KINGS COUNTY ASSOCIATION OF GOVERNMENTS

SB 125 Formula-Based Transit and Intercity Rail Capital Program & Zero Emission Transit Capital Program

Allocation Package

December 2023

A. Introduction

Kings County Association of Governments (KCAG) is the Regional Transportation Planning Agency for the Kings County region. Within the boundaries of KCAG's jurisdiction, there are two transit operators, Kings County Area Public Transit Agency (KCAPTA) and Corcoran Area Transit (CAT). Earlier this year, KCAG completed the FY 2023-24 Transportation Development Act process, which found there were no unmet public transportation needs that could be reasonably met within the jurisdictions. Due to these findings, the allocation of the SB 125 funding will be solely for capital projects. Development of this allocation plan will greatly benefit recent planning efforts undertaken cooperatively by KCAG, KCAPTA, and CAT. KCAG has funded the preparation of both transit agency's Innovative Clean Transit (ICT) Plans which were submitted to the California Air Resource Board (CARB) earlier this year leading to the identification of multiple projects proposed for capital funding in this allocation plan. In addition to the collaboration between KCAG, KCAPTA, and CAT conducted through these planning efforts, the three agencies have had ongoing communication specifically to discuss project prioritization for these funds. The funding has also been discussed in public meetings of the Commissions of all agencies.

B. Narrative Explanation

1. **Explanation of funding and service actions being taken within the region that utilize resources other than SB 125 funding.**

   KCAPTA and CAT are the only STA eligible operators in the Kings County region. At this time, they do not anticipate any funding related operational deficits. Their ordinary sources of federal, state, and local funding are sufficient to maintain service levels.

2. **Description and justification of the RTPA strategy to use SB 125 funding to construct capital projects and fund operating expenses that lead to improved outcomes in its jurisdiction.** KCAPTA and CAT, being the two eligible operators in the region, do not anticipate funding related operating deficits or service cuts at this time. Therefore, KCAG's strategy focuses on supporting both transit operators with the implementation of zero-emission buses and infrastructure as well as improving ridership. KCAG's strategy, developed in consultation with both transit agencies, addresses goals to reduce greenhouse gas emission pollutants for the surrounding communities, update the infrastructure to support zero-emission buses, and replace older vehicles with zero-emission vehicles. The projects are listed below.

   a) Project #1 – <u>Electric Bus Charging Infrastructure Project (Tulare Cross-Valley Corridor ZEB Expansion Phase 2)</u>. This project would be implemented by KCAPTA. The project is requesting funding for Phase 2 of an existing TIRCP Round 5 (2022) project, Tulare Cross-Valley Corridor ZEB Expansion Phase 1. This project will expand the Project Scope to include the design, engineering, and construction of the electric bus charging infrastructure. This will consist of purchasing and installing electric bus charging equipment, charging management system, solar bus canopies, and required site improvements such as grading, drainage, and paving. This expanded scope, Phase 2, is required to fully deliver the TIRCP Cycle 5, Tulare Cross-Valley Corridor ZEB Expansion Project. This project is eminent in the transition from compressed natural gas vehicles to zero-emission vehicles and would ultimately help facilitate Kings County in reaching its zero-emission transit goals.

b) Project #2 – Bus Operator Training Simulator. This project would be implemented by KCAPTA. The project is requesting funding for the purchase of a computer-based system designed to simulate the operation of an electric bus. This project will align with KCAG's strategy for the use of SB 125 funding by training the bus drivers to better understand how the technology is designed to work, followed by realistic training experience, and providing drivers with first-hand experience driving battery electric buses prior to over-the-road training. This project would also support the improvement in ridership by improving rider safety with better trained drivers.

c) Project #3 – Tulare Cross-Valley Corridor ZEB Expansion Phase 1. This project would be implemented by KCAPTA. This project is requesting funding for an existing TIRCP Round 5 (2022) project. The project will provide additional funds needed due to cost increases and matching funds. As part of the project's TIRCP Round 5 Grant award, KCAPTA was awarded funds to purchase 4 35' electric buses and 8 Electric Micro-Transit buses that are scheduled to be ordered in July 2024. Since the submission in 2022 bus pricing has increased and this project would provide funding for the increased and matching funds. This project helps implement the strategy for this funding by facilitating the purchase of battery-electric buses that will support the transition to zero-emission buses in Kings County.

d) Project #4 – 35' Battery Electric Buses. This project will be implemented by KCAPTA. This project will replace 35' CNG buses which operate on KCAPTA fixed route services. The CNG buses will be phased out and replaced with battery electric buses at the end of their useful life. In order to meet operational schedules, 2 battery electric buses will be needed to replace each CNG bus at the end of its useful life. This project supports the implementation of strategy for these funds by phasing out of CNG buses to ultimately be an entirely zero-emission fleet and supports ridership improvement by increasing services.

e) Project #5 – Electric Bus Charging Infrastructure Project. This project will be implemented by CAT. This project is a critical part of CAT's transition to battery electric buses. The funds will be used for design, engineering, purchase of equipment, installation of electric bus charging stations, and purchase of Charging Management Software. This project supports the implementation of strategy for these funds by supporting the transition to zero-emission buses, the needed infrastructure, and reducing pollutants for the surrounding communities.

f) Project #6 - Contactless Payment System. This project will be implemented by CAT. This project is intended to improve CAT's fare system by allowing cashless payments when boarding and is part of California's transition to integrated ticketing and contactless payments. This project will support the strategy of these funds by improving the ridership experience and ease of payment.

g) Project #7 – Replace Four Diesel Buses with ZEB. This project will be implemented by CAT and will request funding for the replacement of 4 diesel buses with zero-emission buses as part of their transition plan. This project supports the strategy of these funds by implementing the transition to zero-emission buses and significant reduction in pollutants for the surrounding communities.

3. **Detailed breakdown and justification for how the funding is proposed to be distributed between transit operators and among projects, consistent with the legislative intent described in SB 125.**
KCAG, being the designated RTPA for the region has made the SB 125 funds available to the two public transit agencies, KCAPTA and CAT. Having the discretion to suballocate or redistribute SB 125 funds within the region, KCAG has allocated the TIRCP funds utilizing the FY 2023-24 State Transit Assistance (STA) allocation percentages for population and has allocated the ZETCP funds utilizing both STA allocation percentages for population and revenue. Also utilizing the STA population percentage, KCAG has allocated a portion of the ZETCP PTA funds for administration of the program in FY 23-24.

Total KCAPTA, CAT, & KCAG SB 125 Fund Apportionment

	TIRCP	ZETCP	Total
KCAPTA	$13,715,229	$1,822,244	$15,537,473
CAT	$2,269,570	$297,006	$2,566,576
KCAG	-	$100,000	$100,000

Since KCAPTA and CAT have no identified unmet public transportation needs that are reasonable to meet, as identified in FY 2023-24 Transportation Development Act process, all SB 125 funds will be utilized in capital projects. When KCAG was collaborating with both KCAPTA and CAT in the identification of projects these funds would be used for, it was agreed the highest priority for transit in the region was to invest in California's transition to zero-emission public transit fleets along with improvements in ridership.

Once KCAPTA and CAT received their allocations of the SB 125 funds, both agencies worked hard to identify three or four high priority projects that would aid both an improvement in ridership as well as each agency's transition to zero-emission vehicles. KCAPTA identified four projects: Electric Bus Charging Infrastructure Project (Tulare Cross-Valley Corridor ZEB Expansion Phase 2), Bus Operator Training Simulator, Tulare Cross-Valley Corridor ZEB Expansion Phase 1, and Purchase 6 – 35' Battery Electric Buses. CAT identified three projects: Electric Bus Charging Infrastructure Project, Contactless Payment System, and Replace Four Diesel Buses with ZEB. Each project is vital to the implementation of California's transition to 100% zero-emission fleets by 2040 and an improvement in ridership in Kings County; however, the Tulare Cross-Valley Corridor ZEB Expansion Phase 1 and 2 projects take precedent over the beginning of the other new projects due to these projects already obtaining a substantial amount of funding and are identifying a need of additional resources.

C. An Allocation Package Detailed Project Description

Kings County Area Public Transit Agency (KCAPTA) has received our agency's estimated apportionment of $15,623,275 for the next four fiscal years for both TIRCP and ZETCP Funds.

	FY 23-24	FY 24-25	FY 25-26	FY26-27	TOTAL FUNDING
TIRCP	$6,849,293	$6,865,936	-	-	$13,715,229
ZETCP	$ 625,379	$ 398,955	$ 398,955	$ 398,955	$ 1,908,046

KCAPTA will utilize the funds to implement its transition to a zero-emission bus fleet and is requesting funding for the following projects:

1. Electric Bus Charging Infrastructure
2. Bus Operator Training Simulator
3. Purchase Battery Electric Buses (Additional funding for approved Cycle 5 TIRCP Grant)
4. Purchase Battery Electric Buses (Replacing CNG Buses)

Included in our Initial Allocation Package is the Project Narratives, a four-year TIRCP/ZETCP Financial Plan, KCAPTA Transit Asset Management Plan, the 2023 Annual Transit Asset Management Plan Narrative, and KCAPTA 2022 National Transit Database (NTD) Report.

PROJECT 1

Electric Bus Charging Infrastructure Project (Expansion of Project Scope for approved Cycle 5 TIRCP Grant)

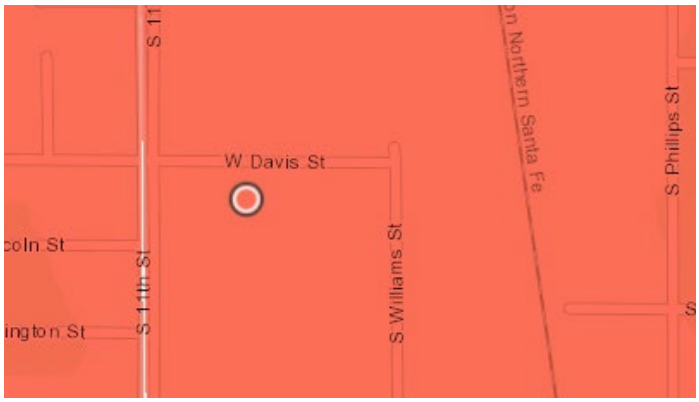
Implementing Agency: Kings County Area Public Transit Agency (KCAPTA)

Project Title: Electric Bus Charging Infrastructure Project (Tulare Cross-Valley Corridor ZEB Expansion Phase 2)

Summary of Project Scope: The Project is requesting funding for Phase 2 of an existing TIRCP Round 5 (2022) project, Tulare Cross-Valley Corridor ZEB Expansion Phase 1). This project will expand the Project Scope to include the design, engineering, and construction of the electric bus charging infrastructure. This will consist of purchasing and installing electric bus charging equipment, charging management system, solar bus canopies and required site improvements such as grading, drainage, and paving.

This expanded scope, Phase 2, is required to fully deliver the TIRCP Cycle 5, Tulare Cross-Valley Corridor ZEB Expansion Project.

Project Location: The proposed location of the Project is at KCAPTA's existing Maintenance Facility located at 629 Davis Street, Hanford, CA



The results for each indicator range from 0-100 and represent the percentile ranking of census tract 6031001100 relative to other census tracts.

Overall Percentiles	
CalEnviroScreen 4.0 Percentile	99
Pollution Burden Percentile	94
Population Characteristics Percentile	98
Exposures	
Ozone	82
Particulate Matter 2.5	99
Diesel Particulate Matter	46
Toxic Releases	41
Traffic	13
Pesticides	61
Drinking Water	70
Lead from Housing	78
Environmental Effects	
Cleanup Sites	51
Groundwater Threats	97
Hazardous Waste	84
Impaired Waters	0
Solid Waste	94
Sensitive Populations	
Asthma	95
Low Birth Weight	78
Cardiovascular Disease	99
Socioeconomic Factors	
Education	96
Linguistic Isolation	98
Poverty	99
Unemployment	90
Housing Burden	42

Total Project Cost: $9,599,293

Justification: Kings County Area Public Transit Agency (KCAPTA) will use the TIRCP to design, engineer, purchase equipment, and construct the Electric Bus Charging Stations Infrastructure Project and purchase Charging Management Software. This project is a critical part of KCAPTA's transition to Battery Electric Buses (BEB). The existing electrical system at its 4.4-acre maintenance facility on Davis Street is not

adequate to service the electrical loads for the 26 BEB charges needed for our full fleet transition. BEB charger demands vary depending on model but demands often exceed 15 kW per charger and peak fleet charging demands may exceed 1.5MW even with a charger management system. The chargers will each require a new 480 V electrical feed with a new service from Southern California Edison (SCE). In addition to the new feed from SCE, a BEB charging system would require new 480 V switchgear and a new electrical distribution system onsite to serve the chargers. The inclusion of solar canopies will provide the potential to reach net zero metering while protecting outdoor charging stations from high daytime temperatures. The savings through the reduction of fuel costs, greenhouse gas emissions, and single vehicle trips will provide significant environmental and economic benefits to the health and vitality of the region.

Although this project was not included in the existing TIRCP Round 5 (2022) project, it is related. Prior to ordering the BEB buses that are part of the existing TIRCP Round 5 (2022) project, KCAPTA must have the ability to charge these buses.

California Air Resources Board

Goal and Policy Links: Safe, reliable, clean transit services and sustainable infrastructure.

Project Lead (Design): Executive Director Angie Dow and Facility and Maintenance Specialist Oscar Gonzalez

Project Lead (Construction): Executive Director Angie Dow and Facility and Maintenance Specialist Oscar Gonzalez

Project Status: Pending SB 125 TIRCP Standard Agreement Award

Project Costs and Funding Sources: Affordable Housing and Sustainable Communities Program (Round 7) and SB 125 Transit and Intercity Rail Capital Program (TIRCP)

Project Costs by Phase:

	Award Date	Start Date	Project Costs by Phase	
			FY 2023-24	FY 2024-2025
Purchase EV Bus Charging Equipment	1/1/2024	3/1/2024	$1,500,000	
Design/Engineering/Permitting	1/31/2024	5/1/2024	$671,950	
Construction	1/1/2024	9/1/2024	7,227,343	
EV Charging Management System	1/1/2024	1/1/2025		$200,000
Total			$9,399,293	$200,000

Project Funding Sources

	2023-24	**2024-25**
AHSC (Round 7)	$2,750,000	
TIRCP	$6,849,293	$200,000
Total	$9,399,293	$200,000

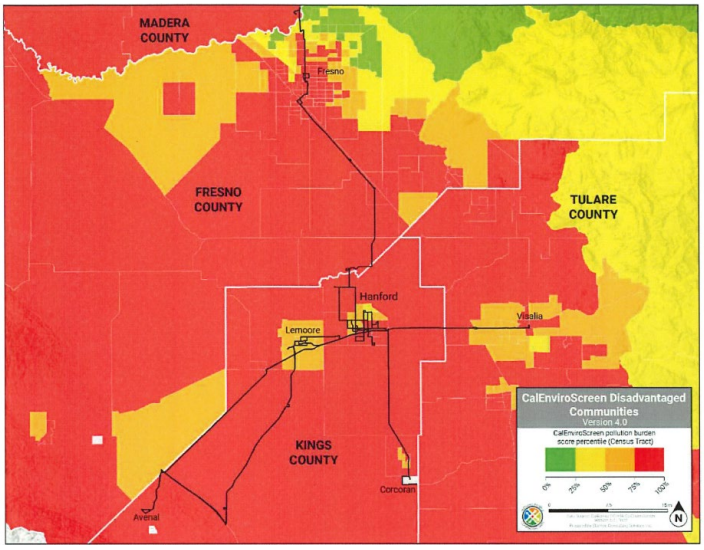
Greenhouse Gas Reduction: The saving through the reduction of fuel costs and greenhouse gas emissions, will provide significant environmental and economic benefits to the health and vitality of the region. The inclusion of solar canopies will provide the potential to reach net zero metering while protecting outdoor charging stations from high daytime temperatures.

The calculated emission reductions were associated with transitioning to electric buses. To estimate the wells-to wheels emission reductions the Argonne National Laboratory's Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool was used. AFLEET calculates greenhouse gas (GHG, particulate matter (PM), oxides of nitrogen (NOX), and volatile organic compound (VOC) emission for CNG and battery electric buses. AFLEET uses data from Argonne National Laboratory's Greenhouse gases, Regulated Emissions, and Energy used in Technologies (GREET) model to calculate the Well-to pump emissions associated with each type of fuel. The tailpipe emissions are calculated using data from the Environmental Protection Agency's Motor Vehicle Emission Simulator (MOVES).

AFLEET calculated that CNG buses will produce 111.3 short tons of GHG emission per year, whereas two BEBs will produce 31.05 short tons of GHG emission per year. This represents an annual savings of 80.25 short tons per year, which is a 72% decrease. Over the 12-year life of the bus, this represents a savings of 963 short tons per bus replace. The KCAPTA Transit Center, which will be constructed to charge 26 buses, will result in a total of 25,038 short tons savings.

Disadvantage Communities Served by Kings County Area Public Transit Agency: Kings County's service area is largely agricultural with high levels of poverty. Fort-six percent of the county meets the criteria for Historically Disadvantage Communities and/or Areas of Persistent Poverty. The Figure below shows there are many CalEnviroScreen-defined disadvantaged communities within KCAPTA's service area, including both within Kings County and within the neighboring counties that KCAPTA provides service to: Tulare and Fresno.

All census tracks colored in red are in the top 25% for pollution burden and overall vulnerability and are designated as disadvantaged communities according to the CalEnviroScreen criteria. All KCAPTA routes travel through at least one disadvantaged community, showing that KCAPTA can deploy ZEBs on any route to fulfill requirements and improve air quality and reduce pollution burden in the Kings County area.



PROJECT 2

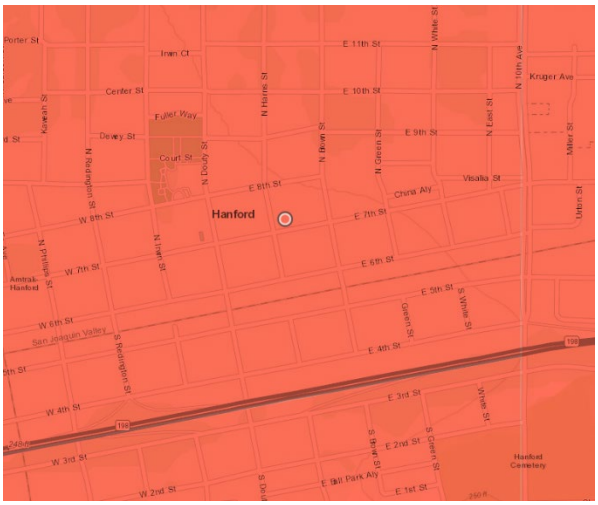
BUS OPERATOR TRAINING SIMULATOR

Implementing Agency: Kings County Area Public Transit Agency (KCAPTA)

Project Title: Bus Operator Training Simulator

Summary of Project Scope: Purchase a computer-based system designed to simulate the operation of operating an electric bus.

Project Location: The Bus Operator Training Simulator will be installed in the Bus Training Classroom that will be located at the new Transit Center at 200 E 7th Street, Hanford, CA



Census Tract: 6031000900 (Population: 7,956)

Zoom to

The results for each indicator range from 0-100 and represent the percentile ranking of census tract 6031000900 relative to other census tracts.

Overall Percentiles	
CalEnviroScreen 4.0 Percentile	91
Pollution Burden Percentile	76
Population Characteristics Percentile	93
Exposures	
Ozone	82
Particulate Matter 2.5	99
Diesel Particulate Matter	36
Toxic Releases	42
Traffic	19
Pesticides	0
Drinking Water	55
Lead from Housing	97
Environmental Effects	
Cleanup Sites	63
Groundwater Threats	93
Hazardous Waste	87
Impaired Waters	0
Solid Waste	0
Sensitive Populations	
Asthma	95
Low Birth Weight	71
Cardiovascular Disease	99
Socioeconomic Factors	
Education	79
Linguistic Isolation	82
Poverty	88
Unemployment	42
Housing Burden	75

Total Project Cost: $600,000

Justification: This project will be critical to the Transition of our Fleet to Battery Electric Buses. Introducing new technology requires an approach that will allow our drivers to understand how the technology is designed to work followed by realistic training experience. The simulator will provide drivers with first-hand experience driving BEB prior to over-the-road training.

Through the Training Simulation drivers will learn: Regenerative Braking and BEB Braking Techniques; Battery Electric Bus Familiarization and Operations; Battery Electric Bus Energy Consumption Optimization; and Opportunity Charging

California Air Resources Board

Goal and Policy Links: Safe, reliable, clean transit services and sustainable infrastructure.

Project Lead: Executive Director Angie Dow

Project Status: Pending SB 125 TIRCP Standard Agreement Award

Project Costs and Funding Sources: SB 125 Transit and Intercity Rail Capital Program (TIRCP)

Project Costs by Phase:

	Award Date	Start Date	Project Cost
Order Bus Operator Training Simulator	1/1/2025	3/1/2025	$600,000

Project Funding Sources

	FY 2024-25
TIRCP	$600,000

Greenhouse Gas Reduction: The project directly addresses the greenhouse gas emissions by advancing and allowing the transition to BEBs for KCAPTA. Replacing conventional buses with electric buses eliminates direct emissions of GHGs such as carbon dioxide, leading to improved air quality and reduced overall GHG emissions from transit activities in Kings County. Fuel savings realized from the training of bus operators to utilize regenerative braking more efficiently will reduce total energy consumed to operate KCAPTA's service. Total project GHG emissions reductions for the assumed 20-year lifespan of this project are 754 MTCO2e. This equates to 0.0001257 MTCO2e per SB each 125 dollar.

	Per TIRCP $	Per CCI $	Total
Emission Reductions ($MTCO_2e$)	0.0001257	0.0001257	754

PROJECT 3

PURCHASE BATTERY ELECTRIC BUSES (Additional funding for approved Cycle 5 TIRCP Grant)

Implementing Agency: Kings County Area Public Transit Agency (KCAPTA)

Project Title: Tulare Cross-Valley Corridor ZEB Expansion Phase 1

Summary of Project Scope: This Project is requesting funding for an existing TIRCP Round 5 (2022) project, Tulare Cross-Valley Corridor ZEB Expansion Phase 1, The project will provide additional funds needed due to cost increases and Matching Funds. The funds will be used for the Electric Bus Purchase Component of the existing TIRCP Round 5 (2022) project.

Total Project Cost: $6,000,000

Justification: As part of the Tulare Cross-Valley Corridor ZEB Expansion Phase 1 TIRCP Round 5 Grant award Kings County Area Public Transit Agency (KCAPTA) was awarded $3,593,348 to purchase four 35' Electric Buses and eight Electric Micro-Transit Buses. These buses are scheduled to be ordered in July 2024. There have been increases in bus pricing since the submission of the 2022, Round 5 TIRCP Grant. This project will provide funding for the price increases and matching funds.

Project Lead: Executive Director Angie Dow and Facility and Maintenance Specialist Oscar Gonzalez

Project Status: Pending the start of the Construction of the Electric Bus Charging Station and SB 125 TIRCP Standard Agreement Award.

Project Costs and Funding Sources: Round 5 (2022) TIRCP - $ 4,453,784, SB 125 Transit and Intercity Rail Capital Program (ZETCP) $1,110,136, and SB 125 Transit and Intercity Rail Capital Program (TIRCP) $436,080

Project Costs by Phase:

	Start Date	Delivery Date	Project Costs by Phase		
			Quantity	Cost per each	FY 2024-25
35' EV Buses	7/1/2024	7/1/2025	4	$1,000,000	4,000,000
Mini-Buses	4/1/2024	10/1/2024	8	$ 250,000	$2,000,000
Total					**$6,000,000**

Project Funding Sources

	2023-24	**2024-25**	**Total**
TIRCP (Round 5)	-	$4,453,784	$4,453,784
TIRCP ZETCP	$711,181	$ 398,955	$1,110,136
TIRCP		$ 436,080	$ 436,081
Total	**$711,181**	**$5,288,819**	**$6,000,000**

Greenhouse Gas Reduction: Furthering KCAPTA's transition to BEBs, this project directly reduces greenhouse gas emissions by replacing conventional buses with electric buses. This will eliminate direct emissions from vehicles, such as carbon dioxide, leading to improved air quality and reduced overall GHG emissions from transit activities in Kings County. Total project GHG emissions reductions per for the purchase of 5 35' BEBs and 8 electric mini-buses are 7,318 MTCO2e across the useful life of 12-years. This equates to 0.00122 MTCO2e per each SB 125 dollar.

These GHG reductions account for only the bus procurement component of this project and are in addition to the calculated GHG reductions included in KCAPTA's TIRCP Cycle 5 submission.

	Per TIRCP $	Per CCI $	Total
Emission Reductions ($MTCO_2e$)	0.00122	0.00122	7,318

Additionally, the bus procurement project is anticipated to support 31 full-time equivalent jobs, 6 of which will be directly funded through this round GGRF funds. Of these six jobs, three are direct, one is indirect and two are full-time equivalent induced jobs.

PROJECT 4

35' BATTERY ELECTRIC BUS

Implementing Agency: Kings County Area Public Transit Agency (KCAPTA)

Project Title: 35' Battery Electric Buses

Summary of Project Scope: Purchase 6 - 35' Battery Electric Buses.

Total Project Cost: $6,600,000

Justification: This project will replace 35' CNG Buses. These buses are operated on KCAPTA's fixed route service. KCAPTA's 35' CNG Buses will be phased out and replaced with BEBs at the end of their useful life. A bus's useful life is 12-year or 500,000 miles. Due to the average daily miles traveled per route and schedules that do not allow for opportunity charging, their current fleet replacement will be 2 BEB to 1 CNG bus. KCAPTA's goal is to have its fleet fully transitioned to Zero-emission buses by 2036.

This project will replace 2- 2012 35' CNG Buses that are scheduled to be replaced in 2024 and 1- 2013 35' CNG Bus that is scheduled to be replaced in 2025. In order to meet operational schedules, 2 BEB buses will be needed to replace each bus.

Project Status: Pending SB 125 TIRCP Standard Agreement Award.

Project Costs and Funding Sources: SB 125 Transit and Intercity Rail Capital Program (ZETCP) $7,797,910, SB 125 Transit and Intercity Rail Capital Program (TIRCP) $5,629,856, and State Transit Assistance (STA) $172,234

Project Costs by Funding Year:

	Start Date	Delivery Date			Project Cost Funding		
			Quantity	Cost Each	FY 2024-25	FY 2025-26	FY 2026-27
35' EV Buses	7/1/2025	7/1/2026	6	$1,100,000	$5,629,856	$571,189	$398,955

Project Funding Sources

	2024-25	**2025-26**	**2026-27**	**Total**
TIRCP ZETCP		$398,955	$398,955	$ 797,910
TIRCP	$5,629,856			$5,629,856
STA		$172,234		$ 172,234
Total	**$5,629,856**	**$571,189**	**$398,955**	**$6,600,000**

Greenhouse Gas Reduction: The project directly addresses the greenhouse gas emissions by advancing and allowing the transition to BEB's for KCAPTA. Replacing conventional buses with electric buses eliminates direct emissions of GHGs such as carbon dioxide, leading to improved air quality and reduced overall GHG emissions from transit activities in Kings County. Total project GHG emissions reductions per

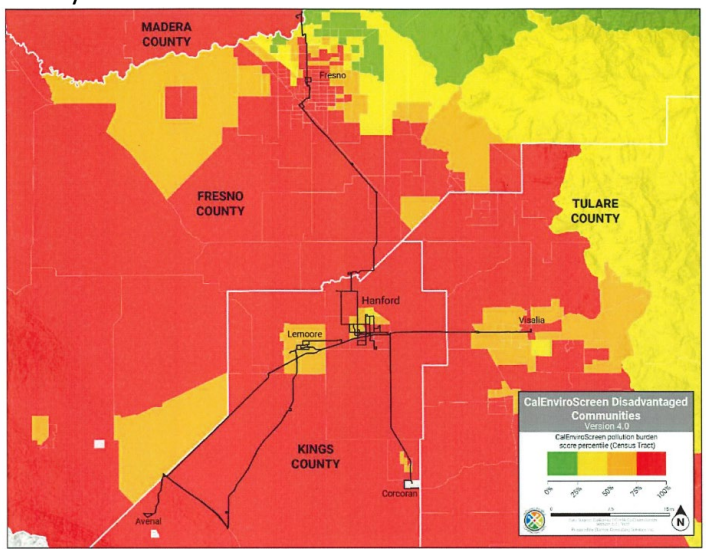
for the lifespan of this project are 1,389 MTCO2e. This equates to 0.000216 MTCO2e per each SB 125 dollar.

	Per TIRCP $	Per CCI $	Total
Emission Reductions ($MTCO_2e$)	0.000216	0.000216	1,389

In addition, the 35' Battery Electric Bus project is anticipated to support 34 full-time equivalent jobs, all of which will be directly funded through GGRF funds. Of these 33 jobs, 14 are direct, 8 are indirect and 11 full-time equivalent induced jobs.

Disadvantage Communities Served by Kings County Area Public Transit Agency: Kings County's service area is largely agricultural with high levels of poverty. Forty-six percent of the county meets the criteria for Historically Disadvantage Communities and/or Areas of Persistent Poverty. The Figure below shows there are many CalEnviroScreen-defined disadvantaged communities within KCAPTA's service area, including both within Kings County and within the neighboring counties that KCAPTA provides service to: Tulare and Fresno.

All census tracks colored in red are in the top 25% for pollution burden and overall vulnerability and are designated as disadvantaged communities according to the CalEnviroScreen criteria. All KCAPTA routes travel through at least one disadvantaged community, showing that KCAPTA can deploy ZEBs on any route to fulfill requirements and improve air quality and reduce pollution burden in the Kings County area.



Corcoran Area Transit (CAT) has received our agency's estimated apportionment of $2,566,576 for the next four fiscal years for both TIRCP and ZETCP Funds.

	FY 23-24	FY 24-25	FY 25-26	FY26-27	TOTAL FUNDING
TIRCP	$1,133,407.84	$1,136,161.88	-	-	$2,269,569.72
ZETCP	$101,796.33	$65,069.99	$ 65,069.99	$ 65,069.99	$297,006.30

CAT will utilize the funds to implement its transition to a zero-emission bus fleet and is requesting funding for the following projects:

1. Purchase and Install Electric Bus Chargers at Bus Canopy
2. Contactless Payment System
3. Purchase Battery Electric Buses (Replacing Diesel Buses)

Included in its Initial Allocation Package is the Project Narratives, a four-year TIRCP/ZETCP Financial Plan, CAT Transit Asset Management Plan, the 2023 Annual Transit Asset Management Plan Narrative, and CAT 2022 National Transit Database (NTD) Report.

PROJECT 1

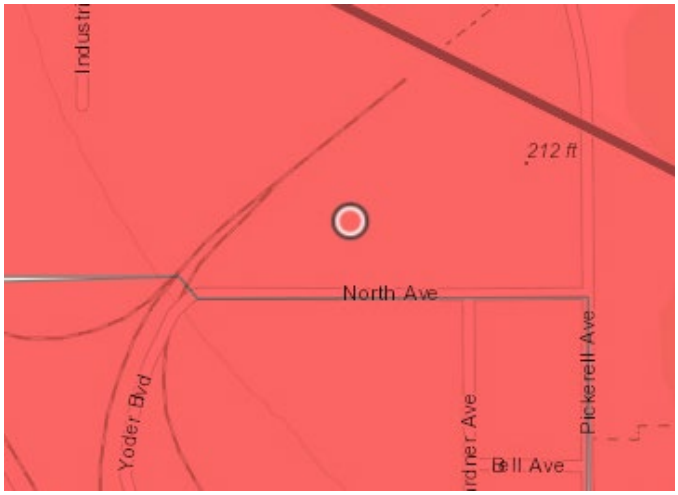
PURCHASE AND INSTALL ELECTRIC BUS CHARGERS AT BUS CANOPY

Implementing Agency: Corcoran Area Transit (CAT)

Project Title: Electric Bus Charging Infrastructure Project

Summary of Project Scope: Design, engineering, and construction of the Electric Bus Charging Infrastructure. This will consist of purchasing and installing electric bus charging equipment, install solar at current bus canopy and required site improvements such as grading, drainage, and paving.

Project Location: The proposed location of the Project is at the City of Corcoran's Corporation Yard and existing Maintenance Facility located at 750 North Avenue, Corcoran, CA 93212.



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Diesel Particulate Matter	46
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Traffic	13
Pesticides	61
Drinking Water	70
Lead from Housing	78
Environmental Effects	
Cleanup Sites	51
Groundwater Threats	97
Hazardous Waste	84
Impaired Waters	0
Solid Waste	94
Sensitive Populations	
Asthma	95
Low Birth Weight	78
Cardiovascular Disease	99
Socioeconomic Factors	
Education	96
Linguistic Isolation	98
Poverty	99
Unemployment	90
Housing Burden	42

Justification: Corcoran Area Transit (CAT) will use the TIRCP funds to design, engineer, purchase equipment, and install Electric Bus Charging Stations and purchase Charging Management Software. This project is a critical part of CAT's transition to Battery Electric Buses (BEB). The existing electrical system at its Corporation Yard on North Avenue is not adequate to service the electrical loads for the 26 BEB charges needed for its full fleet transition. BEB charger demands vary depending on model but demands often exceed 15 kW per charger and peak fleet charging demands may exceed 1.5MW even with a charger management system. The chargers will each require a new 480 V electrical feed with a new service from Pacific Gas and Electric (PG&E). In addition to the new feed from PG&E, a BEB charging system would require new 480 V switchgear and a new electrical distribution system onsite to serve the chargers. The inclusion of solar canopies will provide the potential to reach net zero metering while protecting outdoor charging stations from high daytime temperatures. The savings through the reduction of fuel costs, greenhouse gas emissions, and single occupant vehicle trips will provide significant environmental and economic benefits to the health and vitality of the region.

Prior to ordering the BEB buses CAT must have the ability to charge these buses.

California Air Resources Board

Goal and Policy Links: Safe, reliable, clean transit services and sustainable infrastructure.

Project Lead (Design): Transit and Grants Manager Valerie Bega and Public Works Director Joseph Faulkner.

Project Lead (Construction): Transit and Grants Manager Valerie Bega and Public Works Director Joseph Faulkner.

Project Status: Pending SB 125 TIRCP Standard Agreement Award

Project Costs and Funding Sources: Affordable Housing and Sustainable Communities Program (Round 7) and SB 125 Transit and Intercity Rail Capital Program (TIRCP)

Project Costs by Phase:

	Award Date	Start Date	Project Costs by Phase
			FY 2023-24
Purchase EV Bus Charging Equipment	1/1/2024	3/1/2024	$652,663.98
Design/Engineering/Permitting	1/31/2024	5/1/2024	$140,539.72
Construction	1/1/2024	9/1/2024	$140,204.30
EV Charging Management System	1/1/2024	1/1/2025	$200,000
Total			**$1,133,408**

Project Funding Sources

	2023-24
TIRCP	$1,133,408
Total	$1,133,408

Greenhouse Gas Reduction: The saving through the reduction of fuel costs and greenhouse gas emissions, will provide significant environmental and economic benefits to the health and vitality of the region. The inclusion of solar on the canopy will provide the potential to reach net zero metering while protecting outdoor charging stations from high daytime temperatures.

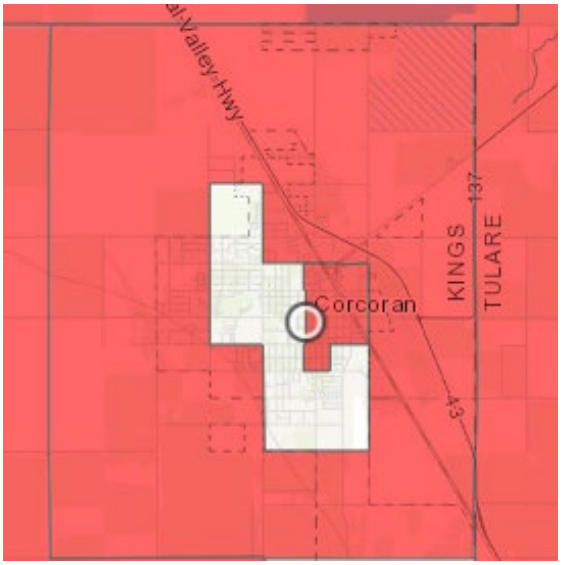
The calculated emission reductions were associated with transitioning to electric buses. To estimate the wells-to wheels emission reductions Argonne National Laboratory's Alternative Fuel Life-Cycle Environmental and Economic Transportation (AFLEET) Tool was used. AFLEET calculates greenhouse gas (GHG, particulate matter (PM), oxides of nitrogen (NOX), and volatile organic compound (VOC) emission for CNG and battery electric buses. AFLEET uses data from Argonne National Laboratory's Greenhouse gases, Regulated Emissions, and Energy used in Technologies (GREET) model to calculate the Well-to pump emissions associated with each type of fuel. The tailpipe emissions are calculated using data from the Environmental Protection Agency's Motor Vehicle Emission Simulator (MOVES).

Total project GHG emissions reductions for the assumed 20-year lifespan of this project are 1,142 MTCO2e. This equates to 0.0001007 MTCO2e per each SB 125 dollar. These GHG reductions included 69,758 kWh/year of energy production via a solar array atop the bus parking canopy.

	Per TIRCP $	Per CCI $	Total
Emission Reductions (MTCO2e)	0.0001007	0.0001007	1,142

Disadvantage Communities Served by Corcoran Area Transit: The Kings County area is largely agricultural with high levels of poverty. Forty-six percent of the county meets the criteria for Historically Disadvantage Communities and/or Areas of Persistent Poverty. The Figures below show there are many CalEnviroScreen-defined disadvantaged communities within CAT's service area.

All census tracks colored in red are in the top 25% for pollution burden and overall vulnerability and are designated as disadvantaged communities according to the CalEnviroScreen criteria. All CAT's Dial a Ride buses travel through at least one disadvantaged community, showing that CAT can deploy ZEBs to any Dial a Ride passenger to fulfill requirements and improve air quality and reduce pollution burden in the City of Corcoran.



SB 535 Disadvantaged Communities 2022 (Census Tracts and Tribal Areas)

PROJECT 2

CONTACTLESS PAYMENT SYSTEM

Implementing Agency: Corcoran Area Transit (CAT)

Project Title: Contactless Payment System

Summary of Project Scope: This project will improve CAT's fare system by allowing cashless payments when boarding.

Total Project Cost: $297,006

Justification: As part of California's transition to integrated ticketing and contactless payments.

Project Lead: Transit and Grants Coordinator Valerie Bega.

Project Status: Pending the Standard Agreement Award and bids.

Project Costs and Funding Sources: ZETCP- $297,006 (utilizing multiple years apportionment totals)

Project Cost by Phase:

	Start Date	Delivery Date	Project Costs by Phase		
				Cost per each	FY 2026-27
Contactless Payment System	7/1/2026	12/1/2027		$297,006	$297,006
Total					**$297,006**

PROJECT 3
PURCHASE BATTERY ELECTRIC BUSES

Implementing Agency: Corcoran Area Transit (CAT)

Project Title: Replace four Diesel Buses with ZEB

Summary of Project Scope: This Project requests funding for replacement of four (4) Diesel buses.

Total Project Cost: $1,136,162

Justification: As part of California's transition to Zero Emission, the City of Corcoran's Transit Division CAT is looking to replace 4 of its Diesel buses with zero emission buses (ZEB). This project will provide funding for the ZEB purchases and matching funds.

Project Lead: Transit and Grants Coordinator Valerie Bega and Public Works Director Joseph Faulkner.

Project Status: Pending the start of the Construction of the Electric Bus Charging Station and SB 125 TIRCP Standard Agreement Award.

Project Costs and Funding Sources: TIRCP ZETCP- $ 1,136,162, SB 125 Transit and Intercity Rail Capital

Project Costs by Phase:

	Start Date	Delivery Date	Project Costs by Phase		
			Quantity	Cost per each	FY 2024-25
Mini-Buses	4/1/2024	10/1/2024	4	$ 284,040.50	$1,136,162
Total					**$1,136,162**

Greenhouse Gas Reduction: The total project GHG emissions reductions for the assumed 12-year useful life of vehicles procured through this project are 363 MTCO2e. This equates to 0.000319MTCO2e per each SB 125 dollar.

	Per TIRCP $	Per CCI $	Total
Emission Reductions (MTCO2e)	0.000319	0.000319	363

In addition, the BEB purchase project is anticipated to support 6 full-time equivalent jobs, all of which will be directly funded through GGRF funds. Of these six jobs, three are direct, one is indirect, and two are full-time equivalent induced jobs.