California's Citizens Oversight Board

7th ANNUAL REPORT

Proposition 39 Clean Energy Jobs Act Report to the Legislature

Gavin Newsom, Governor
March 2022

California's Citizens Oversight Board

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EXECUTIVE SUMMARY

California voters passed the California Clean Energy Jobs Act (Proposition 39) in November 2012 to create jobs, save energy, reduce energy costs and greenhouse gas emissions, and provide job training and workforce development in related fields. By focusing on public schools, community colleges, and other school facilities, the Act created energy and cost savings, and improved the classroom-learning environment for students and educators across California—all while advancing California's broader climate and energy goals.

Implementation of the California Clean Energy Jobs Act occurred through interconnected programs at several different agencies, including the California Energy Commission, the California Community Colleges Chancellor's Office, the California Workforce Development Board, and the California Conservation Corps. These programs included:

- Direct grants for energy audits, retrofits, and clean energy project development for K-12 schools and community colleges;
- Loans and technical assistance to support these projects; and
- Job training and workforce development programs intended to grow and maintain the state's pool of qualified clean energy workers.

The California Clean Energy Jobs Act was designed to last for five years, through June 30, 2018. In 2017, Senate Bill 110 (Committee on Budget and Fiscal Review, Chapter 55, Statutes of 2017), modified the California Clean Energy Jobs Act to establish the Clean Energy Job Creation Program with three new programs: The School Bus Replacement Program, the Energy Conservation Assistance Act – Education Subaccount Competitive Loan Program, and the Proposition 39 K-12 Competitive Grant Program. After June 30, 2018, the remaining Proposition 39 K-12 funds were reallocated to support these programs. SB 110 also required that any future Proposition 39 funding must be provided through direct legislative appropriation.

All energy efficiency and renewable energy projects funded by Proposition 39 were expected to be complete by June 30, 2020, and all final project reports were required by September 30, 2021. However, on May 13, 2020, in response to the COVID-19 pandemic and statewide school closures, the Energy Commission extended the project completion deadline to June 30, 2021, and the final project report deadline to September 30, 2022.

The Citizens Oversight Board is pleased to present our 7th Annual Report to the California Legislature, which documents the continuing energy and cost savings results from completed projects throughout the state. This report and appendices includes reports and previous information from the participating agencies and provides an update on program activities from June 30, 2020 through June 30, 2021.

Findings and Recommendations

Although the interconnected Proposition 39 programs are implemented at several different agencies, the Citizens Oversight Board is the only body responsible for evaluating the progress and impediments of Proposition 39 in its entirety. The Board believes that Proposition 39 has demonstrated success across multiple categories: energy savings, job creation, job training, and improvements to classroom environments. It has also resulted in significant economic and employment impacts throughout the state, including over $3.3 billion in economic activity and an estimated 19,812 direct, indirect, and induced jobs, many of which are local in nature. Additional job creation and economic activity associated with Proposition 39 investments beyond 2018 likely occurred as a result of program extensions and ongoing project construction through 2022.

Energy Project Grant and Technical Assistance Programs

There are 2,189 eligible K-12 Local Educational Agencies (LEAs) in California, including public school districts, charter schools, three state special schools (e.g. schools for the deaf and blind), and county offices of education. Of those, 1,750 LEAs participated in the Proposition 39 program, submitting 2,121 Energy Expenditure Plans (EEPs) for energy efficiency and renewable energy projects at over 7,000 school sites throughout California. As of June 30, 2021, LEAs submitted 1,504 final project completion reports representing $1,504 million in gross project costs. The reported annual energy savings for these completed projects is 341,570,825 kWh and 1,090,495 therms, equivalent to approximately 117,897 tons of greenhouse gas emissions reductions. The combined savings-to-investment ratio (SIR) for these 1,504 projects is $1.30 in returns for every $1.00 invested.

There are 116 community colleges in California with 1.8 million students. The Community Colleges Chancellors Office used Proposition 39 funding to support 957 energy efficiency and renewable energy projects at Community College Districts throughout the state. The majority of these were lighting projects, which generate the highest savings and helped districts meet a SIR of 1.05, meaning for every $1.00 invested, a minimum of $1.05 must be saved over time. The reported annual energy savings for these projects is 105,995,914 kWh and 1,751,874 therms, equivalent to approximately 82,378 tons of greenhouse gas emissions reductions. The energy cost savings associated with these projects is $15.8 million per year.

As with past reports, the Board remains encouraged by the performance of the Energy Conservation Assistance Act Education Subaccount (ECAA-Ed) loan program and Bright Schools technical assistance program. The ECAA-Ed revolving loan offered zero percent financing to eligible Local Education Agencies to finance energy efficiency, demand reduction, and energy generation projects at K-12 local educational agencies and community college districts. The ECAA-Ed program has a zero percent default rate and submitted project completion reports submitted to date indicate total annual energy savings of 21.514 million kWh and 15,286 therms, which is equivalent to 7,114 tons of greenhouse gas emissions reductions. The Bright Schools Program also provided technical assistance to local educational agencies and community college districts to identify energy efficiency measures in existing facilities and apply for Proposition 39 K-12 Program funding.

Given the success of Proposition 39 programs, the Citizens Oversight Board recommends the Legislature continue to support energy efficiency and clean energy projects and technical assistance for K-12 schools and community colleges to realize continued energy savings and greenhouse gas emissions reductions that help meet California's energy, environmental equity, and climate goals.

Workforce Training Grant Programs

The Board remains impressed by the Proposition 39 workforce development grant programs at the California Conservation Corps (CCC), Community Colleges, and the California Workforce Development Board (CWDB). These programs advanced equity by providing energy-efficiency focused workforce-training and education to support the development of a skilled and diverse workforce in California. The CCC trained over 1,100 Energy Corps member (aged 18-25 and veterans up to age 29) to perform energy surveys and energy efficiency retrofits at schools and public agencies in partnership with energy-efficiency firms. They completed more than 1,300 energy surveys at more than 13,000 buildings (representing over 79 million square feet), and over 90 retrofit projects involving more than 124,000 lighting fixture replacements and more than 8,000 control retrofits, saving schools more than 6.5 million kWh per year.

California's Community Colleges helped prepare over 8,900 students for jobs in the clean energy sector by supporting education programs and regional collaboration and partnerships in the energy, construction, and utility sectors. The Community College workforce training and education focused on preparing students for careers in energy efficiency pathways, including the installation and maintenance of energy efficient systems and equipment. Program areas included topics such as construction crafts technology, drafting technology, electronics and electric technology, environmental control technology, industrial systems technology and maintenance, manufacturing and industrial technology, civil and construction management technology, water and wastewater technology, and other engineering and related industrial technologies. The program awarded 2,350 certificates to students completing 6-18 units, 4,117 certificates to students completing 18 units or more, and 887 other degrees and certifications, including industry apprenticeship certifications. Another 1,619 students received Associate of Arts/science degrees.

The CWDB developed 11 construction pre-apprenticeship partnerships throughout the state, bringing together labor, community, education, and workforce organizations to serve disadvantaged Californians. These programs provide pre-apprenticeship training and supportive services that prepare at risk youth, women, veterans, ex-offenders, and other disadvantaged job seekers apply for, enter, and successfully complete state-registered apprenticeship programs in the building and construction trades. Under Proposition 39, nearly 2,100 individuals completed training and earned the MC3 certificate, and 1,660 pre-apprenticeship graduates found placement opportunities in state-registered apprenticeships, construction or energy efficiency employment, post-secondary education, and other employment. The CWDB continues to build on this success by expanding coverage and capacity to serve more disadvantaged Californians and connect pre-apprentices to California's climate change mitigation and adaption efforts through the High Road Construction Careers (HRCC) initiative. Since September 2020, the HRCC initiative has invested in 11 regional-scale

training partnerships in all 58 California counties, with technical assistance from the State Building and Construction Trades Council of California.

The Board recommends the Legislature continue to invest in comprehensive workforce development and education programs so that a skilled and diverse workforce is available to help California meet its energy, environmental equity, and climate goals.

SB 110 School Bus Replacement Program

The Board is also encouraged by the significant progress realized to date through the School Bus Replacement Program, created through SB 110 and supported by the reallocation of $75 million in remaining Proposition 39 K-12 funds. This provided funding for 236 electric school buses, and the Energy Commission provided an additional $60,000 in infrastructure funding per bus from the Clean Transportation Program. Cost savings analysis of electric school buses over their diesel counterparts indicates a lifetime fuel savings cost of about $28,000, or roughly 27 percent savings per bus. The program will also help reduce tailpipe emissions of smog-forming nitrogen oxides by 98,000 lbs. and toxic diesel soot by more than 2,500 lbs. Minimizing exposure to hazardous emissions reduces the risk to adolescent bus riders of developing respiratory diseases such as asthma and helps the state achieve emissions reductions goals. Because electric buses have large batteries and predictable duty cycles, their use as vehicle-to-grid assets may provide on-site resiliency and safety benefits in the case of catastrophic events such as a wildfire. The Energy Commission expects delivery of all buses by September 2022.

The Board believes the emissions reductions, health benefits to children and communities, safety and resiliency benefits, and savings associated with the School Bus Replacement Program investments are considerable. We applaud and support the Governor's Budget proposal to continue the greening of school bus fleets throughout California.

Energy Expenses and Savings Self-Assessments

The Board strongly encourages the Legislature to continue to enact laws, and agencies to enact programs, that incentivize, enable, and encourage public and private facilities and entities to:

1. Assess energy expenses & savings on a monthly basis & share this information within communities;
2. Have responsible parties for lowering energy costs and increasing savings;
3. Research energy (and money) saving technologies such as solar panels, solar hot water, heat pumps, insulation upgrades, geothermal HVAC, energy efficient lighting, green space planning, electric vehicles, no-idle rules for polluting vehicles, trash reduction and increased recycling;
4. Implement those technologies which make the most sense for each facility; and
5. Share knowledge and successes with other entities and facilities.

A ten-question facility self-assessment example is included in Chapter 4.

AB841 School Energy Efficiency Program/CalSHAPE

Assembly Bill (AB) 841 (Ting, Chapter 372, Statutes of 2020) established the School Energy Efficiency Stimulus Program, which authorized the Energy Commission, to design, administer, and implement the California Schools Healthy Air, Plumbing, and Efficiency (CalSHAPE) Program in collaboration with the utilities that fund the program. The CalSHAPE Program includes two grant programs for local educational agencies, the CalSHAPE Ventilation Program and CalSHAPE Plumbing Program. The CalSHAPE Ventilation Program provides funding to assess, maintain, and repair ventilation systems in schools. The CalSHAPE Plumbing Program provides funding to replace aging and water inefficient plumbing fixtures and appliances with water-conserving plumbing fixtures and appliances. The CalSHAPE Program is also creating employment opportunities for a skilled and trained workforce and prioritizing awards to schools located in underserved communities, consistent with the goals of the program, which are to save energy, create jobs, and provide direct support to schools in underserved communities.

Although the Board has no direct role or oversight of the CalSHAPE Program, we believe improving ventilation and energy efficiency in California schools and replacing inefficient and wasteful water fixtures will protect the health of children and teachers alike, while also advancing high-quality jobs in underserved communities. The Board is confident that the CalSHAPE program will provide significant benefits, and recommends it be considered for additional funding in the future.

CHAPTER 1: The California Clean Energy Jobs Act and its Enduring Impact

The Citizens Oversight Board (COB) is pleased to present its seventh and final annual report to the California Legislature on the California Clean Energy Jobs Act (CCEJA), an important component of the state's broader energy, climate, workforce, and education goals. The CCEJA was established through legislation after voters approved the Proposition 39 initiative in the November 6, 2012, statewide general election.[1] The statute changed the corporate income tax code for multistate businesses and established a path to support clean energy job creation and important energy efficiency and clean energy improvements at California's public schools, community colleges, and other public facilities. The program was funded for five years with revenues from the tax code change, beginning in fiscal year 2013-14 and ending in fiscal year 2017-18.

The appendices include information received from the California Energy Commission, the California Community Colleges Chancellor's Office[2,] and the California Workforce Development Board, used to develop this report.[3] Additionally, the appendices include the Proposition 39 implementation legislation, and more recent legislation modifying the program. Finally, the appendices include Proposition 39 K-12 allocations by legislative district, to demonstrate that although direct funding for projects has ceased, project construction is ongoing and project benefits continue to increase throughout the state.

This report and all appendices are also available publicly on the Energy Commission's Citizens Oversight Board website.

Objectives of the California Clean Energy Jobs Act

The main objectives of the CCEJA are laid out in the California Public Resources Code,[4] which states that the program is intended to achieve the following:

a) Create good-paying energy efficiency and clean energy jobs in California.

1 California Secretary of State. Statement of Vote: November 6, 2012 General Election. 2012. Statewide Results for Proposition 39, https://elections.cdn.sos.ca.gov/sov/2012-general/ssov/ballot-measures-summary-by-county.pdf.

2 The California Community Colleges Chancellor's Office received Proposition 39 funding through June 30, 2018. They provided a summary of their final report in February 2021 and the final ADA-compliant report in January 2022.

3 The California Conservation Corps' (CCC) Energy Corps training program received Proposition 39 funding through June 30, 2018, and the CCC provided a final report to the COB in March 2018.

4 California Public Resources Code § 26201, https://california.public.law/codes/ca_pub_res_code_section_26201.

b) Put Californians to work repairing and updating schools and public buildings to improve their energy efficiency and make other clean energy improvements that create jobs and save energy and money.

c) Promote the creation of new private sector jobs improving the energy efficiency of commercial and residential buildings.

d) Achieve the maximum amount of job creation and energy benefits with available funds.

e) Supplement, complement, and leverage existing energy efficiency and clean energy programs to create increased economic and energy benefits for California in coordination with the California Energy Commission and the California Public Utilities Commission.

f) Provide a full public accounting of all money spent and jobs and benefits achieved so the programs and projects funded pursuant to this division can be reviewed and evaluated.

The following legislative actions defined the structure and organization of the CCEJA and established the Citizens Oversight Board:

- Senate Bill 73 (Committee on Budget and Fiscal Review, Chapter 29, Statutes of 2013): Enabling Legislation for Proposition 39 and creation of the Citizens Oversight Board; and
- Assembly Bill 2227 (Quirk, Chapter 683, Statutes of 2014): Subsequent legislation on CCEJA Citizens Oversight Board implementation

The California Energy Commission (Energy Commission)[5] and the California Community Colleges Chancellor's Office[6] also adopted regulatory guidelines to help meet program objectives.

The most recent legislation affecting these programs, Senate Bill 110 (Committee on Budget and Fiscal Review, Chapter 55, Statutes of 2017), extended the overall CCEJA program beyond 2018. SB 110 is discussed in more detail below.

5 Bucaneg, Haile, Pierre duVair, Cheng Moua, Justin Regnier, Keith Roberts, Elizabeth Shirakh, Joseph Wang. 2014. *Proposition 39: California Clean Energy Jobs Act- 2015 Program Implementation Guidelines*. California Energy Commission. Publication Number: CEC-400-2014-022-CMF. Link to Proposition 39: California Clean Energy Jobs Act – 2017 Implementation Guidelines https://ww2.energy.ca.gov/2017publications/CEC-400-2017-014/CEC-400-2017-014-CMF.pdf

6 California Community Colleges Chancellor's Office. Revised 2014. *California Community Colleges Proposition 39 Implementation Guidelines*. 2014. Link to California Community Colleges Proposition 39 Implementation Guidelines https://www.cccco.edu/-/media/CCCCO-Website/About-Us/Divisions/College-Finance-and-Facilities-Planning/Programs/Sustainability/REVISED-Prop-39-Guidelines-Addendum-JAN-2014-FINAL.ashx?la=en&hash=A2E71CAF7CF5D0F60C1C01E9CE52E79F80517A01.

Overview of the Original CCEJA Programs, Funding, and Timelines

Each year, the Energy Commission, the California Community Colleges Chancellor's Office[7], the California Conservation Corps,[8] and the California Workforce Investment Board[9] developed annual reports on their progress implementing CCEJA programs. These reports were submitted to the Citizens Oversight Board for review and approval at the first Citizens Oversight Board meeting, held in February of each year. The Citizens Oversight Board evaluated and summarized the information for inclusion into its annual report to the Legislature, along with findings and recommendations. The agency reports are included as appendices to the Citizens Oversight Board report.

The CCEJA programs fall into three categories:

- **Direct grants** for energy audits, retrofits, and clean energy project development (administered by the Energy Commission for K-12 schools and the California Community Colleges Chancellor's Office for community colleges);
- **Loans and technical assistance** to support these projects (administered through existing loan programs of the Energy Commission); and
- **Job training and workforce development programs** intended to grow and maintain the state's pool of qualified clean energy workers (administered through the California Community Colleges Chancellor's Office, the California Workforce Development Board, and the California Conservation Corps).

The CCEJA was funded via the Clean Energy Job Creation Fund, which sits in the State Treasury. The fund was capitalized each year from corporate tax receipts generated by the tax loophole closed by 2012's Proposition 39. Senate Bill 73 (Committee on Budget and Fiscal Review, Chapter 29, Statutes of 2013) is the implementing legislation for Proposition 39.

Table 1-1 provides an overview of the CCEJA programs by agency and funding levels, beginning in fiscal year 2013-14 and ending in fiscal year 2017-18. There were no additional appropriations for the Proposition 39 programs after Fiscal Year 2017-2018.

7 The California Community Colleges Chancellor's Office provided a summary of the final report in February 2021 and the final ADA-compliant report in January 2022.

8 The California Conservation Corps' (CCC) Energy Corps training program received Proposition 39 funding through June 30, 2018, and thereafter received funding through the Greenhouse Gas Reduction Fund (GGRF). The CCC provided a final report to the COB in March 2018.

9 The California Workforce Development Board (CWDB) received Proposition 39 funding through June 30, 2018, and thereafter received funding through SB 1 and the Greenhouse Gas Reduction Fund (GGRF). The CWDB provided a final job creation and training report to the COB in February 2020.

Table 1-1: Original Clean Energy Job Creation Fund Distribution

Program	State Agency	Category	Budget (in millions)
Energy Project Grants and Loans			
Local Educational Agency K-12 Proposition 39 Award Program	California Energy Commission / California Department of Education	Energy Efficiency and clean energy projects	2013/14 - $381 2014/15 - $279 2015/16 - $313.4 2016/17 - $398.8 2017/18 - $376.2
Community College Proposition 39 Energy Program	California Community Colleges Chancellor's Office	Energy Efficiency and clean energy projects	2013/14 - *$47 2014/15 - *$37.5 2015/16 - *$38.7 2016/17 - *$49.3 2017/18 - $46.5
Energy Conservation Assistance Act Education Subaccount (ECAA-Ed)	California Energy Commission	Leverage: K-12 school support-0% and 1% loans	2013/14 - **$28 2014/15 - **$28 2015/16 - $0 2016/17 - $0 2017/18 - $0
Bright Schools Program	California Energy Commission	Leverage: K-12 school and college technical assistance	**Received 10% of ECAA-Ed
Workforce Training Grants			
Proposition 39 Pre-Apprenticeship support, training and placement grants	California Workforce Development Board	Job training/workforce development	2013/14 - ***$3 2014/15 - ***$3 2015/16 - ***$3 2016/17 - ***$3 2017/18 - ***$3
Energy Corps Apprenticeship Program	California Conservation Corps	Job training/workforce development	2013/14 - $5 2014/15 - $5 2015/16 - $5.4 2016/17 - $5.5 2017/18 - $5.7
Community College Workforce and Economic	California Community Colleges	Job training/workforce development	*Received 12.8% of CCCCO Proposition 39 Energy Program funds

Program	State Agency	Category	Budget (in millions)
Development Division Programs	Chancellor's Office (CCCCO)		
Job Data Collection and Analysis			
Proposition 39 Jobs Reporting	California Workforce Development Board	Jobs Data Collection and Analysis	***Unfunded mandate, uses funding from Prop 39 Pre-Apprenticeship support, training and placement grants
Citizens Oversight Board Staff and Audit Functions			
Citizens Oversight Board		Staff and audit functions	Not funded through Prop 39

Source: Citizens Oversight Board

As noted above, the Community College job training and workforce development programs were not directly funded by Proposition 39, but rather funded by a percentage of the overall funding provided to the Chancellor's Office. Additionally, the collection and analysis of jobs data by the California Workforce Development Board was funded by a percentage of Pre-Apprenticeship training and placement grants. Finally, staff support for the Citizens Oversight Board and funding to perform CCEJA program audits were not funded directly by Proposition 39, but rather through the Energy Commission's budget.

The following tables provide a seven-year overview of results at K-12 schools and community colleges, as well as important economic and fiscal information related to the CCEJA programs.

Table 1-2 shows that that the K-12 Proposition 39 Program increased in size and impact each year. Between December 2015 and June 2016, the number of completed EEPs increased by 35, representing an increase of 206%.

Between June 2016 and June 2017, the number of completed EEPs increased by another 122, representing an increase of 235% for that 12-month period. Between June 2017 and June 2018, the number of completed EEPs increased by another 118, representing an increase of 68% for that 12-month period. Between June 2018 and June 2019, the number of completed EEPs increased by another 230, representing an increase of 79% for that 12-month period. Between June 2019 and June 2020, the number of completed EEPs increased by 440, representing an increase of 84% for that 12-month period. Between June 2020 and June 2021, the number of completed EEPs increased by 542, representing an increase of 56 % for that 12-month period. Cumulatively, between December 2015 and June 2021, the total number of completed EEPs increased by 8,747%.

Table 1-2: Cumulative Summary of K-12 Final Project Completion Reports

	Program totals as of Dec. 2015	Program totals as of June 2016	Program totals as of June 2017	Program totals as of June 2018	Program totals as of June 2019	Program totals as of June 2020	Program totals as of June 2021
Number of Completed EEPs	17	52	174	292	522	962	1,504
Spending							
Total Gross Project Cost	$8.6 million	$34 million	$116 million	$190 million	$367 million	$673 million	1,046 million
Total P-39 Share	$6.2 million	$27 million	$97 million	$153 million	$318 million	$585 million	$892 million
Leveraged Funding	$2.4 million	$7 million	$19 million	$37 million	$49 million	$88 million	$154 million
Energy Savings							
kWh Savings	3,005,227	13,804,252	42,820,936	63,925,295	125,712,267	224,174,133	341,570,825
Therm Savings	3,352	54,641	146,126	225,828	344,789	620,828	1,090,495
GHG emissions reduction	1,056 tons	5,080 tons	15,624 tons	22,191 tons	43,060 tons	76,821 tons	117,897 tons
Savings-to-investment ratio (SIR)	1.26	1.44	1.36	1.36	1.37	1.38	1.30

Source: California Energy Commission

The energy savings associated with these EEPs also increased dramatically, from 3,005,227 kilowatt-hours (kWh) saved in December 2015 to 13,804,252 kWh saved in June 2016, representing an increase of over 350%. Between June 2016 and June 2017, the total kWh savings increased by another 210% for that 12-month period, to 42,820,936 kWh saved. Between June 2017 and June 2018, the total kWh savings increased by another 49% for that 12-month period, to 63,925,295 kWh saved. Between June 2018 and June 2019, the total kWh savings increased by another 97% for that 12-month period, to 125,712,267 kWh saved. Between June 2019 and June 2020, the total kWh savings increased by another 78% for that 12-month period, to 224,174,133 kWh saved. Lastly, between June 2020 and June 2021, the total kWh savings increased by another 52% for that 12-month period, to 341,570,825 kWh saved. Cumulatively, between December 2015 and June 2021, the total number of kWh savings increased by 11,266%.

Finally, as shown in **Table 1-2**, these EEPs created considerable GHG savings. Between December 2015 and June 2016, GHG savings increased from 1,056 tons to 5,080 tons, representing an increase in GHG savings of over 380%. Between June 2016 and June 2017, GHG savings increased from 5,080 tons to 15,624 tons, representing an increase in GHG savings of over 208% for that 12-month period. Between June 2017 and June 2018, GHG savings increased from 15,624 tons to 22,191 tons, representing an increase in GHG savings of over 42% for that 12-month period. Between June 2018 and June 2019, GHG savings increased from 22,191 tons to 43,060 tons, representing an increase in GHG savings of over 94% for that 12-month period. Between June 2019 and June 2020, GHG savings increased from 43,060 tons to 76,821 tons, representing an increase of 78% for that 12-month period. Lastly, between June 2020 and June 2021, GHG savings increased from 76,821 tons to 117,821 tons, representing an increase of 53%. Cumulatively, between December 2015 and June 2021, the total amount of GHG savings increased by 11,064%.

Table 1-3 shows that while projects at the Community Colleges were also slow to start, they continued to develop over time and program benefits also significantly increased. Between December 2015 and June 2016, the number of completed projects increased from 108 to 260, with the additional 152 representing an increase of over 140%. Between June 2016 and June 2017, the number of completed projects increased from 260 to 384; the additional 124 projects represent an increase of an additional 48%. Between June 2017 and June 2018, the number of completed projects increased from 384 to 534; the additional 150 projects represent an increase of an additional 39%. Between June 2018 and June 2019, the number of completed projects increased from 534 to 818; the additional 284 projects represent an increase of an additional 53%. Between June 2019 and June 2020, the number of completed projects increased from 818 to 932; the additional 114 projects represent an increase of an additional 14%. Between June 2020 and June 2021, the number of completed projects increased from 932 to 957; the final 25 completed projects represent an increase of an additional 3%. Cumulatively, between December 2015 and June 2021, the total number of completed projects at the Community Colleges increased by 786%.

The energy savings associated with completed projects in the community college system also increased dramatically, from 14,920,769 kWh saved in December 2015 to 31,170,157 kWh saved in June 2016, representing an increase of approximately 109%. Between June 2016 and June 2017, the total kWh savings increased by another 28%, to 39,995,939 kWh saved. Between June 2017 and June 2018, the total kWh savings increased by another 31%, to 52,576,014 kWh saved. Between June 2018 and June 2019, the total kWh savings increased by another 71%, to 90,077,554 kWh saved. Between June 2019 and June 2020, the total kWh savings increased by another 16%, to 104,344,737 kWh saved. Between June 2020 and June 2021, the total kWh savings increased by another 2%, to 105,995,914 kWh saved. Cumulatively, between December 2015 and June 2021, the total number of kWh savings increased by 610%.

Table 1-3: Cumulative Summary of Community College Final Project Reports

	Program totals as of 2015	Program totals as of 2016	Program totals as of 2017	Program totals as of 2018	Program totals as of 2019	Program totals as of 2020	Program totals as of 2021*
Number of closed-out projects	*108*	*260*	*384*	*534*	*818*	932	957
Spending							
Total Gross Project Cost	$ 25.6 million	$ 56.3 million	$ 74.0 million	$ 104.7 million	$ 207.5 million	248 million	253.8 million
Total P-39 Share	$ 17.7 million	$ 36.4 million	$ 49.5 million	$ 74.5 million	$ 142.4 million	$178.7 million	183.5 million
Total Leveraged Funding with incentives	$ 3.5 million	$ 6.2 million	$ 7.7 million	$ 9.2 million	$ 13.6 million	$14.4 million	14.4 million
Energy Savings							
kWh Savings	14,920,769	31,170,157	39,995,939	52,576,014	90,077,554	104,344,737	105,995,914
Therm Savings	175,042	315,790	567,906	895,909	1,484,265	1,743,582	1,751,874

*Remaining Proposition 39 funds of $5.8 million supported 25 additional projects at 16 Community College Districts.

Source: California Community Colleges Chancellor's Office

SB 110 Program Changes

The CCEJA passed initially as a five-year program, beginning in fiscal year 2013-2014 and ending in fiscal year 2017-2018. In 2017, several LEAs expressed concern with the program schedule, noting that it effectively limited the availability of program funds to four years. In response to these concerns, the Legislature approved Senate Bill 110 (SB 110) (Committee on Budget and Fiscal Review, Chapter 55, Statutes of 2017), which extended the overall CCEJA program beyond 2018 as the Clean Energy Job Creation Program. SB 110 also removed the direct allocation of funds collected from the Proposition 39 tax change and required, after June 30, 2018, that any remaining Proposition 39 K-12 funds from the original five-year program be awarded through competitive grant and loan programs as follows:

- $75 million allocated for the School Bus Replacement Program, with priority given to older buses and buses operating in disadvantaged communities, and to school districts with a majority of students eligible for free or reduced-price meals in the prior year.
- Up to $100 million to the ECAA-Ed account for loans to LEAs on a competitive basis, with priority given to LEAs with a higher percentage of students eligible for free or reduced-price meals in the prior year, energy savings, geographic diversity, and diversity in the size of LEA student populations.
- Any remaining funds would be distributed to LEAs through a Proposition 39 K-12 competitive grant program based on size.

On March 1, 2018, the Energy Commission estimated that $114.5 million in unrequested funds remained in the Clean Energy Job Creation Fund from the Proposition 39 K-12 Program. Based on this estimate, $75 million was available to the School Bus Replacement Program and up to $39.5 million was available to the ECAA-Ed Competitive Loan Program. No additional funds remained to support a K-12 Competitive Grant Program.

Commencing with the 2018-19 Fiscal Year, SB 110 required the Legislature to appropriate any additional funding for the Clean Energy Job Creation Program through the annual budget process. However, no additional funding allocations were provided by the Legislature after the 2017-18 fiscal year. [10]

School Bus Replacement Program

SB 110 established the School Bus Replacement Program to replace the oldest diesel school buses or those operating in disadvantaged and low-income communities throughout California with battery-electric, and gave priority to school districts or county offices of education with a majority of students eligible for free or reduced-price meals. The Energy Commission began developing the program in early 2018 and provided a briefing on the conceptual program design to the COB in March 2018. The COB discussed the program options and provided recommendations to the Energy Commission. The one-time $75 million allocation from Proposition 39 supported the purchase of battery-electric school buses at school districts, county offices of education, and joint power authorities in four regions: Northern California, Central California, Southern California, and Los Angeles County. In addition, funding from the Clean Transportation Program was also awarded to provide charging infrastructure necessary to operate the buses. Finally, the California Energy Commission also provided $1 million in Clean Transportation Program funds for workforce training and development, which includes awards to local community colleges to develop and implement curricula for school districts that received awards for electric school buses. For more information on the School Bus Replacement Program, see Chapter 3.

10 If the Legislature provides additional funding to the Proposition 39 program in the future, SB 110 requires that eleven percent be allocated to the community college districts, and remaining funds be allocated to LEAs based on the LEA's percentage of students eligible for free or reduced-price meals in the prior year, geographic diversity that provides funding to all regions of the state, and workforce needs determined by the California Workforce Investment Board and local workforce investment boards.

ECAA-Ed Competitive Program

The ECAA–Ed Financing Program is a revolving loan program funded by the Clean Energy Job Creation Fund that provides zero percent financing to eligible entities for energy efficiency, demand reduction, and energy generation projects. SB 110 established the ECAA-Ed Competitive Loan Program to fund energy project loans to LEAs on a competitive basis. The Energy Commission issued a $36 million program opportunity notice (PON) offering loan amounts for K–12 LEAs to finance a wide range of energy efficiency and renewable energy projects. The PON required a competitive solicitation process and established the following eligibility criteria; the state was divided into four regions: north, central, south, and Los Angeles County; categorized the LEAs by size: small (less than 1,000 students), medium (between 1,000 – 2,000 students), and large (more than 2,000 students) with each region allocated $9 million, with $3 million set aside for each size of LEAs. The Energy Commission received 21 applications by the first due date of May 31, 2019. Of the 21 applications, seven were selected for funding for a total of $6,718,789. The funds not allocated to the awardees were put toward another PON. Under this second PON, 16 applications were selected for funding during FY 20/21. Two of these projects were cancelled during FY 20/21. The remaining projects totaled $17,588,383 in funding.

AB841 School Energy Efficiency Stimulus Program/CalSHAPE

Assembly Bill (AB) 841 (Ting, Chapter 372, Statutes of 2020) established the School Energy Efficiency Stimulus Program, which authorized the Energy Commission, to design, administer, and implement the California Schools Healthy Air, Plumbing, and Efficiency (CalSHAPE) Program in collaboration with the utilities that fund the program.

The CalSHAPE Program includes two grant programs for local educational agencies, the CalSHAPE Ventilation Program and CalSHAPE Plumbing Program. The CalSHAPE Ventilation Program provides funding to assess, maintain, and repair ventilation systems in schools. The CalSHAPE Plumbing Program provides funding to replace aging and water inefficient plumbing fixtures and appliances with water-conserving plumbing fixtures and appliances.

The funds provided by these grant programs will assist local educational agencies in making much needed repairs and upgrades to the school infrastructure in the state. The CalSHAPE Program is also creating employment opportunities for a skilled and trained workforce and prioritizing awards to schools located in underserved communities, consistent with the goals of the program, which are to save energy, create jobs, and provide direct support to schools in underserved communities.

During the first year of operation, Energy Commission staff began development of the CalSHAPE Program in November 2020. The CalSHAPE Ventilation Program and CalSHAPE Plumbing Program were developed concurrently, and the guidelines for both programs were adopted in June 2021. The Energy Commission began accepting applications for Funding Round One of both programs in the third quarter of 2021. Funding Round One of the CalSHAPE Plumbing Program was open from August 2021 until December 2021. The Energy Commission received 127 applications for the CalSHAPE Plumbing Program, totaling $18,573,635 in grant funding, and issued 43 notices of proposed award. Funding Round One

of the CalSHAPE Ventilation Program was open from September 2021 until January 2022. The Energy Commission received 312 applications for a total of $151,728,739 in CalSHAPE Ventilation Program funding and issued 84 notices of proposed award.

The CalSHAPE Annual Report on Program Year 2021 was recently published and is available at: https://efiling.energy.ca.gov/GetDocument.aspx?tn=242196&DocumentContentId=75685

Additional information on the CalSHAPE Program is available at: https://www.energy.ca.gov/programs-and-topics/programs/california-schools-healthy-air-plumbing-and-efficiency-program

While the Board has no direct role or oversight of the CalSHAPE Program, it supports California's continued investments in schools that improve ventilation, energy efficiency, and the replacement of inefficient and wasteful water fixtures. The Board believes the CalSHAPE Program will help protect the health of our children and teachers alike, while also advancing high-quality jobs in underserved communities.

CHAPTER 2: Citizens Oversight Board Mandates, Meeting History, and Audit Progress

The Citizens Oversight Board is composed of nine members: three members appointed by each the Treasurer, the Controller, and the Attorney General. The California Public Utilities Commission and California Energy Commission (Energy Commission) also each designate ex-officio (non-voting) members to serve on the board. Currently the board has six members and three vacancies.

Mandates of the Citizens Oversight Board

Assembly Bill 2227 (Quirk, Chapter 683, Statutes of 2014) defines the Board's main responsibilities and adds these to the Public Resources Code.[11]

Those duties include:

1. Annually review all expenditures from the Job Creation Fund
2. Commission and review an annual independent audit of the Job Creation Fund and of a selection of completed projects to assess the effectiveness of the expenditures in meeting the objectives of this division
3. Publish a complete accounting of all expenditures each year, posting the information on a publicly accessible Internet Website
4. Submit an evaluation of the program to the Legislature identifying any changes needed to meet the objectives of this division

The major responsibilities of the Citizens Oversight Board are to produce annual audits, including a program audit of the CCEJA and an independent financial audit of the Clean Energy Job Creation Fund, and to provide an annual report to the Legislature evaluating the overall program. This report represents the Board's annual report to the Legislature. Findings from both the program audit and the financial audit are discussed below.

11 Public Resources Code Sections 26210-26217. Link to PRC Section 26210, Link to PRC Section 26211, Link to PRC Section 26212, Link to PRC Section 26213, Link to PRC Section 26214, Link to PRC Section 26215, Link to PRC Section 26216, Link to PRC Section 26217.

Meeting History of the Citizens Oversight Board

Below is a brief description of Citizens Oversight Board meetings that took place in 2021 and early 2022.[12]

2021

- February 17, 2021: The Citizens Oversight Board met to review and accept agency reports and data from the Energy Commission and the California Community Colleges Chancellor's Office on the prior year program activities funded by the Clean Energy Jobs Act. The Board nominated and approved Adrienne Alvord and Randall Martinez as Chair and Vice Chair, respectively. Randy Young, appointed by State Controller Betty Yee in early February, participated in his first meeting.
- March 23, 2021: The Citizens Oversight Board met to approve the sixth annual report to the Legislature.
- August 10, 2021: The Citizens Oversight Board met to review and approve the Program Audit from the State Controller's Office. The Board also discussed ideas for the 2022 annual report to the Legislature. Jim Spano, appointed by State Controller Betty Yee in late May, participated in his first meeting.

2022

- February 25, 2022: The Citizens Oversight Board met to review and accept the Energy Commission's final Proposition 39 report. The Board nominated and approved Adrienne Alvord and Randall Martinez as Chair and Vice Chair, respectively.
- March 23, 2021: The Citizens Oversight Board met to receive updates on the School Bus Replacement Program, ECAA-Ed, the CalSHAPE Program, and approve the seventh annual report to the Legislature.

The Financial Audits of the Clean Energy Job Creation Fund and Program Audits of the Clean Energy Jobs Act

In June 2016, the Citizens Oversight Board entered into an interagency agreement with the California State Controller's Office (SCO) to provide Financial Audits of the Clean Energy Job Creation Fund and Program Audits for the California Clean Energy Jobs Act (CCEJA) programs.[13] The Financial Audits review the balance sheet and related statement of appropriations, expenditures, and changes in the fund balance to ensure that the financial statements of the Clean Energy Job Creation Fund conform to accounting principles generally accepted in the United States. The Program Audits review the oversight practices of both the California Energy Commission (Energy Commission) and Community Colleges Chancellor's

12 Link to agendas, minutes, and transcripts of the board meetings https://www.energy.ca.gov/programs-and-topics/programs/california-clean-energy-jobs-act-proposition-39-k-12-program-1-1.

13 Link to COB audits and other materials https://www.energy.ca.gov/programs-and-topics/programs/california-clean-energy-jobs-act-proposition-39-k-12-program-1-0.

Office (CCCCO) and audit a selection of completed projects from both CCEJA programs to determine whether they are consistent with the California Public Resources Code and adopted program guidelines.

Previous financial audits found that the Energy Commission's program guidelines and Energy Expenditure Plan Handbook, as well as the Community Colleges Chancellor's Office program guidelines, complied with applicable provisions of the California Public Resources Code (the Code). Furthermore, the audits found that both agencies had adequate controls in place to ensure the completeness and accuracy of reporting forms submitted by program recipients.

The previous Financial Audit[14] of the Clean Energy Job Creation Fund, conducted in 2019, noted that implementation of the statewide accounting, budget, cash management information technology (IT) system, Financial Information System for California (FI$Cal), created significant challenges and delays at both the California Conservation Corps and the Community Colleges Chancellor's Office. This, in turn, delayed year-end reconciliations and affected the ability to finalize FY 2017-2018 accounting records and provide supporting documentation. Both agencies sought assistance to resolve Fi$Cal issues.

The State Controller's Office began the final Financial Audit of the Clean Energy Job Creation Fund on February 3, 2022 and expects to publish it no later than June 30, 2022. The COB will post the final program and financial audits on the COB publications website[15] and review them with the SCO at a Board meeting in during Summer 2022.

The CCEJA Program Audit issued in June 2021[16] (2021 Program Audit) covered the period from July 1, 2019, through June 30, 2020. The 2021 Program Audit focused on completed projects to determine if they were consistent with the Code and adopted program guidelines.

Table 2-1: 2021 State Controller's Office Audit Summary

Agency Type	Completed Project Costs	Number of Agencies
Local Educational Agencies (LEAs)	$213,837,359	313
Community College Districts (CCDs)	$36,403,651	31
Total	**$250,241,010**	**344**

Source: Citizens Oversight Board

From these completed projects, the SCO randomly selected a sample of 16 LEAs and four CCDs with a total of $39,178,611 in completed project costs.

14 Link to 2019 Financial Audit of the CCEJA https://www.energy.ca.gov/sites/default/files/2020-05/2019_Financial_Audit_of_the_Clean_Energy_Job_Creation_Fund_ADA.pdf.

15 Link to the COB publications website https://www.energy.ca.gov/programs-and-topics/programs/california-clean-energy-jobs-act-proposition-39-k-12-program-1-0

16 Link to the 2021 Program Audit of the CCEJA https://www.energy.ca.gov/sites/default/files/2020-07/2020_Program_Audit_of_the_Clean_Energy_Jobs_Act_ADA.pdf.

Although the 2021 Program Audit overall showed a high degree of compliance with the Code and adopted program guidelines, some areas of concern were found. The audit found that: six LEAs and two CCDs sole-sourced portions of their project costs; one LEA had unspent planning funds and two LEAs had unspent implementation funds; one LEA and one CCD spent Proposition 39 funds on ineligible expenditures; two LEAs earned interest on their Proposition 39 funds but did not spend it; eleven LEAs and three CCDs did not identify projected energy savings in the awarded contracts, and five LEAs and two CCDs did not have a signed contracts with one or more of their vendors; twelve LEAs submitted final project completion reports after the deadline; and one LEA was in violation of the energy measure payback period. The SCO discussed the audit results with the LEAs and CCDs during audit fieldwork and notified them when the audit was complete. Responses from the LEAs and CCDs are included in the final audit.

Regarding sole source issues, several districts cited differences between both the language and requirements of the Public Resources Code, the Proposition 39 program guidelines, and the Public Contract Code that allows districts to enter into contracts for professional services, as well as confusion over which legal requirements districts must follow. Additionally, LEAs have indicated that only a limited number of companies were available to provide needed energy services. Over the course of the Proposition 39 Program, the COB has consistently requested that implementing agencies remind program applicants that sole-sourcing is not permitted.

When an audit finds that project costs were either sole- sourced or incurred prior to the program eligibility period of December 13, 2013, LEAs can file a Summary Review or Formal Appeal with the Education Audit Appeals Panel (EAAP). If the EAAP does not waive or reduce reimbursements or penalties, LEAs must reimburse the California Department of Education (CDE) through a repayment plan.[17]

Table 2-2, below, presents the recovery status for local educational agencies that were subject to audit findings from 2017 through 2021 for either sole-source or funds spent prior to the eligibility period starting December 19, 2013. The amount of Proposition 39 recovered funds is available in CDE's Consolidated Entitlement Schedule.[18]

17 For more information, see the link to the audit appeal process http://eaap.ca.gov/.

18 For more information regarding Proposition 39 recovered funds, see the Consolidated Entitlement Schedule https://www.cde.ca.gov/fg/aa/ca/prop39cceja.asp.

Table 2-2: Prop 39 Recovery Status of SCO's Audit Findings for LEAs

Local Educational Agency	Date of SCO Report	Amount of Sole-Source Findings	Amount of Findings for Funds Spent Prior to Eligibility Period / Applied to Ineligible Expenditures*	Total Amount of Findings	CDE's Recovery Status
Bonsall Unified	June 2017	$106,215	$0	$106,215	The funds will be recovered over six years.
Chino Valley Unified	June 2017	$185,690	$0	$185,690	The funds have been recovered.
Happy Camp Union Elementary	June 2017	$184,441	$0	$184,441	Finding was waived through the Summary Review.
Nuview Bridge Early College High	June 2017	$0	$20,485	$20,485	The funds have been recovered.
Seiad Elementary	June 2017	$30,710	$0	$30,710	The funds have been recovered.
Cambrian Elementary	July 2018	$17,028	$0	$17,028	The invoice is outstanding.
Clovis Unified	July 2018	$20,300	$277,681	$297,981	The invoice is outstanding.
Harmony Union Elementary	July 2018	$17,705	$0	$17,705	The invoice is outstanding.
Learning Works	July 2018	$1,068	$0	$1,068	Reimbursement waived by Summary Review.
Napa Valley Unified[1]	July 2018	$399,035	$57,541	$399,341	The invoice is outstanding.
Oasis Charter Public	July 2018	$94,980	$0	$94,980	The invoice is outstanding.
Price Charter Middle	July 2018	$7,529	$0	$7,529	The invoice is outstanding.
El Monte City	June 2019	$3,819	$0	$3,819	The invoice is outstanding.
High Tech High Charter	June 2019	$50,000	$0	$50,000	The invoice is outstanding.
Mark Twain Union Elementary	June 2019	$16,368	$0	$16,368	Reimbursement waived by Summary Review.

Local Educational Agency	Date of SCO Report	Amount of Sole-Source Findings	Amount of Findings for Funds Spent Prior to Eligibility Period / Applied to Ineligible Expenditures*	Total Amount of Findings	CDE's Recovery Status
Oceanside Unified	June 2019	$45,449	$0	$45,449	The invoice is outstanding.
Venture Academy Charter	June 2019	$26,447	$0	$26,447	The invoice is outstanding.
West Covina Unified	June 2019	$2,027,653	$8,075	$2,027,653	Summary Review upheld the finding. Formal appeal is pending
Yreka Union High	June 2019	$20,257	$0	$20,257	The invoice is outstanding.
Brisbane School District	June 2020	$56,822	$0	$56,822	The invoice is outstanding.
McSwain Union Elementary	June 2020	$46,950	$0	$46,950	The invoice is outstanding.
Norwalk-La Mirada Unified	June 2020	$20,444	$3,034*	$23,478	LEA agrees with the finding and requests to return the total amount of the finding.
Ralph A. Gates Elementary	June 2020	$262,577	$0	$262,577	The invoice is outstanding.
Saddleback Valley Unified	June 2020	$5,418,069	$0	$5,418,069	Appeal is pending.
William S. Hart Union	June 2020	$3,732,185	$0	$3,732,185	Appeal is pending.
Anaheim Elementary	August 2021	$76,871	$0	$76,871	
Antelope Valley Union HS District	August 2021	$16,298	$0	$16,298	
Children of Promise Academy	August 2021	$25,846	$0	$25,846	
Madera Unified	August 2021	$339,941	$0	$339,941	
Mountain Empire Unified	August 2021	$574,544	$0	$574,544	

Local Educational Agency	Date of SCO Report	Amount of Sole-Source Findings	Amount of Findings for Funds Spent Prior to Eligibility Period / Applied to Ineligible Expenditures*	Total Amount of Findings	CDE's Recovery Status
San Francisco Unified	August 2021	$32,074	$0	$32,074	
Romoland Elementary	August 2021		$5,808	$5,808	
Total		**$13,857,315**	**$372,624**	**$14,164,629**	
Napa Valley Unified[1]: $57,235 is included in both the findings for sole-source and for funds spent prior to the eligibility period (12/19/2013).					

Source: California Department of Education

CHAPTER 3: Proposition 39 Clean Energy Jobs Act Programs

Energy Project Grant Programs

California Energy Commission's Local Educational Agency K-12 Award Program

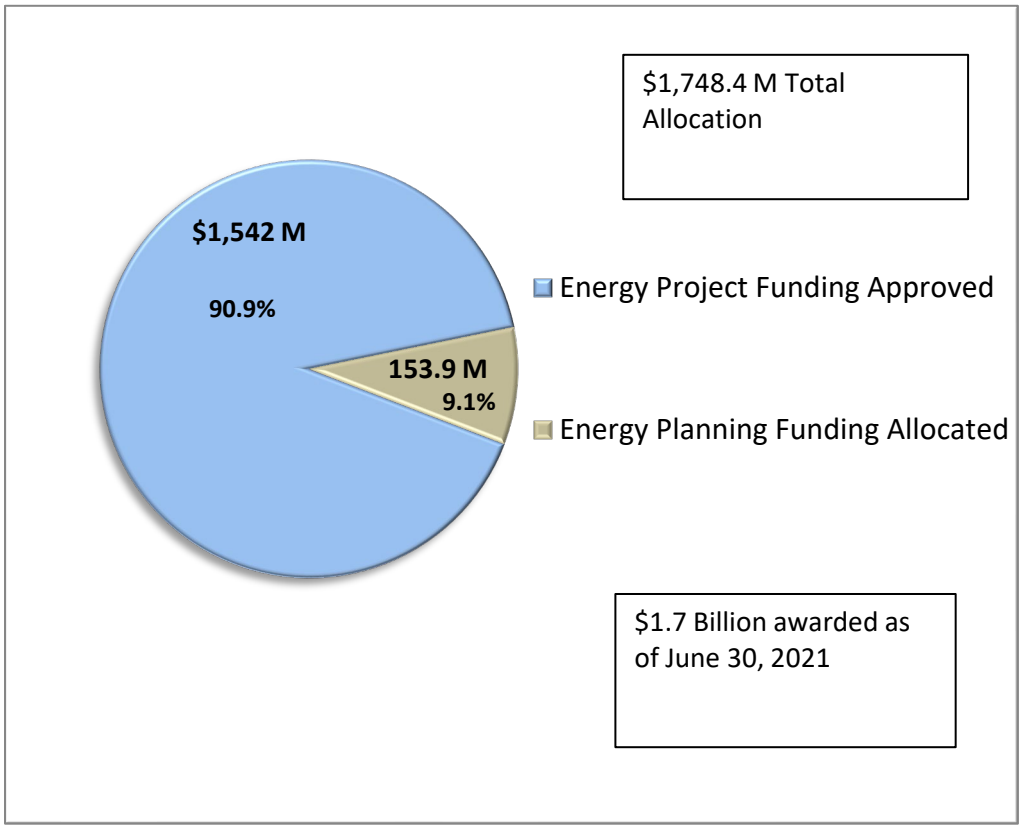
The most recent report from the California Energy Commission summarizes results from the start of the Prop 39 K-12 Program in December of 2013 through June 30, 2021. The Energy Commission provided guidelines and administration for the entire K-12 program and was primarily responsible for receiving, reviewing, and approving energy expenditure plan (EEPs) applications submitted by eligible Local Educational Agencies (LEAs). Upon EEP approval, the Energy Commission notified the California Department of Education, which then distributed funding on a quarterly basis.

Because no additional funding allocations were provided from the Legislature after the 2017-18 fiscal year, no new EEPs were approved after June 30, 2018. Any modifications to EEPs after June 30, 2018, resulted from modifications to existing approved EEPs, the closure of LEAs, or other adjustments to existing funding.

As of June 30, 2021, the California Department of Education reported 2,189 eligible K-12 LEAs in California--these include public school districts, charter schools, three state special schools (e.g., schools for the deaf and blind),[19] and county offices of education. As of June 30, 2021, a total of 1,750 LEAs participated in the program. Together, those 1,750 LEAs submitted 2,121 EEPs for energy efficiency and renewable energy projects at 7,189 school sites, for $1.542 billion of program funding. An additional $153.9 million supported project planning. Overall funding is shown in **Figure 3-1**.

19 California Department of Education, Link to State Special Schools information https://www.cde.ca.gov/sp/ss/.

Figure 3-1: Proposition 39 K-12 Program Overall Funding Status as of June 30, 2021



Source: California Energy Commission

K-12 participation in the program was geographically diverse, with LEAs in all of California's 58 counties benefitting from the program overall. The highest LEA participation occurred in the counties of Alpine, Calaveras, Colusa, Del Norte, Glenn, Lake, Merced, Modoc, San Benito, San Luis Obispo, Sierra, Siskiyou, and Yuba, where the participation rate was 100 percent. Participation by each county can be seen in **Table 3-1**.

Table 3-1: Local Educational Agencies Participation by County as of June 30, 2021

County	Participation Percentage
Alameda	78%
Alpine	100%
Amador	67%
Butte	75%
Calaveras	100%
Colusa	100%
Contra Costa	71%
Del Norte	100%
El Dorado	76%
Fresno	83%
Glenn	100%
Humboldt	93%
Imperial	86%
Inyo	90%
Kern	90%
Kings	86%
Lake	100%
Lassen	92%
Los Angeles	66%
Madera	95%
Marin	91%
Mariposa	67%
Mendocino	91%
Merced	100%
Modoc	100%
Mono	75%
Monterey	83%
Napa	78%
Nevada	92%
Orange	75%
Placer	89%
Plumas	67%
Riverside	86%
Sacramento	90%
San Benito	100%
San Bernardino	81%
San Diego	73%
San Francisco	44%
San Joaquin	74%
San Luis Obispo	100%
San Mateo	78%
Santa Barbara	90%
Santa Clara	79%

Santa Cruz	88%
Shasta	85%
Sierra	100%
Siskiyou	100%
Solano	94%
Sonoma	92%
Stanislaus	82%
Sutter	68%
Tehama	84%
Trinity	82%
Tulare	84%
Tuolumne	93%
Ventura	81%
Yolo	83%
Yuba	100%

Source: California Energy Commission

LEAs are required to provide annual progress reports on approved EEPs until all energy measures within an approved EEP are completed. LEAs must then submit a final project completion report 12 to 15 months after the project completion date. This includes a full year of energy usage data after all approved energy measures are installed.

As shown in **Table 3-2**, from the program launch through June 30, 2021, LEAs completed their EEPs and submitted 1,504 final project completion reports. These completed EEPs represent $1,504 million in gross project costs. Of this amount, the Proposition 39 K-12 Program provided roughly $892 million in grant funds, and LEAs contributed the remaining $154 million in leveraged funding. The reported annual saved energy usage for these completed projects is 341,570,825 kWh and 1,090,495 therms, which is equivalent to roughly 117,897 tons of greenhouse gas emissions[20] reduction.

Analyses of these reports show that the combined savings-to-investment ratio (SIR) for these 1,504 projects is $1.30 in returns for every $1.00 invested.

20 Based on 653 lbs of CO_2e/MWh and 11.69 lbs of CO_2e/therm.

Table 3-2: Cumulative Summary of Final Project Completion Reports

	Previous Report (as of June 2016)	Previous Report (as of June 2017)	Previous Report (as of June 2018)	Previous Report (as of June 2019)	Previous Report (as of June 2020)	Previous Report (as of June 2021)
Number of Completed EEPs	***52***	***174***	***292***	***522***	***962***	***1,504***
Spending						
Total Gross Project Cost	$34 million	$116 million	$190 million	$367 million	$673 million	$1,046 million
Prop. 39 Share	$27 million	$97 million	$153 million	$318 million	$585 million	$892 million
Leveraged Funding	$7 million	$19 million	$37 million	$49 million	$88 million	$154 million
Energy Savings						
kWh Savings	13,804,252	42,820,936	63,925,295	125,712,267	224,174,133	341,570,825
Therm Savings	54,641	146,126	225,828	344,789	620,828	1,090,495
GHG emissions reduction	5,080 tons	15,624 tons	22,191 tons	43,060 tons	76,821 tons	117,897 tons
Savings-to-investment ratio (SIR)	1.44	1.36	1.36	1.37	1.38	1.30
Total Cost Savings	**$2.4 million**	**$7.8 million**	**$11.9 million**	**$23.4 million**	**$42.8 million**	**$66.3 million**

Source: California Energy Commission

California Community Colleges Chancellor's Office Clean Energy Jobs Act Implementation

The California Community Colleges Chancellors Office (CCCCO) used Proposition 39 funding to support 957 energy efficiency and renewable energy projects at Community College Districts throughout the state. The majority of these were lighting projects, which generate the highest savings and helped districts meet a SIR of 1.05, meaning for every $1.00 invested, a minimum of $1.05 must be saved over time. In total, there were 556 lighting projects, 323 HVAC and controls (combined lighting and HVAC controls) projects, and 78 self-generation and monitor-based commissioning/retro-based commissioning (MBCx/ RCx) projects. The reported annual energy savings for these projects is 105,995,914 kWh and 1,751,874 therms, equivalent to approximately 82,378 tons of greenhouse gas emissions reductions. The energy cost savings associated with these projects is $15.8 million per year.

Comparing energy use data from 2018-19 to baseline data from 2012-13 indicates that system-wide energy use has declined by 7.29 percent across the state. **Table 3-3** shows the system-wide energy usage and savings for the Community College system since the program started in fiscal year 2012-13.

Table 3-3: Community Colleges System-wide Energy Usage and Savings

Fiscal Year	Average British Thermal Units Per Gross Square Foot Per Week	Percent Reduction of Baseline Year
2012-2013	1,606	Baseline Year
2018-2019	1,489	-7.29% from Baseline Year

Source: California Community College Chancellor's Office

California Community Colleges Board of Governor's Sustainability and Energy Awards

The California Community Colleges Board of Governors established the Energy and Sustainability Awards in 2012 to honor leaders and exemplary energy and sustainability efforts. The awards are presented each year to recognize the ongoing efforts of community colleges to achieve environmental sustainability. The award categories recognize Excellence in Energy and Sustainability for Innovative Projects, Faculty/Student Initiatives, and Sustainability Campion. The 2020 award winners include projects and faculty throughout the state, including Contra Costa Community College District, Citrus Community College District, Hartnell Community College District, Los Angeles Community College District, and Rancho Santiago Community College District.[21]

Loans and Technical Assistance Programs

California Energy Commission's Energy Conservation Assistance Act Education Subaccount and SB110 Competitive Loan Program

The ECAA loan program has existed since 1979, providing loans totaling approximately $442 million to 882 entities, and technical assistance since 1982. In 2013, the Energy Conservation Assistance Act – Education (ECAA-Ed) was established within the ECAA program exclusively for K-12 schools. Both ECAA and ECAA-Ed have been highly successful and well received. The ECAA-Ed revolving loan program continued offering its zero percent financing to eligible Local Education Agencies to finance energy efficiency, demand reduction, and energy generation projects at K-12 local educational agencies and community college districts. To date, the program has a zero percent default rate.

21 For more information, see the Link to the California Community College Board of Governors Meeting Documents https://go.boarddocs.com/ca/cccchan/Board.nsf/goto?open&id=BW7SJJ6F1993.

In 2017, SB 110 (Budget Committee, Chapter 55, Statutes 2017) modified the ECAA-Ed program to a competitive solicitation process, with funding distributed by region, size of the local educational agency (LEA), student participation in the Free and Reduced Price Meals (FRPM) program, and projected project energy savings. The allocation for the ECAA-Ed Competitive Loan Program is from the remaining Proposition 39 program funds after fully funding the School Bus Replacement Program.

The first ECAA-Ed competitive solicitation for approximately $38.5 million, Energy Commission PON-18-101, was released February 5, 2019, with a final application date of May 31, 2019. The Energy Commission received 21 applications. After administrative screening and review, applications were technically reviewed, then scored and ranked based on the criteria established in SB110. Seven applications received funding, totaling $6.7 million, and are currently in construction.

As not all funds were awarded, a second ECAA-Ed competitive solicitation, Energy Commission PON-19-101, was released with a final application date of June 29, 2020. Due to the interruption and hardship caused by the COVID-19 pandemic, the Energy Commission extended the deadline to submit applications from June 29, 2020, to August 27, 2020.

As of June 30, 2021, the Energy Commission approved 60 ECAA-Ed Loans from both the original program funds of fiscal years 2013-14 and 2014-15 as well as the SB 110 Competitive Loan Program funds from fiscal year 2019-20. Of that 60, 4 loans were cancelled, resulting in 56 loans. **Table 3-4** provides an overview of program loans and associated status.

Table 3-4: ECAA-Ed Financing Loan Status Overview as of June 30, 2021

Loan Status	# of Loans	Loan Funds Approved *(in millions)*
Loans with Final Project Completion Reports	**29**	**$46.16**
Loans with Outstanding Completed project Final Reports	**5**	**$8.5**
Completed Loan Projects (Final Reports due after 6/30/21)	**3**	**$2.23**
Loans Still in Construction	**19**	**$23.67**
Totals	**56**	**$80.56**

Source: California Energy Commission

Loan recipients are required to report post-installation energy consumption and project savings after project completion. Thirty-one loan recipients submitted post-installation reports, and the reported total annual energy savings were 21.514 million kWh and 15,286 therms, which is equivalent to 7,114 tons of reduced greenhouse gas emissions.

California Energy Commission's Bright Schools Program

The Bright Schools Program provides local educational agencies and community college districts with technical assistance to identify energy efficiency measures in existing facilities and apply for Proposition 39 K-12 Program funding. The Bright Schools Program received its funding allocation directly from the ECAA program--of $56 million allocated to ECAA, $5.5

million was allocated to the Bright Schools Program. It did not receive funding in fiscal years 2015-16, 2016-17, or 2017-18.

As of June 30, 2020, 200 technical assistance requests were approved, totaling over $3.5 million. The average cost for a technical assistance request was $16,500, with a limit of $20,000 per request. Eighty Bright Schools Program energy audit reports were successfully used to support Proposition 39 K-12 energy expenditure plans.

Table 3-5 shows the status and amount of related funding for schools that received technical assistance energy studies.

Table 3-5: Bright Schools Program Technical Assistance Overview as of June 30, 2020

Technical Assistance (TA) Status	# of Program Participants	Amount Spent
Completed	197	$2,777,910
In Progress	0	N/A
Withdrawn	3	$28,225
Contractor Administration	N/A	$567,371
TOTALS	**200**	**$3,373,506**

Source: California Energy Commission

The completed energy studies identified total annual energy savings of 28,647 MWh and 305,025 therms, which is equivalent to 11,135 tons of reduced greenhouse gas emissions.

Workforce Training Grant Programs

California Workforce Development Board Proposition 39 Pre-Apprenticeship Support, Training and Placement

The California Workforce Development Board (CWDB) invested $13.3 million in Proposition 39 program funds from 2014 through June 30, 2018 to develop 11 construction pre-apprenticeship programs throughout the state bringing together labor, community, education, and workforce organizations to serve disadvantaged Californians. These programs provide pre-apprenticeship training and supportive services that prepare at risk youth, women, veterans, ex-offenders, and other disadvantaged job seekers apply for, enter, and successfully complete state-registered apprenticeship programs in the building and construction trades. This program was one of the most innovative aspects of the Clean Energy Jobs Act and is consistently looked at by other states as a model for clean energy industry training.[22]

22 California Energy Commission, Link to additional information on the CWDB Proposition 39 training programs https://www.energy.ca.gov/filebrowser/download/160.

and Link to Proposition 39 Training Report https://www.energy.ca.gov/filebrowser/download/159.

Using the National Building Trades Multi-Craft Core Curriculum (MC3), the 11 partnerships prepared participants for a bright future by providing an industry-valued credential (the MC3 certificate) and connecting them with a state registered apprenticeship program for the next step in their construction careers.

According to the CWDB, over 2,700 individuals were enrolled in the pre-apprenticeship partnerships, which sustained high graduation rates – approximately 78%, or nearly 2,100 individuals completed training and earned the MC3 certificate.[23] After program completion, approximately 79%, or 1,660 pre-apprenticeship graduates, found meaningful placement opportunities as follows:

- State-registered apprenticeship: 41% (683)
- Construction or energy-efficiency specific employment: 23% (372)
- Post-secondary education: 10% (166)
- Other employment: 26% (439)

Building on the success of the pre-apprenticeship training program developed under Proposition 39, the CWDB is continuing to scale up its High Road Construction Careers (HRCC) initiative with funding from the Road Repair & Accountability Act of 2017 (Senate Bill 1) and the Greenhouse Gas Reduction Fund (GGRF).[24] To this end, the HRCC initiative has been investing in 11 regional-scale training partnerships covering all 58 California counties since September 2020, with cohorts for the multi-craft pre-apprenticeship ongoing in each region of the state.[25] Training partnerships are also supported by technical assistance provided by the State Building and Construction Trades Council of California. In addition to SB1, the CWDB is investing $5.6M of GGRF monies into 8 of the 11 regional HRCC partnerships. Beyond expanded coverage and capacity to serve more disadvantaged Californians, grantees have been using this funding to expand their partnerships and connect pre-apprentices to to California's climate change efforts – namely by requiring all programs to teach the Green Construction module of the MC3 (which is otherwise an elective course) and to report on extra-curricular activities (e.g., site visits, hands-on projects, guest lectures, etc.) that support climate change mitigation and adaptation.

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23 California Workforce Development Board, *Building a Statewide System of High-Road Pre-Apprenticeship in California: Lessons from the California Clean Energy Jobs Act*, July 2019, pp. 3-4, Link to Building a Statewide System of High Road Pre-Apprenticeship in California: Lessons from the Clean Energy Jobs Act https://cwdb.ca.gov/wp-content/uploads/sites/43/2019/10/HRCC_Building-a-Statewide-System-of-High-Road-Pre-Apprenticeship-in-California_ACCESSIBLE.pdf.

24 SB 1 allocated $5M per year for 5 years ($25M total) to the CWDB for the High Road Construction Careers (HRCC) initiative; the first three years of SB 1 funding has been awarded.

25 "High Road Construction Careers (HRCC): SB 1 Program Awards," https://cwdb.ca.gov/wp-content/uploads/sites/43/2020/06/SB1-Web-Award-Announcement_ACCESSIBLE.pdf. (*See also*: "High Road Construction Careers regional map," https://cwdb.ca.gov/initiatives/hrcc/high-road-construction-careers-regional-map/.)

California Conservation Corps' Energy Corps Training Program

The Board no longer receives reports the from the California Conservation Corps and the information presented below has not changed since the last report was provided in March 2018.

The California Conservation Corps' (CCC) Energy Corps training program received Proposition 39 funding through June 30, 2018, and thereafter received funding through the Greenhouse Gas Reduction Fund (GGRF). The CCC provided a final report to the COB in March 2018. In February 2019, CCC staff indicated that they were continuing to install energy efficient lamps, controllers, ballasts and other equipment purchased by LEAs with Proposition 39 funds; with GGRF covering labor costs.

The CCC training program funded by Proposition 39 included three categories of training: energy opportunity surveys/ energy audits, energy efficiency retrofits and renewable energy work, and educational programs. Energy Corps members (youth aged 18 to 25, as well as recently returned veterans up to age 29) provided energy surveys and performed retrofit work for schools and public agencies in partnership with energy-efficiency firms. With funding from Proposition 39, the CCC trained 708 Corps members to conduct energy surveys and trained another 408 Corps members to perform energy efficiency retrofits. Altogether, from FY 2013-14 through FY 17-18, the CCC completed 93 retrofit projects involving more than 124,000 lighting fixture replacements and more than 8,000 control retrofits that save schools more than 6.5 million kWh per year. In addition, the CCC completed more than 1,300 energy surveys at more than 13,000 buildings, representing over 79 million square feet. These surveys provided detailed information about energy systems and energy use data and represent the largest data set of energy use and efficiency information about K-12 schools ever collected in California.

California Community College Workforce and Economic Development Program

The information below from California Community Colleges Chancellors Office represents program results through 2019 and has not changed.

The Community College Workforce and Economic Development Program received 12.8% of the California Community College Proposition 39 annual fund allocation for use in job training and workforce development projects. This amount totals more than $27.9 million from fiscal year 2013-14 through fiscal year 2017-18.

The funds were divided into grants for community colleges to purchase new equipment, create and improve student curriculum, and provide professional development for faculty to prepare students for jobs in the clean energy sector. The program also supported regional collaboration in the energy, construction and utility sectors, including the development of partnerships and networks to support continued student and faculty success. Program areas included topics such as construction crafts technology, drafting technology, electronics and electric technology, environmental control technology, industrial systems technology and maintenance, manufacturing and industrial technology, civil and construction management technology, water and wastewater technology, and other engineering and related industrial technologies

For the 2018-19 academic year, the community college workforce program has distributed 2,350 certificates for completing 6-18 units, 4,117 certificates for completing 18 units or more, and 887 other degrees and certifications including industry apprenticeship certifications. Another 1,619 students received Associate of Arts/science degrees. Approximately 8,973 community college students statewide participated in these programs.

Proposition 39 Job Creation

The estimates of employment and economic activity from the California Workforce Development Board represent program results through 2018. Additional job creation and economic activity associated with Proposition 39 investments beyond 2018 likely occurred as a result of program extensions and ongoing project construction through 2022, but the COB cannot calculate or verify potential additional benefits and employment.

The California Clean Energy Jobs Act (CCEJA) created significant economic and fiscal benefits throughout the program. As shown in **Table 3-6**, the California Workforce Development Board estimates that through the end of 2018, more than 19,812 total jobs were created through the Energy Commission's K-12 Proposition 39 Award Program.[26] This included 8,702 direct jobs, 3,811 indirect jobs, and over 7,299 induced jobs. Any funding changes after 2017-2018 were primarily a result of amendments or cancellations to existing EEPs, LEA closures, or other adjustments to existing funding. Because no additional funding allocations were distributed after the 2017-2018 fiscal year, the employment estimates through the end of 2018 remain unchanged. Nevertheless, the substantial investments from the K-12 program have increased economic activity and employment, on top of energy savings and greenhouse gas emissions that would not have otherwise occurred.

26 California Energy Commission, Link to February 19, 2019 Proposition 39 Jobs Report https://www.energy.ca.gov/filebrowser/download/161.

Table 3-6: Economic and Employment Impacts of Proposition 39 Grants Calculated through 2018

Proposition 39 grants $1.5 billion (2016 dollars)	Economic Activity (2016 dollars)	Employment (number of jobs created)
Direct Jobs (e.g. electricians installing new systems at schools)	$1.481 billion	8,702
Indirect Jobs (e.g. suppliers of energy equipment used in projects)	$711.3 million	3,811
Induced Jobs (e.g. workers in retail or restaurant industries who benefit from spending by direct workers)	$1.156 billion	7,299
Total	$3.349 billion	19,812

Source: California Workforce Development Board

SB 110 School Bus Replacement Program

School Bus Replacement Program

Senate Bill 110 appropriated the remaining funds from the Proposition 39 K-12 program to establish the School Bus Replacement Program at the Energy Commission. The bill provided one-time funding of $75 million to replace older diesel-powered school buses with battery-electric school buses in disadvantaged and low-income communities throughout California.

To allow a wider coverage of the program, the funds were distributed between four regions in California: Northern California, Central California, Southern California, and Los Angeles County. Additional funding of almost $14 million from the Energy Commission's in Clean Transportation Program were leveraged to provide the necessary charging infrastructure schools would need to operate the buses. Also, $1 million in Clean Transportation Program funds were set aside for workforce training and development to ensure proper maintenance of the buses and infrastructure in the years to come.

The Energy Commission received more than 200 applications for more than 1,600 diesel school buses requested for replacement, some buses as old as 1978. Individual buses were then evaluated based on three factors: age of bus, applicant's percentage of FRPM recipients, and applicant's disadvantaged community score according to the CalEnviroScreen 3.0. Preference was given to applicants with higher percentages of FRPM and disadvantaged community scores. From the applications received, an initial list of ranked buses was released in November 2018.

The second phase of the program kicked off in November 2018, with a solicitation to select an electric school bus manufacturer(s) or dealer to design, construct, and deliver electric school buses to the public-school districts, COEs, and JPAs that applied for the replacement of its school buses. The purpose of this solicitation was to establish a bulk purchase price for school districts, COEs, and JPAs. Applications were evaluated and scored for the technical evaluation portion based on the following criteria: relevant experience and qualifications; project readiness and implementation; client references; battery and fuel range; warranty, service, and support; innovation; economic benefits to California; and ability to leverage funding. Applications passing the technical evaluation advanced to the next screen, where the lowest-cost bid was selected for each school bus type (Type A, Type C, Type D, and each type with or without chair lifts). The bus bid forms were ranked in order from lowest to highest cost per bus-by-bus type.

Table 3-7 shows a breakdown of each awarded manufacturer's bid amount for each bus type. The Lion Electric Co. was the awardee for the Type A electric school bus without wheelchair lift, and the Type C and D electric school buses with and without wheelchair lift. A-Z Bus Incorporated was the awardee for electric school bus Type A with wheelchair lift.

Table 3-7: School Bus Replacement Program Manufacturers' Bid Amounts

Applicant	Bus Type	Bid Amount
The Lion Electric Co.	Type A Without Chair Lift	$269,489
A-Z Bus Sales, Inc. – California (Micro Bird)	Type A With Chair Lift	$291,524
The Lion Electric Co.	Type C Without Chair Lift	$319,284
The Lion Electric Co.	Type C With Chair Lift	$327,727
The Lion Electric Co.	Type D Without Chair Lift	$330,109
The Lion Electric Co.	Type D With Chair Lift	$337,467

Source: California Energy Commission

Once manufacturers were selected, funding was allocated based on bid price using the rank list to determine which applicants would be awarded funding for new buses. From the initial rank list of buses, the Energy Commission funded 236 electric school buses. The applicants received funding for the replacement school bus, with an additional $60,000 in infrastructure funding per bus from the Clean Transportation Program.

Table 3-8 shows a breakdown of the number of awardees, number of buses awarded, and the total bus and infrastructure awards in each of the four regions. Nearly 90 percent of the awardees are in disadvantaged communities. Since the last COB report, some schools decided

not to accept awards or changed the types of buses originally awarded based on various needs of each district. As a result, the Energy Commission was able to award buses to additional school districts in various regions, continuing to fund the next buses in line on the rank list.

Table 3-8: Description of School Bus Replacement Program Awards

Region	Number of Awardees	Number of Buses Awarded[27]	Total Bus Award	Total Infrastructure Award
North	18	59	$18,602,233	$3,540,000
Central	23	59	$19,280,330	$3,540,000
Los Angeles	15	61	$18,684,622	$3,660,000
South	11	57	$18,536,719	$3,420,000
Totals	**66**	**236**	**$75,103,904**	**$14,160,000**

Source: California Energy Commission

Table 3-9 below shows the Energy Commission's timeline for anticipated bus delivery. At the close of 2019, 11 of the 236 buses funded were delivered to school districts. In 2020, 61 of the 236 buses were delivered. By the end of 2021, 140 buses were delivered. The Energy Commission expects to have all buses delivered by September 2022.

Table 3-9: Estimated Bus Delivery Timeline

Cumulative Percentage of Delivered Buses	Latest Bus Delivery Date
5%	12/31/2019
25%	12/31/2020
50%	12/31/2021
100%	9/30/2022

Source: California Energy Commission

27The number of buses awarded to each region differed based upon the cost of each bus type requested in each school district.

Infrastructure

The Energy Commission is working with electric utilities, both public and investor-owned, to assist in upgrading the electrical infrastructure required to charge the awarded buses while emphasizing the need to plan for future electrical capacity needs. Electric vehicle supply equipment (EVSE) is required to be, at a minimum, an AC Level 2 network charger. AC Level 2 network chargers operate between 208-240 volts and provide charging rates ranging from 3-19.2 kW. The chargers are programmable so the user can determine the conditions that need to be met for charging to occur, including low energy costs or an abundance of renewable energy on the grid. Also, EVSE is required to be ENERGY STAR®-certified, and capable of charging a vehicle at a minimum of 6.2 kilowatts (kW); however, the Energy Commission recommends EVSEs capable of charging at 19.2 kW. Networked EVSEs provide recipients with the ability to set charging for buses to off-peak demand hours, provide remote diagnostics, and allow remote start of connected vehicles. The Energy Commission has funded 76 chargers as of October 2021 and expects to fund 236 chargers by the end of the program.

Workforce Development

In anticipation of the School Bus Replacement Program, the CEC began to work with California schools in 2018 to understand the importance and role of school bus training for zero-emission school bus technology. Schools expressed a need for training for school bus maintenance and service technicians, as well as training for bus operators for battery-electric technology. As part of their application for the School Bus Replacement Program, nearly 200 applicants identified a need for workforce development.

In 2019, the Energy Commission approved a contract for $1 million with Cerritos Community College to develop and deliver the "Electric School Bus Training Project" to provide grantees the skills required to maintain the zero-emission school buses funded through CEC's School Bus Replacement Program. Training is available for both school district maintenance technicians and school bus operators. Course subjects include high-voltage safety, proper operation, and maintenance of zero-emission school buses and school bus charging. In 2020, the Energy Commission launched the training project. Following California Governor Newsom's March 19, 2020, Executive Order N-33-20, in-person training options diminished so an online training tool, Today's Class Technician, was deployed. As of July 2021, this online training program concluded with a total of 79 participating technicians across two cohorts which represents over half of the total technicians from the associated Energy Commission funded schools. The feedback from the online platform was positive and is being used to develop an in-person curriculum. Public health restrictions have delayed beta testing for these courses, but they are still expected to begin rollout to various colleges in 2022.

School bus manufacturers and electric vehicle charging infrastructure companies also offer training to new electric school bus owners along with warrantied and ongoing support. Some examples of training include the following:

- The Lion Electric Company has developed learning centers in the state (Lion Academy), offering training to technicians and drivers, as well as support for customers through the steps of the purchase process for an electric school bus.

- A-Z Bus Sales also provides driver training and mechanic safety training for battery electric school buses.
- Twin Rivers Unified School District in Sacramento has refined and developed its own in-house training program to familiarize school bus drivers with the new zero-emission school buses and infrastructure technology.

Benefits

Cost savings analysis of electric school buses over their diesel counterparts indicates a lifetime fuel savings cost of about $28,000, or roughly 27 percent savings per bus.[28] Electric school buses require less maintenance than their diesel counterparts due to the reduction of moving components within the electric drivetrain and motor of the vehicles, providing a greater ability to minimize time out of operation. The reduction of operating costs provides recipients an incentive to adopt zero-emission vehicle (ZEV) technologies for bus fleets.

The School Bus Replacement Program will help reduce tailpipe emissions of smog-forming nitrogen oxides by 98,000 lbs. and toxic diesel soot by more than 2,500 lbs.[29] Minimizing exposure to hazardous emissions reduces the risk to adolescent bus riders of developing respiratory diseases such as asthma and helps the state achieve emissions reductions goals.[30]

Moreover, vehicle-to-grid (V2G) enabled electric school buses have the potential added benefit of serving grid operators, including balancing renewable peaks and valleys, as well as providing excess capacity and bulk storage when needed, which could be utilized as a revenue source by bus operators. V2G enabled battery electric school buses have the potential to reduce electricity generation related greenhouse gas emissions by 1,420 tons of CO_2 equivalence and eliminate $18,300 of air pollution externalities over their lifetime (Ercan, et al. 2016)[31]. School buses have been determined to be a good application for V2G because of the large batteries, predictable duty cycles, and long down times throughout the day when energy demand is greatest. These factors can also provide on-site resiliency in the case of an emergency power shutoff by the utility or during a catastrophic event such as a wildfire.

28 Based on 13,000 average annual miles.

29 Toxic diesel soot is fine particulate matter that is 2.5 microns or less in diameter.

30 GFO-17-607 Cost Effectiveness Model, available at https://www.energy.ca.gov/sites/default/files/2020-04/Cost-Effectiveness_ada.pdf.

31 Ercan, Tolca, Mehdi Noori, Yang Zhao, and Omer Tatari. 2016. "On the Front Lines of a Sustainable Transportation Fleet: Applications of Vehicle-to-Grid Technology for Transit and School Buses." Energies. MDPI.

CHAPTER 4: Findings and Recommendations

As the California Clean Energy Jobs Act Program draws to a close, it is clear that the California Clean Energy Jobs Act has been an extremely successful program that helped meet the state's education, energy, climate, and economic development goals. The Citizens Oversight Board is mindful of the significant accomplishments and outcomes of the program across the state. Each year, the number of completed energy efficiency and clean energy projects in K-12 schools and community colleges expanded, participation rates of disadvantaged and small, rural schools increased, and project benefits, including energy savings and greenhouse gas emission reductions continued to accrue statewide. Proposition 39 demonstrated success across multiple categories: energy savings, job creation, job training, greenhouse gas emissions reductions, and improvements to classroom environments. It also resulted in significant economic and employment impacts throughout the state, including over $3.3 billion in economic activity and an estimated 19,812 direct, indirect, and induced jobs, many of which are local in nature. Additional job creation and economic activity associated with Proposition 39 investments beyond 2018 likely occurred as a result of program extensions and ongoing project construction through 2022.

Energy Project Grant and Technical Assistance Programs

There are 2,189 eligible K-12 Local Educational Agencies (LEAs) in California, including public school districts, charter schools, three state special schools (e.g. schools for the deaf and blind),[32] and county offices of education. Of those, 1,750 LEAs participated in the Proposition 39 program, submitting 2,121 Energy Expenditure Plans (EEPs) for energy efficiency and renewable energy projects at over 7,000 school sites throughout California. As of June 30, 2021, LEAs submitted 1,504 final project completion reports representing $1,504 million in gross project costs. The reported annual energy savings for these completed projects is 341,570,825 kWh and 1,090,495 therms, equivalent to approximately 117,897 tons of greenhouse gas emissions reductions. The combined savings-to-investment ratio (SIR) for these 1,504 projects is $1.30 in returns for every $1.00 invested.

There are 116 community colleges in California with 1.8 million students. The Community Colleges Chancellors Office used Proposition 39 funding to support 957 energy efficiency and renewable energy projects at Community College Districts throughout the state. The majority of these were lighting projects, which generate the highest savings and helped districts meet a SIR of 1.05, meaning for every $1.00 invested, a minimum of $1.05 must be saved over time. The reported annual energy savings for these projects is 105,995,914 kWh and 1,751,874 therms, equivalent to approximately 82,378 tons of greenhouse gas emissions reductions. The energy cost savings associated with these projects is $15.8 million per year.

32 California Department of Education, Link to State Special Schools information https://www.cde.ca.gov/sp/ss/.

As with past reports, the Board remains encouraged by the performance of the Energy Conservation Assistance Act Education Subaccount (ECAA-Ed) loan program and Bright Schools technical assistance program. The ECAA-Ed revolving loan offered zero percent financing to eligible Local Education Agencies to finance energy efficiency, demand reduction, and energy generation projects at K-12 local educational agencies and community college districts. The ECAA-Ed program has a zero percent default rate and submitted project completion reports submitted to date indicate total annual energy savings of 21.514 million kWh and 15,286 therms, which is equivalent to 7,114 tons of greenhouse gas emissions reductions. The Bright Schools Program also provided technical assistance to local educational agencies and community college districts to identify energy efficiency measures in existing facilities and apply for Proposition 39 K-12 Program funding.

Given the success of Proposition 39 programs, the Citizens Oversight Board recommends the Legislature continue to support energy efficiency and clean energy projects and technical assistance for K-12 schools and community colleges to realize continued energy savings and greenhouse gas emissions reductions that help meet California's energy, environmental equity, and climate goals.

Workforce Training Grant Programs

The Board remains impressed by the Proposition 39 workforce development grant programs at the California Conservation Corps (CCC), Community Colleges, and the California Workforce Development Board (CWDB). These programs have advanced equity by providing energy-efficiency focused workforce-training and education to support the development of a skilled and diverse workforce in California. The CCC trained over 1,100 Energy Corps member (aged 18-25 and veterans up to age 29) to perform energy surveys and energy efficiency retrofits at schools and public agencies in partnership with energy-efficiency firms. They completed more than 1,300 energy surveys at more than 13,000 buildings (representing over 79 million square feet), and over 90 retrofit projects involving more than 124,000 lighting fixture replacements and more than 8,000 control retrofits, saving schools more than 6.5 million kWh per year.

California's Community Colleges helped prepare over 8,900 for jobs in the clean energy sector, supporting education programs and regional collaboration and partnerships in the energy, construction, and utility sectors. At California's Community Colleges, workforce training and education focused on preparing students for careers in energy efficiency pathways, including the installation and maintenance of energy efficient systems and equipment. Program areas included topics such as construction crafts technology, drafting technology, electronics and electric technology, environmental control technology, industrial systems technology and maintenance, manufacturing and industrial technology, civil and construction management technology, water and wastewater technology, and other engineering and related industrial technologies. The program awarded 2,350 certificates to students completing 6-18 units, 4,117 certificates to students completing 18 units or more, and 887 other degrees and certifications, including industry apprenticeship certifications. Another 1,619 students received Associate of Arts/science degrees.

The CWDB developed 11 construction pre-apprenticeship partnerships throughout the state, bringing together labor, community, education, and workforce organizations to serve disadvantaged Californians. These programs provide pre-apprenticeship training and

supportive services that prepare at risk youth, women, veterans, ex-offenders, and other disadvantaged job seekers apply for, enter, and successfully complete state-registered apprenticeship programs in the building and construction trades. Under Proposition 39, nearly 2,100 individuals completed training and earned the MC3 certificate, and 1,660 pre-apprenticeship graduates found placement opportunities in state-registered apprenticeships, construction or energy efficiency employment, post-secondary education, and other employment. The CWDB continues to build on this success by expanding coverage and capacity to serve more disadvantaged Californians and connect pre-apprentices to California's climate change mitigation and adaption efforts through the High Road Construction Careers (HRCC) initiative. Since September 2020, the HRCC initiative has invested in 11 regional-scale training partnerships in all 58 California counties, with technical assistance from the State Building and Construction Trades Council of California.

The Board recommends the Legislature continue to invest in comprehensive workforce development and education programs so that a skilled and diverse workforce is available to help California meet its energy, environmental equity, and climate goals.

School Bus Replacement Program

The Board is also encouraged by the significant progress realized to date through the School Bus Replacement Program, created through SB 110 and supported by the reallocation of $75 million in remaining Proposition 39 K-12 funds. This provided funding for 236 electric school buses, and the Energy Commission provided an additional $60,000 in infrastructure funding per bus from the Clean Transportation Program. Cost savings analysis of electric school buses over their diesel counterparts indicates a lifetime fuel savings cost of about $28,000, or roughly 27 percent savings per bus.[33] The program will also help reduce tailpipe emissions of smog-forming nitrogen oxides by 98,000 lbs. and toxic diesel soot by more than 2,500 lbs.[34] Minimizing exposure to hazardous emissions reduces the risk to adolescent bus riders of developing respiratory diseases such as asthma and helps the state achieve emissions reductions goals.[35] Because electric buses have large batteries and predictable duty cycles, their use as vehicle-to-grid assets may provide on-site resiliency and safety benefits in the case of catastrophic events such as a wildfire. The Energy Commission expects delivery of all buses by September 2022.

The Board believes the emissions reductions, health benefits to children and communities, safety and resiliency benefits, and savings associated with the School Bus Replacement Program investments are considerable. We applaud and

33 Based on 13,000 average annual miles.

34 Toxic diesel soot is fine particulate matter that is 2.5 microns or less in diameter.

35 GFO-17-607 Cost Effectiveness Model, available at https://www.energy.ca.gov/sites/default/files/2020-04/Cost-Effectiveness_ada.pdf.

support the Governor's Budget proposal to continue the greening of school bus fleets throughout California.

Energy Expenses and Savings Self-Assessments

The Board strongly encourages the Legislature to continue to enact laws, and agencies to enact programs, that incentivize, enable, and encourage public and private facilities and entities to:

1. **Assess energy expenses & savings on a monthly basis & share this information within communities;**
2. **Have responsible parties for lowering energy costs and increasing savings;**
3. **Research energy (and money) saving technologies such as solar panels, solar hot water, heat pumps, insulation upgrades, geothermal HVAC, energy efficient lighting, green space planning, electric vehicles, no-idle rules for polluting vehicles, trash reduction and increased recycling;**
4. **Implement those technologies which make the most sense for each facility; and**
5. **Share knowledge and successes with other entities and facilities.**

A ten-question facility self-assessment example is included at the end of this chapter.

AB841 School Energy Efficiency Program/CalSHAPE

Assembly Bill (AB) 841 (Ting, Chapter 372, Statutes of 2020) established the School Energy Efficiency Stimulus Program, which authorized the Energy Commission, to design, administer, and implement the California Schools Healthy Air, Plumbing, and Efficiency (CalSHAPE) Program in collaboration with the utilities that fund the program. The CalSHAPE Program includes two grant programs for local educational agencies, the CalSHAPE Ventilation Program and CalSHAPE Plumbing Program. The CalSHAPE Ventilation Program provides funding to assess, maintain, and repair ventilation systems in schools. The CalSHAPE Plumbing Program provides funding to replace aging and water inefficient plumbing fixtures and appliances with water-conserving plumbing fixtures and appliances. The CalSHAPE Program is also creating employment opportunities for a skilled and trained workforce and prioritizing awards to schools located in underserved communities, consistent with the goals of the program, which are to save energy, create jobs, and provide direct support to schools in underserved communities.

Although the Board has no direct role or oversight of the CalSHAPE Program, we believe improving ventilation and energy efficiency in California schools and replacing inefficient and wasteful water fixtures will protect the health of children and teachers alike, while also advancing high-quality jobs in underserved communities. The Board is confident that the CalSHAPE program will provide significant benefits, and recommends it be considered for additional funding in the future.

COB Example Facility Self-Assessment

1) Our energy costs, savings & usage are shared monthly with our community
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will start within 30 days (3 points)

2) Someone in our community is responsible for reducing energy costs (and/or increasing savings)
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will start within 30 days (3 points)

3) Our facility has solar panels and/or solar hot water
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will research within 30 days (3 points)

4) If our facility has solar panels and/or solar hot water, equipment produces at least 60% of our needs on average
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will research how to produce 50% of need within 30 days (3 points)

5) Our facility has an enforced no-idle policy for polluting vehicles
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will start within 30 days (3 points)

6) Our facility has an enforced no-idle policy for polluting vehicles
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will start within 30 days (3 points)

7) Our facility has energy efficient lighting
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will research within 30 days (3 points)

8) Our facility has energy efficient HVAC (such as geothermal or heat pump)
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will research within 30 days (3 points)

9) Our facility has a plan to replace any polluting vehicles with electric vehicles
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will research within 30 days (3 points)

10) Our facility has a plan to reduce trash and improve recycling & composting
   Yes (10 points)
   No (0 points)
   Unsure (0 points)
   We will start within 30 days (3 points)

Key:
91-100. WAHOO! Please actively share your knowledge with others
69-90. Amazing! Please be a resource to others including hosting them
50-68. Keep up the great work! Please share your successes and get insights from others
31-49. Good job so far! Keep going and get community involved in all 10 areas.
30. Good start! Research is the first step AND make timelines to move forward
0-29. Assessing your facility is the first important step. Congrats in advance on your progress.

Appendices

APPENDIX A: ENERGY COMMISSION - PROPOSITION 39: CALIFORNIA CLEAN ENERGY JOBS ACT, K-12 PROGRAM AND ENERGY CONSERVATION ASSISTANCE ACT 19-20 PROGRESS REPORT

APPENDIX B: FINAL CALIFORNIA COMMUNITY COLLEGE CHANCELLOR'S OFFICE 2021 SUMMARY REPORT

APPENDIX C: CALIFORNIA CLEAN ENERGY JOBS ACT (PROPOSITION 39): FINAL REPORT ON CALIFORNIA WORKFORCE DEVELOPMENT BOARD (CWDB) PRE-APPRENTICESHIP PROGRAM

APPENDIX D: FINAL JOBS AND TRAINING REPORT TO THE PROP 39 CITIZENS OVERSIGHT BOARD PRESENTATION

APPENDIX E: SENATE BILL 73: PROPOSITION 39 IMPLEMENTATION LEGISLATION

APPENDIX F: SENATE BILL 110: CLEAN ENERGY JOB CREATION PROGRAM AND CITIZENS OVERSIGHT BOARD LEGISLATION

APPENDIX G: PROPOSITION 39 K-12 ALLOCATIONS BY LEGISLATIVE DISTRICT