CALIFORNIA ALTERNATIVE ENERGY AND ADVANCED TRANSPORTATION FINANCING AUTHORITY

SALES AND USE TAX EXCLUSION PROGRAM REPORT TO THE CALIFORNIA STATE LEGISLATURE

December 2014

Executive Summary

Under authority granted by Senate Bill (SB) 71 (Padilla, 2010) and SB 1128 (Padilla, 2012), the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) offers financial assistance to businesses and other entities in the form of an exclusion from sales and use tax (known as a Sales and Use Tax Exclusion, or STE) on tangible personal property purchased as part of a qualifying alternative energy, advanced transportation, or advanced manufacturing project.

Pursuant to authorizing legislation, CAEATFA's STE Program (the "program") is intended to promote manufacturing and jobs in California and reduce energy consumption, greenhouse gas emissions, and air and water pollution. Public Resources Code Section 26011.8(i)(2) requires CAEATFA to report to the Legislature by January 1, 2015 on the efficacy of the STE Program. This report fulfills that statutory reporting requirement.

CAEATFA's Net Benefits Test and Application Evaluation Process

Based on the requirements of SB 71 and SB 1128, CAEATFA developed a rigorous application and review process for approving businesses seeking a sales and use tax exclusion. CAEATFA requires detailed business plan data from applicants and assesses this data to ensure that the anticipated revenues, profit margin, labor costs and other factors are both internally consistent and plausible. The anticipated environmental performance data are similarly evaluated.

Once the application data has passed CAEATFA's due diligence review, applicants' projects must pass a net benefits test—specifically, the projected marginal fiscal and environmental benefits from an applicant's project must exceed the cost of the STE for the project to be recommended for approval.

Projects benefit from the STE only when they actually purchase equipment. Thus, projects must secure sufficient funding from investors to cover the cost of purchasing capital equipment before they can claim any benefits from the STE. In essence, the financial award serves as the "last dollar in" for moving the project forward, after applicants have secured their primary project financing independently.

Program Results to Date

Projects Approved and STE Granted. From the launch of the STE Program in November 2010 through October 2014, CAEATFA's Board approved 76 projects, totaling $273 million in STE. Of these 76 projects, 18 were completed, 13 were inactive, and 45 were still active as of October 2014.[1]

[1] Completed projects are projects that have finished claiming STE and are fully operational. Active projects have not yet claimed all of their STE and can be in the construction or installation phase or operational. Projects can become inactive for a number of reasons, including voluntarily withdrawing from the STE Program, significant project delays, or bankruptcy or other financial distress. . Projects can also become

Because most projects are built-out or installed over a period of as much as three years, many projects have so far claimed only a portion of their maximum STE amount. As of October 2014, $68.5 million in STE had been claimed, representing $797 million in capital equipment purchases. The remaining $175 million in STE outstanding among active projects represents potential additional capital equipment purchases of $2.1 billion.

Industries Represented. STE Program projects span a wide range of industries. Alternative source projects—solar, biogas, biomass, and landfill gas—are the four largest categories, making up 63% of all projects. Other industries represented include electric vehicles, batteries, energy-efficient lighting, fuel cells, geothermal power, renewable fuels, and biotechnology.

Applications and STE Granted per Year. CAEATFA began considering STE applications in November 2010, and approved 25 applications by the end of that year. In subsequent years, the number of projects has ranged from 11 to 14 per year. During the last five calendar years, the total amount of STE granted has ranged from a high of $80.6 million in 2010 to a low of $18.8 million in 2012, with an average of $54.7 million per year.

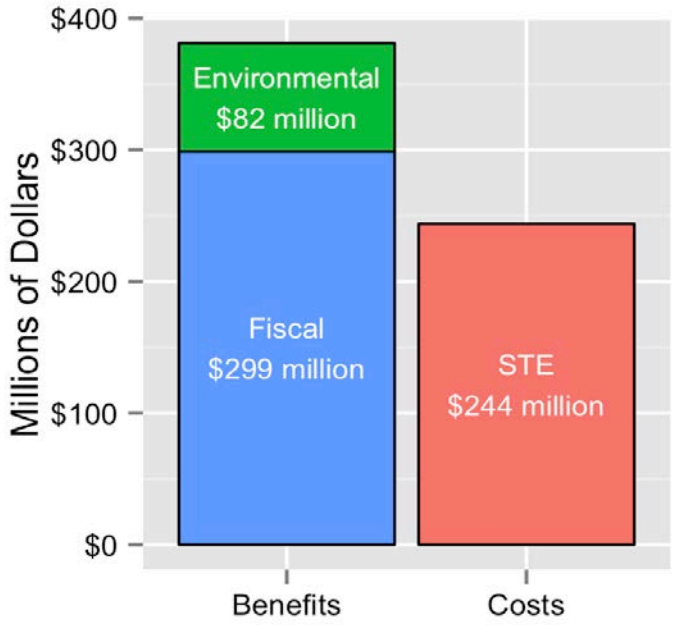
Program Costs and Benefits

STE applications are scored based on the estimated costs and benefits of the project. Only projects that meet the net benefits test or are deemed to further the purposes of the program are approved. The cost of a project to the state is the foregone revenue of the Sales and Use Tax Exclusion. The benefits include the economic activity generated and taxes paid by the company and its employees as well as environmental benefits, such as greenhouse gas reductions.

Figure EX-1 summarizes the projected costs and benefits of the STE Program including all projects approved from November 2010 through October 2014. The projected total cost of the program is $244 million. This includes the amount of STE already claimed by all projects and all outstanding STE projected to be claimed during the next few years by active projects. The projected total benefits of the program are $381 million.

inactive as a result of changes in the project scope, which require an applicant to reapply to CAEATFA for the re-scoped project, leaving the original project inactive.

Figure EX-1. Projected Overall Costs and Benefits of the STE Program, Based on Current Status of Projects Approved from November 2010 through October 2014



The net benefits of the program are projected to be $137 million. These benefits will be realized over the expected useful life of the capital equipment and the products produced with that equipment. The cost and benefit projections are based on the assumption that currently active projects continue to operate according to the plans identified in their applications. Although CAEATFA carefully scrutinizes applications to ensure validity and consistency of the data provided at the time of approval, some projects might fall short of the projections in their business plans due to real-world market risks or other contingencies that could result in lower-than-projected program costs and benefits. Nevertheless, the substantial positive anticipated net benefits from the program to date suggest that, even if some applicants fail to achieve their financial goals as outlined in the application data submitted to CAEATFA, the program is likely to produce net benefits over time.

In addition to promoting California-based manufacturing of environmentally beneficial products, another goal of SB 71 is to promote the creation of new jobs. The marginal increase in employment due to the STE Program is projected to be more than a thousand jobs, of which about two-thirds are ongoing jobs operating STE Program facilities and one-third are facility construction jobs.

Recommendations

Public Resources Code Section 26011.8(i)(2) requires CAEATFA's report to the Legislature to include "recommendations on program changes that would increase the program's efficacy in creating permanent and temporary jobs, and whether eligibility for the program should be extended or narrowed to other manufacturing types."

Extend the Sunset Date for Advanced Manufacturing Projects. With the passage of SB 1128, which made advanced manufacturing projects eligible for a STE, the STE Program is now available to a wider range of firms. CAEATFA therefore believes that it is not necessary to extend the program to additional manufacturing sectors. However, under current law, advanced manufacturing projects are eligible for the STE Program until June 30, 2016, while advanced transportation and alternative energy projects are eligible until the STE Program sunsets on January 1, 2021. In order to maintain the effectiveness of the STE Program and provide businesses with stability and a sufficient planning horizon, CAEATFA recommends that the Legislature consider extending the advanced manufacturing component of the STE Program to the overall program sunset date of January 1, 2021.

Consider Removing the $100 Million Annual Cap on STE Awards. To date, the $100 million per year cap on the STE Program has not limited access to the STE. However, with Tesla choosing to build its "Gigafactory" in Nevada, at least partially as a result of substantial tax incentives, the Legislature may want to consider removing the STE Program's annual cap as a signal to green businesses and investors that a STE would be available for large green manufacturing projects that choose to locate in California. Furthermore, even for smaller projects, the existence of a cap on STE awards means that firms cannot effectively plan on receiving an STE, even if their project is otherwise eligible. Therefore, the presence of the cap, even if not binding, creates uncertainty which may reduce the extent of business investment in the state.

I. Introduction

The California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) was established in 1980 to promote the development and commercialization of alternative energy and advanced transportation technologies and products. Under authority granted by Senate Bill (SB) 71 (Padilla, 2010) and SB 1128 (Padilla, 2012), the California Alternative Energy and Advanced Transportation Financing Authority (CAEATFA) offers financial assistance to businesses and other entities in the form of an exclusion from sales and use tax (known as a Sales and Use Tax Exclusion, or STE) on tangible personal property purchased as part of a qualifying alternative energy, advanced transportation, or advanced manufacturing project. Under current law, Advanced Manufacturing projects are eligible for the STE Program until June 30, 2016, while Advanced Transportation and Alternative Energy projects (referred to as "Alternative Source") are eligible until the STE Program sunsets on January 1, 2021.[2]

The STE Program, which reduces the purchase cost of capital equipment for environmentally beneficial businesses, is intended to promote and prioritize specific types of manufacturing and jobs in California and reduce energy consumption, greenhouse gas emissions, and air and water pollution. Public Resources Code Section 26011.8(i)(2) (see Appendix A) requires CAEATFA to report to the Legislature by January 1, 2015 on the efficacy of the STE Program. This report fulfills that statutory reporting requirement.

II. Project Application and Scoring Process

When it approved SB 71, the Legislature required CAEATFA to evaluate projects based on a number of factors, including expansion of manufacturing in California, job creation, environmental and fiscal benefits, and overall net benefits. Based on these requirements, CAEATFA developed a transparent and rigorous application scoring process that requires projects to document net benefits to the state in order to be recommended for approval. These net benefits are calculated on a marginal rather than an aggregate basis. In other words, the cost of the program in terms of foregone sales tax revenue is compared to the benefits attributable just to the marginal economic activity resulting from the anticipated effects of the STE. CAEATFA is not aware of any similar tax incentive program that contains such a rigorous requirement for a net benefits test based on marginal benefits resulting from the tax incentive.

[2] Assembly Bill 93 (Chapter 69 Statutes of 2013) provides an exemption from the sales tax for qualified manufacturers. This bill is distinct from the STE Program because it exempts covered transactions from just the state portion of the sales tax whereas the CAEATFA STE program excludes covered transactions from the sales tax entirely.

Statutory Requirements

Public Resources Code (PRC) Sec. 26011.8, requires CAEATFA to evaluate applicants' projects based on the following criteria:

(1) The extent to which the project develops manufacturing facilities, or purchases equipment for manufacturing facilities, located in California.
(2) The extent to which the anticipated benefit to the state from the project equals or exceeds the projected benefit to the participating party from the sales and use tax exclusion.
(3) The extent to which the project will create new, permanent jobs in California.
(4) To the extent feasible, the extent to which the project, or the product produced by the project, results in a reduction of greenhouse gases, a reduction in air or water pollution, an increase in energy efficiency, or a reduction in energy consumption, beyond what is required by any federal or state law or regulation.
(5) The extent of unemployment in the area in which the project is proposed to be located.
(6) Any other factors the authority deems appropriate in accordance with this section.

Application Scoring Process

Based on the statutory requirements, CAEATFA promulgated regulations detailing the administration and application process for the STE Program.[3] In addition to general information about the applicant's project, manufacturing process, and product, CAEATFA requires applicants to provide detailed business plan data, including the specific capital equipment that will be purchased and its expected cost; projections on the number of units that will be sold per year; price, capital, materials, and labor costs per unit; full time-equivalent jobs at the facility; and many other factors. Based on this information, CAEATFA analyzes the data provided to ensure that the anticipated revenues, profit margin, labor costs and other factors are both internally consistent and plausible. CAEATFA also requires detailed information about the projected environmental performance of the product and the production process. These data are likewise checked for internal consistency and plausibility.

Net Benefits Test. Based on the information provided by applicants, and reviewed by CAEATFA as described above, CAEATFA estimates the marginal additional economic output resulting from the STE. The STE in effect lowers the cost of purchasing capital equipment. As a result, applicants are incentivized to purchase more such equipment than would be the case in the absence of the STE. Any increase in economic output due to the STE is predicted to result in a number of economic, fiscal, and environmental benefits, including

[3] The most recent regulations were approved on June 30, 2014 and can be found at http://treasurer.ca.gov/caeatfa/ste/regulations/regulations.pdf.

increased economic activity, increased purchases of capital equipment and raw materials from suppliers, and increased sales and usage of the applicant's environmentally beneficial product. These increases have secondary effects, such as increased employment at suppliers, increased property, income, and sales tax revenues, and increases in environmental benefits, such as reductions in emissions of greenhouse gases and air pollutants. Together, all of these direct and indirect effects of the STE result in economic, fiscal, and environmental benefits to the state.

Marginal project benefits due to the STE are estimated from an economic model that predicts the size of the various fiscal and environmental benefit streams over the life of the project, monetizes non-monetary benefits, such as reductions in environmental emissions, and applies discounting of future benefits in order to estimate their net present value.

In order for a project to be approved by the CAEATFA Board, the project must be projected to produce STE-induced fiscal and environmental benefits in excess of the cost of the STE in reduced sales tax revenues. Once again, these net benefits are calculated on a marginal rather than an aggregate basis. This ensures an apples-to-apples comparison of project costs and benefits and reduces the risk of overestimating project benefits.

All projects are scored on the same criteria in terms of fiscal benefits. However, due to the eligibility criteria, Advanced Manufacturing projects are scored differently from Advanced Transportation and Alternative Source projects in terms of environmental benefits. For Alternative Source and Advanced Transportation projects, the products themselves produce environmental benefits, whereas the products produced by an Advanced Manufacturing process need not necessarily produce environmental benefits. Instead, for Advanced Manufacturing applicants, environmental benefits will generally stem from 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 awarded for specific environmental process improvements and these are folded into the project's final benefit score.

The net benefits test, the extensive information applicants provide during the application process, and CAEATFA's due diligence help ensure that projects approved for a STE are based on credible, internally-consistent information. In addition, projects benefit from the STE only when they actually purchase equipment. Thus, projects must secure sufficient funding from investors to cover the cost of purchasing capital equipment before they can claim any STE. In essence, the STE serves as the "last dollar in" for moving the project forward, after applicants have secured their primary project financing independently. The STE is thus a relatively low-risk way for the state to provide an incentive to expand environmentally beneficial high-tech manufacturing in the state.

III. Program Results to Date

From the launch of the STE Program in November 2010 through October 2014, CAEATFA's Board approved 76 projects, totaling $273 million in STE. Of these 76 projects, 18 were completed and 45 were still active as of October 2014, while 13 were inactive. Completed projects are projects that have claimed all of the STE they were granted (or plan to use) and are fully operational. Active projects have not yet claimed all of their STE and can be in the construction or installation phase or operational. Projects can become inactive for a number of reasons, including voluntarily withdrawing from the STE Program, significant project delays, or bankruptcy or other financial distress. Projects can also become inactive as a result of changes in the project scope, which require an applicant to reapply to CAEATFA for the re-scoped project, leaving the original project inactive. Table 1 shows the number of approved projects in each category by project status.

Table 1. Number of Projects Approved, by Project Category and Current Status

Project Status	Alternative Source	Advanced Transportation	Advanced Manufacturing	All Projects
Completed	17	1	0	18
Active	33	6	6	45
Inactive	12	1	0	13
Total	62	8	6	76

Amount of STE Granted and Claimed. Although projects become eligible for a Sales Tax Exclusion at the time the project is approved, the actual cost savings due to the STE does not occur until taxable tangible property is purchased as part of the approved project. Because most projects are built out or installed over a period of as much as three years, many projects have so far claimed only a portion of their maximum STE amount. As of October 2014, the 63 active or completed projects had claimed $43.3 million (or 20 percent) of the total STE of $220.4 million granted to them.[4]

The apparently low percentage of STE claimed only tells part of the story, however. The amount of STE a project receives depends on the amount of "Qualified Property"—generally speaking, capital equipment—that the project plans to purchase. By this measure, active projects range in size from $766,000 to $445 million, with a median of $10 million. The range of STE granted is $70,000 to $37.2 million, with a median of $0.9 million. Projects have three years from the date of approval to claim all of the STE they were granted and can apply to CAEATFA for an extension if unforeseen circumstances, such as permitting delays or other contingencies, extend the timeline over which capital equipment is purchased. Most projects have already claimed more than half of the STE they were granted. These tend to be smaller projects and/or older projects. A few large and relatively

[4] STE awardees typically have three years from the date of Board approval to utilize the award. This limit incentivizes applicants to apply when they are confident a project is ready to move forward.

new projects account for most of the total STE granted to date, but have claimed little or no STE so far. For example, among active projects, the two largest projects in terms of STE amount account for 33 percent of total STE granted. However, these projects were approved just over one year ago, one of them has not yet progressed far enough to begin claiming its STE, while the other has claimed 16% of its maximum STE.[5]

Table 2 shows the average percent of STE claimed, categorized by the size of the project (in terms of amount of STE granted) and the calendar year in which the project was approved. Note that projects with less than $1 million in STE granted (just over half of all projects) have claimed more of their STE than projects with more than $1 million in STE. Likewise, projects approved three or four years ago have claimed more of their STE than projects approved during the last two years.

Table 2. Average Percent of STE Claimed, by Year of Project Approval and Amount of STE Granted

	Amount of STE Granted	
Year of Project Approval	Less than $1 million	$1 million or more
2010	100.0%	59.0%
2011	71.7%	43.1%
2012	61.5%	54.8%
2013	41.0%	13.2%
2014	0%	0.4%

Only one inactive project claimed any STE before going inactive. This was Solyndra, which claimed $25.1 million of a potential STE of $34.7 million before filing for bankruptcy in August 2011. The remaining 12 inactive projects were granted STE totaling $18.1 million, none of which was claimed before the projects went inactive. Once a project becomes inactive, it is no longer eligible to claim STE and must re-apply if it chooses to move forward.

Table 3 summarizes the amount of STE claimed and outstanding among all projects. For completed projects, the amount of STE claimed is less than the amount of STE granted because some of these projects did not purchase as much capital equipment as initially planned. The STE outstanding is zero for these projects because they have completed all of their equipment purchases under the STE Program.

[5] CAEATFA does not receive immediate notification of STE claims at the time projects purchase equipment that is exempt from sales and use tax. Rather, projects notify CAEATFA of STE claims each January and July, or, in some cases, when the purchased equipment is actually first used. Thus, it is possible that additional STE has been claimed as of October 2014, but CAEATFA has not yet been notified.

Table 3. Number of Projects Approved, Amount of STE Granted, and Amount of STE Claimed as of October 2014, by Current Project Status*

Project Status	Number of Projects	STE Granted	STE Claimed	STE Outstanding
Completed	18	$11.6	$9.9	$0.0
Active	45	$208.8	$33.4	$175.4
Inactive	13	$52.9	$25.1	$0.0
Total	76	$273.3	$68.5	$175.4

* Dollar values are in millions

Capital Equipment Expenditures. The Sales and Use Tax Exclusion represents sales and use tax on the purchase of capital equipment. The $68 million in STE claimed so far represents $797 million in capital equipment purchases by STE Program projects. The remaining $175 million in outstanding STE represents potential capital equipment purchases of $2.1 billion.

Industries Represented. STE Program projects span a wide range of industries. Figure 1 shows the number of projects by product category and status. As the graph shows, Alternative Source projects—solar, biogas, biomass, and landfill gas—are the four largest categories, making up 63% of all projects. The solar projects involve solar photovoltaic manufacturing while the other three project categories all involve production of natural gas from alternative fuel sources. Note also that solar projects represent the largest fraction of projects that have gone inactive, which is indicative of the substantial turmoil in the solar photovoltaic manufacturing industry during the last few years.

Figure 1. Number of Projects Approved, by Project Category and Current Status

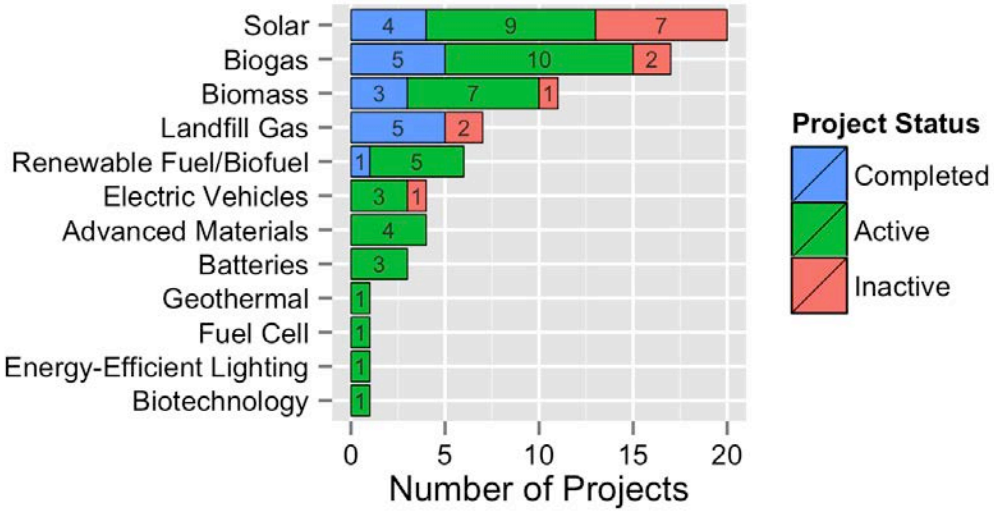
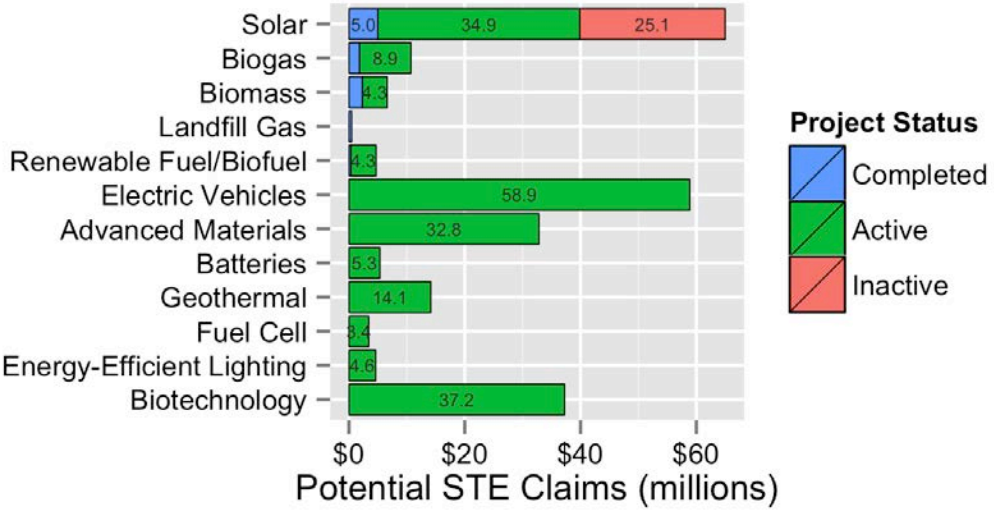


Figure 2 shows the maximum amount of STE that could be claimed by projects in each industry. For active projects, this is the total amount of STE granted during the approval process (whether or not the full amount had been claimed as of October 2014). For inactive projects, this is the amount actually claimed before the project went inactive. As noted above, among inactive projects, only Solyndra had claimed any STE before going inactive.

The industry categories in Figure 2 are in the same order as in the previous graph, so that number of projects can be visually compared with total STE for each project type. Note that solar projects account for both the largest number of projects and the largest amount of STE. However, electric vehicles and biotechnology, the second and third largest categories in terms of STE, account for a relatively small number of projects. Together, these three categories account for 22% of projects, but 56% of all STE that could potentially be claimed under the program so far.

Figure 2. Potential Maximum STE Claims, by Project Category and Current Status



Number of Applications Approved per Year. Figure 3 shows the number of STE applications approved each year. CAEATFA began considering STE applications in November 2010, and approved 25 applications by the end of that year. In subsequent years, the number of projects has ranged from 11 to 14 per year. The large number of initial applications likely reflected pent-up demand for the STE that had built up between the time of legislative debate over SB 71 in early 2010 and November 2010, when applications were first considered for approval.

Amount of STE Granted per Year. Current law limits the total STE granted by CAEATFA to no more than $100 million in any calendar year. During the last five calendar years, the total amount of STE granted has ranged from a high of $80.6 million in 2010 to a low of $18.8 million in 2012, with an average of $54.7 million per year. 2013 was the second-highest year, with $77.7 million in STE approved.

Counties with Projects. STE projects have been approved in a total 21 California counties, all of which currently have active projects. Counties with projects range from San Diego and Imperial in the south to as far north as Butte. The San Francisco Bay Area has the largest share of projects. Figure 4 shows the number of projects by county and current status.

Figure 3. Number of Projects Approved, by Year and Current Status

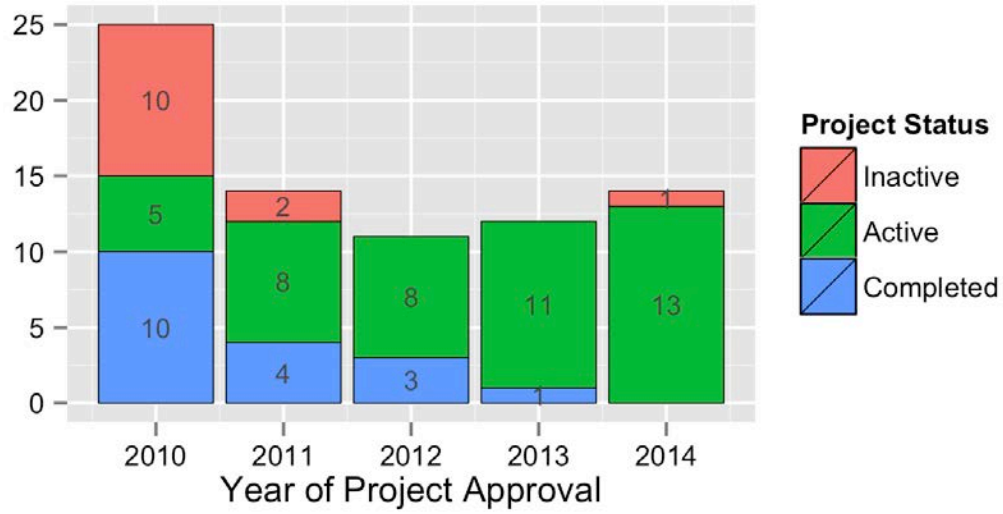
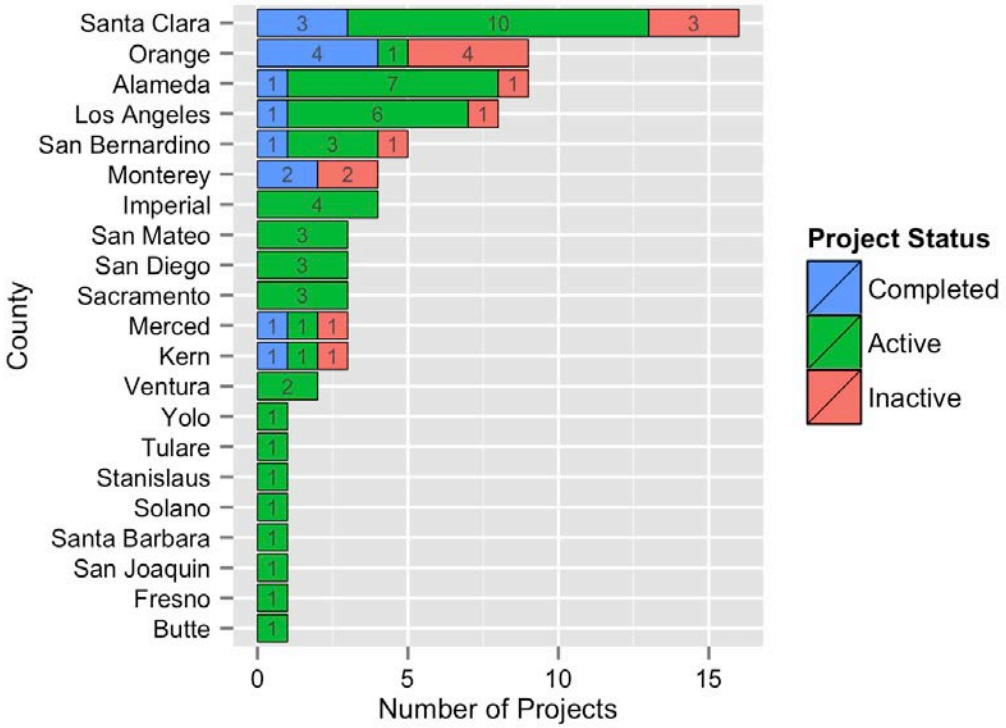


Figure 4. Number of Approved Projects, by County and Current Status



IV. Program Costs and Benefits

STE applications are scored based on the estimated costs and benefits of the project, with approval recommended only for projects that meet a net benefits test or are deemed to further the purposes of the program. The cost of a project is the foregone revenue of the Sales and Use Tax Exclusion. The benefits include:

- Fiscal benefits such as corporation and income taxes paid by a company and its employees, as well as additional tax revenues generated when a company spends money on supplies or employees make consumer purchases.
- Environmental benefits, such as reductions in greenhouse gases and air pollutants.
- Increased employment.

Total Costs and Benefits of the STE Program. As described in Section II, in estimating the benefits of the STE Program, CAEATFA includes only the estimated *marginal* benefits from the STE. Because reducing the cost of building a manufacturing facility increases the incentive for applicants to buy more capital equipment, hire more people, and produce more of their products than would have happened in the absence of the STE, the benefits of these additional activities can be attributed to the program.

In spite of the rigorous nature of the net benefits test developed and applied, there are some uncertainties associated with estimating the impact of the STE Program. First, the net benefits test is performed prospectively, based on information provided by applicants during the application process and due diligence performed by CAEATFA. However, the initially estimated costs and benefits of a project can change as the project evolves under real-world market conditions and individual project contingencies. CAEATFA requires applicants to file annual reports on their projects' status, both to ensure that applicants are complying with the conditions for receiving a Sales and Use Tax Exclusion and also to determine whether there have been any material changes to projects that could affect program costs or benefits.

In producing cost-benefit estimates for the STE Program, CAEATFA included the most up-to-date information available regarding the status of each project. For a project that has become inactive, only the benefits of actual purchases of capital equipment and project construction activities are included,[6] though the costs are equal to the amount of STE claimed. For projects that are active, future costs and benefits are based on the initial estimates presented in the application. The projected program costs and benefits therefore may overstate actual costs and benefits to the extent that projects do not achieve their full potential.[7]

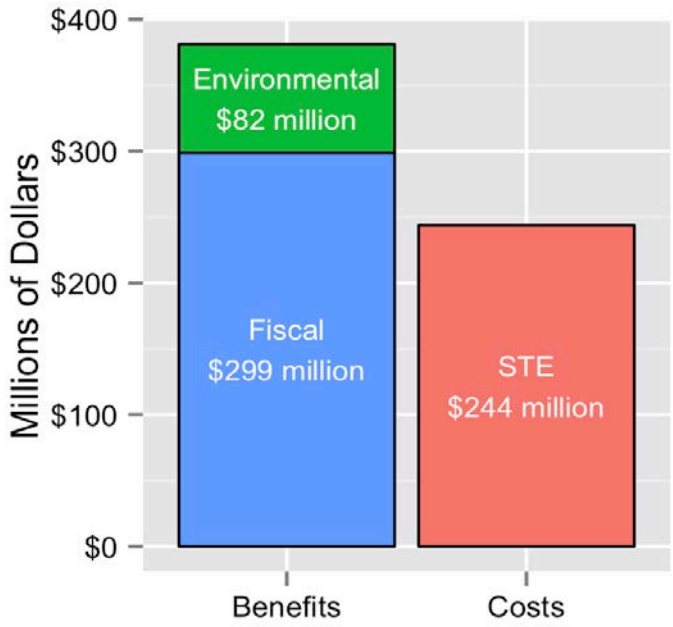
[6] Among inactive projects, only Solyndra purchased capital equipment eligible for a STE before going inactive.

[7] In their annual reports, a few projects have notified CAEATFA that they are likely to purchase less capital equipment than originally planned. These changes will reduce both the costs and benefits of the program, but the extent of this impact cannot be estimated with the information currently available.

Second, estimating the future fiscal and environmental benefits of projects based on currently available information requires economic modeling, which in turn requires assumptions regarding discount rates, multiplier effects, and the monetary value of environmental protection benefits. CAEATFA relied on state-of-the-art estimates for these and other input parameters for the net benefits test, but the appropriate values for these factors are nevertheless uncertain.

Figure 5 summarizes the projected costs and benefits of the STE Program including all projects approved from November 2010 through October 2014.[8] The projected total cost of the program is $244 million. This includes the amount of STE already claimed by all projects, whether active or inactive, plus all outstanding STE projected to be claimed during the next few years by active projects.

Figure 5. Projected Overall Costs and Benefits of the STE Program, Based on Current Status of Projects Approved from November 2010 through October 2014



The fiscal benefits of the program are projected to be $299 million, while the environmental benefits are projected to be $82 million. Combining the projected costs and benefits, the net benefits of the program are projected to be $137 million. These benefits will be realized over the expected useful life of the capital equipment for each project, which ranges from about 5 to 29 years, with a median of 17 years.[9]

[8] Applicants pay an administrative fee that supports CAEATFA's application evaluation and approval process. These costs are not included in the costs and benefits of the program presented in this report.

[9] For some projects, the time horizon is extended beyond the useful life of the capital equipment, to the extent that the product produced with this equipment (e.g., solar panels) continues to produce benefits.

The cost and benefit projections are based on the assumption that currently active and completed projects continue to operate as planned in their applications and annual reports. Actual costs and benefits to the state could be lower, depending on the extent to which projects fall short of their projections. Some companies might go out of business in the future, in some cases after claiming their STE but before producing substantial amounts of their product, resulting in lower benefits than projected. However, the program is currently on track to produce net benefits, even with the bankruptcy of Solyndra.

Job Creation. In addition to promoting California-based manufacturing of environmentally beneficial products, another goal of SB 71 is to promote the creation of new jobs in California. The marginal increase in employment due to the STE Program is projected to be about one thousand jobs, of which about two-thirds are ongoing jobs operating STE Program facilities and one-third are facility construction jobs. The total number of jobs associated with facilities in the STE Program is projected to be about eleven thousand, of which about three-quarters are ongoing jobs and one-quarter are construction jobs.

V. Conclusions and Recommendations

CAEATFA's STE Program has so far reduced startup costs for environmentally beneficial and advanced manufacturing businesses by up to $244 million. In exchange, the state can expect to reap as much as $381 million in fiscal and environmental benefits, including about a thousand additional jobs in construction and operation of facilities granted a STE. These figures include only the projected marginal impact of the STE. In total, STE Program facilities represent up to $2.8 billion in equipment purchases and up to eleven thousand jobs. Both the costs and benefits of the STE Program are contingent on projects completing their business plans and remaining in operation for the useful life of the equipment. To the extent that some projects are unsuccessful, actual costs and benefits will be lower.

The STE is a relatively low-risk way for the state to provide an incentive to expand environmentally beneficial high-tech manufacturing in California. The net benefits test, the extensive information applicants provide during the application process, and CAEATFA's due diligence help ensure that projects approved for a STE are based on credible, internally-consistent information. In addition, projects must secure sufficient funding from investors to cover the cost of purchasing capital equipment before they can claim any STE. The STE thus serves as the "last dollar in" for moving the project forward, after applicants have secured their primary project financing independently.

During the more than four years since its inception, CAEATFA has approved 76 projects for the STE Program. This suggests that applicants find the program valuable despite the comprehensive application review process. At the same time, of the 13 projects that have become inactive, only one claimed any STE, while other projects continue to construct their facilities or are already in operation.

Public Resources Code Section 26011.8(i)(2) (see Appendix A) requires CAEATFA's report to the Legislature to include "recommendations on program changes that would increase

the program's efficacy in creating permanent and temporary jobs, and whether eligibility for the program should be extended or narrowed to other manufacturing types."

Extend the sunset date for Advanced Manufacturing to match the overall STE Program sunset date. CAEATFA recommends the Legislature consider extending the sunset date for the advanced manufacturing component of the STE program. With the passage of SB 1128, the STE Program is open to a wide range of environmental beneficial and advanced manufacturing ventures. CAEATFA therefore believes that it is not necessary to extend the program to additional manufacturing sectors. However, under current law, advanced manufacturing projects are eligible for the STE Program until June 30, 2016, while advanced transportation and alternative energy projects are eligible until the STE Program sunsets on January 1, 2021. In order to maintain the effectiveness of the STE Program and provide businesses with stability and a sufficient planning horizon, CAEATFA believes it makes sense for the Legislature to extend the advanced manufacturing component of the STE Program to the overall program sunset date of January 1, 2021.

Consider removing the $100 million annual cap on total STE granted. To date, the $100 million per year cap on the STE Program has not limited access to the STE. However, with Tesla choosing to build its "Gigafactory" in Nevada, at least partially as a result of substantial tax incentives, the Legislature may want to consider increasing the STE Program's annual cap as a signal to green businesses and investors that a STE would be available for large green manufacturing projects that choose to locate in California.

Appendix A: CAEATFA's Statutory Reporting Requirement

Public Resources Code Section 26011.8(i)(2):

Before January 1, 2015, the authority shall, consistent with Section 9795 of the Government Code, submit to the Legislature an interim report on the efficacy of the program conducted pursuant to this section. The study shall include recommendations on program changes that would increase the program's efficacy in creating permanent and temporary jobs, and whether eligibility for the program should be extended or narrowed to other manufacturing types. The authority may work with the Legislative Analyst's Office in preparing the report and its recommendations.

Appendix B: Statutory Definitions of Advanced Manufacturing, Advanced Transportation, and Alternative Sources Projects

Public Resources Code Section 26003 defines each of the three types of projects that CAEATFA may approve for a sales and use tax exclusion (STE). Note that there are two versions of PRC Sec. 26003 below. The first is operative until June 30, 2016 and includes Advanced Manufacturing projects. The second becomes operative on July 1, 2016 and removes Advanced Manufacturing projects from CAEATFA's STE authority.

(a) As used in this division, unless the context otherwise requires:

(A) "Advanced manufacturing" means manufacturing processes that improve existing or create entirely new materials, products, and processes through the use of science, engineering, or information technologies, high-precision tools and methods, a high-performance workforce, and innovative business or organizational models utilizing any of the following technology areas:

(i) Microelectronics and nanoelectronics, including semiconductors.

(ii) Advanced materials.

(iii) Integrated computational materials engineering.

(iv) Nanotechnology.

(v) Additive manufacturing.

(vi) Industrial biotechnology.

(B) "Advanced manufacturing" includes any of the following:

(i) Systems that result from substantive advancement, whether incremental or breakthrough, beyond the current industry standard, in the production of materials and products. These advancements include improvements in manufacturing processes and systems that are often referred to as "smart" or "intelligent" manufacturing systems, which integrate computational predictability and operational efficiency.

(I) Sustainable manufacturing systems and manufacturing technologies that minimize the use of resources while maintaining or improving cost and performance.

(II) Sustainable manufacturing systems and manufacturing technologies do not include those required to be undertaken pursuant to state or federal law or regulations, air district rules or regulations, memoranda of understanding with a governmental entity, or legally binding agreements or documents. The State Air Resources Board shall advise the authority to ensure that the requirements of this clause are met.

(A) "Advanced transportation technologies" means emerging commercially competitive transportation-related technologies identified by the authority as capable of creating long-term, high value-added jobs for Californians while enhancing the state's commitment to energy conservation, pollution and greenhouse gas emissions reduction, and transportation efficiency.

(B) "Advanced transportation technologies" does not include those projects required to be undertaken pursuant to state or federal law or regulations, air district rules or regulations, memoranda of understanding with a governmental entity, or legally binding agreements or documents. The State Air Resources Board shall advise the authority regarding projects that are excluded pursuant to this subparagraph.

(A) "Alternative sources" means devices or technologies used for a renewable electrical generation facility, as defined in paragraph (1) of subdivision (a) of Section 25741, a combined heat and power system, as defined in Section 2840.2 of the Public Utilities Code, distributed generation and energy storage technologies eligible under the self-generation incentive program pursuant to Section 379.6 of the Public Utilities Code, as determined by the Public Utilities Commission, or a facility designed for the production of renewable fuels, the efficient use of which reduce the use of fossil or nuclear fuels, and energy efficiency devices or technologies that reduce the need for new electric generation and reduce emissions of toxic and criteria pollutants and greenhouse gases.

(B) "Alternative sources" does not include a hydroelectric facility that does not meet state laws pertaining to the control, appropriation, use, and distribution of water, including, but not limited to, the obtaining of applicable licenses and permits.

(4) "Authority" means the California Alternative Energy and Advanced Transportation Financing Authority established pursuant to Section 26004, and any board, commission, department, or officer succeeding to the functions of the authority, or to which the powers conferred upon the authority by this division shall be given.

(5) "Cost" as applied to a project or portion of the project financed under this division means all or part of the cost of construction and acquisition of all lands, structures, real or personal property or an interest in the real or personal property, rights, rights-of-way, franchises, easements, and interests acquired or used for a project; the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which those buildings or structures may be moved; the cost of all machinery, equipment, and furnishings, financing charges, interest prior to, during, and for a period after, completion of construction as determined by the authority; provisions for working capital; reserves for principal and interest and for extensions, enlargements, additions, replacements, renovations, and improvements; the cost of architectural, engineering, financial, accounting, auditing and legal services, plans, specifications, estimates, administrative expenses, and other expenses necessary or incident to determining the feasibility of constructing any project or incident to the construction, acquisition, or financing of a project.

(6) "Financial assistance" includes, but is not limited to, loans, loan loss reserves, interest rate reductions, proceeds of bonds issued by the authority, bond insurance, loan guarantees or other credit enhancements or liquidity facilities, contributions of money, or a combination thereof, as determined by, and approved by the resolution of, the board.

(A) "Participating party" means a person, federal or state agency, department, board, authority, or commission, state or community college, or university, or a city or county, regional agency, public district, school district, or other political entity engaged in the business or operations in the state, whether organized for profit or not for profit, that applies for financial assistance from the authority for the purpose of implementing a project.

(i) For purposes of Section 6010.8 of the Revenue and Taxation Code, "participating party" means an entity specified in subparagraph (A) that seeks financial assistance pursuant to Section 26011.8.

(ii) For purposes of Section 6010.8 of the Revenue and Taxation Code, an entity located outside of the state, including an entity located overseas, is considered to be a participating party and is eligible to apply for financial assistance pursuant to Section 26011.8 if the participating party commits to, and demonstrates that, the party will be opening a manufacturing facility in the state.

(iii) It is the intent of the Legislature by adding clause (ii) to clarify existing law and ensure that an out-of-state entity or overseas entity is eligible to apply for financial assistance pursuant to Section 26011.8.

(A) "Project" means a land, building, improvement to the land or building, rehabilitation, work, property, or structure, real or personal, stationary or mobile, including, but not limited to, machinery and equipment utilized in the state, whether or not in existence or under construction, that utilizes, or is designed to utilize, an alternative source, or that is utilized for the design, technology transfer, manufacture, production, assembly, distribution, or service of advanced transportation technologies or alternative source components.

(B) "Project," for purposes of Section 26011.8 and Section 6010.8 of the Revenue and Taxation Code, means tangible personal property that is utilized in the state for the design, manufacture, production, or assembly of advanced manufacturing, advanced transportation technologies, or alternative source products, components, or systems.

(9) "Revenue" means all rents, receipts, purchase payments, loan repayments, and all other income or receipts derived by the authority from a project, or the sale, lease, or other disposition of alternative source or advanced transportation technology facilities, or the making of loans to finance alternative source or advanced transportation technology facilities, and any income or revenue derived from the investment of money in any fund or account of the authority.

(b) This section shall become inoperative on July 1, 2016, and, as of January 1, 2017, is repealed, unless a later enacted statute, that becomes operative on or before January 1, 2017, deletes or extends the dates on which it becomes inoperative and is repealed.

(a) As used in this division, unless the context otherwise requires:

(A) "Advanced transportation technologies" means emerging commercially competitive transportation-related technologies identified by the authority as capable of creating long-

term, high value-added jobs for Californians while enhancing the state's commitment to energy conservation, pollution and greenhouse gas emissions reduction, and transportation efficiency.

(B) "Advanced transportation technologies" does not include those projects required to be undertaken pursuant to state or federal law or regulations, air district rules or regulations, memoranda of understanding with a governmental entity, or legally binding agreements or documents. The State Air Resources Board shall advise the authority regarding projects that are excluded pursuant to this subparagraph.

(A) "Alternative sources" means devices or technologies used for a renewable electrical generation facility, as defined in paragraph (1) of subdivision (a) of Section 25741, a combined heat and power system, as defined in Section 2840.2 of the Public Utilities Code, distributed generation and energy storage technologies eligible under the self-generation incentive program pursuant to Section 379.6 of the Public Utilities Code, as determined by the Public Utilities Commission, or a facility designed for the production of renewable fuels, the efficient use of which reduce the use of fossil or nuclear fuels, and energy efficiency devices or technologies that reduce the need for new electric generation and reduce emissions of toxic and criteria pollutants and greenhouse gases.

(B) "Alternative sources" does not include a hydroelectric facility that does not meet state laws pertaining to the control, appropriation, use, and distribution of water, including, but not limited to, the obtaining of applicable licenses and permits.

(3) "Authority" means the California Alternative Energy and Advanced Transportation Financing Authority established pursuant to Section 26004, and any board, commission, department, or officer succeeding to the functions of the authority, or to which the powers conferred upon the authority by this division shall be given.

(4) "Cost" as applied to a project or portion of the project financed under this division means all or part of the cost of construction and acquisition of all lands, structures, real or personal property or an interest in the real or personal property, rights, rights-of-way, franchises, easements, and interests acquired or used for a project; the cost of demolishing or removing any buildings or structures on land so acquired, including the cost of acquiring any lands to which those buildings or structures may be moved; the cost of all machinery, equipment, and furnishings, financing charges, interest prior to, during, and for a period after, completion of construction as determined by the authority; provisions for working capital; reserves for principal and interest and for extensions, enlargements, additions, replacements, renovations, and improvements; the cost of architectural, engineering, financial, accounting, auditing and legal services, plans, specifications, estimates, administrative expenses, and other expenses necessary or incident to determining the feasibility of constructing any project or incident to the construction, acquisition, or financing of a project.

(5) "Financial assistance" includes, but is not limited to, loans, loan loss reserves, interest rate reductions, proceeds of bonds issued by the authority, bond insurance, loan guarantees or other credit enhancements or liquidity facilities, contributions of money, or a combination thereof, as determined by, and approved by the resolution of, the board.

(A) "Participating party" means a person, federal or state agency, department, board, authority, or commission, state or community college, or university, or a city or county, regional agency, public district, school district, or other political entity engaged in the

business or operations in the state, whether organized for profit or not for profit, that applies for financial assistance from the authority for the purpose of implementing a project.

(i) For purposes of Section 6010.8 of the Revenue and Taxation Code, "participating party" means an entity specified in subparagraph (A) that seeks financial assistance pursuant to Section 26011.8.

(ii) For purposes of Section 6010.8 of the Revenue and Taxation Code, an entity located outside of the state, including an entity located overseas, is considered to be a participating party and is eligible to apply for financial assistance pursuant to Section 26011.8 if the participating party commits to, and demonstrates that, the party will be opening a manufacturing facility in the state.

(iii) It is the intent of the Legislature by adding clause (ii) to clarify existing law and ensure that an out-of-state entity or overseas entity is eligible to apply for financial assistance pursuant to Section 26011.8.

(A) "Project" means a land, building, improvement to the land or building, rehabilitation, work, property, or structure, real or personal, stationary or mobile, including, but not limited to, machinery and equipment utilized in the state, whether or not in existence or under construction, that utilizes, or is designed to utilize, an alternative source, or that is utilized for the design, technology transfer, manufacture, production, assembly, distribution, or service of advanced transportation technologies or alternative source components.

(B) "Project," for purposes of Section 26011.8 and Section 6010.8 of the Revenue and Taxation Code, means tangible personal property that is utilized in the state for the design, manufacture, production, or assembly of advanced transportation technologies or alternative source products, components, or systems.

(8) "Revenue" means all rents, receipts, purchase payments, loan repayments, and all other income or receipts derived by the authority from a project, or the sale, lease, or other disposition of alternative source or advanced transportation technology facilities, or the making of loans to finance alternative source or advanced transportation technology facilities, and any income or revenue derived from the investment of money in any fund or account of the authority.

(b) This section shall become operative on July 1, 2016.