STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
DF-46 (REV 10/20)

Fiscal Year	Business Unit	Department	Priority No.
2021-22	3360	California Energy Commission	1

Budget Request Name	Program	Subprogram
3360-059-BCP-2021-GB	Development	Transportation Technology and Fuels

Budget Request Description
Reauthorization of the Clean Transportation Program

Budget Request Summary
The Energy Resources Conservation and Development Commission (CEC) requests to: 1) extend until June 30, 2046 the vehicle registration fee described in Vehicle Code Section 9250.1, the smog abatement fee described in Health and Safety Code Section 44060.5, the identification plate fee described in Vehicle Code Section 9261.1, and the vessel registration fee described in Vehicle Code Section 9853.6; 2) provide authority to the Clean Transportation Program to issue revenue bonds to accelerate funding for the Clean Transportation Program to support Executive Order N-79-20 and pledge future revenues towards repayment of revenue bonds to accelerate up to $500 million of funding in the near term; 3) update authority provided to the Clean Transportation Program and the California Infrastructure and Economic Development Bank (IBank), as specified; and 4) provide baseline authority for 8 permanent positions and $375,000 in contract funding, for a total request of $1.773 million, from the Alternative and Renewable Fuel and Vehicle Technology Fund (3117) to support revenue bond issuance(s) and administer the accelerated funding.

Requires Legislation	Code Section(s) to be Added/Amended/Repealed
☒ Yes ☐ No	HSC 41081, 43018.9, 44060.5, 44225, 44229, 44270.3, 44271, 44272, 44272.5, 44272.7, 44273, 44275, 44280, 44281, 44282, 44283, and 44287; PRC 42885 and 42889; VC 9250.1, 9250.2, 9261.1, and 9853.6; GC 63048.95

Does this BCP contain information technology (IT) components? ☐ Yes ☒ No *If yes, departmental Chief Information Officer must sign.*	Department CIO	Date
	Click or tap here to enter text.	Click or tap to enter a date.

For IT requests, specify the project number, the most recent project approval document (FSR, SPR, S1BA, S2AA, S3SD, S4PRA), and the approval date.

Project No. Click or tap here to enter text. **Project Approval Document:** Click or tap here to enter text.

Approval Date: Click or tap to enter a date.

If proposal affects another department, does other department concur with proposal? ☒ Yes ☐ No
Attach comments of affected department, signed and dated by the department director or designee.

Prepared By	Date	Reviewed By	Date
John Butler	12/14/2020	Melanie Vail	12/18/2020
Department Director	**Date**	**Agency Secretary**	**Date**
Drew Bohan	Click or tap to enter a date.	Bryan Cash	Click or tap to enter a date.

Analysis of Problem

Department of Finance Use Only

Additional Review: ☐ Capital Outlay ☐ ITCU ☐ FSCU ☐ OSAE ☐ Dept. of Technology

PPBA	**Date submitted to the Legislature**
Click or tap here to enter text.	Click or tap to enter a date.

Analysis of Problem

A. Budget Request Summary

The Energy Resources Conservation and Development Commission (CEC) requests to: 1) extend until June 30, 2046 the vehicle registration fee described in Vehicle Code Section 9250.1, the smog abatement fee described in Health and Safety Code Section 44060.5, the identification plate fee described in Vehicle Code Section 9261.1, and the vessel registration fee described in Vehicle Code Section 9853.6; 2) provide authority to the Clean Transportation Program to issue revenue bonds to accelerate funding for the Clean Transportation Program to support Executive Order N-79-20 and pledge future revenues towards repayment of revenue bonds to accelerate up to $500 million of funding in the near term; 3) update authority provided to the Clean Transportation Program and the California Infrastructure and Economic Development Bank (IBank), as specified; and 4) provide baseline authority for 8 permanent positions and $375,000 in contract funding, for a total request of $1.773 million, from the Alternative and Renewable Fuel and Vehicle Technology Fund (ARFVTF - 3117) to support revenue bond issuance(s) and administer the accelerated funding.

B. Background/History

Chapter 750, Statutes of 2007 (AB 118), subsequently amended by Chapter 313, Statutes of 2008 (AB 109), Chapter 487, Statutes of 2011 (AB 1314), and extended to January 1, 2024 by Chapter 401, Statutes of 2013 (AB 8), directs the CEC to provide "competitive grants, revolving loans, loan guarantees, loans, or other appropriate funding measures to public agencies, vehicle and technology entities, businesses and projects, public-private partnerships, workforce training partnerships and collaboratives, fleet owners, consumers, recreational boaters, and academic institutions to develop and deploy innovative technologies that transform California's fuel and vehicle types to help attain the state's climate change policies" (Health and Safety Code 44272(a)). Implementing the Clean Transportation Program requires developing an annual investment plan update, releasing competitive solicitations for public funding, making awards based on those solicitations, managing subsequent grant agreements and contracts, and conducting ongoing program, technology and market research, analysis, and evaluations.

Clean Transportation Program activities are designed to support alternative fuels and vehicle technologies, with a greater and greater focus on zero emission vehicles (ZEVs), that will transform California's transportation markets to help attain the state's ambitious climate change goals.

Since 2006, California has set several pivotal goals to reduce greenhouse gas (GHG) emissions and address the threat posed by the global climate crisis and to the public health of Californians. The public health consequences disproportionately impact low-income and disadvantaged communities. California's climate, public health, and equity goals require incremental progress that will ultimately lead to major emission reductions, including:

- Reducing GHG emissions to 1990 levels by 2020.
- Reducing GHG emissions to 40 percent below 1990 levels by 2030.
- Reducing short-lived climate pollutant emissions, such as methane, to 40 to 50 percent below 2013 levels by 2030.
- Achieving a carbon-neutral economy by 2045.
- Setting specific goals to boost the supply of ZEVs and charging and fueling stations, including:
    - Putting at least 1.5 million ZEVs on the road by 2025.

- Installing 200 hydrogen-fueling stations and 250,000 battery-electric vehicle chargers, including 10,000 direct-current fast chargers, by 2025.
- Putting 5 million ZEVs on the road by 2030.
- Transitioning 100 percent of new sales of passenger vehicles and trucks to ZEVs by 2035.
- Transitioning 100 percent of operating medium- and heavy-duty trucks and buses to zero emissions by 2045 everywhere feasible, and 100 percent of drayage trucks by 2035.
- Transitioning 100 percent of operating off-road vehicles and equipment to zero emissions by 2035.

Achieving these goals will require significant technological and market transformation within the transportation sector, which accounts for roughly 50 percent of state GHG emissions when accounting for "upstream emissions" from fuel production.

In addition to these GHG emission reduction goals, the state must comply with requirements under the federal Clean Air Act to reduce emissions of criteria air pollutants. Reducing air pollution is important from an equity context, given that air quality burdens fall disproportionately on vulnerable and disadvantaged communities within the state.

Under the Clean Transportation Program, the CEC is the lead agency investing in the necessary infrastructure to:

- Increase medium- and heavy-duty ZEV charging and fueling infrastructure.
- Provide public electric vehicle chargers for light-duty vehicle charging.
- Develop state-funded hydrogen stations that are open to the public.

AB 8 extended the Clean Transportation Program and vehicle related state and local fees and surcharges to January 1, 2024. These are intended to fund transportation related goals pertaining to air quality, public health, GHG reduction, and related programs administered by the CEC. AB 8 also codified the CEC's role in establishing and supporting a network of up to 100 hydrogen fueling stations in California by requiring 20 percent of the annual Clean Transportation funding be allocated to support construction of hydrogen refueling infrastructure until the goal of 100 stations is met.

Existing statute currently requires the CEC to develop and administer the Clean Transportation Program with the primary purpose of developing and deploying innovative technologies that will transform California's fuel and vehicle types to help attain the state's climate change policies. The CEC has awarded funding to the following project types:

Clean Transportation Program Awards as of May 1, 2020

Funded Activity	Cumulative Awards to Date (in Millions)	# of Projects or Units
Alternative Fuel Production		
Biomethane Production	$73.08	28 Projects
Gasoline Substitutes Production	$31.94	15 Projects
Diesel Substitutes Production	$63.94	26 Projects
Renewable Hydrogen Production	$7.93	2 Projects
Alternative Fuel Infrastructure		
Electric Vehicle Charging Infrastructure	$182.81	11,276 Level 2 Chargers/ DC Fast Chargers
Hydrogen Fueling Infrastructure	$135.58	62 Public Fueling Stations, plus Fleets
E85 Fueling Infrastructure	$3.61	57 Fueling Stations
Upstream Biodiesel Infrastructure	$3.98	4 Infrastructure Sites
Natural Gas Fueling Infrastructure	$24.11	70 Fueling Stations
Alternative Fuel and Advanced Technology Vehicles		
Natural Gas Vehicle Deployment	$86.84	3,152+ Vehicles
Propane Vehicle Deployment	$5.98	514 Trucks
Hybrid and ZEV Deployment (Including CVRP, HVIP, and Low-Income Mobility Incentives)	$32.02	10,700 Cars and 150 Trucks
Advanced Technology Freight and Fleet Vehicles	$125.67	54 Demonstrations
Related Needs and Opportunities		
Manufacturing	$55.54	24 Manufacturing Projects
Workforce Training and Development	$33.33	17,440 Trainees
Fuel Standards and Equipment Certification	$3.90	1 Project
Sustainability Studies	$2.04	2 Projects
Regional Alternative Fuel Readiness	$11.11	51 Regional Plans
Centers for Alternative Fuels	$5.41	5 Centers
Technical Assistance and Program Evaluation	$9.22	n/a
Total	**$898.92**	

Resource History

(Dollars in thousands)

Program Budget	**PY – 4**	**PY – 3**	**PY – 2**	**PY-1**	**PY**	**CY**
Authorized Expenditures 1/	$153,001	$173,710	$177,512	$301,075	$315,680	$162,101
Actual Expenditures 2/	$85,892	$102,456	$115,942	$93,378	$315,680	TBD
Revenues 3/	$104,924	$110,813	$115,592	$212,681	$118,200	TBD
Authorized Positions	59.0	59.0	59.0	59.0	60.0	60.0
Filled Positions	49.2	52.1	48.7	54.1	54.8	54.0
Vacancies	9.8	6.9	10.3	4.9	5.2	6.0

1/ Provisional language allows for a four-year encumbrance period with an additional four-year liquidation period. Authorized expenditures include carry-over funds. PY-1 includes $75 million in one-time funding (PRC 26205.5) and $57.5 million in one-time funding for ZEV infrastructure. CY includes $51 million in one-time funding approved via Chapter 40, Statutes of 2020 for ZEV infrastructure. CY authorized expenditures will be reconciled in the spring to include carry-over funds.

2/ PY actual expenditures will be reconciled in the spring.

3/ Revenues includes interest earnings and motor vehicle fees. PY-1 includes one-time revenue transfers totaling $90 million: $15 million per Item 3900-011-3119 (Budget Act of 2018) and $75 million from the Clean Energy Job Creation Fund per PRC 26205.5.

Workload History

Workload Measure	**PY – 4**	**PY – 3**	**PY – 2**	**PY-1**	**PY**	**CY**
Solicitations Developed and Administered	5	5	7	5	3	5
Applications Received and Evaluated	180	46	282	59	67	60 + additional in process
New Agreements Developed and Managed	48	21	114	19	7	TBD. Solicitation in process
Total Active Agreements Managed	292	274	275	246	242	206 + additional in process

C. State Level Consideration

The state has aggressive policies to expedite the development of clean, alternative and renewable fuels and vehicle technologies to help meet the state's environmental goals and lead California to a 100 percent clean energy future. EO N-79-20 specifies that by 2035 all new passenger cars and trucks sold in California must be ZEV. Further, EO N-79-20 specifies all drayage trucks and off-road vehicles and equipment must be ZEV by 2035. By 2045 all medium- and heavy-duty vehicles in the state must be zero-emission where feasible.

To meet these important state goals, this proposal extends the Clean Transportation Program, provides authority to issue revenue bonds, makes needed program updates to clarify the authority to transfer funds to administer loan programs, and provides additional staff resources for the CEC to carry out these policies through the effective and strategic implementation of the Clean Transportation Program and associated activities.

The state will directly benefit from the economic, public health, and environmental improvements that will be gained through the continued development and deployment of ZEVs and infrastructure. Significant and sustained investments are needed to transition the state's vehicle fleet to ZEVs and ZEV technologies, including both plug-in electric vehicles and hydrogen fuel cell electric vehicles.

Through its investments, the Clean Transportation Program strives to leverage funds to support jobs, economic development, and equity. This includes a program-wide focus on creating high-quality job opportunities and funding shovel-ready infrastructure projects that promote job creation, manufacturing, and economic recovery.

To ensure and enhance equity, the CEC is seeking to commit 50 percent of net funding to low-income and disadvantaged communities for the remainder of the Clean Transportation Program. The deployment of hydrogen fueling infrastructure and electric vehicle charging infrastructure, especially to support medium- and heavy-duty trucks, buses, goods movement, and port equipment will be focused on ensuring all Californians benefit from the transition to cleaner fuels. The CEC will continue to work with the Clean Transportation Program Advisory Committee, the Disadvantaged Communities Advisory Group (DACAG), and stakeholders to define and track benefits to ensure equitable disbursement of funding.

The CEC continues to advance and embed equity and inclusion within the Clean Transportation Program. These efforts include engaging and partnering with community-based organizations and community organizers in project scoping and grant applications. Efforts also include identifying new qualitative and quantitative metrics beyond project location to evaluate the effects of the programs and projects on local communities.

Additionally, the benefits from Clean Transportation Program activities will support other state environmental, health, and economic development agencies by providing funding and support for projects that positively impact the air quality and job creation goals of these agencies.

This proposal is consistent with the CEC's Strategic Plan. Specifically, it supports the Goals and Strategies described in: Role IV, Strategy 4(3) for technology transformation of transportation fuels and technology.

D. Justification

Extend Vehicle Registration, Smog Abatement, Identification Plate, and Vessel Registration Fees that Support the Clean Transportation Program through 2046: Significant and sustained investments in zero emission charging and fueling infrastructure are needed to transition to a 100 percent clean energy future. The transportation sector accounts for approximately 50 percent of the greenhouse gas emissions in California when factoring in fuel production. In addition to GHGs, the transportation sector is a major emitter of criteria pollutants, with mobile sources responsible for nearly 80 percent of nitrogen oxide (NOx) emissions and 90 percent of diesel particulate matter emissions statewide. Public investments remain critical in several

clean transportation sectors until the business case is established that can sustain private sector investment and provide the infrastructure needed to support a vibrant ZEV fleet in California.

Extension of the fees provides needed funding to the Clean Transportation Program to continue to fund projects that develop and deploy ZEV charging and refueling infrastructure throughout California for light-, medium-, and heavy-duty vehicles. These fees generate approximately $100 million per year in revenue. Extension of the fees through 2046 and pledging only the $2 annual vehicle registration fees (which generate ~$66 million in annual revenues) allows the CEC to accelerate up to $1.0 billion in the next few years and still retain an ongoing revenue stream of $40 million from the smog abatement fees. This accelerated funding will provide the needed near-term investments to spark the market and develop and deploy ZEV infrastructure to meet California's aggressive climate change goals.

The CEC plans to accelerate $500 million initially, to help catalyze a critical market inflection point for technology adoption and acceleration arising in the near term. Approximately $300 million will be used to address the identified ZEV infrastructure gap for electric and hydrogen infrastructure (discussed below), and approximately $200 million will be used to support and seed the development of the medium- and heavy-duty sectors. The more granular use of the additional $500 million will be evaluated through the CEC's public Clean Transportation Program Investment Plan process. These investments are imperative to address one of the largest barriers to ZEV adoption – lack of infrastructure.

Private sector investments are increasing, which is encouraging. However, public investments are still required to fill gaps and ensure all Californians can participate in the state's transition to zero emission transportation. As shown in the table "Statewide Counts of Light-Duty ZEV Infrastructure and Projected Infrastructure Gap" below, the gap analysis shows that funding allocated to date still leaves a $335 million gap to reach the 2025 targets of 250,000 chargers and 200 hydrogen fueling stations. CEC projects are evolving to increase the ratio of private funding to public funding. However, as ZEV sales increase and the market moves beyond early adopters to mainstream consumers, additional public investment is essential to addressing more challenging infrastructure needs. These include apartment buildings, high-usage fleets like taxis, Uber, and Lyft, and rural communities.

The medium- and heavy-duty sector of the ZEV market is in an early stage of development and public sector investments are critical to develop and deploy technologies and infrastructure. While medium- and heavy-duty vehicles make up just 3 percent of the vehicles on California roadways, they contribute about 23 percent of on-road GHG emissions, 60 percent of NOx and 52 percent of particulate matter (PM) 2.5 emissions in the state. Medium- and heavy-duty vehicles represent a significant opportunity to reduce GHG and criteria emissions while focusing on a relatively small number of vehicles. Medium- and heavy-duty vehicles typically travel through California's priority population communities, so converting to ZEVs aims to ensure that air quality benefits accrue to low-income communities and disadvantaged populations and improve public health. The Clean Transportation Program's 2020-2023 Investment Plan Update (see https://efiling.energy.ca.gov/getdocument.aspx?tn=235807) has signaled the need to increase investments in this sector.

Update the Program Name to the Clean Transportation Program: Updating the name of the Alternative and Renewable Fuel and Vehicle Technology Program to Clean Transportation Program succinctly communicates the intent and goals of the program. The new, streamlined title of the program will assist in program marketing and outreach which is critical for program success.

Authority to Issue Revenue Bonds: The need to accelerate investments in ZEV infrastructure is critical to ensure the state can achieve its 2025, 2030, and 2035 ZEV goals. The ability to accelerate funding will significantly advance California's climate goals and provide necessary state funding support as California transitions to a ZEV fleet. Further, it will reduce one of the

most significant barriers to ZEV adoption. Accelerated investments can help catalyze key market inflection points within the various vehicle sectors and technologies as the opportunities arise and needs are identified.

Only the revenue generated from the annual $2 vehicle registration fee on the 33 million cars in the state will be used to pay revenue bond debt service and associated fees. This fee currently generates ~$66 million in annual revenue. The smog abatement fee will continue to provide ongoing revenue for the Clean Transportation Program of approximately $40 million annually.

The Clean Transportation Program has experienced significant demand for funding to develop, demonstrate and deploy ZEV projects throughout California. A vast majority of these projects will not proceed without state incentive support and therefore represent a lost opportunity to advance ZEV technologies in the near-term. One such example is the CEC's highly successful California Electric Vehicle Incentive Project (CALeVIP). CALeVIP is a first-come, first-served rebate program with regional projects in one or more counties. CALeVIP has announced projects totaling more than $220 million, including funding from local partners. CALeVIP projects typically become oversubscribed in a matter of minutes after a new incentive project has launched, and total oversubscription is more than $200 million. The CEC is actively working to revise incentive amounts to match funding supply with demand and increase private sector investments, and target investments to underserved populations. However, additional state funding support is still necessary to close the expected EV charging infrastructure gaps. CALeVIP funding covers nearly two-thirds of the reported cost of direct current (DC) fast charger installations; without public support, many of those installations would not be possible.

A second example is the CEC's support for hydrogen infrastructure. In the most recent grant solicitation, the available funding was oversubscribed by more than 60 stations. Clean Transportation Program funding will make up 47 percent of costs for those projects that received awards. While there are encouraging signs of increasing private investment in this sector, the scale and pace of investment is being anchored by CEC grants, and additional public funding is needed to achieve the state's 2025 goal of 200 hydrogen fueling stations.

Authority to issue revenue bonds and pledge future Clean Transportation Program funding appropriations to repay the bonds provides the program the ability to accelerate funding and therefore ZEV infrastructure deployments.

Executive Order B-48-18 establishes ZEV infrastructure goals to have 250,000 EV chargers (including 10,000 DC fast chargers) and 200 public hydrogen refueling stations deployed by 2025. After accounting for existing and known investments (including Clean Transportation Program expected investments through the program's current sunset date), the CEC has determined that a gap remains. An additional $335 million is needed to fulfill the projected gap through 2025 as follows:

Statewide Counts of Light-Duty ZEV Infrastructure and Projected Infrastructure Gap

	Level 2 Chargers	DC Fast Chargers	Hydrogen Refueling Stations
Total Installed (2020)	61,480	5,368	44
Projected Additional Installations (2025)*	117,316	4,091	135
Projected Total (2025)*	178,796	9,459	179
Gap to 2025 Goal	61,204	541	21

State Incentive Needed per Charger/Station	$4,500	$60,000	$1,300,000
Additional Funding Needed to Meet 2025 Goal	$275,418,000	$32,460,000	$27,300,000
		Grand Total:	***$335,178,000***

** Based on allocated funding through 2025 as of September 2020*

Revenue bond authority will allow the Clean Transportation Program to access funding as early as 2021-22 to fund projects to close the gap currently anticipated in 2025.

In addition, greater levels of funding are needed in the medium- and heavy-duty vehicle sector since technologies and vehicles are more nascent. This is a segment that is primed for public investments and intervention to accelerate the conversion of diesel vehicles. The CEC estimates that up to $2.2 billion may be needed to meet infrastructure needs by 2025.

Medium- and Heavy-Duty ZEV Infrastructure Needs

Vehicle Sector	# of Chargers by 2025	Estimated Funding Amount for Infrastructure
Transit Buses	2,500	$625 million
School Buses	1,500	$80 million
Last Mile Delivery Trucks (Class 3-6)	25,128	$330 million
Drayage Trucks (Class 7-8)	7,000	$1.75 billion
Total	**36,128**	**$2.8 billion***

*Utility funding is approximately $575 million for medium- and heavy-duty infrastructure, so subtracting utility funding from the gap equals $2.2 billion.

State funding support in this sector is critical to seed the necessary investments to advance medium- and heavy-duty technologies and deploy the infrastructure and vehicles. Revenue bond authority will allow the CEC to accelerate funding in the near term to seed this important sector and attract the private investment that will ultimately be necessary to transition to zero emission technologies.

Update Authority Provided to the Clean Transportation Program and IBank: To expedite the use of available funds (which, in turn, expedite the goals of the Clean Transportation Program and the State of California) and increase the effectiveness of program operations, the following authority revisions are required:

1. **Provide Continuous Appropriation Authority:** As California continues to pursue its ambitious emission reduction and ZEV goals to address the climate crisis and improve public health, it is imperative to ensure ZEV infrastructure meets the needs and demands for ZEV drivers. Drivers and end-users must not face unnecessary barriers.

   The Clean Transportation Program issues competitive solicitations to development, demonstration and deployment projects from the program's annual $95.2 million baseline expenditure authority. Over time, previously awarded projects may come in under-budget, or be canceled or terminated. The ARFVTF also earns interest from

Surplus Money Investments. Subsequently, funds build up beyond that which the CEC is authorized to spend. In order to access excess funds in the ARFVTF, the CEC must submit a budget change proposal to obtain one-time expenditure authority. In 2020-21, the Clean Transportation Program was approved for $51 million in one-time expenditure authority to support ZEV infrastructure. This process takes approximately 18 months to seek and gain authority. Additional time is then necessary to expend the funds. This process and uncertainty frustrates the goals of the CEC and the state.

Further, the Clean Transportation Program seeks continuous appropriation authority to facilitate the ability to accelerate funding through revenue bonds. This authority will not only assuage bond holders, but will also allow for seamless debt service payments. Additionally, continuous appropriation authority provides the Clean Transportation Program immediate access to available funds which will further accelerate ZEV infrastructure deployment, including funds becoming available from cancelled projects or projects that complete under budget. Finally, as part of the program's effort to leverage increased private investments, the CEC is in the process of partnering with IBank to develop a revolving loan program to finance infrastructure deployments. While the CEC intends to utilize IBank for the loan programs, continuous appropriation authority will provide the CEC the ability to develop and administer its own revolving loan program in the future, if necessary, and allow the CEC to quickly redeploy principal and interest payments as they are received.

The ability for the Clean Transportation Program to access funds on a continuous basis will:

- Accelerate ZEV technology and infrastructure deployments.
- Reduce the need to rely on revenue bonds to accelerate funds.
- Allow the CEC to implement effective and sustainable revolving loan programs.

2. **Add Authority to Transfer Funds to Other State Agencies for Loan Programs:** Explicit authority is being sought to allow the CEC to transfer funds, as appropriate, to other state agencies for the purposes of establishing and administering loan programs, including revolving loan programs. The CEC is seeking to capitalize on existing expertise and operations of other state agencies that can efficiently and effectively administer loan programs to deploy infrastructure projects. Timely and effective administration of loan programs will continue to increase leverage of private sector investments while providing necessary public support. Transitioning to loan programs, as markets continue to mature, will also sustain California's investments as loan repayments can be utilized for additional loans.

3. **Modify IBank Authority under Government Code 63048.95:** The Clean Transportation Program seeks to partner with IBank to establish and administer loan programs, including revolving loan programs, for infrastructure deployment. This will allow the CEC to capitalize on IBank's expertise and existing loan program mechanisms. Currently, the Climate Catalyst Revolving Loan Fund is restricted from receiving state funds. This is being removed to allow IBank to receive funds from the CEC to implement the loan programs. Additionally, continuous appropriation authority is being sought to allow IBank to immediately, upon receipt of funds, continue to issue new loans from received loan repayments or loan cancellations. Continuous appropriation authority maximizes the ability for IBank to issue loans which will advance the Clean Transportation Program's goals.

Baseline Authority for Permanent Positions: The CEC is requesting baseline authority for 8 permanent positions and $375,000 in contract funding, for a total request of $1.773 million, to support the expected increase in workload associated with accelerating Clean Transportation Program funds through the sale of revenue bonds. The specific classifications being sought include:

- Air Resources Supervisor I or equivalent (1 position) - Will supervise rank-and-file staff; oversee, review and approve day-to-day staff work for quality, timeliness, consistency and effectiveness in implementing Clean Transportation Program responsibilities; and train, mentor and provide feedback to staff to continuously improve unit performance.

- Air Pollution Specialists or equivalent (6 positions) – Will manage funding solicitations and agreements, participate on evaluation teams and complete technical assignments either independently or on a team within assigned program areas. Will assist in establishing and providing input to block grants and revolving loan program(s). Will provide technical and market expertise to inform the issuance and administration of revenue bond(s).

- Attorney IV (1 position) – Will provide support for the new work of ongoing bond finance compliance (since the program has never had a bond before), establishing and supporting a new loan program, and ongoing legal support related to solicitations, grants, and contracts. The legal position will work with the Attorney General's Office and/or private counsel on bond compliance, develop terms for a new loan program, review and analyze existing law and new legislation affecting the Clean Transportation Program, aid in compliance reviews, assist in developing and administering funding solicitations, review projects for compliance with CEQA, and defend against actual or threatened litigation affecting the Clean Transportation Program.

The $375,000 will provide contract authority to procure specialized expertise related to revenue bond administration and oversight. Contracts may include, but are not limited to: Financial Advisor, Independent Auditor, Arbitrage Rebate Analysis, Disclosure Counsel, and Bond Counsel.

Expected workload resulting from this proposal includes:

1. **Acceleration of Funding and Use of Funds:** In the near term, the CEC anticipates accelerating $500 million of the potential $1 billion available by committing the $2 annual vehicle registration fee (which generates ~$66 million in revenue annually) for bond debt service. If the full $1 billion is accelerated through revenue bonds, then the full $66 million from the vehicle registration fees will be needed for bond debt service through 2046.

   Proceeds from the revenue bond sales will increase Clean Transportation Program annual project funding to $362.2 million in 2021-22 and $262.2 million in 2022-23. The accelerated funding into the program will be utilized to address the identified 2025 ZEV infrastructure gap (both electric and hydrogen) and to advance the inflection point for medium- and heavy-duty infrastructure development. Subsequent bond issuances for the remaining $500 million will be evaluated by the Clean Transportation Program based on identified needs and opportunities. Future revenue bond issuances, if any, will be noticed to the Legislature through the Clean Transportation Program Annual Investment Plan Update. The annual Investment Plan Update is developed and vetted through the CEC's established, open and public proceedings.

   After the first two years and assuming no additional revenue bonds are issued, project funding will decrease to approximately $62.2 million per year through 2046. This ongoing project funding support originates from the smog abatement fee which will not be pledged to repay revenue bonds and a portion of the vehicle registration fees that are not pledged to repay the first $500 million in revenue bonds. While additional resources are necessary to administer and effectively manage the increased project funding, the program structure expected to be utilized will mitigate the need for increased resources beyond what is being requested here while significantly advancing California's climate

change goals. This focus is required to meet Executive Order N-79-20 and to address the largest cause of GHG emissions and negative public health consequences.

Anticipated Funding (dollars in millions):

Fiscal Year	Baseline Funding	Additional Funding from Revenue Bond	Total Funds Available
2021-22	$95.2	$300	$395.2
2022-23	$95.2	$200	$295.2
Totals:	***$190.4***	***$500****	***$690.4***

* Future revenue bond issuance(s) (up to an additional $500 million) will be evaluated based on need and opportunity.

Use of Funds (dollars in millions)

Funding Category	2021-22	2022-23
Bond Debt Service	$33	$33
Project Funding	$362.2	$262.2

The Clean Transportation Program estimates that the additional project funding resulting from the revenue bond issuance will be used as follows:

Expected Revenue Bond Funding Allocations (dollars in millions)

Funding Mechanism	*Light Duty ZEV Infrastructure*	*Medium- and Heavy-Duty-ZEV Infrastructure*	*Total Amount*
Block Grants	$140 - $260	$120 - $160	$260 - $420
Revolving Loan Program(s)	$20 - $80	$20 - $40	$40 - $120
Funding Solicitations	$20 - $80	$20 - $40	$40 - $120
Totals:	**$300**	**$200**	**$500**

* Subject to change based on opportunities and demonstrated demand.

2. **Block Grants:** The CEC has established the CALeVIP which provides incentives for light-duty charging throughout California. The CEC is currently in the process of establishing a separate, but similar project for medium- and heavy-duty charging. Under these projects, the CEC provides the policy framework direction to block grant administrators. Block grant administrators handle the implementation and operational aspects of the incentive projects. Since these block grants are established or in the process of being established, the CEC is not seeking additional staff resources to implement the existing block grants. The effort to scale funding under existing block grant agreements can be completed with existing resources.

   With the accelerated funding from the sale of revenue bonds, the CEC anticipates the need to award 1-2 additional block grants. These additional block grants are expected to have a more strategic and market focus such as ZEV infrastructure incentives for multi-unit dwellings and incentives for disadvantaged and low-income communities. These sectors have specialized requirements and the need for enhanced outreach. These targeted block grants increase the CEC's ability to effectively and timely provide infrastructure incentive funding in these market sectors. The CEC is requesting 1.5 permanent positions to develop and administer these targeted block grant agreements.

3. **Revolving Loans:** The CEC is beginning to consider revolving loan program(s) under the Clean Transportation Program as the market develops for them. The CEC is initially embarking on this by partnering with the IBank. Similar to block grants, IBank will handle the operational aspects of the revolving loan program(s) while the CEC provides the technical and market expertise to ensure the programs are successful. This structure significantly reduces the need for additional CEC staff resources. However, the CEC is requesting 1.0 permanent position to establish, oversee, and provide technical and market expertise to inform the successful implementation of the loan program(s).

4. **Funding Solicitations:** The CEC anticipates the need to continue to administer funding solicitations for technologies, business approaches, and transportation sectors that are still under development and not fully commercialized. This can include funding for the development and demonstration of innovative charging solutions in both the light-duty and medium- and heavy-duty sectors; demonstrations of medium- and heavy-duty charging infrastructure; workforce development related to ZEV infrastructure; and in-state manufacturing of ZEV infrastructure. An additional two to three funding solicitations are expected each year due to the receipt of revenue bond proceeds. Staff will be required to conduct technical and market research to properly design and effectively target funding solicitations, conduct public outreach and workshops, draft solicitation manuals and documents, evaluate proposals, develop recommendations for funding, and debrief unsuccessful applicants. Approximately 1,000 staff hours are required to effectively administer each funding solicitation. The CEC is requesting 1.5 permanent positions for this work. CEC-administered projects are necessary to ensure sufficient oversight and expertise for key market and vehicle segments. This is particularly true for nascent markets and innovative projects such as blueprints and vehicle-grid integration efforts.

5. **Agreement Management:** The CEC expects to award three to four funding agreements per new solicitation resulting in approximately 12 new funding agreements each year. On average (depending upon complexity of the project), a single staff member should manage no more than six agreements. Agreements resulting from the additional funding under this proposal are expected to be of increased complexity, as simpler types of projects will be administered via the aforementioned block grants. Agreement management includes agreement development and approval, invoice review and approval, progress report review and approval, kick-off meetings, critical project reviews, amendment request processing, project site visits, problem identification and resolution, and agreement close out activities. The CEC is requesting 2.0 permanent positions for this work.

6. **Disadvantaged and Low-Income Community Outreach and Coordination:** As the state moves beyond supporting the ZEV infrastructure needs of early ZEV adopters in favor of the ZEV infrastructure needs of all Californians, there will be increased need to expand outreach and coordination to communities that have historically been underrepresented in ZEV infrastructure planning and deployment. This includes building resource capacity within communities to enable their participation in CEC funding decisions (potentially including new funding agreements); developing and hosting targeted in-person or virtual workshops in partnership with community-based organizations; advising on the opportunities and needs of disadvantaged and low-income communities during the preparation of new funding activities; and conducting a review of the program's processes and outcomes to assess opportunities for improving program equity. The CEC is requesting 0.5 permanent position for this work.

7. **Other Workload:** To remain current and effective in their duties, staff are expected to stay up to date on technology and market trends related to ZEVs and infrastructure. This includes conducting research, attending relevant workshops and forums, and

coordinating with relevant sister state agencies and other stakeholders to stay abreast of current developments and opportunities. Additional responsibilities include keeping program databases and websites up to date and completing both mandatory and discretionary training each year. CEC is requesting 0.5 permanent position for this work.

8. **Legal Support:** Legal support is necessary in all aspects of program implementation associated with the accelerated Clean Transportation Program funding to ensure timely and efficient use of funds. This includes legal support related to revenue bond issuance and administration; revolving loan program development, implementation, and oversight; funding solicitation development and implementation; and agreement management and oversight. The CEC is requesting 1.0 permanent position for this work.

9. **Revenue Bond Services and Support:** Specialized expertise is necessary to successfully administer and oversee the revenue bond(s) issued. These services may include, but are not limited to: Financial Advisor, Independent Auditor, Arbitrage Rebate Analysis, Disclosure Counsel, and Bond Counsel. The CEC is requesting $375,000 in annual contract authority to secure this specialized expertise.

Justification for Permanent Positions: Work associated with the accelerated Clean Transportation Program funding is expected to continue through at least 2027-28. Funding solicitations will be issued each year through 2023-24. Funding agreements resulting from solicitations are, on average, active for four years resulting in agreement management workload continuing until at least 2027-28. Some ongoing workload related to revenue bond administration and revolving loan programs are expected to continue through the new proposed program sunset date in 2046. Unlike temporary or limited-term positions, permanent positions attract high-caliber individuals and increase the program's ability to retain these staff. This allows staff to develop the necessary expertise and provide ongoing continuity to program operations.

Extension of AB 8 fees: This proposal will also extend, until June 30, 2046, various smog abatement, vehicle registration, vessel registration, vehicle identification, and tire fees reauthorized by Chapter 401, Statutes of 2013 (AB 8). These fees support existing programs that improve air quality and public health and accelerate the turnover of existing vehicles and equipment, including: the California Air Resources Board's Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), Air Quality Improvement Program, and Enhanced Fleet Modernization Program; the Bureau of Automotive Repair's Consumer Assistance Program; and CalRecycle's Waste Tire Recycling Management Program. Additionally, this proposal will extend the authority for local air pollution control and air quality management districts to increase motor vehicle registration fees used to provide matching funds for the Carl Moyer Program.

E. Outcomes and Accountability

If approved, the CEC expects to have the resources necessary to effectively administer the revenue bonds and accelerated funding under the Clean Transportation Program to deploy infrastructure to support California's goals and Executive Order N-79-20. The following key outcomes are expected:

1. **Achieving 2025 ZEV Infrastructure Goals Early:** Accelerating Clean Transportation Program funding will allow California to have 250,000 EV chargers (including 10,000 DC fast chargers) and 200 public hydrogen refueling stations as early as 2023. Accelerated infrastructure deployment reinforces California's commitment to the transition to ZEV transportation and continues the momentum that has been built to date.

2. **Equity:** When excluding investments considered "statewide," approximately half of historical program investments have gone into low-income or disadvantaged communities. In the latest investment plan for the program, the CEC aims to maintain this commitment for the remainder of the Clean Transportation Program and to support market segments that may not otherwise be addressed by private investments.
3. **Increased Private Sector Leverage:** The program has been able to attract increasing private sector funding for its projects. For instance, in 2012, the CEC provided approximately 72 percent of costs for hydrogen stations; in 2019, it was roughly 50 percent - 50 percent. Within CALeVIP, the CEC similarly expects to increase the share of private investment in the coming year. This overall trend will continue as the program is extended into the future. Overall, the Clean Transportation Program has leveraged approximately $1.3 for every $1 invested. Through the use of revolving loan programs and other mechanisms, the Clean Transportation Program expects the private sector share of implemented projects will continue to increase.
4. **Economic Stimulus and Recovery:** The Clean Transportation Program's funding to deploy and advance ZEV infrastructure creates jobs, including construction, electrician, and manufacturing jobs. Accelerating Clean Transportation Program funding and infrastructure deployment will provide economic stimulus benefits to help California's recovery from the impacts of the COVID-19 pandemic and encourage in-state manufacturing and investments.
5. **Seeding Investments to Advance Medium- and Heavy-Duty ZEV Technologies:** Significant opportunities exist in the medium- and heavy-duty transportation sector to reduce GHG and criteria emissions and improve public health, including those from goods movement and diesel vehicles. Advancement in ZEV technologies in this sector is lagging behind the light-duty vehicle sector. Through targeted and strategic investments, the Clean Transportation Program will seed the investment necessary to increase private sector investments and accelerate the transition to zero emission technologies.
6. **In-State Manufacturing:** Accelerating investments from the Clean Transportation Program will promote growth in the manufacture and supply of ZEVs and their infrastructure, both in terms of existing firms and new market entrants. Moreover, California manufacturers (and related service providers) will become more competitive in external markets based on lessons learned from California's accelerated ZEV transition.

Projected Outcomes

Workload Measure	CY	BY	BY+1	BY+2	BY+3	BY+4
Block Grants Agreements Executed	0	2	0	0	0	0
ZEV Infrastructure Projects under Block Grants Developed	0	2	4	4	0	0
Interagency Agreement for Loan Program Executed	0	1	0	0	0	0
Loan Program Developed	0	1	1	0	0	0
Funding Solicitations Developed and Implemented	0	2	3	3	0	0
Funding Applications Received and Evaluated	0	20	30	30	0	0
Agreements Developed and Executed	0	8	12	12	0	0
Agreements Managed	0	8	20	32	32	32
Revenue Bond Support Contracts Developed and Executed	0	4	0	0	0	0
Revenue Bond Support Contracts Managed	0	4	4	4	4	4

F. Analysis of All Feasible Alternatives

1. Approve this Proposal

Pros:

- Accelerates ZEV infrastructure deployment in California
- Provides economic stimulus as the state recovers from the impacts of COVID-19
- Increases private sector leverage and investments through the use of revolving loan programs and reduction of state incentive levels over time
- Seeds investments in the medium- and heavy-duty vehicle sectors to accelerate development and deployment of ZEV technologies
- Sends a strong market signal of California's commitment to transition to zero emission transportation options for all segments including rural and multi-unit dwellings
- Provides the needed resources and flexibility to the Clean Transportation Program to successfully implement this proposal

Cons:

- Extends through 2046 the various vehicle registration, smog abatement, identification plate, vessel registration, and tire fees.
- Requires additional resources to administer the increased funding resulting from revenue bond sales under the Clean Transportation Program
- If bonds are utilized to accelerate funding, total investments under the Clean Transportation Program will be reduced as funds are utilized for revenue bond debt service and administration. This will depend on the duration of bonds, interest rates, and other factors.

2. Extend vehicle registration, smog abatement, identification plate, and vessel registration fees, as specified, but deny authority to issue revenue bonds.

   Pros:
   - Provides sustained and needed revenues through 2046 to support California's transition to zero-emission transportation
   - Signals California's long-term commitment to ZEVs and ZEV infrastructure technologies

   Cons:
   - Misses the opportunity to accelerate funding to support California's transition to zero emission transportation
   - Misses the opportunity to provide near-term economic stimulus to offset the impacts caused by COVID-19
   - Jeopardizes California's ability to meet the state's 2025 light-duty ZEV infrastructure goals
   - Diminishes California's opportunity to advance the inflection point for medium-and heavy-duty ZEV infrastructure in the near term

3. Shorten the Extension of the Fees Supporting the Clean Transportation Program

   Pros:
   - Reduces the period of time that vehicle owners are required to pay the fees

   Cons:
   - Reduces the amount of funding that can be accelerated through the issuance of revenue bonds
   - Diminishes the state's ability to meet California's 2025, 2030 and 2035 ZEV goals
   - Diminishes the opportunity to seed ZEV investments in the medium- and heavy-duty transportation sector
   - Diminishes an opportunity to provide near-term economic stimulus and recovery to offset the economic impacts of COVID-19
   - May stifle private sector investments

G. Implementation Plan

If this proposal is approved:

Revenue Bond(s): The CEC will work with IBank and others to determine the most cost-effective approach for issuing revenue bond(s). The CEC expects that proceeds from the first revenue bond can be received in late 2021. The need for future revenue bond issuances, if any, will be determined based on the identified needs and opportunities for ZEV infrastructure and addressed as part of the Clean Transportation Program's annual Investment Plan Update.

Block Grants: The CEC currently has an established block grant to deploy light-duty charging infrastructure throughout California. The CALeVIP has been in existence since 2015 and has been highly successful and popular with infrastructure developers as it expedites application processing and incentive payments. The CEC is currently in the process of considering and developing a new light-duty infrastructure block grant and is also in the process of establishing a new block grant for medium- and heavy-duty infrastructure deployment. These block grants are expected to be available to receive and administer funding as soon as revenue bond proceeds are received.

Additional block grants are under consideration. The CEC will pursue soliciting block grant administrators, as necessary, starting once this proposal is approved. These additional block

grants are expected to be executed in early 2022 and funding could be available as early as mid-2022.

Revolving Loan Program: The CEC will initially work with IBank to establish a revolving loan program for ZEV infrastructure. An interagency agreement can be negotiated, approved and executed by September 2021 and the loan program rolled out by December 2021 based on IBank's existing loan program regulations. The roll out of the program coincides with receiving proceeds from the revenue bonds.

Targeted Funding Solicitations Administered by the CEC: To the extent possible, the CEC will consider providing funding to viable, passing projects that did not receive CEC funding under recently completed funding solicitations. However, the CEC anticipates additional, targeted solicitations will be required (2-3 per year). These new solicitations can commence once hiring of the requested positions is completed. Development of solicitations are expected to begin in early 2022 with resulting agreements and projects beginning in mid-2022. The CEC is currently taking steps to prepare for additional workload and future solicitations by setting up frameworks and concepts, but additional staff is required to execute and manage the solicitations.

Hiring: The CEC expects to begin the recruitment process immediately upon approval of this proposal and expects positions will be filled by the end of 2021. Due to COVID-19, most CEC staff have been successfully telecommuting since March 2020. Due to this successful experience, the CEC expects that staff will telecommute much more often even after the pandemic is over. The CEC is currently exploring how to reimagine the workplace to reduce the office spaces necessary. These additional staffing resources are not expected to materially impact the office space needs of the CEC.

H. Supplemental Information

None.

I. Recommendation

Approve this proposal.

BCP Fiscal Detail Sheet

BCP Title: Reauthorization of the Clean Transportation Program

BR Name: 3360-059-BCP-2021-GB

Budget Request Summary

Personal Services

Personal Services	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
Positions - Permanent	0.0	8.0	8.0	8.0	8.0	8.0
Total Positions	**0.0**	**8.0**	**8.0**	**8.0**	**8.0**	**8.0**
Salaries and Wages Earnings - Permanent	0	809	809	809	809	809
Total Salaries and Wages	**$0**	**$809**	**$809**	**$809**	**$809**	**$809**
Total Staff Benefits	0	405	405	405	405	405
Total Personal Services	**$0**	**$1,214**	**$1,214**	**$1,214**	**$1,214**	**$1,214**

Operating Expenses and Equipment

Operating Expenses and Equipment	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
5301 - General Expense	0	48	48	48	48	48
5302 - Printing	0	8	8	8	8	8
5304 - Communications	0	8	8	8	8	8
5320 - Travel: In-State	0	8	8	8	8	8
5322 - Training	0	16	16	16	16	16
5324 - Facilities Operation	0	80	80	80	80	80
5340 - Consulting and Professional Services - External	0	375	375	375	375	375
5346 - Information Technology	0	16	16	16	16	16
54XX - Special Items of Expense	0	300,000	200,000	0	0	0
Total Operating Expenses and Equipment	**$0**	**$300,559**	**$200,559**	**$559**	**$559**	**$559**

Total Budget Request

Total Budget Request	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
Total Budget Request	**$0**	**$301,773**	**$201,773**	**$1,773**	**$1,773**	**$1,773**

Fund Summary

Fund Source

Fund Source	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
State Operations - 3117 - Alternative and Renewable Fuel and Vehicle Technology Fund	0	1,773	1,773	1,773	1,773	1,773
Total State Operations Expenditures	**$0**	**$1,773**	**$1,773**	**$1,773**	**$1,773**	**$1,773**
Local Assistance - 3117 - Alternative and Renewable Fuel and Vehicle Technology Fund	0	300,000	200,000	0	0	0
Total Local Assistance Expenditures	**$0**	**$300,000**	**$200,000**	**$0**	**$0**	**$0**
Total All Funds	**$0**	**$301,773**	**$201,773**	**$1,773**	**$1,773**	**$1,773**

Program Summary

Program Funding

Program Funding	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
2390010 - Transportation Technology and Fuels	0	301,773	201,773	1,773	1,773	1,773
Total All Programs	**$0**	**$301,773**	**$201,773**	**$1,773**	**$1,773**	**$1,773**

Personal Services Details

Positions

Positions	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
3762 - Air Resources Supvr I	0.0	1.0	1.0	1.0	1.0	1.0
3887 - Air Pollution Spec	0.0	6.0	6.0	6.0	6.0	6.0
5780 - Atty IV	0.0	1.0	1.0	1.0	1.0	1.0
Total Positions	**0.0**	**8.0**	**8.0**	**8.0**	**8.0**	**8.0**

Salaries and Wages

Salaries and Wages	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
3762 - Air Resources Supvr I	0	132	132	132	132	132
3887 - Air Pollution Spec	0	534	534	534	534	534
5780 - Atty IV	0	143	143	143	143	143
Total Salaries and Wages	**$0**	**$809**	**$809**	**$809**	**$809**	**$809**

Staff Benefits

Staff Benefits	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
5150900 - Staff Benefits - Other	0	405	405	405	405	405
Total Staff Benefits	**$0**	**$405**	**$405**	**$405**	**$405**	**$405**

Total Personal Services

Total Personal Services	FY21 Current Year	FY21 Budget Year	FY21 BY+1	FY21 BY+2	FY21 BY+3	FY21 BY+4
Total Personal Services	**$0**	**$1,214**	**$1,214**	**$1,214**	**$1,214**	**$1,214**