heating, ventilation, and air conditioning (HVAC) equipment and systems, windows, and insulation.

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<sup>21</sup> Financing for solar and distributed generation will not be credit-enhanced.

## California Hub For Energy Efficiency Financing

### *Regulatory Development*

Based on stakeholder feedback, lessons learned, and flexibility provided by CPUC Decision 17-03-026, further modifications were made to REEL regulations to address needs of program stakeholders and facilitate increased program participation. The latest regulations became effective September 5, 2017.

Using the newly released regulations, CAEATFA is consolidating the eligible energy efficiency measures (EEEMs) list in a multiphase effort, making it eligible for statewide uptake provided the measure's fuel source is serviced by the appropriate IOU. Additionally, CAEATFA is streamlining loan enrollment processes to facilitate broader program uptake.

### *Lender Recruitment and Training*

CAEATFA has been recruiting Participating Financial Institutions (PFIs) and Participating Finance Lenders (PFLs)<sup>22</sup> throughout program development, and was able to enroll its first lender when the initial program regulations were approved. Since the launch of the REEL program in 2016, CAEATFA has received lender applications from seven entities, five of which have been approved as of December 31, 2017. Currently, four approved participating lenders have established their internal process modifications and infrastructure and can enroll CHEEF supported loans. Table 10 provides a list and status of lenders currently approved under the program, and Figure 4 shows REEL loans by geographical area.

**TABLE 10: REEL LENDER GEOGRAPHICAL COVERAGE AND LENDING STATUS**

<b>Lender Name</b>	<b>Approval Date</b>	<b>Geographical Coverage</b>	<b>Lending Status</b>
Viewtech Financial Services	June 2015	Statewide	Approved – non-active
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	Active
California Coast Credit Union	September 2016	Statewide	Active

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<sup>22</sup> A PFL is a lender that operates under authority of the California Department of Business Oversight and that holds a Finance Lender license. It is distinct from a Participating Financial Institution which operates under the Federal Riegle Act.

## California Hub For Energy Efficiency Financing

**FIGURE 4. REEL LOANS BY GEOGRAPHICAL AREA**



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

<b>TABLE 11: SUMMARY PROFILE OF ALL ACTIVE FINANCIAL INSTITUTIONS CURRENTLY APPROVED TO OFFER LOANS TO CONSUMERS FOR THE CHEEF</b>								
	<b>MATADORS COMMUNITY CREDIT UNION</b>		<b>CALIFORNIA COAST CREDIT UNION</b>		<b>VALLEY OAK CREDIT UNION</b>		<b>DESERT VALLEYS FEDERAL CREDIT UNION</b>	
<b>DETAILS</b>	<b>UNSECURED</b>	<b>REEL</b>	<b>UNSECURED</b>	<b>REEL</b>	<b>UNSECURED</b>	<b>REEL</b>	<b>UNSECURED</b>	<b>REEL</b>
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%	9.85%	6.38%	8.95%	7.45%	10.99%	4.50%
Max Interest Rate	12.40%	7.99%	18.85%	8.88%	15.95%	9.95%	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	\$2,500	\$1,500	\$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

## California Hub For Energy Efficiency Financing

### *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.

Program contractor recruitment began in 2016 after the first lender built its infrastructure and was able to offer their REEL product. 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](http://www.thecheef.com).

As of December 31, 2017, 282 contractors have completed the required REEL training; 174 of those contractors have enrolled in the REEL program, and at least 108 projects have been completed. Of those 108 projects, 22 were completed for applicants determined to be of low-to-moderate income (LMI), while 44 were completed for applicants determined to be LMI applicants at the 41% and above level according to the Cal Enviro screen.

In October 2017, through a competitive Request for Proposal (RFP) process for a Contractor Manager, CAEATFA selected Frontier Energy to enroll, train, and manage contractors in the REEL Program, to coordinate with the Statewide Financing Marketing, Educating and Outreach Implementer on outreach, and to conduct quality control oversight of projects not participating in an IOU rebate/incentive program.

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

EFLIC, a sub-pilot of REEL that is available in PG&E territory, was initially contemplated to provide on-bill repayment functionality under REEL. 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. However, in 2017, the CPUC linked this pilot with the term for the REEL program which may present additional challenges in launching this pilot due to the shortened timeframe. As such, the prioritization of this pilot will be re-evaluated in 2018.

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. Starting in early 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.

## **DEVELOPMENT OF MULTIFAMILY, SMALL BUSINESS, AND NON-RESIDENTIAL PILOTS**

In 2017, CAEATFA worked concurrently to research and conduct outreach necessary to develop the Affordable Multifamily Financing Pilot which targets properties in which at least 50% of the units are restricted to low and moderate income-eligible households (60% area median income). The Affordable Multifamily Financing Pilot will feature a credit enhancement to help mitigate risk for financing entities, and will support loans, leases, and energy service agreements.

The program will be designed to leverage and complement existing efforts to finance affordable multifamily housing and energy efficiency retrofits, and to encourage growth in private market lending. Originally, CAEATFA had anticipated that the Affordable Multifamily Financing Pilot would be the

## California Hub For Energy Efficiency Financing

last in the series of pilots to launch. However, with the CPUC's modifications which removed the limitation of master-metered units and OBR, CAEATFA will consider whether it may be able to accelerate the development of this pilot going forward in 2018.

In support of development of the Affordable Multifamily Financing Pilot, CAEATFA held its first multifamily workshop in at PG&E's Pacific Energy Center in San Francisco to solicit stakeholder and public input on the initial draft of the program design, and to identify areas of need for technical assistance opportunities.

The Small Business and Non-Residential OBR Pilots are currently under development as CAEATFA continues to research on program structure: financial product eligibility (loan, lease service agreement); lender eligibility; project eligibility; need for/structure of finance-only projects vs. rebate/incentive projects; credit enhancement (where applicable) level/structure; project data, quality assurance and control. It is expected that regulations for each pilot will be developed in 2018 and the first loans for each to be enrolled in 2019.

### **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.

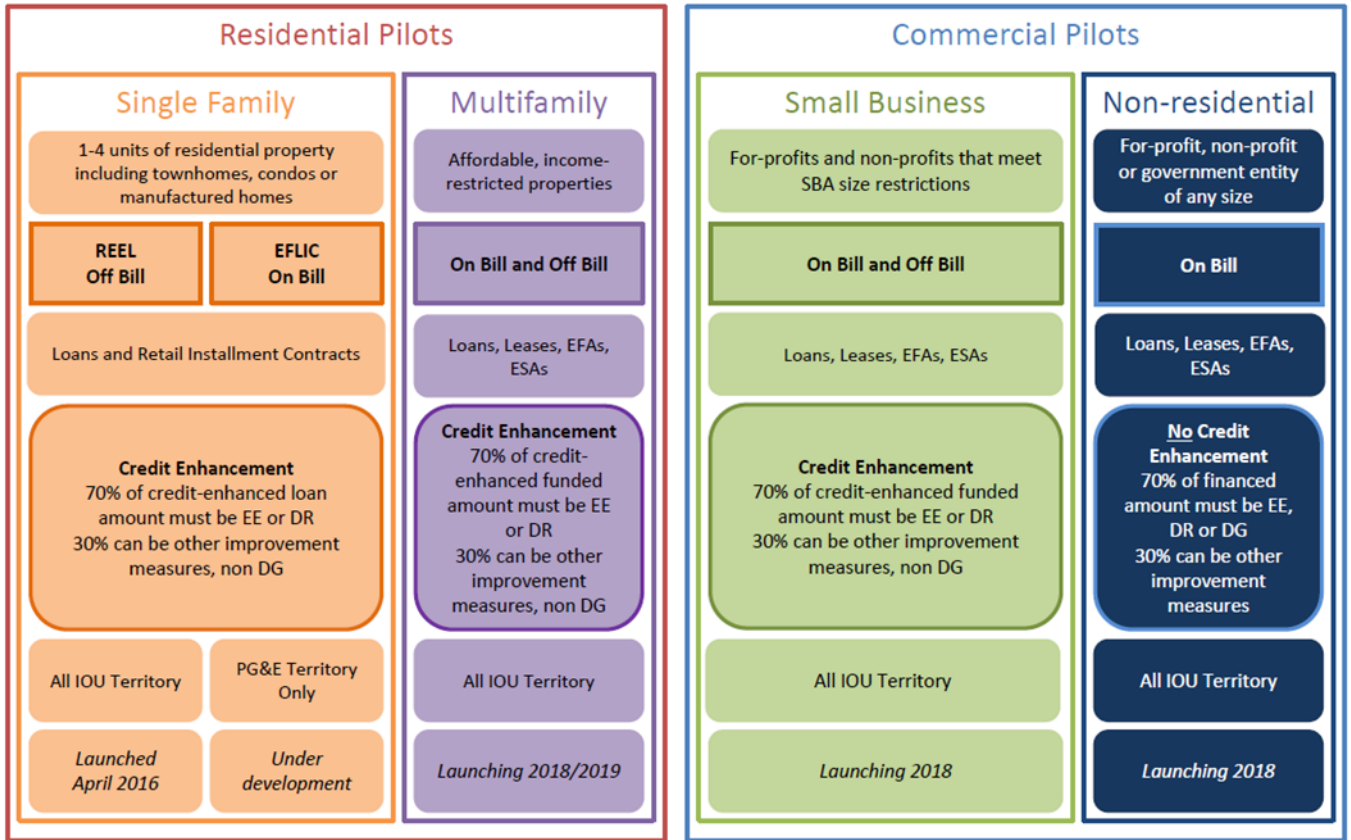
#### *Infrastructure Development and Operations*

The Data Exchange Protocol (DEP) outlines the specific processes which allow for the 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.

Figure 5, on the following page, provides a description of features of the various CHEEF Pilots.

# California Hub For Energy Efficiency Financing

## FIGURE 5. CHEEF PILOT PROGRAMS FEATURES



EE: Energy Efficiency   DR: Demand Response   DG: Distributed Generation   On Bill: On Bill Repayment  
 ESA: Energy Service Agreement   EFA: Equipment Finance Agreement

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



## Appendix A: Sales And Use Tax Exclusion Applications Considered To Date

Application Number	Date of Board Consideration	Applicant Name	City	County	Project Type	Use of Proceeds	QP Amount	STE Amount (Anticipated) <sup>1</sup>	STE Used to Date <sup>1</sup>	QP Amount Reported	% Reported	Estimated Environmental Benefit	Estimated Fiscal Benefit <sup>2</sup>	Estimated Net Benefit <sup>2</sup>	Expected Total Jobs <sup>3</sup>	Expected Total Jobs from STE <sup>2</sup>	Project Status	
1	10-SM015	11/17/2010	Bloom Energy Corporation	Sunnyvale	Santa Clara	Alternative Source	Solid Oxide Fuel Cell Systems Manufacturing	\$ 37,447,693	\$ 3,407,740	\$ 2,791,571	\$ 33,120,259.28	88%	\$ 562,054	\$ 11,144,189	\$ 8,298,503	1,004	83	Active
2	11-SM005	6/28/2011	Recology East Bay	Oakland	Alameda	Alternative Source	Biomass Processing and Fuel Production	\$ 3,703,090	\$ 336,981	\$ -	\$ -	0%	\$ 111,243	\$ 506,852	\$ 281,113	46	5	Active
3	11-SM012	8/23/2011	CE Obsidian Energy, LLC	Imperial	Imperial	Alternative Source	Geothermal Brine Extraction	\$ 174,453,978	\$ 14,130,772	\$ -	\$ -	0%	\$ 7,487,143	\$ 11,697,269	\$ 5,053,640	381	39	Active
4	12-SM001	2/21/2012	Soraa, Inc.	Fremont	Alameda	Alternative Source	Energy Efficient LED Lighting Manufacturing	\$ 57,002,457	\$ 4,617,199	\$ 1,708,596	\$ 20,380,383.49	36%	\$ 30,775,968	\$ 2,368,664	\$ 28,527,434	180	14	Active
5	12-SM011	10/16/2012	Clean World Partners LLC	Sacramento	Sacramento	Alternative Source	Biomass Processing and Fuel Production	\$ 11,796,759	\$ 955,537	\$ -	\$ -	0%	\$ 204,631	\$ 977,083	\$ 226,196	24	3	Active
6	12-SM013	11/13/2012	Oberon Fuels, Inc.	Brawley	Imperial	Alternative Source	Biogas Capture & Bio DME Production	\$ 13,500,000	\$ 1,093,500	\$ 47,558	\$ 568,195.71	4%	\$ 423,866	\$ 679,196	\$ 9,561	17	3	Active
7	13-SM002	3/19/2013	Buster Biofuels, LLC	Escondido	San Diego	Alternative Source	Biodiesel Production	\$ 1,905,343	\$ 159,477	\$ 160,430	\$ 1,905,343.00	100%	\$ 103,496	\$ 786,032	\$ 730,051	32	2	Active
8	13-SM005	4/16/2013	Vitrix, Inc.	Milpitas	Santa Clara	Alternative Source	Photovoltaic Solar Component Manufacturing	\$ 16,330,000	\$ 1,366,821	\$ 372,404	\$ 4,422,852.69	27%	\$ 1,256,397	\$ 886,066	\$ 775,642	47	4	Active
9	13-SM013	11/19/2013	Crimson Renewable Energy, LP	Bakersfield	Kern	Alternative Source	Biomass Processing and Fuel Production	\$ 14,065,000	\$ 1,177,241	\$ 703,717	\$ 8,350,704.22	59%	\$ 136,306	\$ 2,737,899	\$ 1,696,964	38	2	Active
10	13-SM012	12/17/2013	CE&P Imperial Valley 1, LLC	Brawley	Imperial	Advanced Manufacturing	Biomass Processing and Fuel Production	\$ 444,811,275	\$ 37,230,704	\$ -	\$ -	0%	N/A	\$ 51,344,220	N/A	650	84	Active
11	13-SM014	12/17/2013	Boxer Industries, Inc.	Redwood City	San Mateo	Advanced Manufacturing	Carbon Black Production	\$ 6,553,000	\$ 548,486	\$ 420,466	\$ 4,993,661.25	76%	N/A	\$ 539,522	N/A	12	1	Active
12	14-SM001	2/18/2014	Enovix Corporation	Fremont	Alameda	Advanced Manufacturing	Lithium Ion Battery Manufacturing	\$ 16,234,215	\$ 1,388,206	\$ 265,479	\$ 3,154,441.73	19%	N/A	\$ 1,920,567	N/A	55	4	Active
13	14-SM004	5/20/2014	Pixley Biogas, LLC	Pixley	Tulare	Alternative Source	Biogas Capture and Production	\$ 3,363,238	\$ 283,185	\$ 270,061	\$ 3,207,375.84	95%	\$ 287,308	\$ 321,007	\$ 325,130	9	2	Active
14	14-SM005	5/20/2014	MSB Investors, LLC	Santa Barbara	Santa Barbara	Alternative Source	Biogas Capture and Production	\$ 17,696,003	\$ 1,490,003	\$ -	\$ -	0%	\$ 319,442	\$ 1,392,985	\$ 222,423	75	5	Active
15	14-SM006	5/20/2014	Recology, Inc.	Vacaville	Solano	Alternative Source	Biogas Capture and Production	\$ 25,967,035	\$ 2,186,424	\$ -	\$ -	0%	\$ 271,168	\$ 2,747,503	\$ 832,247	57	8	Active
16	14-SM007	5/20/2014	E&J Gallo Winery	Livingston	Merced	Alternative Source	Biogas Capture and Production	\$ 17,592,381	\$ 1,481,278	\$ 1,196,814	\$ 14,213,942.75	81%	\$ 356,059	\$ 1,120,550	\$ 4,670	57	8	Active
17	14-SM008	6/17/2014	Niagara Bottling, LLC	San Bernardino	San Bernardino	Advanced Manufacturing	Water Bottling Facility	\$ 30,000,000	\$ 2,525,683	\$ 2,525,683	\$ 29,996,238.73	100%	N/A	\$ 7,988,338	N/A	86	6	Active
18	14-SM009	8/19/2014	nanoPrecision Products, Inc.	El Segundo, Camarillo	Los Angeles, Ventura	Advanced Manufacturing	Optical Ferrule Manufacturing	\$ 7,963,792	\$ 670,566	\$ 419,240	\$ 4,979,092.66	63%	N/A	\$ 840,081	N/A	50	4	Active
19	14-SM010	8/19/2014	AltAir Paramount, LLC	Paramount	Los Angeles	Alternative Source	Renewable Diesel Production	\$ 16,325,984	\$ 1,374,648	\$ 911,002	\$ 10,819,501.78	66%	\$ 287,233	\$ 6,023,164	\$ 4,935,750	141	3	Active
20	14-SM011	9/16/2014	Rialto Bioenergy Facility, LLC	Bloomington	San Bernardino	Alternative Source	Biogas Capture and Production	\$ 14,722,168	\$ 1,239,607	\$ -	\$ -	0%	\$ 765,232	\$ 1,662,628	\$ 1,188,254	35	3	Active
21	14-SM012	9/16/2014	Anaheim Energy, LLC	Anaheim	Orange	Alternative Source	Biogas Capture and Production	\$ 19,143,601	\$ 1,611,891	\$ 93,153	\$ 1,106,329.02	6%	\$ 568,979	\$ 1,938,411	\$ 895,499	40	5	Active
22	14-SM022	12/16/2014	Bowerman Power LFG, LLC	Irvine	Orange	Alternative Source	Landfill Gas Capture and Production	\$ 7,030,000	\$ 591,926	\$ 520,311	\$ 6,179,466.25	88%	\$ 273,723	\$ 1,091,792	\$ 773,589	30	3	Active
23	15-SM003	2/17/2015	Silevo, Inc.	Fremont	Alameda	Alternative Source	Solar Photovoltaic Manufacturing	\$ 106,551,184	\$ 8,971,610	\$ 5,824,877	\$ 69,179,058.21	65%	\$ 3,402,597	\$ 9,175,513	\$ 3,606,500	319	33	Active
24	15-SM005	4/21/2015	GKN Aerospace Chem-Tronics, Inc.	Santa Ana	Orange	Advanced Manufacturing	Aerospace Manufacturing	\$ 118,687,529	\$ 9,993,490	\$ 1,445,089	\$ 17,162,581.68	14%	N/A	\$ 8,483,497	N/A	231	13	Active
25	15-SM003	5/19/2015	Weber Metals, Inc.	Paramount	Los Angeles	Advanced Manufacturing	Metal Forging	\$ 167,661,606	\$ 14,117,107	\$ 6,902,988	\$ 81,983,235.00	49%	N/A	\$ 35,048,735	N/A	192	18	Active
26	15-SM006	6/16/2015	Efficient Drivetrains, Inc.	Milpitas	Santa Clara	Advanced Transportation	Electric Vehicle Drivetrain Manufacturing	\$ 5,008,800	\$ 421,741	\$ 23,046	\$ 416,609.85	8%	\$ 1,434,548	\$ 970,990	\$ 1,983,797	57	4	Active
27	15-SM007	6/16/2015	The Monadnock Company	Industry	Los Angeles	Advanced Manufacturing	Specialty Aerospace Fastener Manufacturing	\$ 6,475,000	\$ 545,195	\$ 30,590	\$ 363,300.02	6%	N/A	\$ 1,847,167	N/A	299	10	Active

## Appendix A: Sales And Use Tax Exclusion Applications Considered To Date

Application Number	Date of Board Consideration	Applicant Name	City	County	Project Type	Use of Proceeds	QP Amount	STE Amount (Anticipated) <sup>1</sup>	STE Used to Date <sup>1</sup>	QP Amount Reported	% Reported	Estimated Environmental Benefit	Estimated Fiscal Benefit <sup>2</sup>	Estimated Net Benefit <sup>2</sup>	Expected Total Jobs	Expected Total Jobs from STE <sup>2</sup>	Project Status	
28	15-SM008	7/21/2015	Hi Shear Corporation	Torrance	Los Angeles	Advanced Manufacturing	Specialty Aerospace Fastener Manufacturing	\$ 39,385,000	\$ 3,316,217	\$ 306,366	\$ 3,638,553.00	9%	N/A	\$ 3,432,623	N/A	1,117	43	Active
29	15-SM011	8/18/2015	Orbital ATK, Inc.	Northridge	Los Angeles	Advanced Manufacturing	Defense and Aerospace Manufacturing	\$ 16,275,154	\$ 1,370,368	\$ 531,115	\$ 6,307,778.17	39%	N/A	\$ 3,648,303	N/A	320	10	Active
30	15-SM012	9/15/2015	Rolls-Royce High Temperature Composites, Inc.	Huntington Beach	Orange	Advanced Manufacturing	Composites Manufacturing	\$ 8,728,000	\$ 734,898	\$ 167,506	\$ 1,989,386.97	23%	N/A	\$ 788,866	N/A	105	6	Active
31	15-SM010	10/20/2015	Karma Automotive LLC	Moreno Valley	Riverside	Advanced Manufacturing	Plug-In Hybrid Vehicle Manufacturing	\$ 38,194,860	\$ 3,216,007	\$ 766,585	\$ 9,104,332.48	24%	N/A	\$ 4,025,187	N/A	205	16	Active
32	15-SM014	10/20/2015	Madera Renewable Energy, LLC	Madera	Madera	Alternative Source	Biogas Capture and Production	\$ 1,999,507	\$ 168,358	\$ 152,333	\$ 1,809,185.98	90%	\$ 418,611	\$ 201,299	\$ 451,481	7	1	Active
33	15-SM015	10/20/2015	Hanford Renewable Energy, LLC	Hanford	Kings	Alternative Source	Biogas Capture and Production	\$ 3,748,012	\$ 315,583	\$ 261,349	\$ 3,103,906.73	83%	\$ 974,447	\$ 435,837	\$ 1,094,701	9	1	Active
34	15-SM016	10/20/2015	Space Exploration Technologies Corp.	Hawthorne	Los Angeles	Advanced Manufacturing	Aerospace Manufacturing	\$ 360,169,639	\$ 30,326,284	\$ 5,545,817	\$ 65,864,807.41	18%	N/A	\$ 40,537,040	N/A	4,200	183	Active
35	15-SM017	11/17/2015	Space Systems/Loral LLC	Palo Alto	Santa Clara	Advanced Manufacturing	Aerospace Manufacturing	\$ 5,586,000	\$ 470,341	\$ -	\$ -	0%	N/A	\$ 812,787	N/A	354	3	Active
36	15-SM013	12/15/2015	ABEC #2 LLC	Buttontwillow	Kern	Alternative Source	Biogas Capture and Production	\$ 5,990,614	\$ 504,410	\$ -	\$ -	0%	\$ 180,513	\$ 618,883	\$ 294,986	14	-	Active
37	15-SM020	12/15/2015	Millennium Space Systems, Inc.	El Segundo	Los Angeles	Advanced Manufacturing	Aerospace Manufacturing	\$ 4,284,672	\$ 360,769	\$ 64,921	\$ 771,028.45	18%	N/A	\$ 1,389,088	N/A	55	4	Active
38	16-SM003	1/19/2016	Kite Pharma, Inc.	El Segundo	Los Angeles	Advanced Manufacturing	Biopharmaceutical Manufacturing	\$ 13,763,050	\$ 1,158,849	\$ 609,694	\$ 7,241,016.35	53%	N/A	\$ 5,393,473	N/A	305	18	Active
39	16-SM004	1/19/2016	rPlanet Earth, LLC	Vernon	Los Angeles	Advanced Manufacturing	Plastic Recycling	\$ 119,800,000	\$ 10,087,160	\$ 2,599,943	\$ 89,335,167.26	75%	N/A	\$ 34,955,481	N/A	625	59	Active
40	16-SM005	1/19/2016	Escondido Bioenergy Facility, LLC	Escondido	San Diego	Alternative Source	Biogas Capture and Production	\$ 1,900,000	\$ 159,980	\$ -	\$ -	0%	\$ 28,355	\$ 344,260	\$ 212,635	11	1	Active
41	16-SM006	1/19/2016	California Safe Soil	McClellan	Sacramento	Advanced Manufacturing	Soil Amendments Production	\$ 3,750,000	\$ 315,750	\$ 130,707	\$ 1,552,340.78	41%	N/A	\$ 1,623,748	N/A	22	2	Active
42	16-SM002	2/16/2016	The Gill Corporation and its Subsidiary, Castle Industries	El Monte, Ontario	Los Angeles, San Bernardino	Advanced Manufacturing	Aerospace Manufacturing	\$ 8,472,000	\$ 713,342	\$ -	\$ -	0%	N/A	\$ 2,371,545	N/A	608	36	Active
43	16-SM008	10/18/2016	Waste Management of Alameda County	San Leandro	Alameda	Recycled Feedstock	Mixed Recycling	\$ 77,272,550	\$ 6,506,349	\$ 271,050	\$ 3,219,124.11	4%	\$ 141,898	\$ 8,381,777	\$ 2,017,327	144	20	Active
44	16-SM009	10/18/2016	Waste Management Recycling and Disposal Services of California, Inc.	Sun Valley	Los Angeles	Recycled Feedstock	Mixed Organics	\$ 3,500,000	\$ 294,700	\$ 161,591	\$ 1,919,133.00	55%	\$ 8,008	\$ 568,386	\$ 281,694	37	1	Active
45	16-SM011	10/18/2016	SANCO Services, LP	Escondido	San Diego	Recycled Feedstock	Mixed Recycling	\$ 24,190,000	\$ 2,036,798	\$ 1,441,243	\$ 17,116,898.19	71%	\$ 91,615	\$ 3,306,064	\$ 1,360,881	112	12	Active
46	16-SM013	10/18/2016	Recology San Francisco	San Francisco	San Francisco	Recycled Feedstock	Mixed Recycling	\$ 7,917,170	\$ 666,626	\$ -	\$ -	0%	\$ 16,789	\$ 701,902	\$ 52,065	127	8	Active
47	16-SM015	10/18/2016	CRM Co., LLC.	Stockton	San Joaquin	Recycled Feedstock	Crumb Tire Rubber	\$ 3,400,000	\$ 286,280	\$ -	\$ -	0%	\$ 5,672	\$ 1,015,541	\$ 735,133	32	2	Active
48	16-SM017	10/18/2016	Mid-Valley Disposal	Fresno	Fresno	Recycled Feedstock	Mixed Recycling	\$ 6,821,909	\$ 574,405	\$ 506,346	\$ 6,056,775.70	89%	\$ 29,922	\$ 592,293	\$ 47,811	54	5	Active
49	16-SM018	10/18/2016	Mid-Valley Disposal	Kerman	Fresno	Recycled Feedstock	Mixed Organics	\$ 3,739,543	\$ 314,870	\$ 226,279	\$ 2,701,648.25	72%	\$ 12,990	\$ 275,785	\$ (26,094)	24	3	Active
50	16-SM019	10/18/2016	MSB Investors, LLC	Santa Barbara	Santa Barbara	Recycled Feedstock	Mixed Recycling	\$ 32,403,272	\$ 2,728,356	\$ -	\$ -	0%	\$ 80,208	\$ 2,985,127	\$ 336,980	75	11	Active
51	16-SM021	11/15/2016	GreenWaste Recovery, Inc.	San Jose	Santa Clara	Recycled Feedstock	Mixed Recycling and Organics	\$ 4,458,683	\$ 375,421	\$ 129,037	\$ 1,532,510.72	34%	\$ 8,008	\$ 568,386	\$ 544,904	26	2	Active
52	16-SM026	12/13/2016	XT Green, Inc.	Corona	Riverside	Advanced Manufacturing	Advanced Carpet Recycling	\$ 8,970,500	\$ 755,316	\$ 87,265	\$ 1,036,400.00	12%	N/A	\$ 2,260,835	N/A	84	15	Active
53	16-SM031	12/13/2016	Eslinger Biodiesel Inc.	Fresno	Fresno	Alternative Source	Biomass Processing and Fuel Production	\$ 8,394,385	\$ 706,807	\$ -	\$ -	0%	\$ 570,932	\$ 2,291,132	\$ 2,155,277	34	2	Active
54	16-SM033	12/13/2016	ABEC #3 LLC dba Lake View Farms Dairy Biogas	Bakersfield	Kern	Alternative Source	Biogas Capture and Production	\$ 2,401,884	\$ 202,239	\$ 167,292	\$ 1,986,842.18	83%	\$ 33,640	\$ 311,256	\$ 142,657	25	3	Active
55	16-SM034	12/13/2016	ABEC #4 LLC dba CE&S Dairy Biogas	Bakersfield	Kern	Alternative Source	Biogas Capture and Production	\$ 2,701,502	\$ 227,467	\$ 34,058	\$ 404,485.94	15%	\$ 57,815	\$ 506,804	\$ 337,152	24	4	Active
56	16-SM036	12/13/2016	Tesla Motors, Inc.	Fremont	Alameda	Advanced Transportation	Electric Vehicle Manufacturing	\$ 560,917,080	\$ 47,229,218	\$ -	\$ -	0%	\$ 7,883,861	\$ 46,343,056	\$ 6,997,699	1,559	79	Active
57	16-SM037	12/13/2016	Gilead Sciences, Inc.	La Verne	Los Angeles	Advanced Manufacturing	Biopharmaceutical Manufacturing	\$ 51,645,674	\$ 4,348,566	\$ 3,365,949	\$ 39,975,641.00	77%	N/A	\$ 3,908,387	N/A	746	48	Active

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58	17-SM001	1/17/2017	North Fork Community Power	North Fork	Madera	Alternative Source	Biomass Processing and Fuel Production	\$ 6,819,733	\$ 574,222	\$ 230,390	\$ 2,736,317.00	40%	\$ 267,774	\$ 940,730	\$ 643,283	24	3	Active
59	17-SM002	1/17/2017	Atara Biotherapeutics, Inc.	Thousand Oaks	Ventura	Advanced Manufacturing	Biopharmaceutical Manufacturing	\$ 16,285,217	\$ 1,371,215	\$ -	\$ -	0%	N/A	\$ 8,830,079	N/A	103	6	Active
60	17-SM003	1/17/2017	Tesla Motors, Inc.	Fremont	Alameda	Advanced Transportation	Electric Vehicle Manufacturing	\$ 287,322,328	\$ 24,192,540	\$ -	\$ -	0%	\$ 2,796,551	\$ 20,997,523	\$ (398,467)	1,011	43	Active
61	17-SM007	2/21/2017	BYD Coach & Bus LLC	Lancaster	Los Angeles	Advanced Transportation	Electric Bus Manufacturing	\$ 3,189,014	\$ 268,515	\$ 104,660	\$ 1,242,991.30	39%	\$ 1,728,198	\$ 11,841,232	\$ 13,300,915	1,279	33	Active
62	17-SM011	2/21/2017	HZIU Kompogas SLO inc.	San Luis Obispo	San Luis Obispo	Alternative Source	Biomass Processing and Fuel Production	\$ 7,104,020	\$ 598,158	\$ 852	\$ 10,119.00	0%	\$ 38,784	\$ 529,337	\$ (30,037)	33	5	Active
63	17-SM016	3/21/2017	Colony Energy Partners- Tulare, LLC	Tulare	Tulare	Alternative Source	Biomass Processing and Fuel Production	\$ 20,800,000	\$ 1,751,360	\$ -	\$ -	0%	\$ 581,721	\$ 2,675,765	\$ 1,506,126	49	7	Active
64	17-SM017	3/21/2017	FoodService Partners, LLC	Richmond	Contra Costa	Advanced Manufacturing	Advanced Food Production	\$ 8,500,000	\$ 715,700	\$ -	\$ -	0%	N/A	\$ 6,165,933	N/A	240	15	Active
65	17-SM018	3/21/2017	Calgren Dairy Fuels, LLC	Pixley	Tulare	Alternative Source	Biomass Processing and Fuel Production	\$ 20,373,200	\$ 1,715,423	\$ -	\$ -	0%	\$ 1,627,153	\$ 2,424,238	\$ 2,335,968	68	12	Active
66	17-SM009	4/18/2017	Best Express Foods, Inc.	Stockton	San Joaquin	Advanced Manufacturing	Advanced Food Production	\$ 3,502,976	\$ 294,951	\$ 209,632	\$ 2,493,604.00	71%	N/A	\$ 1,185,647	N/A	78	4	Active
67	17-SM019	4/18/2017	ChargePoint Inc.	Campbell	Santa Clara	Advanced Manufacturing	Electric Vehicle Charging Station Production	\$ 1,660,000	\$ 139,772	\$ -	\$ -	0%	N/A	\$ 341,105	N/A	35	3	Active
68	17-SM020	4/18/2017	CALAMCO NH3 LLC	Taft	Kern	Advanced Manufacturing	Fertilizer Production	\$ 107,607,827	\$ 9,060,579	\$ -	\$ -	0%	N/A	\$ 16,925,300	N/A	84	11	Active
69	17-SM022	5/16/2017	SJV Biodiesel, LLC	Pixley	Tulare	Alternative Source	Biodiesel Production	\$ 6,680,600	\$ 562,507	\$ -	\$ -	0%	\$ 287,262	\$ 2,711,381	\$ 2,436,136	20	2	Active
70	17-SM043	5/16/2017	Boehringer Ingelheim Fremont, Inc.	Fremont	Alameda	Advanced Manufacturing	Biopharmaceutical Manufacturing	\$ 214,040,484	\$ 18,022,209	\$ -	\$ -	0%	N/A	\$ 58,787,003	N/A	747	14	Active
71	17-SM006	6/20/2017	CR&R Incorporated	Lakeside and Perris	Riverside	Alternative Source	Biomass Processing and Fuel Production	\$ 11,610,900	\$ 977,638	\$ -	\$ -	0%	\$ 187,531	\$ 888,838	\$ 98,731	47	6	Active
72	17-SM021	6/20/2017	Advance International Inc.	Livermore	Alameda	Advanced Manufacturing	Advanced Food Production	\$ 2,283,000	\$ 192,229	\$ -	\$ -	0%	N/A	\$ 884,553	N/A	98	6	Active
73	17-SM023	6/20/2017	Organic Energy Solutions	San Bernardino	San Bernardino	Alternative Source	Biomass Processing and Fuel Production	\$ 24,440,000	\$ 2,057,848	\$ 94,160	\$ 1,118,284.00	5%	\$ 602,601	\$ 1,552,332	\$ 97,085	106	17	Active
74	17-SM042	6/20/2017	Aranda Tooling, Inc.	Chino	San Bernardino	Advanced Manufacturing	Tooling and Metal Stamping	\$ 10,035,231	\$ 844,966	\$ -	\$ -	0%	N/A	\$ 6,607,393	N/A	180	11	Active
75	17-SM044	6/20/2017	Sunergy California LLC	McClellan	Sacramento	Alternative Source	Solar Photovoltaic Manufacturing	\$ 7,823,286	\$ 658,721	\$ 154,062	\$ 1,842,852.63	24%	\$ 2,877,987	\$ 3,761,032	\$ 5,980,298	195	12	Active
76	17-SM045	6/20/2017	U.S. Corrugated of Los Angeles, Inc.	Cerritos	Los Angeles	Advanced Manufacturing	Corrugated Packaging Manufacturing	\$ 5,834,792	\$ 491,289	\$ 168,775	\$ 2,004,447.92	34%	N/A	\$ 2,325,511	N/A	95	9	Active
77	17-SM047	6/20/2017	Crimson Renewable Energy, LP	Bakersfield	Kern	Alternative Source	Biodiesel Production	\$ 21,833,100	\$ 1,838,347	\$ -	\$ -	0%	\$ 641,781	\$ 7,253,563	\$ 6,056,996	62	6	Active
78	17-SM048	6/20/2017	Tracy Renewable Energy, LLC	Tracy	San Joaquin	Alternative Source	Ethanol Production	\$ 52,246,456	\$ 4,399,152	\$ -	\$ -	0%	\$ 1,620,925	\$ 15,913,811	\$ 13,135,585	97	10	Active
79	17-SM049	6/20/2017	Cicular Polymers LLC	Lincoln	Placer	Advanced Manufacturing	Advanced Carpet Recycling	\$ 7,548,500	\$ 635,584	\$ -	\$ -	0%	N/A	\$ 1,177,470	N/A	78	6	Active
80	17-SM050	6/20/2017	eco.logic brands, inc.	Manteca	San Joaquin	Advanced Manufacturing	Recycled Paper Bottles Manufacturing	\$ 6,944,000	\$ 584,685	\$ -	\$ -	0%	N/A	\$ 757,657	N/A	66	5	Active
81	17-SM051	6/20/2017	Schlusser Forge Company	Rancho Cucamonga	San Bernardino	Advanced Manufacturing	Aero Engine Ring Forging	\$ 53,568,357	\$ 4,510,456	\$ -	\$ -	0%	N/A	\$ 4,530,814	N/A	263	17	Active
82	17-SM046	7/18/2017	Pacific Ethanol Stockton, LLC	Stockton	San Joaquin	Alternative Source	Biogas Capture and Production	\$ 5,932,500	\$ 499,517	\$ -	\$ -	0%	\$ 273,362	\$ 693,533	\$ 467,378	31	5	Active
83	17-SM052	7/18/2017	Sanitation Districts of Los Angeles County	Whittier and Carson	Los Angeles	Alternative Source	Biomass Processing and Fuel Production	\$ 11,928,310	\$ 1,004,364	\$ -	\$ -	0%	\$ 95,175	\$ 2,099,961	\$ 1,190,772	41	4	Active
84	17-SM053	7/18/2017	Recology San Francisco	San Francisco	San Francisco	Recycled Feedstock	Mixed Recycling	\$ 3,633,145	\$ 305,911	\$ -	\$ -	0%	\$ 6,194	\$ 259,894	\$ 60,177	119	3	Active
85	17-SM010	8/15/2017	Verdeco Recycling, Inc.	South Gate	Los Angeles	Advanced Manufacturing	Recycled PET Food Packaging	\$ 4,940,350	\$ 415,977	\$ -	\$ -	0%	N/A	\$ 1,699,834	\$ -	8	1	Active
86	17-SM054	8/15/2017	AMRO Fabricating Corporation	South El Monte	Los Angeles	Advanced Manufacturing	Aerospace Manufacturing	\$ 5,120,000	\$ 431,104	\$ -	\$ -	0%	N/A	\$ 611,847	\$ -	92	7	Active

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87	17-SM008	9/19/2017	Aemerge RedPak Services Southern California, LLC	Hesperia	San Bernardino	vanced Manufactur	Medical Waste Recycling	\$ 37,000,676	\$ 3,115,457	\$ -	\$ -	0%	N/A	\$ 3,399,447	N/A	55	9	Active
88	17-SM013	9/19/2017	Peptide Laboratories,	Torrance	Los Angeles	vanced Manufactur	Peptide Pharmaceutical Manufacturing	\$ 12,750,000	\$ 1,073,550	\$ -	\$ -	0%	N/A	\$ 1,026,253	N/A	240	7	Active
89	17-SM055	9/19/2017	National Steel and Shipbuilding Company	San Diego	San Diego	vanced Manufactur	Thin Steel Plate Manufacturing	\$ 40,500,000	\$ 3,410,100	\$ -	\$ -	0%	N/A	\$ 8,549,758	N/A	5,220	72	Active
90	17-SM057	9/19/2017	Lollicup USA, Inc.	Chino	San Bernardino	vanced Manufactur	Food Grade Recycled Packaging Manufacturing	\$ 10,345,200	\$ 871,066	\$ -	\$ -	0%	N/A	\$ 4,455,345	N/A	396	9	Active
91	17-SM058	10/17/2017	SunLine Transit Agency	Thousand Palms	Riverside	Alternative Source	Renewable Hydrogen Production	\$ 7,000,000	\$ 589,400	\$ -	\$ -	0%	\$ 23,821	\$ 720,765	\$ 155,186	4	1	Active
92	17-SM059	10/17/2017	CalPlant I, LLC	Willows	Glenn	Advanced Manufacturing	Medium Density Fiberboard Manufacturing	\$ 92,278,983	\$ 7,769,890	\$ -	\$ -	0%	N/A	\$ 15,697,094	N/A	412	31	Active
93	17-SM060	10/17/2017	QuantumScope Corporation	San Jose	Santa Clara	Advanced Manufacturing	Electric Vehicle Battery Manufacturing	\$ 18,243,000	\$ 1,536,061	\$ 196,893	\$ 2,355,181.35	13%	N/A	\$ 1,213,783	N/A	135	12	Active
94	17-SM061	11/14/2017	Ontario CNG Station, Inc.	Ontario	San Bernardino	Alternative Source	Renewable Hydrogen Production	\$ 2,000,000	\$ 168,400	\$ 153,833	\$ 1,827,000.00	91%	\$ 3,715	\$ 260,821	\$ 96,136	13	2	Active
95	17-SM062	11/14/2017	Trademark Brewing, LLC	Long Beach	Los Angeles	Advanced Manufacturing	Beverage Production	\$ 1,854,741	\$ 156,169	\$ -	\$ -	0%	N/A	\$ 808,675	\$ 808,675	50	4	Active
96	17-SM063	11/14/2017	CR&R Incorporated	Stanton	Orange	Recycled Resource Extraction	Mixed Organics	\$ 8,389,685	\$ 706,411	\$ -	\$ -	0%	\$ 42,700	\$ 1,438,924	\$ 775,213	34	2	Active
97	17-SM056	12/19/2017	TBC-The Boring Company	Hawthorne	Los Angeles	Advanced Manufacturing	Specialized Concrete Ring Manufacturing	\$ 3,160,000	\$ 266,072	\$ -	\$ -	0%	N/A	\$ 2,385,590	N/A	24	1	Active
98	17-SM064	12/19/2017	WIE-AGRON Bioenergy, LLC	Watsonville	Santa Cruz	Alternative Source	Biodiesel Production	\$ 3,500,000	\$ 294,700	\$ 162,460	\$ 1,943,304.23	56%	\$ 116,974	\$ 909,611	\$ 731,885	18	1	Active
99	17-SM065	12/19/2017	Sila Nanotechnologies, Inc.	Alameda	Alameda	Advanced Manufacturing	Silicon Anode Powder Manufacturing	\$ 11,018,845	\$ 927,787	\$ -	\$ -	0%	N/A	\$ 916,006	N/A	123	10	Active
103	10-SM002	11/17/2010	ABEC Bidart Stockdale, LLC	Bakersfield	Kern	Alternative Source	Biogas Capture and Production	\$ 1,131,584	\$ 102,974	\$ 90,622	\$ 1,118,793.65	99%	\$ 228,808	\$ 73,809	\$ 199,643	26	3	Complete
104	10-SM004	11/17/2010	First Solar, Inc.	Santa Clara	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 37,700,000	\$ 3,430,700	\$ 3,409,567	\$ 37,692,991.15	100%	\$ 1,668,971	\$ 1,971,559	\$ 209,831	174	17	Complete
105	10-SM013	11/17/2010	NuvoSun Incorporated	Milpitas	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 20,000,000	\$ 1,820,000	\$ 1,736,128	\$ 19,996,322.73	100%	\$ 2,137,232	\$ 2,594,509	\$ 2,911,741	160	18	Complete
106	10-SM012	12/15/2010	SunPower Corporation	Milpitas	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 8,000,000	\$ 728,000	\$ 704,816	\$ 7,745,227.00	97%	\$ 903,595	\$ 1,877,730	\$ 2,053,325	94	11	Complete
107	10-SM020	12/15/2010	Ameresco Butte County LLC	Paradise	Butte	Alternative Source	Landfill Gas Capture and Production	\$ 1,085,554	\$ 98,785	\$ 62,105	\$ 759,409.60	70%	\$ 71,701	\$ 185,955	\$ 158,870	12	1	Complete
108	10-SM022	12/15/2010	Ameresco Forward LLC	Manteca	San Joaquin	Alternative Source	Landfill Gas Capture and Production	\$ 2,227,596	\$ 202,711	\$ 119,409	\$ 1,447,555.97	65%	\$ 37,823	\$ 277,169	\$ 112,281	11	1	Complete
109	10-SM023	12/15/2010	Ameresco Johnson Canyon LLC	Gonzales	Monterey	Alternative Source	Landfill Gas Capture and Production	\$ 766,293	\$ 69,733	\$ 53,372	\$ 656,910.18	86%	\$ 33,124	\$ 168,912	\$ 132,303	12	1	Complete
110	10-SM024	12/15/2010	Ameresco San Joaquin LLC	Linden	San Joaquin	Alternative Source	Landfill Gas Capture and Production	\$ 1,723,486	\$ 156,837	\$ 113,649	\$ 1,378,738.49	80%	\$ 99,894	\$ 419,234	\$ 362,292	12	1	Complete
111	10-SM025	12/15/2010	Ameresco Vasco Road LLC	Livermore	Alameda	Alternative Source	Landfill Gas Capture and Production	\$ 1,828,204	\$ 166,367	\$ 112,036	\$ 1,358,330.76	74%	\$ 66,258	\$ 333,415	\$ 233,306	11	1	Complete
112	10-SM026	12/15/2010	BioFuels Point Loma, LLC	San Diego	San Diego	Alternative Source	Wastewater Treatment Biogas Capture and Production	\$ 6,236,024	\$ 567,478	\$ 449,162	\$ 5,512,427.97	88%	\$ 120,126	\$ 509,292	\$ 61,939	25	3	Complete
113	10-SM028	12/15/2010	California Institute of Technology	Pasadena	Los Angeles	Alternative Source	Research & Development of Solar Fuel Generator Systems	\$ 13,400,000	\$ 1,219,400	\$ 996,694	\$ 11,899,375.73	89%	\$ -	\$ 702,662	\$ (516,738)	133	15	Complete

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114	11-SM001	1/25/2011	Leyden Energy, Inc.	Fremont	Alameda	Advanced Transportation	Lithium Ion Battery Manufacturing	\$ 1,306,525	\$ 118,894	\$ 99,647	\$ 1,213,372.59	93%	\$ 21,400	\$ 944,754	\$ 847,260	26	2	Complete
115	11-SM003	1/25/2011	Alameda-Contra Costa Transit District	Emeryville	Alameda	Alternative Source	Demonstration Hydrogen Fuel Production	\$ 5,387,950	\$ 490,303	\$ 362,320	\$ 4,473,087.00	83%	\$ 16,040	\$ 274,173	\$ (200,090)	6	1	Complete
116	11-SM006	3/22/2011	Mt. Poso Cogeneration Company, LLC	Bakersfield	Kern	Alternative Source	Biomass Processing and Fuel Production	\$ 14,374,000	\$ 1,308,034	\$ 1,164,294	\$ 14,373,999.93	100%	\$ 197,027	\$ 3,470,273	\$ 2,359,266	97	11	Complete
117	11-SM009	6/28/2011	DTE Stockton, LLC	Stockton	San Joaquin	Alternative Source	Biomass Processing and Fuel Production	\$ 10,120,000	\$ 920,920	\$ 823,638	\$ 10,119,999.91	100%	\$ 2,221,793	\$ 4,297,636	\$ 5,598,509	62	7	Complete
118	11-SM010	7/26/2011	SCS Energy	Fresno	Fresno	Alternative Source	Biogas Capture and Production	\$ 3,155,300	\$ 255,579	\$ 247,020	\$ 3,049,631.77	97%	\$ 40,230	\$ 271,233	\$ 55,884	9	1	Complete
119	11-SM019	11/15/2011	Zero Waste Energy Development Company, LLC	San Jose	Santa Clara	Alternative Source	Biogas Capture and Production	\$ 17,156,875	\$ 1,389,707	\$ 942,179	\$ 11,273,784.04	66%	\$ 1,355,423	\$ 2,233,575	\$ 2,199,291	174	17	Complete
120	11-SM016	12/13/2011	Tesla Motors, Inc.	Fremont; Hawthorne; Palo Alto; Menlo Park	Alameda; Los Angeles; Santa Clara; San Mateo	Advanced Transportation	Electric Vehicle Manufacturing	\$ 292,000,000	\$ 23,652,000	\$ 24,546,045	\$ 291,889,530.09	100%	\$ 2,386,636	\$ 35,023,610	\$ 13,758,246	1,237	108	Complete
121	12-SM003	3/20/2012	Stion Corporation	San Jose	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 6,417,610	\$ 519,843	\$ 490,542	\$ 6,056,069.00	94%	\$ 277,896	\$ 253,546	\$ 11,600	28	3	Complete
122	12-SM004	5/15/2012	Soitec Solar Industries LLC	San Diego	San Diego	Alternative Source	Concentrated Photovoltaic Manufacturing	\$ 104,381,342	\$ 8,454,889	\$ 7,351,987	\$ 90,047,264.86	86%	\$ 3,706,841	\$ 10,302,813	\$ 5,554,765	399	44	Complete
123	12-SM006	5/15/2012	John Galt Biogas Inc.	Galt	Sacramento	Alternative Source	Biogas Capture and Production	\$ 1,025,769	\$ 83,087	\$ 61,712	\$ 735,018.76	72%	\$ 112,933	\$ 128,931	\$ 158,777	19	2	Complete
124	12-SM007	5/15/2012	Reflexite Soitec Optical Technology LLC	San Diego	San Diego	Alternative Source	Concentrated Photovoltaic Manufacturing	\$ 24,500,000	\$ 1,984,500	\$ 2,005,024	\$ 24,200,004.00	99%	\$ 357,750	\$ 1,704,725	\$ 77,975	114	8	Complete
125	12-SM008	6/19/2012	North Star Biofuels LLC	Watsonville	Santa Cruz	Alternative Source	Biodiesel Production	\$ 4,115,500	\$ 343,866	\$ 343,220	\$ 4,115,500.00	100%	\$ 84,522	\$ 2,616,810	\$ 2,367,976	30	1	Complete
126	12-SM009	10/16/2012	ABEC New Hope LLC	Galt	Sacramento	Alternative Source	Biogas Capture and Production	\$ 2,633,359	\$ 213,302	\$ 84,096	\$ 1,004,734.92	38%	\$ 41,150	\$ 208,573	\$ 36,421	22	3	Complete
127	12-SM012	11/13/2012	Zero Waste Energy, LLC	Marina	Monterey	Alternative Source	Biogas Capture and Production	\$ 1,187,000	\$ 96,147	\$ 94,295	\$ 1,126,586.53	95%	\$ 18,139	\$ 95,062	\$ 17,054	5	1	Complete
128	13-SM001	1/15/2013	CleanWorld	Davis	Yolo	Alternative Source	Biomass Processing and Fuel Production	\$ 5,851,298	\$ 489,754	\$ 459,934	\$ 5,462,393.90	93%	\$ 106,588	\$ 506,088	\$ 122,923	24	3	Complete
129	13-SM007	6/18/2013	ABEC Bidart-Old River, LLC	Bakersfield	Kern	Alternative Source	Biomass Capture and Production	\$ 6,254,045	\$ 523,464	\$ 328,667	\$ 3,926,731.88	63%	\$ 351,613	\$ 523,038	\$ 351,188	28	2	Complete
130	13-SM009	8/20/2013	North State Rendering Co Inc.	Oroville	Butte	Alternative Source	Biomass Processing and Fuel Production	\$ 7,355,324	\$ 615,641	\$ 619,318	\$ 7,355,324.00	100%	\$ 305,075	\$ 422,917	\$ 112,351	12	2	Complete
131	13-SM010	9/17/2013	Central Valley Ag Power, LLC	Oakdale	Stanislaus	Alternative Source	Biomass Processing and Fuel Production	\$ 3,481,313	\$ 291,386	\$ 293,077	\$ 3,480,725.29	100%	\$ 38,218	\$ 394,801	\$ 141,634	23	2	Complete
132	13-SM011	10/15/2013	Blue Line Transfer, Inc.	S. San Francisco	San Mateo	Alternative Source	Biomass Processing and Fuel Production	\$ 4,976,489	\$ 416,530	\$ 326,788	\$ 3,881,088.00	78%	\$ 43,980	\$ 423,841	\$ 51,291	20	3	Complete
133	13-SM015	12/17/2013	Tesla Motors, Inc.	Fremont, Palo Alto, Hawthorne	Alameda, Santa Clara, Los Angeles	Advanced Transportation	Electric Vehicle Manufacturing	\$ 415,000,000	\$ 34,735,500	\$ 34,929,532	\$ 414,840,044.17	100%	\$ 4,847,406	\$ 54,306,869	\$ 24,418,775	2,050	115	Complete
134	14-SM021	1/20/2015	Pacific Ethanol Madera, LLC	Madera	Madera	Advanced Manufacturing	Corn Oil Production	\$ 4,763,500	\$ 401,087	\$ 271,375	\$ 3,222,977.51	68%	N/A	\$ 988,793	N/A	3	-	Complete
135	14-SM023	1/20/2015	WM Renewable Energy, LLC	Novato	Marin	Alternative Source	Biogas Capture and Production	\$ 2,004,360	\$ 168,767	\$ 168,072	\$ 1,996,101.96	100%	\$ 71,130	\$ 347,143	\$ 249,507	19	1	Complete
136	15-SM006	4/21/2015	California Renewable Power, LLC	Perris	Riverside	Alternative Source	Biogas Capture and Production	\$ 13,079,755	\$ 1,101,315	\$ 934,815	\$ 13,079,755.00	100%	\$ 137,797	\$ 1,839,848	\$ 876,329	48	4	Complete
137	15-SM005	6/16/2015	U.S. Corrugated of Los Angeles, Inc.	Santa Fe Springs	Los Angeles	Advanced Manufacturing	Corrugated Packaging Manufacturing	\$ 23,969,087	\$ 2,018,197	\$ 2,018,197	\$ 23,969,087.00	100%	N/A	\$ 7,825,890	N/A	160	13	Complete
138	15-SM009	7/21/2015	Las Gallinas Valley Sanitary District	San Rafael	Marin	Alternative Source	Biogas Capture and Production	\$ 788,757	\$ 66,413	\$ 66,413	\$ 788,757.00	100%	\$ 10,707	\$ 44,765	\$ (10,941)	7	-	Complete

**Appendix A: Sales And Use Tax Exclusion Applications Considered To Date**

Application Number	Date of Board Consideration	Applicant Name	City	County	Project Type	Use of Proceeds	QP Amount	STE Amount (Anticipated) <sup>1</sup>	STE Used to Date <sup>1</sup>	QP Amount Reported	% Reported	Estimated Environmental Benefit	Estimated Fiscal Benefit <sup>2</sup>	Estimated Net Benefit <sup>2</sup>	Expected Total Jobs <sup>3</sup>	Expected Total Jobs from STE <sup>3</sup>	Project Status	
139	15-SM024	12/15/2015	Tesla Motors, Inc.	Fremont; Hawthorne; Palo Alto; Menlo Park; Lathrop	Alameda; Los Angeles; Santa Clara; San Mateo, San Joaquin	Advanced Transportation	Electric Vehicle Manufacturing	\$ 463,625,000	\$ 39,037,225	\$ 33,172,732	\$ 463,622,419.75	100%	\$ 4,766,289	\$ 61,843,129	\$ 27,572,193	1,439	41	Complete
140	16-SM014	10/18/2016	Monterey Regional Waste Management District	Marina	Monterey	Recycled Feedstock	Mixed Recycling	\$ 11,401,677	\$ 960,021	\$ 960,021	\$ 11,401,677.00	100%	\$ 44,567	\$ 1,310,429	\$ 394,975	35	4	Complete
141	10-SM001	11/17/2010	Bowerman Power LFG, LLC	Irvine	Orange	Alternative Source	Landfill Gas Capture & Production	\$ 9,240,000	\$ 840,840	\$ -	\$ -	0%	\$ 398,492	\$ 1,008,052	\$ 565,704	30	3	Inactive
142	10-SM003	11/17/2010	ABEC Bidart Old River, LLC	Bakersfield	Kern	Alternative Source	Biogas Capture and Production	\$ 4,738,000	\$ 431,158	\$ -	\$ -	0%	\$ 3,080,806	\$ 436,844	\$ 3,080,491	50	6	Inactive
143	10-SM005	11/17/2010	Gallo Cattle Company	Atwater	Merced	Alternative Source	Biogas Capture and Production	\$ 1,245,000	\$ 113,295	\$ -	\$ -	0%	\$ 791,959	\$ 130,374	\$ 809,038	30	3	Inactive
144	10-SM006	11/17/2010	Solyndra LLC	Fremont	Alameda	Alternative Source	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	Inactive
145	10-SM007	11/17/2010	The Solaria Corporation	Fremont	Alameda	Alternative Source	Solar Photovoltaic Manufacturing	\$ 7,800,000	\$ 709,800	\$ 375,885	\$ 4,474,134.55	57%	\$ 634,403	\$ 1,564,665	\$ 1,689,268	180	17	Inactive
146	10-SM009	11/17/2010	Nanosolar Inc.	San Jose	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 140,187,900	\$ 12,757,099	\$ 4,306,412	\$ 53,035,063.31	38%	\$ 10,527,415	\$ 6,992,728	\$ 4,763,045	410	36	Inactive
147	10-SM011	11/17/2010	Stion Corporation	San Jose	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 105,473,402	\$ 9,598,080	\$ -	\$ -	0%	\$ 3,512,324	\$ 6,207,404	\$ 121,648	493	47	Inactive
148	10-SM014	11/17/2010	Calisolar Inc.	Sunnyvale	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 39,000,000	\$ 3,549,000	\$ -	\$ -	0%	\$ 1,971,609	\$ 1,975,797	\$ 398,407	273	13	Inactive
149	10-SM010	12/15/2010	Symbol, Inc.	Calipatria, Niland, Brawley	Imperial	Alternative Source	Lithium and Battery Material Manufacturing	\$ 42,484,174	\$ 3,866,060	\$ 164,278	\$ 1,938,796.34	5%	\$ 558,363	\$ 9,552,414	\$ 6,244,717	212	23	Inactive
150	10-SM016	12/15/2010	Quantum Fuel Systems Technologies Worldwide, Inc.	Irvine	Orange	Alternative Source	Solar Photovoltaic Manufacturing	\$ 8,945,858	\$ 814,073	\$ -	\$ -	0%	\$ 508,262	\$ 5,895,571	\$ 5,589,780	94	11	Inactive
151	10-SM018	12/15/2010	Green Vehicles, Inc.	Salinas	Monterey	Advanced Transportation	Electric Vehicle Manufacturing	\$ 3,708,050	\$ 337,433	\$ -	\$ -	0%	\$ 65,608	\$ 3,018,494	\$ 2,746,669	126	14	Inactive
152	10-SM019	12/15/2010	Soliant Energy, Inc.	Monrovia	Los Angeles	Alternative Source	Solar Photovoltaic Manufacturing	\$ 9,966,500	\$ 906,952	\$ -	\$ -	0%	\$ 1,142,989	\$ 1,709,894	\$ 1,945,932	38	5	Inactive
153	10-SM021	12/15/2010	SCE Crazy Horse LLC	Salinas	Monterey	Alternative Source	Landfill Gas Capture and Production	\$ 1,558,460	\$ 141,820	\$ -	\$ -	0%	\$ 103,093	\$ 432,228	\$ 393,501	12	1	Inactive
154	10-SM027	12/15/2010	Alta Devices, Inc.	Sunnyvale	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 40,845,000	\$ 3,716,895	\$ 1,108,616	\$ 13,653,537.60	33%	\$ 561,404	\$ 5,025,666	\$ 1,870,175	322	37	Inactive
155	11-SM002	1/25/2011	MiaSolé	Sunnyvale	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 26,092,000	\$ 2,374,372	\$ 881,599	\$ 10,883,941.14	42%	\$ 3,246,664	\$ 1,363,913	\$ 2,236,206	56	3	Inactive
156	11-SM007	5/18/2011	Amonix, Inc.	Seal Beach	Orange	Alternative Source	Solar Photovoltaic Manufacturing	\$ 2,278,900	\$ 207,380	\$ -	\$ -	0%	\$ 244,895	\$ 557,789	\$ 595,304	153	2	Inactive
157	11-SM014	8/23/2011	SoloPower Inc.	San Jose	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 8,411,240	\$ 681,310	\$ 494,484	\$ 6,104,736.00	73%	\$ 419,024	\$ 575,484	\$ 313,197	40	1	Inactive
158	11-SM015	8/23/2011	Amonix, Inc.	Seal Beach; Milpitas	Orange; Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 7,879,667	\$ 638,253	\$ -	\$ -	0%	\$ 740,148	\$ 2,884,021	\$ 2,985,916	200	12	Inactive
159	12-SM010	10/16/2012	Electric Vehicles International, LLC	Stockton	San Joaquin	Advanced Transportation	Electric Vehicle Manufacturing	\$ 5,744,962	\$ 465,342	\$ 256,836	\$ 3,170,809.00	55%	\$ 83,283	\$ 906,571	\$ 524,512	114	8	Inactive
160	13-SM004	4/16/2013	EJ Harrison and Sons Rentals, Inc.	Oxnard	Ventura	Alternative Source	Biogas Capture and Production	\$ 1,212,095	\$ 101,452	\$ -	\$ -	0%	\$ 19,311	\$ 108,487	\$ 26,345	6	1	Inactive
161	14-SM002	3/18/2014	CleanWorld	San Bernardino	San Bernardino	Alternative Source	Biomass Processing and Fuel Production	\$ 6,698,715	\$ 564,032	\$ -	\$ -	0%	\$ 163,485	\$ 858,211	\$ 457,665	26	3	Inactive
162	14-SM014	8/19/2014	Mendota Bioenergy, LLC	Mendota	Fresno	Alternative Source	Biogas Capture and Production	\$ 2,200,000	\$ 185,240	\$ 10,045	\$ 119,300.00	5%	\$ 165,281	\$ 304,456	\$ 285,037	40	2	Inactive
163	14-SM013	9/16/2014	Lockheed Martin Corporation	Palmdale, Helendale	Los Angeles, San Bernardino	Advanced Manufacturing	Aerospace Manufacturing	\$ 345,296,354	\$ 29,073,953	\$ -	\$ -	0%	N/A	\$ 38,053,138	N/A	1,213	91	Inactive
164	14-SM019	10/21/2014	Solexel, Inc.	Milpitas	Santa Clara	Alternative Source	Solar Photovoltaic Manufacturing	\$ 20,500,000	\$ 1,726,100	\$ 1,726,100	\$ 20,500,000.00	100%	\$ 1,261,678	\$ 475,809	\$ 11,387	128	11	Inactive
165	14-SM024	3/17/2015	Haas Automation, Inc.	Oxnard	Ventura	Advanced Manufacturing	CNC Machine Manufacturing	\$ 81,426,200	\$ 6,856,086	\$ -	\$ -	0%	N/A	\$ 38,174,218	N/A	1,235	51	Inactive
166	15-SM004	6/16/2015	T2Energy, LLC	Vista	San Diego	Advanced Manufacturing	Omega Oil Production	\$ 4,737,500	\$ 398,898	\$ -	\$ -	0%	N/A	\$ 1,881,353	N/A	48	3	Inactive
167	16-SM001	1/19/2016	Atieva USA Inc	Menlo Park, Tracy, Sacramento	San Mateo, San Joaquin, Sacramento	Advanced Transportation	Electric Vehicle Manufacturing	\$ 530,750,000	\$ 44,689,150	\$ -	\$ -	0%	\$ 5,593,675	\$ 137,469,584	\$ 98,374,109	1,547	96	Inactive

## Appendix A: Sales And Use Tax Exclusion Applications Considered To Date

Application Number	Date of Board Consideration	Applicant Name	City	County	Project Type	Use of Proceeds	QP Amount	STE Amount (Anticipated) <sup>1</sup>	STE Used to Date <sup>1</sup>	QP Amount Reported	% Reported	Estimated Environmental Benefit	Estimated Fiscal Benefit <sup>2</sup>	Estimated Net Benefit <sup>2</sup>	Expected Total Jobs <sup>3</sup>	Expected Total Jobs from STE <sup>3</sup>	Project Status	
168	16-SM022	10/18/2016	EDCO Disposal Corporation	San Diego	San Diego	Recycled Feedstock	Mixed Recycling	\$ 10,000,000	\$ 842,000	\$ -	\$ -	0%	\$ 47,049	\$ 961,499	\$ 166,542	45	5	Inactive
169	16-SM023	10/18/2016	EDCO Transport Services	Signal Hill	Los Angeles	Recycled Feedstock	Mixed Recycling	\$ 10,500,000	\$ 884,100	\$ -	\$ -	0%	\$ 48,397	\$ 1,094,340	\$ 258,637	37	5	Inactive
170	17-SM012	2/21/2017	TAP Power LLC	Arcata	Humboldt	Alternative Source	Biomass Processing and Fuel Production	\$ 9,213,514	\$ 775,778	\$ -	\$ -	0%	\$ 340,641	\$ 1,120,388	\$ 685,251	33	4	Inactive
<b>Totals:</b>							<b>\$ 7,394,740,494</b>	<b>\$ 626,595,673</b>	<b>\$ 201,099,343</b>	<b>\$ 2,502,207,461.31</b>	<b>34%</b>	<b>\$158,952,430</b>	<b>\$1,061,214,730</b>	<b>\$365,266,750</b>	<b>43,337</b>	<b>2,623</b>		

### Applications Previously Considered and Denied

Application Number	Date of Board Consideration	Applicant Name	City	County	Project Type	Use of Proceeds	QP Amount	STE Amount (Anticipated) <sup>1</sup>	STE Amount Used	QP Amount Reported	% Conveyed	Estimated Environmental Benefit <sup>2</sup>	Estimated Fiscal Benefit <sup>2</sup>	Estimated Net Benefit <sup>2</sup>	Expected Total Jobs <sup>3</sup>	Expected Total Jobs from STE <sup>3</sup>	Project Status	
1	16-SM020	11/15/2016	Zanker Road Resource Management	San Jose	Santa Clara	Recycled Feedstock	Mixed Recycling	\$ 1,512,796	\$ 127,377	N/A	N/A	N/A	\$ 689	\$ 227,254	\$ 100,565	14	2	

<sup>1</sup> 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, 8.42% in March 2014, and 8.36% in January 2018.

<sup>2</sup> 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 ACTIVITY  
TO DATE**



## Appendix B: 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**			13	\$299,233.74	-	\$0.00	13	\$299,233.74
	4 CaliforniaFIRST			-	\$0.00	151	\$3,435,462.04	151	\$3,435,462.04
	5 Sonoma County			1,550	\$43,702,974.25	65	\$1,524,472.34	1,615	\$45,227,446.59
	6 WRCOG HERO			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
	<b>Total:</b>			<b>17,401</b>	<b>\$350,271,859.17</b>	<b>7,022</b>	<b>\$148,670,404.82</b>	<b>24,423</b>	<b>\$498,942,263.99</b>
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					2,281	\$50,669,809.81	2,281	\$50,669,809.81
<b>Total:</b>	<b>12,974</b>	<b>\$288,099,471.88</b>	<b>34,302</b>	<b>\$750,527,394.81</b>	<b>23,205</b>	<b>\$553,932,377.27</b>	<b>57,507</b>	<b>\$1,304,459,772.08</b>	
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	3,907	\$110,192,499.48	10,864	\$279,409,261.10
	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	10,899	\$232,821,239.40	36,205	\$807,157,961.58
	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	1,877	\$64,646,218.07	3,328	\$107,870,424.45
	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	8,152	\$189,939,247.42	10,068	\$232,048,888.23	6,176	\$148,659,905.36	16,244	\$380,708,793.59
	13 PACEFunding	9	\$251,239.75	9	\$251,239.75	121	\$4,036,153.52	130	\$4,287,393.27
	14 CMFA PACE					47	\$2,533,503.48	47	\$2,533,503.48
<b>Total:</b>	<b>32,743</b>	<b>\$767,269,490.60</b>	<b>83,904</b>	<b>\$1,903,511,604.05</b>	<b>34,036</b>	<b>\$824,362,030.92</b>	<b>117,940</b>	<b>\$2,727,873,634.97</b>	
2017	1 mPOWER Placer	184	\$5,631,524.68	1,683	\$51,611,437.71	183	\$5,498,466.65	1,866	\$57,109,904.36
	2 mPOWER Folsom	9	\$229,668.63	71	\$1,811,317.39	8	\$237,161.37	79	\$2,048,478.76
	3 Berkeley FIRST	-	\$0.00	11	\$246,745.00	-	\$0.00	11	\$246,745.00
	4 CaliforniaFIRST	3,273	\$91,144,466.34	12,216	\$323,675,795.73	3,769	\$105,445,216.29	15,985	\$429,121,012.02
	5 Sonoma County	39	\$934,951.16	1,206	\$28,137,490.97	32	\$900,375.11	1,238	\$29,037,866.08
	6 WRCOG HERO	1,686	\$36,735,663.92	15,449	\$301,692,765.95	1,797	\$40,821,119.58	17,246	\$342,513,885.53
	7 SANBAG HERO	1,738	\$35,304,161.93	12,738	\$243,396,646.88	580	\$12,256,787.69	13,318	\$255,653,434.57
	8 California HERO	8,276	\$177,688,563.47	33,652	\$729,747,735.40	7,776	\$184,293,420.37	41,428	\$914,041,155.77
	9 AllianceNRG	69	\$2,260,800.21	72	\$2,478,196.22	32	\$1,122,030.42	104	\$3,600,226.64
	10 CaliforniaFIRST (LA)	1,574	\$54,207,538.45	4,485	\$148,223,916.66	1,190	\$39,148,949.43	5,675	\$187,372,866.09
	11 LA HERO	3,767	\$102,176,910.54	18,045	\$466,401,044.72	3,172	\$87,588,394.76	21,217	\$553,989,439.48
	12 Ygrene	4,745	\$114,651,498.88	19,490	\$460,975,116.00	4,787	\$135,120,402.68	24,277	\$596,095,518.68
	13 PACEFunding	196	\$5,916,311.47	327	\$10,203,704.70	352	\$10,245,084.69	679	\$20,448,789.39
	14 CMFA PACE	294	\$9,754,686.31	341	\$12,287,902.02	908	\$29,753,963.38	1,249	\$42,041,865.40
	15 CSCDA HERO					1,025	\$21,147,951.97	1,025	\$21,147,951.97
	16 Figtree PACE					Not Available***		Not Available***	
	17 Spruce PACE					12	\$357,431.78	12	\$357,431.78
	18 mPower Pioneer					41	\$1,265,377.60	41	\$1,265,377.60
<b>Total:</b>	<b>25,850</b>	<b>\$636,636,745.99</b>	<b>119,786</b>	<b>\$2,780,889,815.35</b>	<b>25,664</b>	<b>\$675,202,133.77</b>	<b>145,450</b>	<b>\$3,456,091,949.12</b>	

\* 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.

\*\*\* Figtree PACE's report is currently outstanding.

## **APPENDIX C: CHIEF BUDGET**

## Appendix C: CHEEF Budget

While the pilots were initially authorized for a two-year period, subsequent CPUC actions recognized that the pilots would be launched in sequence, and would continue implementation throughout their evaluation period with an anticipated timetable beyond fiscal year 2019-2020. A breakdown of the overall pilot budget is provided below.<sup>23</sup>

### CHEEF BUDGET

<b>CHEEF Start-Up Cost</b>	
Includes CAEATFA administrative, direct implementation, and contracting costs	\$ 13,360,000
<i>Subtotal CHEEF Start-Up Costs</i>	<i>\$ 13,360,000</i>
<b>Marketing, Education, Outreach (MEO)</b>	
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>
<b>Residential pilots</b>	
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>
<b>Non-Residential Pilots</b>	
Small business sector	\$ 14,000,000
Non-residential OBR without credit enhancement	\$ -
<i>Subtotal Non-Residential Pilots</i>	<i>\$ 14,000,000</i>
<b>Information Technology (IT)</b>	
IT Funding to IOUs <sup>24</sup>	\$ 8,000,000
<i>Subtotal IT Funding to IOUs</i>	<i>\$ 8,000,000</i>
<b>CHEEF Pilot Reserve</b>	
CHEEF Pilot Reserve	\$ 984,931
Adjustment to reconcile to D.12-11-015 and IOU Compliance	\$ 2,344,931
<i>Subtotal CHEEF Pilot Reserve</i>	<i>\$ 3,329,862</i>
<b>TOTAL</b>	<b><u>\$ 75,244,931</u></b>

<sup>23</sup> More detailed program budgets can be found in the program implementation plans. The budget table has been updated to show the release of \$8.36 Million by CPUC Rule Making 13-11-005.

<sup>24</sup> IT Funding to IOUs reports only the initial allocation and does not reflect current IOU expenditures.