



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

**2015 ANNUAL REPORT TO THE  
CALIFORNIA STATE LEGISLATURE**

*March 2016*

## About CAEATFA:

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

- **Bond Program** – provides low-cost bond financing for eligible projects, which have most recently included Qualified Energy Conservation Bonds (QECCBs) 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 loans. The PACE Loss Reserve Program will reimburse first mortgage lenders for specified losses resulting from a PACE lien on a property during foreclosure or forced sale to collect unpaid property taxes.
- **California Hub for Energy Efficiency Financing Pilot Programs** – a series of programs designed to leverage private capital to help customers of the state's investor-owned utilities obtain lower-cost financing for energy efficiency retrofits. This program is being administered in collaboration with the California Public Utilities Commission (CPUC).
- **Clean Energy Upgrade Financing Program** – provided credit enhancements to financial institutions financing energy efficiency and renewable energy improvements on residential properties.

The CAEATFA Board consists of:

John Chiang, Chair  
*State Treasurer*

Betty T. Yee  
*State Controller*

Michael Cohen  
*Director, Department of Finance*

Robert B. Weisenmiller  
*Chair, California Energy Commission*

Michael Picker  
*President, California Public Utilities Commission*

## **Overview of 2015 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, 2015.

This Annual Report contains information on the Authority's revenues and expenditures for fiscal year 2014-15 and projections of the Authority's need for the coming fiscal year. The report also includes an overview of activity under CAEATFA's Bond Program, and STE Program.

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

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

## Table of Contents

|   |     |
|---|-----|
| Report of Authority’s Finances.....   | 1   |
| Bond Financing Activities .....   | 2   |
| Sales and Use Tax Exclusion Program .....                                   | 3   |
| Property Assessed Clean Energy Loss Reserve Program .....                   | 14  |
| California Hub for Energy Efficiency Financing.....                         | 20  |
| Clean Energy Upgrade Financing Program .....                                | 25  |
| Appendix A: Sales and Use Tax Exclusion Applications Approved to Date ..... | A-0 |
| Appendix B: PACE Loss Reserve Program Enrollment Activity to Date .....     | B-0 |
| Appendix C: Communities Served By Enrolled PACE Programs .....              | C-0 |

## List of Tables

|  |     |
|--|-----|
| Table 1: Revenues and Expenditures – FY 2014-15 .....  | 1   |
| Table 2: Projected Needs and Requirements – FY 2015-16; FY2016-17 .....                                    | 1   |
| Table 3: Outstanding Bonds.....  | 2   |
| Table 4: STE Applications Received in 2015, Alternative Source and Advanced. Transportation ...            | 5   |
| Table 5: STE Applications Received in 2015, Advanced Manufacturing .....                                   | 6   |
| Table 6: STE Approved Projects by County in 2015, Alternative Source and Advanced.<br>Transportation ..... | 9   |
| Table 7: STE Approved Projects by County in 2015, Advanced Manufacturing .....                             | 10  |
| Table 8: STE Transactions by Applicant in 2015 .....   | 13  |
| Table 9: Environmental Savings from Enrolled PACE Financings.....  | 17  |
| Table 10: Breakdown of CHEEF Budget .....  | 18  |
| Table 11: Overview of REEL Assistance Program Participating Financial Institutions .....                   | 21  |
| Table 12: Status of Clean Energy Upgrade Financing Program Funds .....                                     | 23  |
| Table A.1: STE Alt. Source and Adv. Transportation Projects – Approved, Active .....                       | A-1 |
| Table A.2: STE Adv. Manufacturing Projects – Approved, Active .....  | A-4 |
| Table A.3: STE Alt. Source and Adv. Transportation Projects – Approved, Inactive .....                     | A-6 |
| Table B.1: PACE Loss Reserve Program Enrollment Activity to Date .....                                     | B-1 |
| Table C.1: Communities Served By Enrolled PACE Programs .....  | C-1 |

## List of Figures

|   |    |
|---|----|
| Figure 1: 2015 Number of Approved STE Projects, By Type.....                                | 8  |
| Figure 2: STE Projects Approved in 2015, By County .....                                    | 11 |
| Figure 3: Counties Served By Enrolled PACE Programs.....                                    | 16 |
| Figure 4: Energy Efficiency Measures Under the Clean Energy Upgrade Financing Program ..... | 23 |

# 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 2014-15**

The Authority's total revenues for fiscal year 2014-15 were \$2,498,417 and the total expenditures were \$1,716,000.

| <b>TABLE 1: REVENUES AND EXPENDITURES – FY 2014-15</b> |                           |
|--|---------------------------|
| <b>Total Revenues:</b>                                 | <b>\$2,498,417</b>        |
| <b>Expenditures:<sup>1</sup></b>                       |                           |
| Salaries and Wages                                     | \$623,000                 |
| Staff Benefits   | \$305,000                 |
| Operating Expenses and Equipment                       | \$787,000                 |
| Special Items of Expenses                              | \$1,000                   |
| <b><u>Total Expenditures</u></b>                       | <b><u>\$1,716,000</u></b> |

## **PROJECTED NEEDS AND REQUIREMENTS – FY 2015-16; FY 2016-17**

The Authority anticipates it has the financial needs and requirements identified in Table 2 for the 2015-16 and 2016-17 fiscal years.

| <b>TABLE 2: PROJECTED NEEDS AND REQUIREMENTS – FY 2015-16; FY 2016-17<sup>2</sup></b> |                           |                           |
|---|---------------------------|---------------------------|
|   | <b>FY 15-16</b>           | <b>FY 16-17</b>           |
| Total Salaries and Wages  | \$736,000                 | \$885,000                 |
| Staff Benefits  | \$462,000                 | \$424,000                 |
| Total Operating Expenses and Equipment  | \$3,047,000               | \$4,106,000               |
| Special Items of Expenses   | \$900,000                 | \$750,000                 |
| <b><u>Total Projected Needs and Requirements</u></b>                                  | <b><u>\$5,145,000</u></b> | <b><u>\$6,165,000</u></b> |

<sup>1</sup> The values in this section are as reported in the [Governor's Proposed Budget for the 2016-17 fiscal year](#).

<sup>2</sup> The values in this section are as reported in the [Governor's Proposed Budget for the 2016-17 fiscal year](#).

# BOND FINANCING ACTIVITIES

## PROGRAM SUMMARY

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

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

The financial assistance and incentives that CAEATFA can provide as a conduit bond issuer are authorized by Federal statute and programs. CAEATFA did not have any bond activity in 2015.

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

## OUTSTANDING BONDS

The Authority has three outstanding bond issues, amounting to a combined total of \$58,716,600 in bond debt, as of December 31, 2015.

| <b>TABLE 3: OUTSTANDING BONDS</b> |  |                   |                       |                        |                         |
|-----------------------------------|--|-------------------|-----------------------|------------------------|-------------------------|
| <b>Closing Date</b>               | <b>Bond Short Name</b>                                 | <b>Bond Type</b>  | <b>Final Maturity</b> | <b>Amount of Issue</b> | <b>Outstanding Debt</b> |
| 10/01/1993                        | Arroyo Energy Project Series 1993A and B               | CFRB <sup>3</sup> | 10/01/2020            | \$55,000,000           | \$25,330,000            |
| 06/10/2009                        | Caltrans Projects Series 2009                          | CREB <sup>4</sup> | 12/15/2023            | \$20,000,000           | \$3,409,067             |
| 11/18/2010                        | Fallbrook Public Utility District Solar Project Series | QECP <sup>5</sup> | 11/18/2027            | \$7,227,000            | \$4,647,533             |
|                                   | <b><u>TOTAL</u></b>                                    |                   |                       | <b>\$82,227,000</b>    | <b>\$58,716,600</b>     |

<sup>3</sup> Cogeneration Facility Revenue Bonds

<sup>4</sup> Clean Renewable Energy Bond

<sup>5</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 manufacturing projects that process or utilize recycled feedstock (“Recycled Feedstock”).<sup>6</sup> Staff is in the process of implementing an evaluation methodology to assess projects eligible under AB 199 through the rulemaking process.

#### *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.

## Sales and Use Tax Exclusion Program

### PROGRAM DESIGN

Under the STE Program's statute, all applications are evaluated to determine the extent to which the anticipated benefits to the State from a project exceed the estimated cost of the avoided sales and use tax. Specifically, through the net benefits test established in the STE Program's regulations, applicants are evaluated based on criteria designed to measure the fiscal and environmental benefits of their projects. The methodology used to evaluate these benefits differs based on the project type. The evaluation of Advanced Manufacturing projects focuses on the benefits resulting from the manufacturing process used to create a product, whereas evaluation of alternative source and advanced transportation projects focuses on the benefits resulting from the end-product being manufactured. See Section 3 of the Report of 2015 Activities on page 9 for a more specific description of the project evaluation methodologies.

### HISTORICAL PROGRAM ACTIVITY

#### *Alternative Source and Advanced Transportation*

From the program's inception through December 31, 2015, CAEATFA approved a total of 80 alternative source or advanced transportation project applications, of which 39 are still active, 23 are complete and 18 are not moving forward. The 62 active and complete projects were approved for a total of \$1.85 billion in anticipated Qualified Property purchases estimated to result in approximately \$154.70 million in STE. These projects are located across 26 counties, and are estimated to result in the retention and creation of 8,817 jobs. Under the program's evaluation process, 684 of these jobs are attributable to the STE Program. The projects are anticipated to produce an estimated \$74.55 million in environmental benefits and \$225.76 million in fiscal benefits, resulting in approximately \$145.63 million in net benefits to the state.<sup>7</sup>

#### *Advanced Manufacturing*

CAEATFA has approved 20 Advanced Manufacturing project applications from December 2013 through December 2015, of which 16 are still active, 2 are complete and 2 are not moving forward.<sup>8</sup> The 18 active and complete projects were approved for a total of \$1.65 billion in anticipated Qualified Property purchases, and were estimated to result in approximately \$138.28 million in STE at the time of application submittal. These projects are located in 10 counties, and are estimated to result in the retention and creation of 9,307 jobs. Under the program's evaluation process, 509 of these jobs are attributable to the STE Program. The projects are anticipated to produce an estimated \$209.51 million in fiscal benefits.

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

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<sup>7</sup> These figures include data for Tesla Motors Inc.'s 2015 award only (Resolution No. 15-SM024). The CAEATFA Board voted at the December 15, 2015 meeting to authorize Tesla Motors, Inc. to purchase Qualified Property in an amount up to \$254,297,428 of a requested \$463,625,000 in Qualified Property and, effective January 1, 2016, purchases for the remaining Qualified Property amount of \$209,327,572. All figures have been adjusted for a ratio of 55%, the percentage of the total award request that Tesla Motors, Inc. received in 2015. See [December 15, 2015 CAEATFA Staff Summary for Tesla Motors, Inc. 15-SM024 Agenda Item 4.A.3](#) for additional details.

<sup>8</sup> Two projects considered in 2015, Haas Automation, Inc. and T2Energy, LLC, were approved by the CAEATFA Board but did not execute Master Regulatory Agreements and are therefore considered "Inactive" (see STE Pipeline in Appendix A)

## Sales and Use Tax Exclusion Program

### REPORT OF 2015 ACTIVITIES

#### APPLICATIONS RECEIVED

##### *Alternative Source and Advanced Transportation*

CAEATFA received 11 new applications for alternative source or advanced transportation projects in the 2015 calendar year. The projects have a combined value of approximately \$2.39 billion in anticipated Qualified Property purchases, and were estimated to result in over \$201.56 million in STE at the time of application submittal.<sup>9</sup> Table 4 shows the alternative source and advanced transportation applications received in 2015.

| <b>TABLE 4: STE APPLICATIONS RECEIVED IN 2015,<br/>ALTERNATIVE SOURCE AND ADVANCED TRANSPORTATION</b> |                      |                                       |                                |                                  |                                  |  |               |
|---|----------------------|---------------------------------------|--------------------------------|----------------------------------|----------------------------------|--|---------------|
|   | <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 at time of Application</b> | <b>Status</b> |
| <b>1</b>  | 1/12/2015            | California Renewable Power, LLC       | Perris (Riverside County)      | Biogas Capture and Production    | \$13,079,755                     | \$1,101,315  | Approved      |
| <b>2</b>  | 4/21/2015            | Efficient Drivetrains Incorporated    | Milpitas (Santa Clara County)  | Advanced Transportation          | \$5,008,800                      | \$421,741  | Approved      |
| <b>3</b>  | 5/26/2015            | Las Gallinas Valley Sanitary District | San Rafael (Marin County)      | Alternative Source               | \$788,757                        | \$66,413   | Approved      |
| <b>4</b>  | 8/20/2015            | Abec #2                               | Buttonwillow (Kern County)     | Biogas Capture & Production      | \$5,990,614                      | \$504,410  | Approved      |
| <b>5</b>  | 8/27/2015            | Madera Renewable Energy, Llc          | Madera (Madera County)         | Biogas Capture & Production      | \$1,999,507                      | \$168,358  | Approved      |
| <b>6</b>  | 8/27/2015            | Hanford Renewable Energy, Llc         | Hanford (Kings County)         | Biogas Capture & Production      | \$3,748,012                      | \$315,583  | Approved      |
| <b>7</b>  | 9/25/2015            | Nuvosun Incorporated                  | Milpitas (Santa Clara County)  | Solar Photovoltaic Manufacturing | \$22,500,000                     | \$1,820,000  | Pending       |
| <b>8</b>  | 10/21/2015           | Tesla Motors, Inc.                    | Fremont (Alameda County)       | Electric Vehicle Manufacturing   | \$463,625,000                    | \$39,037,225                                       | Approved      |
| <b>9</b>  | 10/13/2015           | Atieva Usa Inc                        | Sacramento (Sacramento County) | Electric Vehicle Manufacturing   | \$616,750,000                    | \$51,930,350                                       | Approved      |
| <b>10</b>   | 11/17/2015           | Escondido Bioenergy Facility, Llc     | Escondido (San Diego County)   | Biogas Capture & Production      | \$1,900,000                      | \$159,980  | Approved      |
| <b>11</b>   | 11/17/2015           | Tesla Motors, Inc.                    | Fremont (Alameda County)       | Electric Vehicle Manufacturing   | \$1,259,345,000                  | \$106,036,849                                      | Pending       |
|   |                      |                                       |                                | <b>TOTAL</b>                     | <b>\$2,394,735,445</b>           | <b>\$201,562,224</b>                               |               |

<sup>9</sup> The estimated sales and use tax exclusion (“STE”) amount is based on the average statewide sales tax average of 8.42 percent.

## Sales and Use Tax Exclusion Program

### Advanced Manufacturing

CAEATFA received 17 new applications for Advanced Manufacturing projects. The projects have a combined value of approximately \$1.13 billion in anticipated Qualified Property purchases, and were estimated to result in over \$95.05 million in STE at the time of application submittal. Table 5 below shows the Advanced Manufacturing applications received in 2015.

| <b>TABLE 5: STE APPLICATIONS RECEIVED IN 2015,<sup>10</sup> ADVANCED MANUFACTURING</b> |                      |   |                         |                                    |                                  |  |  |
|--|----------------------|---|-------------------------|------------------------------------|----------------------------------|--|--|
|  | <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 at time of Application</b> | <b>Status</b>                                      |
| 1  | 2/23/2015            | GKN Aerospace Chem-Tronics, Inc.              | Santa Ana               | Advanced Materials                 | \$118,687,529                    | \$9,993,490  | Approved   |
| 2  | 3/18/2015            | Weber Metals, Inc.                            | Paramount               | Advanced Materials                 | \$167,661,606                    | \$14,117,107                                       | Approved   |
| 3  | 4/13/2015            | T2Energy, LLC                                 | Vista                   | Industrial Biotechnology           | \$4,737,500                      | \$398,898  | Approved <sup>11</sup>                             |
| 4  | 4/20/2015            | U.S. Corrugated Of Los Angeles                | Santa Fe Springs        | Integrated Computational Materials | \$23,969,087                     | \$2,018,197  | Approved   |
| 5  | 4/22/2015            | The Monadnock Company                         | Industry                | Advanced Materials                 | \$6,475,000                      | \$545,195  | Approved   |
| 6  | 5/26/2015            | Hi-Shear Coporation                           | Torrance                | Advanced Materials                 | \$39,385,000                     | \$3,316,217  | Approved   |
| 7  | 6/22/2015            | Karma Automotive, Llc                         | Moreno Valley           | Integrated Computational Materials | \$38,194,860                     | \$3,216,007  | Approved   |
| 8  | 6/25/2015            | Orbital Atk, Inc.                             | Northridge              | Advanced Materials                 | \$16,275,154                     | \$1,370,368  | Approved   |
| 9  | 7/17/2015            | Rolls-Royce High Temperature Composites, Inc. | Huntington Beach        | Advanced Materials                 | \$8,728,000                      | \$734,898  | Approved   |
| 10   | 8/21/2015            | Space Exploration Technologies Corp           | Hawthorne               | Micro and Nanoelectronics          | \$360,169,639                    | \$30,326,284                                       | Approved   |
| 11   | 9/21/2015            | Space Systems/Loral, Llc                      | Palo Alto               | Micro and Nanoelectronics          | \$5,586,000                      | \$470,341  | Approved   |
| 12   | 10/15/2015           | Millennium Space Systems, Inc.                | El Segundo              | Advanced Materials                 | \$4,284,672                      | \$360,769  | Approved   |
| 13   | 10/19/2015           | The Gill Corporation                          | El Monte                | Advanced Materials                 | \$8,472,000                      | \$713,342  | Approved at the Feb 16, 2016 CAEATFA Board Meeting |
| 14   | 10/20/2015           | Kite Pharma, Inc.                             | El Segundo              | Industrial Biotechnology           | \$13,763,050                     | \$1,158,849  | Approved at the Jan 19, 2016 CAEATFA Board Meeting |
| 15   | 10/26/2015           | Mission Rubber Company, Llc                   | Corona                  | Advanced Materials                 | \$4,995,000                      | \$420,579  | Withdrawn  |
| 16   | 11/13/2015           | Rplanet Earth Los Angeles, LLC                | Vernon                  | Micro and Nano Electronics         | \$119,800,000                    | \$10,087,160                                       | Approved at the Jan 19, 2016 CAEATFA Board Meeting |
| 17   | 11/19/2015           | Gilead Sciences, Inc.                         | La Verne                | Industrial Biotechnology           | \$187,645,674                    | \$15,799,766                                       | Pending  |
|  |                      |   |                         | <b>TOTAL</b>                       | <b>\$1,128,829,771</b>           | <b>\$95,047,467</b>                                |  |

<sup>10</sup> This table does not include the application for Pacific Ethanol Madera, LLC that was submitted in 2014, but approved by the CAEATFA Board at its February 2015 meeting. Data related to the Pacific Ethanol Madera, LLC application is included in the sections of the report that refer to applications approved in 2015.

<sup>11</sup> T2Energy was approved at the June 16 Board meeting for the requested \$4,737,500, however, the company chose not to move forward in executing a Master Regulatory Agreement with CAEATFA.

## Sales and Use Tax Exclusion Program

### APPLICATIONS APPROVED<sup>12</sup>

#### *Program Oversubscription*

In 2015, the STE Program became oversubscribed by \$66.1 million in application requests for projects under the three pre-existing pathways to eligibility.<sup>13</sup> In order to address this issue, the CAEATFA Board voted at the November 17, 2015 meeting to suspend the acceptance of new applications while Staff re-evaluated the current process, and to consider previously submitted applications in the order in which they were received until the \$100 million cap was reached for 2015. To the extent the last application considered exceeded the \$100 million cap, the Board voted to award the remainder of the 2015 cap, and provided the remainder of the last applicant's STE request from the upcoming 2016 annual allocation. This approach would allow CAEATFA to grant its entire 2015 award allocation and prevent the need for an applicant to submit a separate application in 2016.

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

#### *Alternative Source and Advanced Transportation*

The Authority approved nine alternative source or advanced transportation projects for a total dollar amount of \$393,468,417 in Qualified Property purchases in 2015. These projects were estimated to result in \$33,130,040 in STE over the next three years.<sup>14</sup> The projects span a range of industries, including biogas, landfill gas, and solar photovoltaic component manufacturing.

#### *Advanced Manufacturing*

The Authority approved 12 Advanced Manufacturing projects for a total of \$794,180,047 in Qualified Property purchases. The projects are anticipated to result in \$66,869,960 in STE over the next three years.<sup>15</sup>

Figure 1, on the following page, shows the total number of STE projects approved in 2015, by project type.

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<sup>12</sup> For the purposes of this section, the data includes an application from Pacific Ethanol Madera, LLC that was submitted in 2014 and approved by the CAEATFA Board at its January 19, 2015 Board meeting.

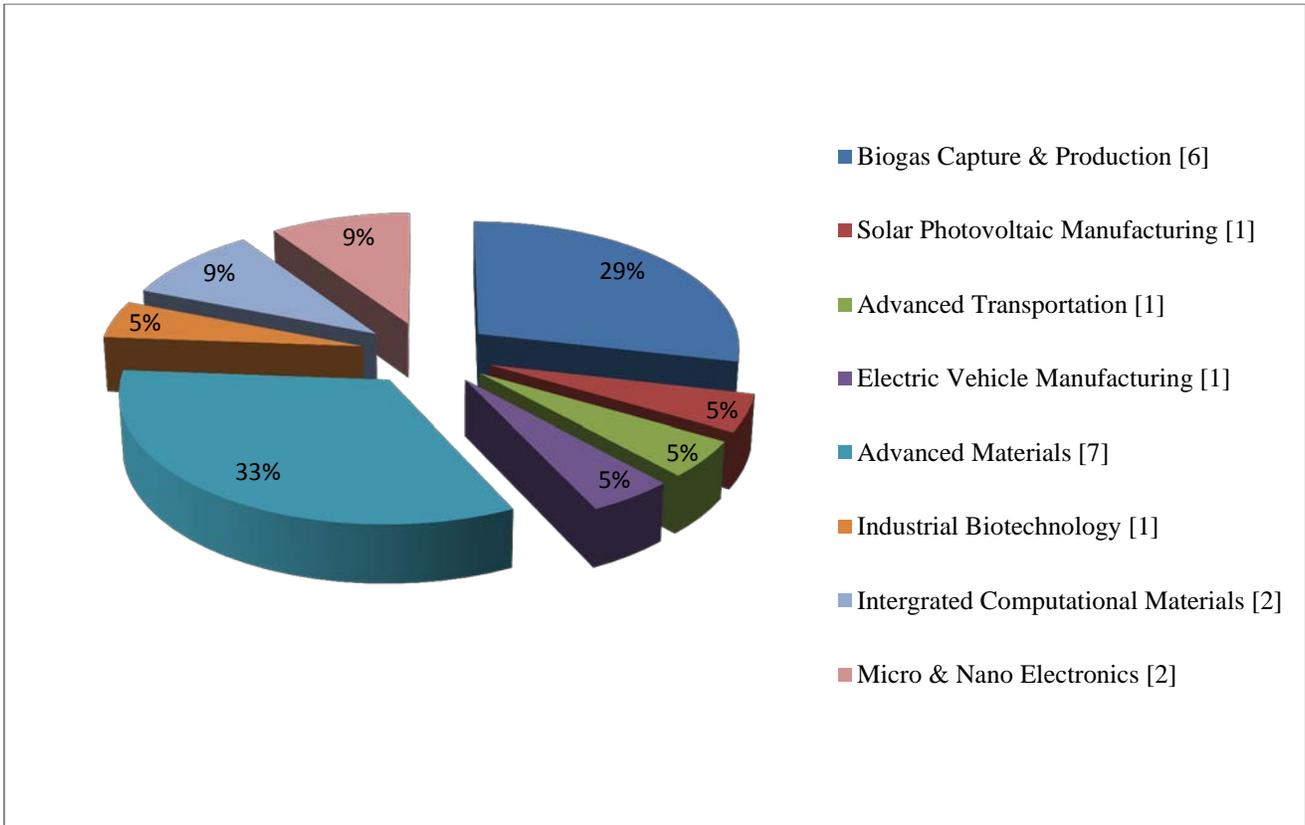
<sup>13</sup> The three existing pathways to eligibility were Alternative Source, Advanced Transportation and Advanced Manufacturing

<sup>14</sup> These figures include data for Tesla Motors Inc.'s 2015 award only (Resolution No. 15-SM024). The CAEATFA Board voted at the December 15, 2015 meeting to authorize Tesla Motors, Inc. to purchase Qualified Property in an amount up to \$254,297,428 of a requested \$463,625,000 in Qualified Property and, effective January 1, 2016, purchases for the remaining Qualified Property amount of \$209,327,572. All figures have been adjusted for a ratio of 55%, the percentage of the total award request that Tesla Motors, Inc. received in 2015. See [December 15, 2015 CAEATFA Staff Summary for Tesla Motors, Inc. 15-SM024 Agenda Item 4.A.3](#) for additional details.

<sup>15</sup> Two applications approved by the CAEATFA Board in 2015 brought by Haas Automation, Inc. at the March 17, 2015 meeting for \$81,426,200 in Qualified Property and T2Energy, LLC at the June 16, 2015 meeting for \$4,737,500 in Qualified Property, did not move forward with their projects and were not included in the calculations for this section

## Sales and Use Tax Exclusion Program

**FIGURE 1: 2015 NUMBER OF APPROVED STE PROJECTS, BY TYPE**



## Sales and Use Tax Exclusion Program

### PROJECT LOCATIONS AND ANTICIPATED BENEFITS<sup>16</sup>

#### *Alternative Source and Advanced Transportation*

The 2015 approved alternative source and advanced transportation projects are located in seven different counties throughout California. Table 6 below displays project information by county. It is expected that these projects will provide economic benefits to the state and local jurisdictions in the form of corporate taxes, personal income taxes, sales and property tax revenues, increased employment, and additional economic activity created by the manufacturing facilities and purchases from related suppliers.

Based on the net benefits methodology embodied in the Program regulations and on representation from these applicants, the Authority estimates the nine alternative source or advanced transportation applicants approved in 2015 will produce estimated combined environmental benefits valued at approximately \$9,244,650 million, and fiscal benefits valued at approximately \$47,555,116. Together, these environmental and fiscal benefits will result in approximately \$23,669,655 million in total estimated net benefits. See Table 6 for a breakdown of the various project benefits by county.

| <b>TABLE 6: STE APPROVED PROJECTS BY COUNTY IN 2015,<br/>ALTERNATIVE SOURCE AND ADVANCED TRANSPORTATION</b> |                       |                                       |  |                      |                                       |                                |                             |              |                                  |
|---|-----------------------|---------------------------------------|--|----------------------|---------------------------------------|--------------------------------|-----------------------------|--------------|----------------------------------|
| County  | Number                | Percentage of Total 2015 Projects (%) | Amount of Anticipated Qualified Property Purchases | Projected STE Amount | Estimated Environmental Benefit Value | Estimated Fiscal Benefit Value | Estimated Net Benefit Value | Total Jobs   | Total Jobs Attributed to the STE |
| Alameda   | 2                     | 22.22%                                | \$360,848,612 <sup>17</sup>                        | \$30,383,453         | \$6,016,897                           | \$43,096,351                   | \$18,729,795                | 1,108        | 55                               |
| Kern  | 1                     | 11.11%                                | \$5,990,614  | \$504,410            | \$180,513                             | \$618,883                      | \$294,986                   | 14           | -                                |
| Kings   | 1                     | 11.11%                                | \$3,748,012  | \$315,583            | \$974,447                             | \$435,837                      | \$1,094,701                 | 9            | 1                                |
| Madera  | 1                     | 11.11%                                | \$1,999,507  | \$168,358            | \$418,611                             | \$201,299                      | \$451,481                   | 79           | 1                                |
| Marin <sup>18</sup>   | 2                     | 22.22%                                | \$2,793,117  | \$235,180            | \$81,837                              | \$391,908                      | \$238,566                   | 26           | 1                                |
| Riverside   | 1                     | 11.11%                                | \$13,079,755                                       | \$1,101,315          | \$137,797                             | \$1,839,848                    | \$876,329                   | 48           | 4                                |
| Santa Clara   | 1                     | 11.11%                                | \$5,008,800  | \$421,741            | \$1,434,548                           | \$970,990                      | \$1,983,797                 | 57           | 4                                |
| <b>TOTAL</b>  | <b>9<sup>19</sup></b> | <b>100%</b>                           | <b>\$393,468,417</b>                               | <b>\$33,130,040</b>  | <b>\$9,244,650</b>                    | <b>\$47,555,116</b>            | <b>\$23,669,655</b>         | <b>1,269</b> | <b>66</b>                        |

<sup>16</sup> For the purposes of this section, an application from Pacific Ethanol Madera, LLC is considered approved. This application was submitted in 2014, but was not approved until January 2015.

<sup>17</sup> This figure includes data from Tesla Motors Inc.'s 15-SM024 2015 award only. As noted above, the CAEATFA Board voted at the December 15 meeting to authorize Tesla Motors, Inc. to purchase Qualified Property in an amount up to \$254,297,428 of a requested \$463,625,000 in Qualified Property and effective January 1, 2016 purchases for the remaining Qualified Property amount of \$209,327,572. See Tesla Motors, Inc. Staff Summary - December 2015 Board Meeting for additional details.

<sup>18</sup> This calculation includes a project by Las Gallinas Valley Sanitary District. The project resulted in a Net Benefits Score of -\$10,941. Upon completion of the Net Benefits Test, the Project did not exceed the Total Score threshold required by regulations section 10033(c)(6). The deficit in points came from the Fiscal Benefits Score, which reflected the fact that, as a California Public Agency, the Applicant does not pay income taxes, which are a source of the program's fiscal benefit calculation for private sector projects. Section 10033(c)(6) allows for a waiver of the Total Score requirement under certain circumstances. The regulations read that "where a project receives a score less than these thresholds, the Executive Director may recommend it to the board for approval upon a statement articulating specific reasons why the approval is in the public interest and advances the purposes of the Program." See [Staff Summary for Las Gallinas Valley Sanitary District 15-SM009 Agenda Item 4.A.2](#) for additional details.

## Sales and Use Tax Exclusion Program

### *Advanced Manufacturing*

CAEATFA approved 12 Advanced Manufacturing projects in 2015 located in five California counties. It is expected that these projects will provide economic benefits to the state and local jurisdictions in the form of corporate taxes, personal income taxes, sales and property tax revenues, increased employment, and additional economic activity created by the manufacturing facilities and purchases from related suppliers.

Based on the net benefits methodology embodied in the Program regulations and on representation from these applicants, the Authority estimates the 12 Advanced Manufacturing applicants approved in 2015 will produce estimated combined fiscal benefits valued at approximately \$108,827,976 million. See Table 7 for a breakdown of the various project benefits by county.

| <b>TABLE 7: STE APPROVED PROJECTS BY COUNTY IN 2015, ADVANCED MANUFACTURING</b> |           |                                       |  |                                    |                                |              |                                  |
|---|-----------|---------------------------------------|--|------------------------------------|--------------------------------|--------------|----------------------------------|
| County <sup>20</sup>  | Number    | Percentage of Total 2015 Projects (%) | Amount of Anticipated Qualified Property Purchases | Projected STE Amount <sup>21</sup> | Estimated Fiscal Benefit Value | Total Jobs   | Total Jobs Attributed to the STE |
| Los Angeles   | 7         | 58.33%                                | \$618,220,158                                      | \$52,054,137                       | \$93,728,846                   | 6,343        | 281                              |
| Madera  | 1         | 8.33%                                 | \$4,763,500  | \$401,087                          | \$988,793                      | 3            | 0                                |
| Orange  | 2         | 16.67%                                | \$127,415,529                                      | \$10,728,388                       | \$9,272,363                    | 336          | 19                               |
| Riverside   | 1         | 8.33%                                 | \$38,194,860                                       | \$3,216,007                        | \$4,025,187                    | 205          | 14                               |
| Santa Clara   | 1         | 8.33%                                 | \$5,586,000  | \$470,341                          | \$812,787                      | 354          | 3                                |
| <b>TOTAL</b>  | <b>12</b> | <b>100.%</b>                          | <b>\$794,180,047</b>                               | <b>\$66,869,960</b>                | <b>\$108,827,976</b>           | <b>7,241</b> | <b>317</b>                       |

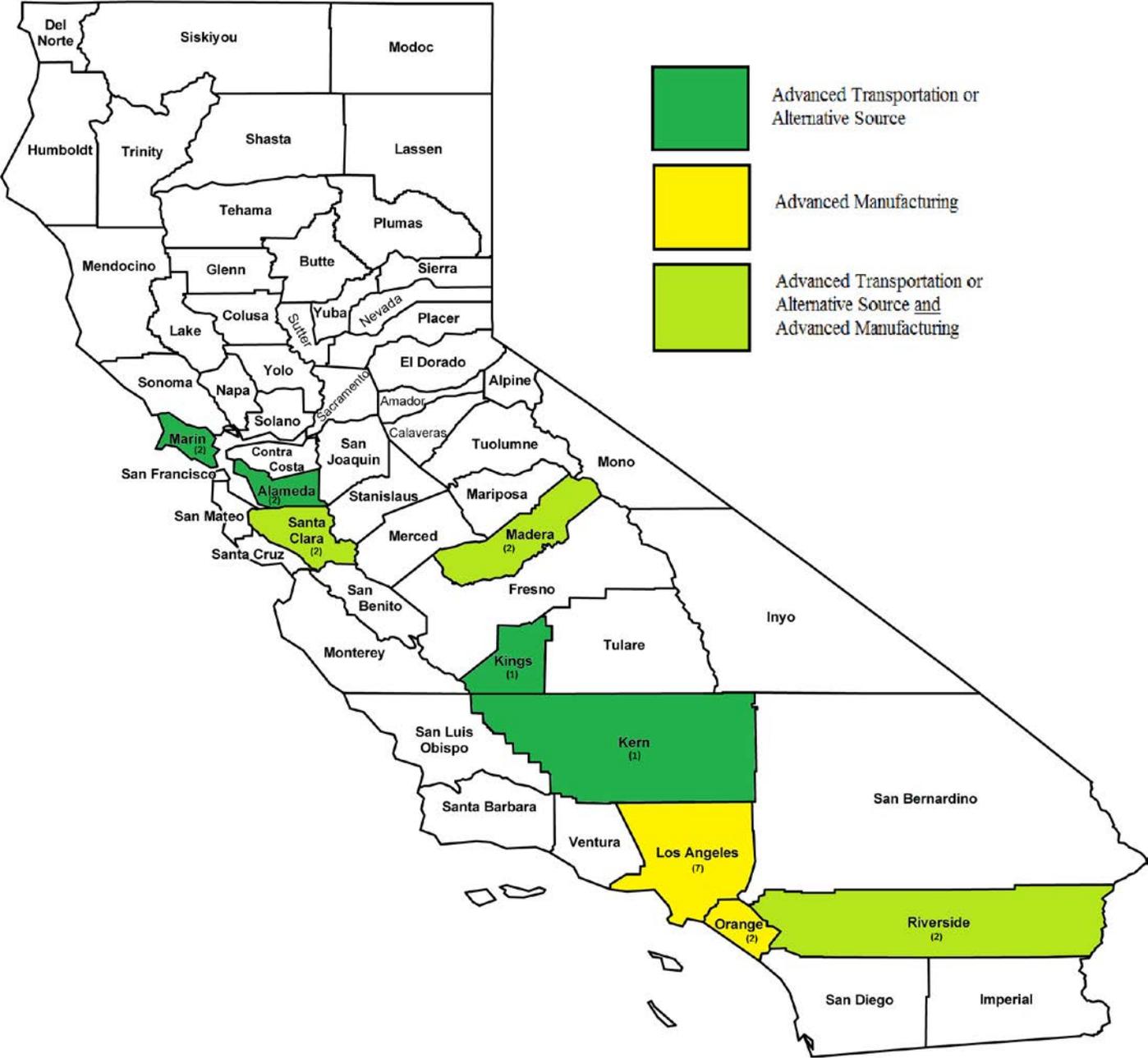
Figure 2, on the following page, shows a geographical representation of all projects approved under the STE program in 2015.

<sup>19</sup> Several applicants have multiple project sites under their application. For purposes of this table, the data was combined under one county

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

# Sales and Use Tax Exclusion Program

**FIGURE 2: STE PROJECTS APPROVED IN 2015, BY COUNTY**



## Sales and Use Tax Exclusion Program

### EVALUATION METHODOLOGY

#### *Alternative Source and Advanced Transportation*

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

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

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

#### *Advanced Manufacturing*

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

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

### 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 provides the formal structure under which an applicant may use the sales and use tax exclusion. As mentioned above, Senate Bill 1128 (Padilla, Chapter 677, Statutes of 2012) made several substantive statutory changes to the STE Program, one of which was to eliminate the conveyance/reconveyance requirement. As such, applicants approved on or after December 17, 2013 are no longer required to submit conveyance/reconveyance transactions in order to participate in the STE Program. In place of

## Sales and Use Tax Exclusion Program

the conveyance/reconveyance requirement, approved applicants now submit semi-annual reports that include the Qualified Property purchased in the prior two quarters.

Since the launch of the program through December 31, 2015, CAEATFA has approved a total of 100 applications of which 80 are still active or complete. The 80 active or complete applications have been approved for \$3.49 billion in anticipated Qualified Property purchases. In 2015, 30 of these projects purchased approximately \$203 million in Qualified Property, resulting in approximately \$17.1 million in STE. Table 8 shows the total amount of Qualified Property that each approved applicant has purchased and conveyed to date.

**TABLE 8: STE TRANSACTIONS BY APPLICANT IN 2015**

| Approved Applicant |                                    | Total Amount of Qualified Property Approved | 2015 Qualified Property Transactions | 2015 Estimated STE  | Cumulative Total of Qualified Property Transactions | Cumulative Total of Estimated STE |
|--------------------|------------------------------------|---|--------------------------------------|---------------------|---|-----------------------------------|
| 1                  | AltAir Paramount                   | \$16,325,984                                | \$4,748,368                          | \$399,813           | \$10,579,191  | \$890,768                         |
| 2                  | Bloom                              | \$37,447,693                                | \$4,429,379                          | \$372,954           | \$31,349,899  | \$2,465,021                       |
| 3                  | Blue Line Transfer                 | \$4,976,469                                 | \$3,881,088                          | \$326,788           | \$3,881,088   | \$326,788                         |
| 4                  | Bowerman (2014)                    | \$7,030,000                                 | \$6,179,466                          | \$520,311           | \$6,179,466   | \$520,311                         |
| 5                  | Buster Biofuels                    | \$1,905,343                                 | \$307,453                            | \$25,888            | \$1,587,535   | \$133,670                         |
| 6                  | Cal Renewable Power                | \$13,079,755                                | \$11,102,317                         | \$934,815           | \$11,102,317  | \$934,815                         |
| 7                  | California Institute of Technology | \$13,400,000                                | \$1,443,262                          | \$121,523           | \$11,899,376  | \$996,694                         |
| 8                  | Clean World (Davis)                | \$5,851,298                                 | \$5,462,394                          | \$459,934           | \$5,462,394   | \$459,934                         |
| 9                  | Crimson Renewable                  | \$14,065,000                                | \$945,664                            | \$79,625            | \$5,550,047   | \$467,037                         |
| 10                 | E&J Gallo                          | \$17,592,381                                | \$760,669                            | \$15,085            | \$12,850,506  | \$1,082,013                       |
| 11                 | Enovix                             | \$16,234,215                                | \$1,676,133                          | \$141,130           | \$2,776,241   | \$233,641                         |
| 12                 | GKN                                | \$118,687,529                               | \$10,478,764                         | \$882,312           | \$10,478,764  | \$882,312                         |
| 13                 | Hi-Shear                           | \$39,385,000                                | \$3,638,553                          | \$306,366           | \$3,638,553   | \$306,366                         |
| 14                 | John Galt Biogas                   | \$1,025,769                                 | \$382,119                            | \$32,174            | \$735,019   | \$61,712                          |
| 15                 | Karma Automotive                   | \$38,194,860                                | \$2,470,155                          | \$207,987           | \$2,470,155   | \$207,987                         |
| 16                 | Las Gallinas                       | \$788,757                                   | \$788,757                            | \$66,413            | \$788,757   | \$66,413                          |
| 17                 | Monadnock                          | \$6,475,000                                 | \$363,300                            | \$30,590            | \$363,300   | \$30,590                          |
| 18                 | nanoPrecision                      | \$7,963,792                                 | \$1,651,459                          | \$139,053           | \$4,398,947   | \$370,391                         |
| 19                 | Niagara Bottling                   | \$30,000,000                                | \$28,781,191                         | \$2,423,376         | \$28,781,191  | \$2,423,376                       |
| 20                 | NuvoSun                            | \$20,000,000                                | \$3,116,952                          | \$262,447           | \$19,996,323  | \$1,736,128                       |
| 21                 | Pacific Ethanol Madera             | \$4,763,500                                 | \$3,222,978                          | \$271,375           | \$3,222,978   | \$271,375                         |
| 22                 | Pixley Biogas                      | \$3,363,238                                 | \$240,126                            | \$20,219            | \$3,207,376   | \$270,061                         |
| 23                 | Rolls-Royce                        | \$8,728,000                                 | \$1,989,387                          | \$167,506           | \$1,989,387   | \$167,506                         |
| 24                 | Silevo                             | \$106,551,184                               | \$69,179,058                         | \$5,824,877         | \$69,179,058  | \$5,824,877                       |
| 25                 | Solexel                            | \$20,500,000                                | \$6,063,208                          | \$510,522           | \$20,500,000  | \$1,726,100                       |
| 26                 | Soraa                              | \$57,002,457                                | \$4,107,962                          | \$345,890           | \$18,973,342  | \$1,590,122                       |
| 27                 | SpaceX                             | \$360,169,639                               | \$999,278                            | \$84,139            | \$999,278   | \$84,139                          |
| 28                 | US Corrugated                      | \$23,969,087                                | \$23,969,087                         | \$2,018,197         | \$23,969,087  | \$2,018,197                       |
| 29                 | Weber Metals                       | \$167,661,606                               | \$591,000                            | \$49,762            | \$591,100   | \$49,771                          |
| 30                 | WM Renewable                       | \$2,004,360                                 | \$470,670                            | \$39,630            | \$470,670   | \$39,630                          |
|                    | <b>TOTAL</b>                       |   | <b>\$203,440,197</b>                 | <b>\$17,080,701</b> | <b>\$317,971,345</b>                                | <b>\$26,637,745</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 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

## **Property Assessed Clean Energy Loss Reserve Program**

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 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 2015 ACTIVITY**

#### **PROGRAM ENROLLMENT**

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

During the initial program enrollment in June 2014, participating PACE programs enrolled 17,401 PACE financings with a total principal value of over \$350,000,000. To date, the Loss Reserve covers 56,138 PACE financings with a total outstanding principal value of \$1,276,067,499.16. For the 2015 reporting periods, participating PACE programs enrolled 34,810 PACE financings with a total principal value of \$813,639,576.23. A chart of all Program enrollment activity as of December 30, 2015 can be found in Appendix B.

#### **CLAIMS ON THE LOSS RESERVE**

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

#### **PROGRAM IMPACT AND RESULTS**

As of December 2015, twelve PACE administrators have enrolled in the PACE Loss Reserve Program and offer residential PACE financing in a growing number of areas in California. As of February 1, 2016, the enrolled PACE administrators offer residential PACE financing in 463 communities in 47 counties.

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

## Property Assessed Clean Energy Loss Reserve Program

**FIGURE 3: COUNTIES SERVED BY ENROLLED PACE PROGRAMS**



The Loss Reserve covers PACE financings for energy and water efficiency improvements, electric vehicle charging infrastructure, and clean energy improvements. Table 10 details the estimated annual environmental savings from enrolled financings issued as of June 30, 2015, as reported by each PACE administrator.

**Property Assessed Clean Energy Loss Reserve Program**

| <b>TABLE 9: ENVIRONMENTAL SAVINGS FROM ENROLLED PACE FINANCINGS</b> |   |
|---|---|
| <b>Program</b>  | <b>Estimated Annual Environmental Savings<sup>22</sup></b>                            |
| mPOWER Placer   | 11,255,157 kWh<br>2,431 MTCO <sub>2</sub>   |
| mPOWER Folsom   | 164,696 kWh<br>36 MTCO <sub>2</sub>   |
| Berkeley FIRST  | 61,060 kWh  |
| SCEIP   | 15,967,778 kWh<br>108,156 therms  |
| CaliforniaFIRST   | 1,279,000 kWh<br>92,584 therms<br>330,000 gallons of water<br>1,711 MTCO <sub>2</sub> |
| WRCOG HERO  | 121,158,266 kWh<br>23,869,473 gallons of water  |
| SANBAG HERO   | 61,574,603 kWh<br>12,851,005 gallons of water   |
| California HERO   | 86,054,209 kWh  |

CAEATFA adopted the federal standard for job retention and creation estimates, which assumes that \$92,000 of government spending creates one job.<sup>23</sup> Using this methodology, the Program has facilitated the creation of approximately 13,870 jobs.

<sup>22</sup> Administrators use various distinct methodologies to assess environmental impact of their program.

<sup>23</sup> [https://www.whitehouse.gov/assets/documents/Job-Years\\_Revised5-8.pdf](https://www.whitehouse.gov/assets/documents/Job-Years_Revised5-8.pdf)

# CALIFORNIA HUB FOR ENERGY EFFICIENCY FINANCING (CHEEF)

## PROGRAM SUMMARY

CAEATFA serves as the manager of the California Hub for Energy Efficiency Financing (CHEEF). In this role, CAEATFA is developing several statewide energy efficiency financing pilot programs. The pilot programs were initially authorized by the California Public Utilities Commission (CPUC) in 2013, and are funded by ratepayers of the State's investor-owned utilities (IOUs): Pacific Gas & Electric (PG&E), Southern California Edison (SCE), Southern California Gas (So Cal Gas), and San Diego Gas & Electric (SDG&E). These pilot programs include various risk mitigation mechanisms to support private sector investment in energy efficiency projects, and are designed to help California achieve its aggressive energy efficiency goals by increasing the availability of lower-cost financing for these types of projects within IOU service areas. The CPUC authorized a \$65.9 million budget allocation over a two-year pilot period to support marketing, education, outreach and training; program administration; and credit enhancements. CAEATFA received legislative budget authority to serve as the master administrator of the CHEEF effective July 2014. A breakdown of the overall pilot budget is provided below.

| <b>TABLE 10: BREAKDOWN OF CHEEF BUDGET</b>   |  |
|--|--|
| <b>COST CATEGORY</b>   | <b>FUNDING AMOUNT</b>                                |
| <b>CHEEF start-up cost</b><br>(includes CAEATFA administrative and contracting costs)  | <b>\$ 5 million</b>                                  |
| <b>Marketing, education, outreach, training</b> <ul style="list-style-type: none"> <li>• Center for Sustainable Energy (CSE) statewide ME&amp;O plan</li> <li>• CAEATFA outreach to and training of lenders and contractors</li> </ul> | <b>\$ 10 million</b><br>\$ 8 million<br>\$ 2 million |
| <b>Residential sector</b><br>(includes credit enhancement funds)   | <b>\$ 26 million<sup>24</sup></b>                    |
| <b>Multi-family sector</b><br>(includes credit enhancement funds)  | <b>\$ 2.9 million</b>                                |
| <b>Non-residential sector</b> <ul style="list-style-type: none"> <li>• Small business (includes credit enhancement funds)</li> <li>• Other non-residential (no credit enhancements)</li> </ul>   | <b>\$ 14 million</b><br>\$ 14 million<br>\$ 0        |
| <b>Information Technology</b><br>(for IOU IT build-outs to accommodate on-bill infrastructure)   | <b>\$ 8 million</b>                                  |
| <b>TOTAL FUNDING FOR EE FINANCING PILOTS</b>   | <b>\$ 65.9 MILLION<sup>25</sup></b>                  |

## **POLICY BACKGROUND**

In 2009, Assembly Bill (AB) 758 (Skinner, Chapter 470, Statutes of 2009) specifically directed the CPUC to explore ratepayer-supported means to finance efficiency retrofits. The CPUC subsequently

<sup>24</sup> Of the \$26 million allocated for the residential pilot, \$1 million was directed to the Pacific Gas & Electric Company to implement IT changes to accommodate the Energy Financing Line Item Charge.

<sup>25</sup> Note that the CPUC authorized an additional \$9 million reserve, not currently allocated to the budget for the pilot programs.

## California Hub For Energy Efficiency Financing

commissioned an independent study of gaps and needs for financing (completed in 2011), followed by extensive public workshops. The study identified needs in specific market segments, and the Commission ordered the utilities to hire a consultant to design pilot finance programs. These were to be based on private capital, with credit enhancements or other support to attract capital at favorable lending terms. The public provided input on the proposed program designs in 2012 – 2013.

In September 2013, a CPUC Decision<sup>26</sup> authorized two-year pilot programs to be supported by \$65.9 million of allocated IOU ratepayer funds and serving the residential, multi-family affordable housing, small business, and other non-residential market sectors. The Decision initially identified the initial pilot term through December 2015. In 2015, CPUC Decision 15-16-008, further clarified that each pilot would be funded for a full 24 months of operations, based on the time each pilot launches in series, and further recognized that the various financings enrolled and supported by the pilots would have long-term administrative obligations and expenses beyond the initial pilot term. Based on the anticipated program development schedule, Staff expects that this will effectively take the pilot term through the 2017-18 fiscal year, and possibly into the 2018-19 fiscal year.

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

### CAEATFA'S ROLE

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

CAEATFA will issue several Requests for Proposals (RFPs) to contract services necessary to establish the administrative infrastructure for the CHEEF, including:

- *Master Servicer* – to serve as the master program administrator and manage on-bill repayment (“OBR”) transactions that include the flow of funds and data between the IOUs and participating lenders.
- *Trustee Bank* – to hold the ratepayer funds provided by the IOUs for the implementation of the various pilot programs and their respective credit enhancements.
- *Agent Bank* – to hold loan repayments from Borrowers through the utility bill, and transfer them to the various participating lenders and capitol providers.
- *Data Manager* – to compile program data on financing performance and energy savings, and present it via a publicly available web portal

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<sup>26</sup> CPUC Decision 13-09-044 Implementing the Energy Efficiency Financing Pilot Programs. September 20, 2013. <http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K182/77182202.pdf>

## California Hub For Energy Efficiency Financing

- *Contractor Manager* – to assist in contractor enrollment and management, and conduct quality control oversight of projects not participating in an IOU rebate/incentive program.
- *Technical Advisor* – to provide necessary industry and financial market expertise, and provide consultant services to CAEATFA staff.

Each of these RFPs is in a different stage of the procurement process. Information on progress made for these contracting efforts is provided below.

In addition, CAEATFA currently has legislative reimbursement and expenditure budget authority through FY 16-17.<sup>27</sup> CAEATFA will seek additional legislative budget authority to accommodate the necessary resources and the pilot implementation timeframe in future budget cycles.

### PROGRAM DESIGN

The pilot programs are structured to use two key mechanisms to support the program goals: credit enhancements and OBR. Credit enhancements (“CEs”) serve as a risk mitigation to encourage increased lending in energy efficiency retrofits. As a result of this decreased risk, lenders are expected to extend financing options to a wider array of borrower risk profiles, or to enhance the loan terms that they otherwise would have offered for energy efficiency projects. Several of the pilots will also include OBR mechanisms that will allow borrowers to repay their eligible project financing obligations through a payment on their utility bill. Including OBR in the pilots will help test whether payment on the utility bill will increase debt service performance across market sectors.

The CPUC authorized pilot programs for both the residential and non-residential sectors. The residential pilot includes CEs and OBR features for energy efficiency projects on single family residential properties.<sup>28</sup> A second pilot will include the same elements for affordable, master-metered multifamily properties.

For the non-residential sector, the pilots offer CEs and OBR for small businesses that finance the installation of energy efficiency upgrades through loans or equipment leases. Borrowers taking loans for other non-residential properties may utilize OBR in a separate pilot that will not receive any funding for CEs.

While OBR mechanisms are available in both the residential and non-residential pilots, the primary operational difference between the two sectors is that borrowers participating in the non-residential pilots may be subject to utility disconnection for non- or partial-payment of their financing charges. Borrowers in the single family and multifamily pilots will not be subject to utility service disconnection for their financings repaid on the utility bill.

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<sup>27</sup> In the budget cycle for FY 15-16, CAEATFA requested additional authority for two new positions within the existing budget authority to establish the necessary resources to implement the CHEEF. Though supported by the Department of Finance and the Legislative Analyst’s Office, this request was denied at the recommendation of legislative staff.

<sup>28</sup> The on-bill repayment feature included in the single family pilot program will only be available to customers in the Pacific Gas & Electric Company’s territory, and will be reflected as an Energy Financing Line Item Charge on the customers’ utility bill.

## California Hub For Energy Efficiency Financing

### REPORT OF 2015 ACTIVITY

#### CHEEF INFRASTRUCTURE

CAEATFA began building the necessary infrastructure for the CHEEF by executing contracts with the Master Servicer and Trustee Bank in 2015. The CAEATFA Board approved the proposed award of the Master Servicer contract to Concord Servicing Corporation and the proposed award of the Trustee contract to U.S. Bank Global Corporate Trust Services at its January 2015 Board Meeting. The Department of General Services approved the Trustee contract in March 11, 2015, and the Master Servicer contract on April 23, 2015. Both contracts were initially approved through the Pilots initial term, December 31, 2015, and will be extended annually for a full three year term.

Since the Trustee contract was approved, US Bank has worked with CAEATFA to establish the necessary holding accounts and reservations accounts. As of September 30, 2015, all of the IOUs had transferred credit enhancement funds into their holding accounts.

#### RESIDENTIAL ENERGY EFFICIENCY LOAN ASSISTANCE PROGRAM

The Residential Energy Efficiency Loan (“REEL”) Assistance Program will be the first in the sequence of pilots to launch. CAEATFA began soliciting stakeholder input in 2014, and continued to receive public comment into January 2015. The program regulations were first adopted by the CAEATFA Board as emergency regulations in February 2015, and became effective after approval by the Office of Administrative Law in March 2015. In September 2015, CAEATFA readopted the emergency regulations with some amendments to incorporate early lessons learned.

CAEATFA began the regular rulemaking process in October 2015, and at the conclusion of a 45-day public comment period, CAEATFA held a public hearing on the regulations in December 2015. CAEATFA anticipates completing the regular rulemaking process in April 2016.

With the REEL regulations effective, the Master Servicer has been establishing its functionality, processes, and procedures to enable the enrollment of participating financial institutions and eligible loans. To date, CAEATFA has enrolled two participating financial institutions, Valley Oak Credit Union and Spruce (formally Viewtech Financial Services). An overview of the participating financial institutions initially enrolled in the program is available below.

**TABLE 11: OVERVIEW OF REEL ASSISTANCE PROGRAM PARTICIPATING FINANCIAL INSTITUTIONS**

| VALLEY OAK CREDIT UNION |   |   | SPRUCE        |                     |                |
|-------------------------|---|---|---------------|---------------------|----------------|
| Borrower FICO           | Non REEL Retail Installment Contract Rate Range | REEL Loan or Retail Installment Contract Rate | Borrower FICO | Non REEL Rate Range | REEL Loan Rate |
| 780+_                   | 7.99%   | 7.99  |               |                     |                |
| 720-779                 | 7.49 to 9.99%                                   | 7.99  | 730+          | 8.95%               | 7.41           |
| 680-719                 | 8.99 to 12.24%                                  | 7.99  | 680-729       | 9.95%               | 7.91           |
| 640-679                 | 11.99 to 14.99%                                 | 8.99  | 640-679       | 11.95%              | 8.41           |
| 600-639                 | 14.99%  | 8.99  | 600-639       | 13.95%              | 8.91           |
|                         |   |   | 580-599       | 15.95%              | 9.91           |

In November 2015, the Master Servicer and CAEATFA began testing the loan enrollment process to ensure the enrollment procedures were operational, ensure the Master Servicer’s ability to evaluate loan

## **California Hub For Energy Efficiency Financing**

and project eligibility, and to identify possible functionality issues that may arise as data is uploaded onto the database being built-out for the program. As of March 2016, the loan enrollment process is fully functional, and CAEATFA/Master Servicer can operationally enroll eligible loans.

Concurrently, enrolled lenders are building their internal systems to offer their new CHEEF loan products. Once this operational infrastructure is established, CAEATFA will begin enrolling qualified contractors. CAEATFA anticipates its first loan enrollment in the spring of 2016. Concurrently, CAEATFA is implementing outreach plans to enroll more lenders into the REEL program.

### **OB-BILL REPAYMENT INFRASTRUCTURE**

As noted above, several of the Pilot Programs will include On-Bill Repayment (“OBR”) as a key feature which enables a lenders loan to be repaid on a Borrower’s utility bill. Throughout 2015, CAEATFA staff has worked in conjunction with the Investor-Owned Utilities and the Master Servicer to lay the foundation to establish the OBR infrastructure, both at the Master Servicer and in the IOUs billing systems.

One key component of the OBR infrastructure is the Data Exchange Protocol (DEP), which establishes the specific data points, file layout and frequency under which data and payments will be exchanged via secure and automated processes between the MS and IOUs. This will enable the IOUs to remit payment data securely to the MS/Agent Bank. CAEATFA, the MS and the IOUs worked through multiple residential and commercial customer data scenarios, making significant strides toward finalizing the Data Exchange Protocol (DEP) during this period. Though mostly significant for the on-bill pilots, the DEP is critical for the sharing of customer energy consumption data within the REEL program as well. CAEATFA expects the DEP to be finalized in early 2016, which will be followed by the IOUs and Master Servicer’s build-out of their systems, and the establishment of a testing plan to be ready for pilot implementation. Once the testing plan is finalized, CAEATFA will be able to determine the timeframes for the launch of the OBR Pilot Programs.

### **NEXT STEPS**

With the REEL Assistance Program ready to launch and the OBR infrastructure under development, CAEATFA will continue to develop the program design for the other pilots throughout 2016, with the pilots for the multifamily, small business, and other non-residential markets to subsequently phase-in. For each pilot program, CAEATFA will engage stakeholders and potential program participants in a robust public process to develop program regulations that best support the market needs and policy goals of the pilots.

Staff will also further develop scopes of work for the Contractor Manager, Data Manager, and Technical Advisor. Staff expects to enter into contracts to fulfill these roles throughout 2016-2017.

In future years, CAEATFA will work with the CPUC, IOUs, program participants and stakeholders to evaluate program activity and effectiveness. Staff will implement changes to the pilot programs as deemed appropriate by such evaluations.

# CLEAN ENERGY UPGRADE FINANCING PROGRAM

## PROGRAM SUMMARY

### LEGISLATIVE BACKGROUND

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

**Figure 4: Energy Efficiency Measures Under the Clean Energy Upgrade Financing Program**



Pursuant to Public Resources Code Section 26081, Table 10 provides a status of the account for the Clean Energy Upgrade Financing Program through fiscal year 2014-2015. CAEATFA transferred an initial \$5,000,000 to its trustee bank to launch the program. As of December 31, 2014, \$599,051.18 in loss reserve contributions had been encumbered on behalf of lenders for their enrolled loans. Of the initial \$5,000,000 transferred to the trustee bank, \$4,400,948.82 in unencumbered funds was returned to the California Energy Commission in April 2015.

**TABLE 12: STATUS OF CLEAN ENERGY UPGRADE FINANCING PROGRAM FUNDS**

| Costs                | FY 09/10 | FY 10/11 | FY 11/12                  | FY 12/13  | FY 13/14  | FY 14/15 | FY 15/16 | Total Expenditures      | Remaining Funds <sup>29</sup> |
|----------------------|----------|----------|---------------------------|-----------|-----------|----------|----------|-------------------------|-------------------------------|
| Administrative       | \$2,928  | \$26,666 | \$155,380                 | \$183,101 | \$123,661 | \$20,762 | \$0      | \$512,498 <sup>30</sup> | \$37,501                      |
| Financial Assistance | \$0      | \$0      | \$5,000,000 <sup>31</sup> | \$0       | \$0       | \$0      | \$0      | \$5,000,000             | \$20,000,000                  |

<sup>29</sup> The status of the funds reported in this table reflects the amounts as of June 30, 2014. The table does not include the impact of expenditures to date in the current fiscal year (2014-2015).

<sup>30</sup> Numbers may not sum to total due to rounding.

<sup>31</sup> Of the initial \$5,000,000 in financial assistance, \$599,051.18 is encumbered for participating lenders and \$4,400,948.82 was returned to the Renewable Resource Trust Fund of the California Energy Commission in April 2015.

# Clean Energy Upgrade Financing Program

## PROGRAM DESIGN

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

For each loan enrolled in the program, CAEATFA provided a contribution to a loss reserve account for the associated lender. The Program was designed with a tiered structure for loss reserve contributions. This assisted lenders by providing a high loss reserve contribution, equal to 15 percent of the enrolled loan value, early in the process as they built their loss reserve account. The loss reserve contribution decreased to 10 percent of the enrolled loan value as the lender enrolled more loans in the Program.

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

## REPORT ON 2015 PROGRAM ACTIVITY

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

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

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

Since the first loan enrollments in December 2012, CAEATFA had enrolled 386 energy efficiency retrofit loans across 11 counties in the Program.<sup>32</sup> Participating lenders enrolled loans for borrowers with FICO credit scores ranging from 653 to 818, with a median FICO score of 776. Loan amounts have ranged from \$3,917 to \$50,000, with a median value of \$13,847. The majority of enrolled loans have a 10-year term; however, participating lenders enrolled loans with terms ranging from 5 to 15 years.<sup>33</sup> Lenders estimated that their borrowers would save, on average, \$1,615.50 in financing costs and 24% in annual energy savings (in kilowatt-hours).<sup>34</sup>

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<sup>32</sup> Two of the loans were enrolled in the 2012 calendar year, 203 were enrolled in the 2013 calendar year, and the remaining 181 loans were enrolled in the 2014 calendar year. Loans were enrolled in the following counties: Alameda, Contra Costa, Los Angeles, Marin, Placer, Sacramento, San Francisco, San Luis Obispo, Santa Clara, Shasta, and Ventura.

<sup>33</sup> The loan loss reserve covers loans for 10 years; loans with longer terms will not have access to the loss reserve after that period.

<sup>34</sup> The energy saving values provided in this report are estimates reported by contractors that participate in the program, and their evaluation tools vary. For some projects, energy savings were estimated using the Energy Pro software, while others used methodologies provided by the borrower's utility company.

## **Clean Energy Upgrade Financing Program**

In 2015, CAEATFA received one claim from an enrolled lender, Matadors Community Credit Union, for \$33,012.58, which was paid to the lender pursuant to program regulations.

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

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

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

| <b>TABLE A.1: STE ALTERNATIVE SOURCE AND ADVANCED TRANSPORTATION PROJECTS – APPROVED, ACTIVE</b> |                             |                         |  |                                   |                 |  |                                       |                               |  |                                       |                                    |                     |   |    |
|--|-----------------------------|-------------------------|--|-----------------------------------|-----------------|--|---------------------------------------|-------------------------------|--|---------------------------------------|------------------------------------|---------------------|---|----|
| Application Number   | Date of Board Consideration | Applicant Name          | City   | County                            | Use of Proceeds | QP Amount  | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |    |
| 1  | 10-SM002                    | 11/17/2010              | <b>ABEC Bidart Stockdale, LLC</b>            | Bakersfield                       | Kern            | Biogas Capture & Production                            | \$1,131,584                           | \$102,974                     | \$90,622                                     | \$228,808                             | \$73,809                           | \$199,643           | 26  | 3  |
| 2  | 10-SM004                    | 11/17/2010              | <b>First Solar, Inc.</b>                     | Santa Clara                       | Santa Clara     | Solar Photovoltaic Manufacturing                       | \$37,700,000                          | \$3,430,700                   | \$3,409,567                                  | \$1,668,971                           | \$1,971,559                        | \$209,831           | 174                                       | 17 |
| 3  | 10-SM007                    | 11/17/2010              | <b>The Solaria Corporation</b>               | Fremont                           | Alameda         | Solar Photovoltaic Manufacturing                       | \$7,800,000                           | \$709,800                     | \$375,885                                    | \$834,403                             | \$1,564,665                        | \$1,689,268         | 180                                       | 17 |
| 4  | 10-SM013                    | 11/17/2010              | <b>NuvoSun Incorporated</b>                  | Milpitas                          | Santa Clara     | Solar Photovoltaic Manufacturing                       | \$20,000,000                          | \$1,820,000                   | \$1,736,128                                  | \$2,137,232                           | \$2,594,509                        | \$2,911,741         | 160                                       | 18 |
| 5  | 10-SM015                    | 11/17/2010              | <b>Bloom Energy Corporation</b>              | Sunnyvale                         | Santa Clara     | Solid Oxide Fuel Cell Systems Manufacturing            | \$37,447,693                          | \$3,407,740                   | \$2,465,021                                  | \$562,054                             | \$11,144,189                       | \$8,298,503         | 1,004                                     | 83 |
| 6  | 10-SM020                    | 12/15/2010              | <b>Ameresco Butte County LLC</b>             | Paradise                          | Butte           | Landfill Gas Capture and Production                    | \$1,085,554                           | \$98,785                      | \$62,105                                     | \$71,701                              | \$185,955                          | \$158,870           | 12  | 1  |
| 7  | 10-SM022                    | 12/15/2010              | <b>Ameresco Forward LLC</b>                  | Manteca                           | San Joaquin     | Landfill Gas Capture and Production                    | \$2,227,596                           | \$202,711                     | \$119,409                                    | \$37,823                              | \$277,169                          | \$112,281           | 11  | 1  |
| 8  | 10-SM023                    | 12/15/2010              | <b>Ameresco Johnson Canyon LLC</b>           | Gonzales                          | Monterey        | Landfill Gas Capture and Production                    | \$766,293                             | \$69,733                      | \$53,372                                     | \$33,124                              | \$168,912                          | \$132,303           | 12  | 1  |
| 9  | 10-SM024                    | 12/15/2010              | <b>Ameresco San Joaquin LLC</b>              | Linden                            | San Joaquin     | Landfill Gas Capture and Production                    | \$1,723,486                           | \$156,837                     | \$113,649                                    | \$99,894                              | \$419,234                          | \$362,292           | 12  | 1  |
| 10   | 10-SM025                    | 12/15/2010              | <b>Ameresco Vasco Road LLC</b>               | Livermore                         | Alameda         | Landfill Gas Capture and Production                    | \$1,828,204                           | \$166,367                     | \$112,036                                    | \$66,258                              | \$333,415                          | \$233,306           | 11  | 1  |
| 11   | 10-SM026                    | 12/15/2010              | <b>BioFuels Point Loma, LLC</b>              | San Diego                         | San Diego       | Wastewater Treatment Biogas Capture and Production     | \$6,236,024                           | \$567,478                     | \$449,162                                    | \$120,126                             | \$509,292                          | \$61,939            | 25  | 3  |
| 12   | 10-SM028                    | 12/15/2010              | <b>California Institute of Technology</b>    | Pasadena                          | Los Angeles     | Research & Development of Solar Fuel Generator Systems | \$13,400,000                          | \$1,219,400                   | \$996,694                                    | \$0                                   | \$702,662                          | -\$516,738          | 133                                       | 15 |
| 13   | 10-SM012                    | 12/15/2010              | <b>SunPower Corporation</b>                  | Milpitas                          | Santa Clara     | Solar Photovoltaic Manufacturing                       | \$8,000,000                           | \$728,000                     | \$704,816                                    | \$903,595                             | \$1,877,730                        | \$2,053,325         | 94  | 11 |
| 14   | 11-SM001                    | 1/25/2011               | <b>Leyden Energy, Inc.</b>                   | Fremont                           | Alameda         | Lithium Ion Battery Manufacturing                      | \$1,306,525                           | \$118,894                     | \$99,647                                     | \$21,400                              | \$944,754                          | \$847,260           | 26  | 2  |
| 15   | 11-SM003                    | 1/25/2011               | <b>Alameda-Contra Costa Transit District</b> | Emeryville                        | Alameda         | Demonstration Hydrogen Fuel Production                 | \$5,387,950                           | \$490,303                     | \$362,320                                    | \$16,040                              | \$274,173                          | -\$200,090          | 6   | 1  |
| 16   | 10-SM010                    | 12/15/2010<br>2/22/2011 | <b>Simbol, Inc.</b>                          | Calipatria,<br>Niland,<br>Brawley | Imperial        | Lithium and Battery Material Manufacturing             | \$42,484,174                          | \$3,866,060                   | \$164,278                                    | \$558,363                             | \$9,552,414                        | \$6,244,717         | 212                                       | 23 |
| 17   | 11-SM006                    | 3/22/2011               | <b>Mt. Poso Cogeneration Company, LLC</b>    | Bakersfield                       | Kern            | Biomass Processing and Fuel Production                 | \$14,374,000                          | \$1,308,034                   | \$1,164,294                                  | \$197,027                             | \$3,470,273                        | \$2,359,266         | 97  | 11 |
| 18   | 11-SM005                    | 6/28/2011               | <b>Recology East Bay</b>                     | Oakland                           | Alameda         | Biomass Processing and Fuel Production                 | \$3,703,090                           | \$336,981                     | \$0  | \$111,243                             | \$506,852                          | \$281,113           | 46  | 5  |

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

| Application Number | Date of Board Consideration | Applicant Name | City  | County                                    | Use of Proceeds                              | QP Amount                                   | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |     |
|--------------------|-----------------------------|----------------|---|---|--|---|---------------------------------------|-------------------------------|--|---------------------------------------|------------------------------------|---------------------|---|-----|
| 19                 | 11-SM009                    | 6/28/2011      | <b>DTE Stockton, LLC</b>                          | Stockton                                  | San Joaquin                                  | Biomass Processing and Fuel Production      | \$10,120,000                          | \$920,920                     | \$823,638                                    | \$2,221,793                           | \$4,297,636                        | \$5,598,509         | 62  | 7   |
| 20                 | 11-SM010                    | 7/26/2011      | <b>SCS Energy</b>                                 | Fresno                                    | Fresno                                       | Biogas Capture & Production                 | \$3,155,300                           | \$255,579                     | \$247,020                                    | \$40,230                              | \$271,233                          | \$55,884            | 9   | 1   |
| 21                 | 11-SM012                    | 8/23/2011      | <b>CE Obsidian Energy, LLC</b>                    | Imperial                                  | Imperial                                     | Geothermal Brine Extraction                 | \$174,453,978                         | \$14,130,772                  | \$0  | \$7,487,143                           | \$11,697,269                       | \$5,053,640         | 381                                       | 39  |
| 22                 | 11-SM019                    | 11/15/2011     | <b>Zero Waste Energy Development Company, LLC</b> | San Jose                                  | Santa Clara                                  | Biogas Capture & Production                 | \$17,156,875                          | \$1,389,707                   | \$942,179                                    | \$1,355,423                           | \$2,233,575                        | \$2,199,291         | 174                                       | 17  |
| 23                 | 11-SM016                    | 12/13/2011     | <b>Tesla Motors, Inc.</b>                         | Fremont; Hawthorne; Palo Alto; Menlo Park | Alameda; Los Angeles; Santa Clara; San Mateo | Electric Vehicle Manufacturing              | \$292,000,000                         | \$23,652,000                  | \$6,809,801                                  | \$2,386,636                           | \$35,023,610                       | \$13,758,246        | 1,237                                     | 108 |
| 24                 | 12-SM001                    | 2/21/2012      | <b>Soraa, Inc.</b>                                | Fremont                                   | Alameda                                      | Energy Efficient LED Lighting Manufacturing | \$57,002,457                          | \$4,617,199                   | \$1,590,122                                  | \$30,775,968                          | \$2,368,664                        | \$28,527,434        | 180                                       | 14  |
| 25                 | 12-SM003                    | 3/20/2012      | <b>Stion Corporation</b>                          | San Jose                                  | Santa Clara                                  | Solar Photovoltaic Manufacturing            | \$6,417,810                           | \$519,843                     | \$490,542                                    | \$277,896                             | \$253,546                          | \$11,600            | 28  | 3   |
| 26                 | 12-SM006                    | 5/15/2012      | <b>John Galt Biogas Inc.</b>                      | Galt                                      | Sacramento                                   | Biogas Capture & Production                 | \$1,025,769                           | \$83,087                      | \$61,712                                     | \$112,933                             | \$128,931                          | \$158,777           | 19  | 2   |
| 27                 | 12-SM007                    | 5/15/2012      | <b>Reflexite Soitec Optical Technology LLC</b>    | San Diego                                 | San Diego                                    | Concentrated Photovoltaic Manufacturing     | \$24,500,000                          | \$1,984,500                   | \$2,005,024                                  | \$357,750                             | \$1,704,725                        | \$77,975            | 114                                       | 8   |
| 28                 | 12-SM008                    | 6/19/2012      | <b>North Star Biofuels LLC</b>                    | Watsonville                               | Santa Cruz                                   | Biodiesel Production                        | \$4,115,500                           | \$343,866                     | \$343,220                                    | \$84,522                              | \$2,616,810                        | \$2,367,976         | 30  | 1   |
| 29                 | 12-SM010                    | 10/16/2012     | <b>Electric Vehicles International, LLC</b>       | Stockton                                  | San Joaquin                                  | Electric Vehicle Manufacturing              | \$5,744,962                           | \$465,342                     | \$256,836                                    | \$83,283                              | \$906,571                          | \$524,512           | 114                                       | 8   |
| 30                 | 12-SM011                    | 10/16/2012     | <b>Clean World Partners LLC</b>                   | Sacramento                                | Sacramento                                   | Biomass Processing and Fuel Production      | \$11,796,759                          | \$955,537                     | \$0  | \$204,651                             | \$977,083                          | \$226,196           | 24  | 3   |
| 31                 | 12-SM009                    | 10/16/2012     | <b>ABEC New Hope LLC</b>                          | Galt                                      | Sacramento                                   | Biogas Capture & Production                 | \$2,633,359                           | \$213,302                     | \$84,096                                     | \$41,150                              | \$208,573                          | \$36,421            | 22  | 3   |
| 32                 | 12-SM012                    | 11/13/2012     | <b>Zero Waste Energy, LLC</b>                     | Marina                                    | Monterey                                     | Biogas Capture & Production                 | \$1,187,000                           | \$96,147                      | \$94,295                                     | \$18,139                              | \$95,062                           | \$17,054            | 5   | 1   |
| 33                 | 12-SM013                    | 11/13/2012     | <b>Oberon Fuels, Inc.</b>                         | Brawley                                   | Imperial                                     | Biogas Capture & Bio DME Production         | \$13,500,000                          | \$1,093,500                   | \$47,558                                     | \$423,866                             | \$679,196                          | \$9,561             | 17  | 3   |
| 34                 | 13-SM001                    | 1/15/2013      | <b>CleanWorld</b>                                 | Davis                                     | Yolo   | Biomass Processing and Fuel Production      | \$5,851,298                           | \$489,754                     | \$459,934                                    | \$106,588                             | \$506,088                          | \$122,923           | 24  | 3   |
| 35                 | 13-SM002                    | 3/19/2013      | <b>Buster Biofuels, LLC</b>                       | Escondido                                 | San Diego                                    | Biodiesel Production                        | \$1,905,343                           | \$159,477                     | \$133,670                                    | \$103,496                             | \$786,032                          | \$730,051           | 32  | 2   |
| 36                 | 13-SM004                    | 4/16/2013      | <b>EJ Harrison and Sons Rentals, Inc.</b>         | Oxnard                                    | Ventura                                      | Biogas Capture & Production                 | \$1,212,095                           | \$101,452                     | \$0  | \$19,311                              | \$108,487                          | \$26,345            | 6   | 1   |
| 37                 | 13-SM005                    | 4/16/2013      | <b>Vitriflex, Inc.</b>                            | Milpitas                                  | Santa Clara                                  | Photovoltaic Solar Component Manufacturing  | \$16,330,000                          | \$1,366,821                   | \$372,404                                    | \$1,256,397                           | \$886,066                          | \$775,642           | 47  | 4   |
| 38                 | 13-SM007                    | 6/18/2013      | <b>ABEC Bidart-Old River, LLC</b>                 | Bakersfield                               | Kern   | Biogas Capture & Production                 | \$6,254,045                           | \$523,464                     | \$328,667                                    | \$351,613                             | \$523,038                          | \$351,188           | 28  | 2   |

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

| Application Number | Date of Board Consideration | Applicant Name | City   | County                        | Use of Proceeds                   | QP Amount                                       | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |     |
|--------------------|-----------------------------|----------------|--|-------------------------------|-----------------------------------|---|---------------------------------------|-------------------------------|--|---------------------------------------|------------------------------------|---------------------|---|-----|
| 39                 | 13-SM009                    | 8/20/2013      | <b>North State Rendering Co Inc.</b>         | Oroville                      | Butte                             | Biomass Processing and Fuel Production Facility | \$7,355,324                           | \$615,641                     | \$531,807                                    | \$305,075                             | \$422,917                          | \$112,351           | 12  | 2   |
| 40                 | 13-SM010                    | 9/17/2013      | <b>Central Valley Ag Power, LLC</b>          | Oakdale                       | Stanislaus                        | Biomass Processing and Fuel Production Facility | \$3,481,313                           | \$291,386                     | \$0  | \$38,218                              | \$394,801                          | \$141,634           | 23  | 2   |
| 41                 | 13-SM011                    | 10/15/2013     | <b>Blue Line Transfer, Inc.</b>              | S. San Francisco              | San Mateo                         | Biomass Processing and Fuel Production Facility | \$4,976,469                           | \$416,530                     | \$326,788                                    | \$43,980                              | \$423,841                          | \$51,291            | 20  | 3   |
| 42                 | 13-SM013                    | 11/19/2013     | <b>Crimson Renewable Energy, LP</b>          | Bakersfield                   | Kern                              | Biomass Processing and Fuel Production Facility | \$14,065,000                          | \$1,177,241                   | \$467,037                                    | \$136,306                             | \$2,737,899                        | \$1,696,964         | 38  | 2   |
| 43                 | 13-SM015                    | 12/17/2013     | <b>Tesla Motors, Inc.</b>                    | Fremont, Palo Alto, Hawthorne | Alameda, Santa Clara, Los Angeles | Electric Vehicle Manufacturing                  | \$415,000,000                         | \$34,735,500                  | \$11,256,907                                 | \$4,847,406                           | \$54,306,869                       | \$24,418,775        | 2,050                                     | 115 |
| 44                 | 14-SM004                    | 5/20/2014      | <b>Pixley Biogas, LLC</b>                    | Pixley                        | Tulare                            | Biogas Capture and Production                   | \$3,363,238                           | \$283,185                     | \$270,061                                    | \$287,308                             | \$321,007                          | \$325,130           | 9   | 2   |
| 45                 | 14-SM005                    | 5/20/2014      | <b>MSB Investors, LLC</b>                    | Santa Barbara                 | Santa Barbara                     | Biogas Capture and Production                   | \$17,696,003                          | \$1,490,003                   | \$0  | \$319,442                             | \$1,392,985                        | \$222,423           | 75  | 5   |
| 46                 | 14-SM006                    | 5/20/2014      | <b>Recology, Inc.</b>                        | Vacaville                     | Solano                            | Biogas Capture and Production                   | \$25,967,035                          | \$2,186,424                   | \$0  | \$271,168                             | \$2,747,503                        | \$832,247           | 57  | 8   |
| 47                 | 14-SM007                    | 5/20/2014      | <b>E&amp;J Gallo Winery</b>                  | Livingston                    | Merced                            | Biogas Capture and Production                   | \$17,592,381                          | \$1,481,278                   | \$1,082,013                                  | \$356,059                             | \$1,120,550                        | \$4,670             | 57  | 8   |
| 48                 | 14-SM010                    | 8/19/2014      | <b>AltAir Paramount, LLC</b>                 | Paramount                     | Los Angeles                       | Renewable Diesel Production                     | \$16,325,984                          | \$1,374,648                   | \$890,768                                    | \$287,233                             | \$6,023,164                        | \$4,935,750         | 141                                       | 3   |
| 49                 | 14-SM014                    | 8/19/2014      | <b>Mendota Bioenergy, LLC</b>                | Mendota                       | Fresno                            | Biogas Capture & Production                     | \$2,200,000                           | \$185,240                     | \$10,045                                     | \$165,281                             | \$304,456                          | \$285,037           | 40  | 2   |
| 50                 | 14-SM011                    | 9/16/2014      | <b>Rialto Bioenergy Facility, LLC</b>        | Bloomington                   | San Bernardino                    | Biogas Capture & Production                     | \$14,722,168                          | \$1,239,607                   | \$0  | \$765,232                             | \$1,662,628                        | \$1,188,254         | 35  | 3   |
| 51                 | 14-SM012                    | 9/16/2014      | <b>Anaheim Energy, LLC</b>                   | Anaheim                       | Orange                            | Biogas Capture & Production                     | \$19,143,601                          | \$1,611,891                   | \$93,153                                     | \$568,979                             | \$1,938,411                        | \$895,499           | 40  | 5   |
| 52                 | 14-SM019                    | 10/21/2014     | <b>Solexel, Inc.</b>                         | Milpitas                      | Santa Clara                       | Solar Photovoltaic Manufacturing                | \$20,500,000                          | \$1,726,100                   | \$1,726,100                                  | \$1,261,678                           | \$475,809                          | \$11,387            | 128                                       | 11  |
| 53                 | 14-SM022                    | 12/16/2014     | <b>Bowerman Power LFG, LLC</b>               | Irvine                        | Orange                            | Landfill Gas Capture and Production             | \$7,030,000                           | \$591,926                     | \$520,311                                    | \$273,723                             | \$1,091,792                        | \$773,589           | 30  | 3   |
| 54                 | 14-SM023                    | 1/20/2015      | <b>WM Renewable Energy, LLC</b>              | Novato                        | Marin                             | Biogas Capture & Production                     | \$2,004,360                           | \$168,767                     | \$39,630                                     | \$71,130                              | \$347,143                          | \$249,507           | 19  | 1   |
| 55                 | 14-SM025                    | 2/17/2015      | <b>Silevo, Inc.</b>                          | Fremont                       | Alameda                           | Solar Photovoltaic Manufacturing                | \$106,551,184                         | \$8,971,610                   | \$5,824,877                                  | \$3,402,597                           | \$9,175,513                        | \$3,606,500         | 319                                       | 33  |
| 56                 | 15-SM006                    | 4/21/2015      | <b>California Renewable Power, LLC</b>       | Perris                        | Riverside                         | Biogas Capture and Production                   | \$13,079,755                          | \$1,101,315                   | \$934,815                                    | \$137,797                             | \$1,839,848                        | \$876,329           | 48  | 4   |
| 57                 | 15-SM006                    | 6/16/2015      | <b>Efficient Drivetrains, Inc.</b>           | Milpitas                      | Santa Clara                       | Advanced Transportation                         | \$5,008,800                           | \$421,741                     | \$0  | \$1,434,548                           | \$970,990                          | \$1,983,797         | 57  | 4   |
| 58                 | 15-SM009                    | 7/21/2015      | <b>Las Gallinas Valley Sanitary District</b> | San Rafael                    | Marin                             | Alternative Source                              | \$788,757                             | \$66,413                      | \$66,413                                     | \$10,707                              | \$44,765                           | \$(10,941)          | 7   | 0   |

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

| Application Number | Date of Board Consideration | Applicant Name | City                          | County   | Use of Proceeds   | QP Amount                      | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |    |
|--------------------|-----------------------------|----------------|-------------------------------|--|---|--------------------------------|---------------------------------------|-------------------------------|--|---------------------------------------|------------------------------------|---------------------|---|----|
| 59                 | 15-SM014                    | 10/20/2015     | Madera Renewable Energy, LLC  | Madera   | Madera  | Biogas Capture & Production    | \$1,999,507                           | \$168,358                     | \$0  | \$418,611                             | \$201,299                          | \$451,481           | 7   | 1  |
| 60                 | 15-SM015                    | 10/20/2015     | Hanford Renewable Energy, LLC | Hanford  | Kings   | Biogas Capture & Production    | \$3,748,012                           | \$315,583                     | \$0  | \$974,447                             | \$435,837                          | \$1,094,701         | 9   | 1  |
| 61                 | 15-SM013                    | 12/15/2015     | ABEC #2 LLC                   | Buttonwillow                                       | Kern  | Biogas Capture & Production    | \$5,990,614                           | \$504,410                     | \$0  | \$180,513                             | \$618,883                          | \$294,986           | 14  | 0  |
| 62                 | 15-SM024                    | 12/15/2015     | Tesla Motors, Inc.            | Fremont; Hawthorne; Palo Alto; Menlo Park; Lathrop | Alameda; Los Angeles; Santa Clara; San Mateo; San Joaquin | Electric Vehicle Manufacturing | \$254,297,428                         | \$21,411,843                  | \$0  | \$2,614,300                           | \$33,920,838                       | \$15,123,295        | 789                                       | 22 |
| <b>TOTAL:</b>      |                             |                |                               |  |   | <b>\$1,845,851,656</b>         | <b>\$154,699,708</b>                  | <b>\$64,695,697</b>           | <b>\$74,845,588</b>                          | <b>\$225,763,509</b>                  | <b>\$145,632,711</b>               | <b>8,817</b>        | <b>684</b>                                |    |

**TABLE A.2: STE ADV. MANUFACTURING PROJECTS – APPROVED, ACTIVE**

| Application Number | Date of Board Consideration | Applicant Name | City                             | County                | Use of Proceeds             | QP Amount  | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |
|--------------------|-----------------------------|----------------|----------------------------------|-----------------------|-----------------------------|--|---------------------------------------|-------------------------------|--|---------------------------------------|------------------------------------|---------------------|---|
| 1                  | 13-SM012                    | 12/17/2013     | CE&P Imperial Valley 1, LLC      | Brawley               | Imperial                    | Industrial Biotechnology   | \$444,811,275                         | \$37,230,704                  | \$0  | \$51,344,220                          |                                    | 650                 | 84  |
| 2                  | 13-SM014                    | 12/17/2013     | Boxer Industries, Inc.           | Redwood City          | San Mateo                   | Advanced Materials   | \$6,553,000                           | \$548,486                     | \$420,466                                    | \$539,522                             |                                    | 12                  | 1   |
| 3                  | 14-SM001                    | 2/18/2014      | Enovix Corporation               | Fremont               | Alameda                     | Lithium Ion Battery Production   | \$16,234,215                          | \$1,358,804                   | \$233,641                                    | \$1,920,567                           |                                    | 55                  | 4   |
| 4                  | 14-SM008                    | 6/17/2014      | Niagara Bottling, LLC            | San Bernardino        | San Bernardino              | Integrated Computational Materials Engineering – Water Bottling Facility | \$30,000,000                          | \$2,526,000                   | \$2,423,376                                  | \$7,988,338                           |                                    | 86                  | 6   |
| 5                  | 14-SM009                    | 7/15/2014      | nanoPrecision Products, Inc.     | El Segundo, Camarillo | Los Angeles, Ventura        | Advanced Materials   | \$7,963,792                           | \$670,566                     | \$370,391                                    | \$840,081                             |                                    | 50                  | 4   |
| 6                  | 14-SM013                    | 9/16/2014      | Lockheed Martin Corporation      | Palmdale, Helendale   | Los Angeles, San Bernardino | Advanced Materials   | \$345,296,354                         | \$29,073,953                  | \$0  | \$38,053,138                          |                                    | 1,213               | 91  |
| 7                  | 14-SM021                    | 1/20/2015      | Pacific Ethanol Madera, LLC      | Madera                | Madera                      | Industrial Biotechnology - Corn Oil Production                           | \$4,763,500                           | \$401,087                     | \$271,375                                    | \$988,793                             |                                    | 3                   | 0   |
| 8                  | 15-SM005                    | 4/21/2015      | GKN Aerospace Chem-Tronics, Inc. | Santa Ana             | Orange                      | Advanced Materials   | \$118,687,529                         | \$9,993,490                   | \$882,312                                    | \$8,483,497                           |                                    | 231                 | 13  |
| 9                  | 15-SM003                    | 5/19/2015      | Weber Metals, Inc.               | Paramount             | Los Angeles                 | Advanced Materials   | \$167,661,606                         | \$14,117,107                  | \$49,771                                     | \$35,048,735                          |                                    | 192                 | 18  |

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

| Application Number | Date of Board Consideration | Applicant Name | City  | County           | Use of Proceeds | QP Amount                                      | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |
|--------------------|-----------------------------|----------------|---|------------------|-----------------|--|---------------------------------------|-------------------------------|--|---------------------------------------|------------------------------------|---------------------|---|
| 10                 | 15-SM005                    | 6/16/2015      | U.S. Corrugated of Los Angeles, Inc.          | Santa Fe Springs | Los Angeles     | Integrated Computational Materials             | \$23,969,087                          | \$2,018,197                   | \$2,018,197                                  |                                       |                                    | 160                 | 13  |
| 11                 | 15-SM007                    | 6/16/2015      | The Monadnock Company                         | Industry         | Los Angeles     | Advanced Materials                             | \$6,475,000                           | \$545,195                     | \$30,590                                     |                                       |                                    | 299                 | 10  |
| 12                 | 15-SM008                    | 7/21/2015      | Hi Shear Corporation                          | Toerrance        | Los Angeles     | Advanced Materials                             | \$39,385,000                          | \$3,316,217                   | \$306,366                                    |                                       |                                    | 1,117               | 43  |
| 13                 | 15-SM011                    | 8/18/2015      | Orbital ATK, Inc.                             | Northridge       | Los Angeles     | Advanced Materials                             | \$16,275,154                          | \$1,370,368                   | \$0  |                                       |                                    | 320                 | 10  |
| 14                 | 15-SM012                    | 9/15/2015      | Rolls-Royce High Temperature Composites, Inc. | Huntington Beach | Orange          | Advanced Materials                             | \$8,728,000                           | \$734,898                     | \$167,506                                    |                                       |                                    | 105                 | 6   |
| 15                 | 15-SM010                    | 10/20/2015     | Karma Automotive LLC                          | Moreno Valley    | Riverside       | Integrated Computational Materials Engineering | \$38,194,860                          | \$3,216,007                   | \$207,987                                    |                                       |                                    | 205                 | 16  |
| 16                 | 15-SM016                    | 10/20/2015     | Space Exploration Technologies Corp.          | Hawthorne        | Los Angeles     | Additive Manufacturing                         | \$360,169,639                         | \$30,326,284                  | \$84,139                                     |                                       |                                    | 4,200               | 183                                       |
| 17                 | 15-SM017                    | 11/17/2015     | Space Systems/Loral LLC                       | Palo Alto        | Santa Clara     | Micro and Nanoelectronics                      | \$5,586,000                           | \$470,341                     | \$0  |                                       |                                    | 354                 | 3   |
| 18                 | 15-SM020                    | 12/15/2015     | Millennium Space Systems, Inc..               | El Segundo       | Los Angeles     | Advanced Materials                             | \$4,284,672                           | \$360,769                     | \$0  |                                       |                                    | 55                  | 4   |
| <b>TOTAL:</b>      |                             |                |   |                  |                 | <b>\$1,645,038,683</b>                         | <b>\$138,278,473</b>                  | <b>\$7,466,118</b>            |  | <b>\$205,488,655</b>                  |                                    | <b>9,307</b>        | <b>509</b>                                |

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

| <b>TABLE A.3: STE ALT. SOURCE, ADV. TRANSPORTATION AND ADV. MANUFACTURING PROJECTS – APPROVED, INACTIVE</b> |                             |                |  |                      |                     |                                     |                                       |                               |  |                                       |                                    |                     |   |     |
|---|-----------------------------|----------------|--|----------------------|---------------------|-------------------------------------|---------------------------------------|-------------------------------|--|---------------------------------------|------------------------------------|---------------------|---|-----|
| Application Number  | Date of Board Consideration | Applicant Name | City   | County               | Use of Proceeds     | QP Amount                           | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |     |
| 1   | 10-SM003                    | 11/17/2010     | <b>ABEC Bidart Old River, LLC</b>                        | Bakersfield          | Kern                | Biogas Capture & Production         | \$4,738,000                           | \$431,158                     | \$0  | \$3,080,806                           | \$438,844                          | \$3,088,491         | 50  | 6   |
| 2   | 10-SM005                    | 11/17/2010     | <b>Gallo Cattle Company</b>                              | Atwater              | Merced              | Biogas Capture & Production         | \$1,245,000                           | \$113,295                     | \$0  | \$791,959                             | \$130,374                          | \$809,038           | 30  | 3   |
| 3   | 10-SM006                    | 11/17/2010     | <b>Solyndra LLC</b>                                      | Fremont              | Alameda             | Solar Photovoltaic Manufacturing    | \$381,776,000                         | \$34,741,616                  | \$25,127,322                                 | \$22,202,363                          | \$20,765,274                       | \$8,226,021         | 2,084                                     | 225 |
| 4   | 100SM011                    | 11/17/2010     | <b>Stion Corporation</b>                                 | San Jose             | Santa Clara         | Solar Photovoltaic Manufacturing    | \$105,473,402                         | \$9,598,080                   | \$0  | \$3,512,324                           | \$6,207,404                        | \$121,648           | 493                                       | 47  |
| 5   | 10-SM014                    | 11/17/2010     | <b>Calisolar Inc.</b>                                    | Sunnyvale            | Santa Clara         | Solar Photovoltaic Manufacturing    | \$39,000,000                          | \$3,549,000                   | \$0  | \$1,971,609                           | \$1,975,797                        | \$398,407           | 273                                       | 13  |
| 6   | 10-SM009                    | 11/17/2010     | <b>Nanosolar Inc.</b>                                    | San Jose             | Santa Clara         | Solar Photovoltaic Manufacturing    | \$140,187,900                         | \$12,757,099                  | \$4,306,412                                  | \$10,527,415                          | \$6,992,728                        | \$4,763,045         | 410                                       | 36  |
| 7   | 10-SM016                    | 12/15/2010     | <b>Quantum Fuel Systems Technologies Worldwide, Inc.</b> | Irvine               | Orange              | Solar Photovoltaic Manufacturing    | \$8,945,858                           | \$814,073                     | \$0  | \$508,282                             | \$5,895,571                        | \$5,589,780         | 94  | 11  |
| 8   | 10-SM018                    | 12/15/2010     | <b>Green Vehicles, Inc.</b>                              | Salinas              | Monterey            | Electric Vehicle Manufacturing      | \$3,708,050                           | \$337,433                     | \$0  | \$65,608                              | \$3,018,494                        | \$2,746,669         | 126                                       | 14  |
| 9   | 10-SM019                    | 12/15/2010     | <b>Soliant Energy, Inc.</b>                              | Monrovia             | Los Angeles         | Solar Photovoltaic Manufacturing    | \$9,966,500                           | \$906,952                     | \$0  | \$1,142,989                           | \$1,709,894                        | \$1,945,932         | 38  | 5   |
| 10  | 10-SM021                    | 12/15/2010     | <b>SCE Crazy Horse LLC</b>                               | Salinas              | Monterey            | Landfill Gas Capture and Production | \$1,558,460                           | \$141,820                     | \$0  | \$103,093                             | \$432,228                          | \$393,501           | 12  | 1   |
| 11  | 10-SM027                    | 12/15/2010     | <b>Alta Devices, Inc.</b>                                | Sunnyvale            | Santa Clara         | Solar Photovoltaic Manufacturing    | \$40,845,000                          | \$3,716,895                   | \$1,108,616                                  | \$561,404                             | \$5,025,666                        | \$1,870,175         | 322                                       | 37  |
| 12  | 11-SM002                    | 1/25/2011      | <b>MiaSolé</b>   | Sunnyvale            | Santa Clara         | Solar Photovoltaic Manufacturing    | \$26,092,000                          | \$2,374,372                   | \$881,599                                    | \$3,246,664                           | \$1,363,913                        | \$2,236,206         | 56  | 3   |
| 13  | 11-SM007                    | 5/18/2011      | <b>Amonix, Inc.</b>                                      | Seal Beach           | Orange              | Solar Photovoltaic Manufacturing    | \$2,278,900                           | \$207,380                     | \$0  | \$244,895                             | \$557,789                          | \$595,304           | 153                                       | 2   |
| 14  | 11-SM015                    | 8/23/2011      | <b>Amonix, Inc.</b>                                      | Seal Beach; Milpitas | Orange; Santa Clara | Solar Photovoltaic Manufacturing    | \$7,879,667                           | \$638,253                     | \$0  | \$740,148                             | \$2,884,021                        | \$2,985,916         | 200                                       | 12  |
| 15  | 11-SM014                    | 8/23/2011      | <b>SoloPower Inc.</b>                                    | San Jose             | Santa Clara         | Solar Photovoltaic Manufacturing    | \$8,411,240                           | \$681,310                     | \$494,484                                    | \$419,024                             | \$575,484                          | \$313,197           | 40  | 1   |
| 16  | 10-SM001                    | 11/17/2010     | <b>Bowerman Power LFG, LLC</b>                           | Irvine               | Orange              | Landfill Gas Capture & Production   | \$9,240,000                           | \$840,840                     | \$0  | \$398,492                             | \$1,008,052                        | \$565,704           | 30  | 3   |
| Application Number  | Date of Board Consideration | Applicant Name | City   | County               | Use of Proceeds     | QP Amount                           | STE Amount (Anticipated) <sup>1</sup> | STE Used to Date <sup>1</sup> | Estimated Environmental Benefit <sup>2</sup> | Estimated Fiscal Benefit <sup>2</sup> | Estimated Net Benefit <sup>2</sup> | Expected Total Jobs | Expected Total Jobs from STE <sup>2</sup> |     |

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

|  |          |           |                                    |                |                |   |                      |                     |                     |                     |                      |                     |              |            |
|--|----------|-----------|------------------------------------|----------------|----------------|---|----------------------|---------------------|---------------------|---------------------|----------------------|---------------------|--------------|------------|
| <b>17</b>                                      | 12-SM004 | 5/15/2012 | <b>Soitec Solar Industries LLC</b> | San Diego      | San Diego      | Concentrated Photovoltaic Manufacturing | \$104,381,342        | \$8,454,889         | \$7,351,987         | \$3,706,841         | \$10,302,813         | \$5,554,765         | 399          | 44         |
| <b>18</b>                                      | 14-SM002 | 3/18/2014 | <b>CleanWorld</b>                  | San Bernardino | San Bernardino | Biomass Processing and Fuel Production  | \$6,698,715          | \$564,032           | \$0                 | \$163,485           | \$858,211            | \$457,665           | 26           | 3          |
| <b>19</b>                                      | 14-SM024 | 3/17/2015 | <b>Haas Automation, Inc.</b>       | Oxnard         | Ventura        | Advanced Materials                      | \$81,426,200         | \$6,856,086         | \$0                 |                     | \$38,174,218         |                     | 1,235        | 51         |
| <b>20</b>                                      | 15-SM004 | 6/16/2015 | <b>T2Energy, LLC</b>               | Vista          | San Diego      | Industrial Biotechnology                | \$4,737,500          | \$398,898           | \$0                 |                     | \$1,881,353          |                     | 48           | 3          |
| <b>TOTAL OF INACTIVE APPROVED APPLICATIONS</b> |          |           |                                    |                |                |   | <b>\$988,589,734</b> | <b>\$88,123,479</b> | <b>\$39,270,420</b> | <b>\$53,387,401</b> | <b>\$110,198,128</b> | <b>\$42,661,464</b> | <b>6,119</b> | <b>520</b> |

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

**Appendix B: PACE Loss Reserve Program Enrollment Activity to Date**

| <b>TABLE B.1: PACE LOSS RESERVE PROGRAM ENROLLMENT ACTIVITY TO DATE</b> |  |                         |  |                         |   |                         |  |                         |  |                           |
|---|--|-------------------------|--|-------------------------|---|-------------------------|--|-------------------------|--|---------------------------|
| <b>Program</b>  | <b>Program Launch<br/>(June 2014)<sup>35</sup></b> |                         | <b>July–December 2014<br/>Reporting Period</b> |                         | <b>January–June 2015<br/>Reporting Period</b> |                         | <b>July–December 2015<br/>Reporting Period</b> |                         | <b>Total Outstanding<br/>Portfolio Enrolled<sup>36</sup></b> |                           |
| mPOWER Placer   | 464  | \$10,502,382.62         | 312  | \$9,540,534.04          | 313   | \$9,007,272.29          | 361  | \$10,422,668.14         | 1,239  | \$54,960,030.88           |
| mPOWER Folsom   | 3  | \$54,181.18             | 4  | \$86,847.90             | 12  | \$358,423.79            | 10   | \$229,578.67            | 29   | \$1,087,937.26            |
| Berkeley FIRST <sup>37</sup>  | 13   | \$299,233.74            | 0  | \$0                     | 0   | \$0                     | 0  | \$0                     | 12   | \$272,231.98              |
| SCEIP   | 1,550  | \$43,702,974.25         | 65   | \$1,524,472.34          | 67  | \$1,659,819.77          | 46   | \$1,288,617.74          | 1,521  | \$42,446,160.72           |
| California FIRST <sup>38</sup>  | 0  | \$0                     | 151  | \$3,435,462.04          | 1,044   | \$23,904,858.49         | 2,231  | \$55,875,048.47         | 3,426  | \$83,070,588.61           |
| WRCOG HERO  | 9,911  | \$189,339,784           | 1,757  | \$34,971,957.65         | 1,535   | \$33,837,187.89         | 2,361  | \$53,783,476.55         | 15,156   | \$306,161,498.60          |
| SANBAG HERO   | 4,286  | \$80,398,364.90         | 1,763  | \$32,056,560.00         | 3,968   | \$80,548,862.92         | 2,550  | \$54,760,955.71         | 10,152   | \$198,582,986.69          |
| California HERO   | 1,174  | \$25,974,938.48         | 2,970  | \$67,054,570.85         | 6,035   | \$138,783,046.73        | 8,032  | \$191,433,540.91        | 18,358   | \$431,739,846.26          |
| Alliance NRG  | ---  | ---                     | ---  | ---                     | ---   | ---                     | 1  | \$25,474.99             | 1  | \$25,474.99               |
| California FIRST (LA)   | ---  | ---                     | ---  | ---                     | ---   | ---                     | 282  | \$8,663,915.65          | 282  | \$8,663,915.65            |
| LA HERO   | ---  | ---                     | ---  | ---                     | ---   | ---                     | 5,051  | \$126,779,290.63        | 5,051  | \$126,779,290.63          |
| Ygrene Works Program  | ---  | ---                     | ---  | ---                     | ---   | ---                     | 911  | \$22,277,536.89         | 911  | \$22,277,536.89           |
| <b>TOTAL:</b>   | <b>17,401</b>                                      | <b>\$350,271,859.17</b> | <b>7,022</b>                                   | <b>\$148,670,404.82</b> | <b>12,974</b>                                 | <b>\$288,099,471.88</b> | <b>21,836</b>                                  | <b>\$525,540,104.35</b> | <b>56,138</b>  | <b>\$1,276,067,499.16</b> |

<sup>35</sup> Because the participating PACE programs enrolled in June 2014, no additional financings beyond those enrolled during the initial application period were reported and enrolled for the January 1, 2014–June 30, 2014 reporting period.

<sup>36</sup> Totals represent the current cumulative outstanding portfolio enrolled in the Program, taking into account regular payments, repaid financings, accrued interest, etc.

<sup>37</sup> Berkeley FIRST is a pilot program that is no longer accepting new applications.

<sup>38</sup> CaliforniaFIRST launched its residential PACE program in May 2014 and therefore did not issue any financings until the July–December 2014 reporting period.

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

## Appendix C: Communities Served by Enrolled PACE Programs

| <b>TABLE C.1: COMMUNITIES SERVED BY ENROLLED PACE PROGRAMS</b> |                    |                      |                 |                      |                        |                     |                   |   |
|--|--------------------|----------------------|-----------------|----------------------|------------------------|---------------------|-------------------|---|
| Burlingame   | Creston            | Gilroy               | Laguna Beach    | Monterey Park        | Placerville            | San Joaquin         | Stockton          | Yuba City   |
| Calabasas  | Cudahy             | Glendale             | Laguna Hills    | Moorpark             | Pleasant Hill          | San Jose            | Suisun City       | Yucaipa   |
| Calexico   | Culver City        | Glendora             | Lake Elsinore   | Moreno Valley        | Pleasanton             | San Juan Bautista   | Sunnyvale         | Yucca Valley  |
| California City  | Cupertino          | Gonzales             | Lake Forest     | Morgan Hill          | Point Arena            | San Leandro         | Taft              |   |
| Calimesa   | Cypress            | Grand Terrace        | Lakewood        | Morro Bay            | Pomona                 | San Luis Obispo     | Tehachapi         | <b>Unincorporated<br/>county areas in<br/>the following<br/>counties:</b> |
| Calipatria   | Daly City          | Greenfield           | Lancaster       | Mount Shasta         | Port Hueneme           | San Marcos          | Tehama            |   |
| Calistoga  | Danville           | Grover Beach         | Larkspur        | Mountain View        | Porterville            | San Marino          | Temecula          |   |
| Camarillo  | Davis              | Half Moon Bay        | Lawndale        | Murrieta             | Portola Valley         | San Mateo           | Temple City       |   |
| Cambria  | Del Mar            | Hanford              | Lemon Grove     | Napa                 | Poway                  | San Miguel          | Thousand Oaks     |   |
| Campbell   | Del Rey Oaks       | Hawaiian Gardens     | Lemoore         | National City        | Rancho Cordova         | San Pablo           | Tiburon           | Alameda   |
| Canyon Lake  | Delano             | Hawthorne            | Lincoln         | Needles              | Rancho Cucamonga       | San Rafael          | Torrance          | Butte   |
| Capitola   | Desert Hot Springs | Hayward              | Live Oak        | Nevada City          | Rancho Mirage          | San Ramon           | Tracy             | Colusa  |
| Carlsbad   | Diamond Bar        | Healdsburg           | Livermore       | Newark               | Rancho Palos Verdes    | San Simeon          | Trinidad          | Del Norte   |
| Carmel By The Sea  | Dixon              | Hemet                | Livingston      | Newman               | Rancho Santa Margarita | Sand City           | Tulare            | El Dorado   |
| Carson   | Downey             | Hercules             | Lodi            | Newport Beach        | Redlands               | Sanger              | Turlock           | Fresno  |
| Cathedral City   | Duarte             | Hermosa Beach        | Loma Linda      | Nipomo               | Redondo Beach          | Santa Ana           | Tustin            | Glenn   |
| Cayucos  | Dublin             | Hesperia             | Lomita          | Norco                | Redwood City           | Santa Clara         | Twenty Nine Palms | Humboldt  |
| Ceres  | Dunsmuir           | Hidden Hills         | Long Beach      | Norwalk              | Reedley                | Santa Clarita       | Twentynine Palms  | Imperial  |
| Cerritos   | East Palo Alto     | Highland             | Loomis          | Novato               | Rialto                 | Santa Cruz          | Union City        | Kern  |
| Chico  | Eastern Riverside  | Hillsborough         | Los Altos       | Oakdale              | Richmond               | Santa Fe Springs    | Upland            | Los Angeles   |
| Chino  | Eastvale           | Hollister            | Los Altos Hills | Oakland              | Ridgecrest             | Santa Margarita     | Vacaville         | Madera  |
| Chino Hills  | El Cajon           | Holtville            | Los Angeles     | Oakley               | Rio Dell               | Santa Monica        | Vallejo           | Marin   |
| Chowchilla   | El Centro          | Hughson              | Los Banos       | Oceano               | Rio Vista              | Santa Paula         | Ventura           | Mariposa  |
| Chula Vista  | El Cerrito         | Huntington Beach     | Los Gatos       | Oceanside            | Ripon                  | Santa Rosa          | Victorville       | Mendocino   |
| Citrus Heights   | El Monte           | Huntington Park      | Los Osos        | Ojai                 | Riverbank              | Santee              | Visalia           | Merced  |
| City of Corcoran   | El Paso De Robles  | Huron                | Lynwood         | Ontario              | Riverside              | Saratoga            | Vista             | Mono  |
| City of Industry   | El Segundo         | Imperial             | Madera          | Orange Cove          | Rocklin                | Sausalito           | Walnut            | Monterey  |
| City of Lemoore  | Elk Grove          | Imperial Beach       | Malibu          | Orland               | Rohnert Park           | Scotts Valley       | Walnut Creek      | Napa  |
| Claremont  | Emeryville         | Indian Wells         | Mammoth Lakes   | Oxnard               | Rolling Hills          | Seaside             | Wasco             | Riverside   |
| Clayton  | Encinitas          | Indio                | Manhattan Beach | Pacific Grove        | Rolling Hills Estates  | Sebastopol          | Waterford         | Sacramento  |
| Cloverdale   | Escondido          | Industry             | Manteca         | Pacifica             | Rosemead               | Selma               | Watsonville       | San Benito  |
| Clovis   | Eureka             | Inglewood            | Marina          | Palm Desert          | Roseville              | Shafter             | West Covina       | San Bernardino  |
| Coachella  | Fairfax            | Irwindale            | Martinez        | Palm Springs         | Ross                   | Shandon             | West Hollywood    | San Diego   |
| Coalinga   | Fairfield          | Jurupa Valley        | McFarland       | Palmdale             | Sacramento             | Shasta Lake         | West Sacramento   | San Joaquin   |
| Colfax   | Fillmore           | Kerman               | Menifee         | Palo Alto            | Salinas                | Sierra Madre        | Westlake Village  | San Luis Obispo   |
| Colma  | Firebaugh          | King City            | Menlo Park      | Palos Verdes Estates | San Anselmo            | Signal Hill         | Westminster       | San Mateo   |
| Colton   | Folsom             | Kingsburg            | Merced          | Paramount            | San Bernardino         | Simi Valley         | Whittier          | Santa Cruz  |
| Commerce   | Fontana            | La Canada Flintridge | Mill Valley     | Parlier              | San Bruno              | Solana Beach        | Wildomar          | Shasta  |
| Compton  | Fort Bragg         | La Habra             | Millbrae        | Pasadena             | San Buenaventura       | Soledad             | Williams          | Siskiyou  |
| Concord  | Foster City        | La Habra Heights     | Milpitas        | Patterson            | San Carlos             | Sonoma              | Willits           | Solano  |
| Corcoran   | Fountain Valley    | La Mesa              | Mission Viejo   | Perris               | San Clemente           | South El Monte      | Willows           | Sonoma  |
| Corona   | Fowler             | La Mirada            | Modesto         | Petaluma             | San Diego              | South Gate          | Windsor           | Tehama  |
| Coronado   | Fremont            | La Palma             | Monrovia        | Pico Rivera          | San Dimas              | South Lake Tahoe    | Winters           | Tulare  |
| Corte Madera   | Fresno             | La Puente            | Montclair       | Piedmont             | San Fernando           | South Pasadena      | Woodland          | Ventura   |
| Costa Mesa   | Galt               | La Quinta            | Monte Sereno    | Pinole               | San Francisco          | South San Francisco | Woodside          | Yolo  |
| Cotati   | Garden Grove       | La Verne             | Montebello      | Pittsburg            | San Gabriel            | St. Helena          | Yorba Linda       | Yuba  |
| Covina   | Gardena            | Lafayette            | Monterey        | Placentia            | San Jacinto            | Stanton             | Yountville        |   |