CALIFORNIA STATE TRANSPORTATION AGENCY

Transit and Intercity Rail Capital Program
Fourth Round Selected Projects – Project Detail Summary
April 21, 2020

Total Funding Awarded:
$500 million awarded towards 17 projects, totaling over $5.4 billion of total project cost

Estimated 5,016,00 metric tons of CO_2e ($MTCO_2e$) reduced

All projects are located within disadvantaged communities or low-income communities and contribute direct, meaningful and assured benefits to disadvantaged communities, low-income communities or low-income households (also referred to as Priority Populations)

1. Antelope Valley Transit Authority (AVTA)

Project: Reaching the Most Transit-Vulnerable: AVTA's Zero Emission 'Microtransit' and Bus Expansion Proposal

Award:	**$6,503,000**
Total Budget:	**$8,481,000**

Estimated TIRCP GHG Reductions **12,000 $MTCO_2e$**
(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which is anticipated to contribute $1,355,000 to the project)

Purchase of 11 zero emission battery electric buses and supportive charging infrastructure to allow for expansion of the zero-emission bus fleet and implement a new zero-emission microtransit service that is fully integrated into local and regional intermodal transit networks, enhancing zero emission transit interconnectivity throughout the region and extending zero emission transit into some of the most transit-vulnerable communities in the region.

The project will significantly improve zero emission bus transit connectivity through intermodal connections between bus routes as well as between bus and rail service, with direct benefits to communities in and around the Antelope Valley as well as through increased interconnections into Los Angeles. By implementing the new microtransit service, new connections are created to regional transit options such as Metrolink, which provide transit-dependent customers in priority populations with more and faster regional travel options through the Los Angeles Basin. Further, AVTA has in place a Community Workforce Agreement which establishes a goal of 30% for all construction labor hours worked to be completed either by veterans, local residents, or individuals who have completed a pre-apprenticeship program.

The project also expands on AVTA's newly developed microtransit phone application and website to incorporate Google Transit integration, which will provide passengers with a more seamless travel experience and enhance local and regional network integration.

Technical assistance will be provided by the California Department of Transportation to integrate bus procurement efforts with statewide zero emission bus efforts, and to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project is expected to be completed by 2022.

Key Project Ratings:

Cost per GHG Ton Reduced:	Medium-High
Increased Ridership:	Medium
Service Integration:	Medium-High

Improves Safety:	Medium
Project Readiness:	High
Funding Leverage:	Medium
Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	Medium-High
Housing Co-Benefits:	Medium-Low

2. Bay Area Rapid Transit (BART)

Project: The Transbay Corridor Core Capacity Program: Vehicle Acquisition

Award:	**$107,100,000**
Total Budget:	**$3,536,400,000**
Estimated TIRCP GHG Reductions:	**2,495,000 $MTCO_2e$**

(This is a contingent award that requires a federal Full Funding Grant Agreement prior to receiving the state funds from TIRCP. The agreement is expected to be signed in the near future.)

(This project is an additive phase to the 2018 selected project for BART's Transbay Corridor Core Capacity Program project, which also includes funding for the Train Control System, as described in the 2018 TIRCP award announcement. GHG benefits are based on the incremental increase associated with updated ridership and emissions benefits and with running an additional 34 rail cars on the system).

Expansion of the Core Capacity rail car fleet by 34 vehicles to 306 cars to support the completion of the Core Capacity Program, allowing rail service through the Transbay tube to increase from 23 to 30 trains per hour in each direction, as well as the operation of 10-car trains on all service in peak hours. Over the useful life of the project, ridership through the Transbay tube is expected to increase by 200,000 riders per day, making the completion of this project essential to the mobility of the Bay Area.

This expansion will allow BART to decrease current headways on each line from 15 minutes to 12 minutes, with more frequent service on high-demand segments. The Core Capacity Program will replace systems that are at the end of their service life and enhance system reliability and safety. This increase in frequency and capacity of the BART system is expected to increase ridership levels on other transit systems throughout the Bay Area. This increase in frequency and capacity of the BART system is expected to provide improved service and transit connectivity for priority populations throughout the Bay Area. Fully 30% of all BART stations are located within priority population communities, providing residents important connections to local, regional, and intercity transit options.

The project directly contributes to enhanced workforce development and the local economy. Bombardier, the company under contract to complete the cars being purchased, opened a new facility in Pittsburg, California to fulfill the large purchase orders related to this project.

Total funding from TIRCP is $425,700,000 over two cycles. Due to the extended timeline for project delivery that goes beyond this cycle's 5-year program (completion date: 2031), the project is expected to receive allocations over the life of the implementation schedule from both the 2018 and 2020 awards.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	High
Service Integration:	Medium-High
Improves Safety:	High
Project Readiness:	High
Funding Leverage:	High
Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	High
Housing Co-Benefits:	High

3. Capitol Corridor Joint Powers Authority (CCJPA), with co-applicants of the City of Sacramento, Sacramento Regional Transit District (SacRT) and Downtown Railyards Venture, LLC (DRV)

Project: Sacramento Valley Station (SVS) Transit Center

Award:	**$3,914,000**
Total Budget:	**$6,014,000**
Estimated TIRCP GHG Reductions:	**39,000 $MTCO_2e$**

Construction of a new northside station access route to connect the Sacramento Valley Station (SVS) to the future Railyards Plaza. The Railyards development directly north of the SVS is adding 10,000 housing units along with new destination centers and thousands of jobs to the area. With developments in the Railyards and River District prioritizing transit ridership and active transportation, providing a short, direct connection to the station will unlock new transit ridership at the SVS.

Also provides funding for key service integration efforts related to improving light rail and regional bus service to the station that will drive higher ridership for transit and intercity rail in the future, including:

(1) an I-5 Northbound Ramp Reconfiguration Study to determine how shifting the onramp can benefit the station area;
(2) a Bus Layover Facility Study to determine suitable locations for a facility to accommodate regional, local and zero emission charging infrastructure;
(3) and a Downtown Sacramento Service Integration Study that will involve CCJPA, SACOG, the City of Sacramento, and local and regional bus operators, to support route modifications and timing adjustments that better synchronize Sacramento's regional bus system with intercity rail and local transit needs, and identify the full benefits of improved bus and light rail infrastructure at the SVS.

These plans will be developed in cooperation with many transit partners and agencies throughout the Sacramento region, and with additional technical assistance provided by the California Department of Transportation, in order to ensure integration of regional and interregional capital improvements and service.

Project is expected to be completed by 2022.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	Medium-Low
Service Integration:	Medium-Low
Improves Safety:	Medium
Project Readiness:	Medium-Low
Funding Leverage:	Medium
Multi-Agency Coordination/Integration:	High
Priority Population Benefits:	Medium
Housing Co-Benefits:	High

4. City of Inglewood

Project: Inglewood Transit Connector

Award:	**$95,200,000**
Total Budget:	**$1,016,000,000**
Estimated TIRCP GHG Reductions:	**772,000 $MTCO_2e$**

Construction of a 1.6-mile electrically powered automated people mover (APM) system and three new stations in the City of Inglewood. The project will create a new connection for passengers directly from the LA Metro Crenshaw/LAX Line's Downtown Inglewood Station to new housing and employment centers, and regionally serving sports and entertainment including the Los Angeles Sports and Entertainment District (LASED) at Hollywood Park/SoFi Stadium and the proposed Inglewood Basketball and Entertainment Center (IBEC) Project.

The project will connect the City of Inglewood's high growth areas in Downtown Inglewood with LA Metro's regional rail system and provide residents with high quality and efficient transit options. Four Transit-Oriented Development (TOD) Plans have been adopted, which encourage housing, retail and inclusionary benefits to residents of Inglewood. Key to this project is the nearly 1000 housing units planned as part of the TOD Plans with significant affordable housing units included in the plans. Additionally, in the next decade alone, the City of Inglewood will host the Super Bowl in 2022, the 2026 FIFA World Cup, and the 2028 Summer Olympic Games. Bolstering the regional transit system and closing this last mile gap to the LA Metro rail system is key to hosting these successful mega-events. Up to 11 4-car trains will be able to operate on the system during peak demand.

The three new stations that will be constructed are located within the census tract boundaries of multiple priority populations, and more than 90% of the project corridor is

located in priority population communities. These communities will benefit from improved access to transit and employment opportunities, a reduction in air pollutants and decreasing health disparities experienced by priority populations. Additional planning and outreach will be conducted after project award to ensure benefits to priority populations are enhanced and so that thorough coordination is achieved with other projects in the region that are recommended for funding, including Santa Monica Big Blue Bus and the Torrance Transit Department. Project is recommended for technical assistance to enhance priority population benefits and assist with the additional planning efforts described, in coordination with the California Department of Transportation. Technical assistance will be provided by the Department of Transportation to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

The project is matched by significant investment provided by an array of sales tax commitments, private developer financing, infrastructure impact fees, and city funds. This project delivers additional benefits that will make the regional transit system more attractive to riders, which include residents of these communities and patrons of the sports and entertainment districts.

Due to the extended timeline for delivery that goes beyond this cycle's 5-year program (completion date: 2026), the project is expected to receive allocations over the life of the implementation schedule.

Key Project Ratings:	
Cost per GHG Ton Reduced:	Medium-High
Increased Ridership:	Medium-High
Service Integration:	Medium
Improves Safety:	Medium
Project Readiness:	Medium-High
Funding Leverage:	High
Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	Medium-High
Housing Co-Benefits:	High

5. Lake Transit Authority (LTA)

Project: North State Intercity Bus System-Lake County Interregional Transit Center

Award:	**$12,994,000**
Total Budget:	**$13,344,264**
Estimated TIRCP GHG Reductions:	**14,000 $MTCO_2e$**

Construction of a new transit center in Clearlake and purchase 4 hydrogen fuel-cell buses with associated infrastructure. The project would expand service to out of county

destinations, including the Sonoma County Airport and the Santa Rosa Bus Terminal in Downtown Santa Rosa. Hydrogen fuel cell technology is used in order to allow extended range services to be operated, contributing to increased ridership.

Development of a new transit facility and purchase of expansion buses provides the opportunity for LTA to meaningfully upgrade and expand their system and provide greater safety and security for their riders. The project can serve as a rural prototype with respect to zero-emission technology in the short run, and further to allow for greater connectivity and access to services and transportation options found only in urban areas, such as air travel or passenger rail, bolstering the state's transportation network. Lake County is providing an in-kind contribution by selling the parcel where the transit facility will be constructed at 50% below market value.

The project improves geographic equity as the Lake County region ranks among the most economically disadvantaged in California and has a disproportionate number of seniors and disabled persons. In addition, an innovative feature of this project is the focus on enhancing workforce development in the region. Lake County is collaborating with a local college to bolster an Automotive Technology program to help develop a local workforce with the skills to work on transit vehicle repairs in the future.

Project selection was based in part on geographic equity considerations.

Technical assistance will be provided by the California Department of Transportation to integrate bus procurement efforts with statewide zero emission bus efforts, and to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2023.

Key Project Ratings:

Cost per GHG Ton Reduced:	Medium
Increased Ridership:	Medium
Service Integration:	Medium-High
Improves Safety:	High
Project Readiness:	Medium-High
Funding Leverage:	Medium-Low
Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	Medium-High
Housing Co-Benefits:	Medium

6. Long Beach Transit (LBT)

Project: LBT/UCLA Electric Commuter Express

Award:	**$6,451,000**
Total Budget:	**$6,481,000**

Estimated TIRCP GHG Reductions: **9,000 $MTCO_2e$**

Purchase of 5 zero-emission battery electric 45-foot over-the-road coaches to increase service on a commuter route between the Greater Long Beach area and the University of California, Los Angeles (UCLA). This service addresses the lack of an existing permanent, convenient commuter service between the City of Long Beach and UCLA, and provides a safe, congestion-reducing service for workforce that would otherwise be driving long distances.

LBT implemented a successful pilot program that operated only during peak hours and had a ridership increase of 179% between April and October 2019. This project will make the service permanent and offers expanded service hours. The route runs along the I-405, one of the most congested urban freeways in the country, directly taking cars off the freeways while providing key connections to other services and destinations including the Long Beach Airport, UCLA, other local transit connections, and existing and future LA Metro rail lines.

LBT has previously conducted extensive community outreach and used community recommendations to directly inform implementation of this new service. The project directly meets a need identified by the community. The new service traverses many priority population communities and additional outreach with specific focus on priority populations is planned as part of project implementation. LBT has committed an in-kind match to continue this outreach throughout implementation.

This service will provide residents with a permanent, commuter-based route that gives customers a high-quality transit option in lieu of driving through a highly congested corridor to get to and from job opportunities.

Technical assistance will be provided by the California Department of Transportation to integrate bus procurement efforts with statewide zero emission bus efforts, and to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2023.

Key Project Ratings:

Cost per GHG Ton Reduced:	Medium
Increased Ridership:	Medium-High
Service Integration:	Medium
Improves Safety:	Medium
Project Readiness:	High
Funding Leverage:	Low
Multi-Agency Coordination/Integration:	Medium-High
Priority Population Benefits:	Medium-High

Housing Co-Benefits: Medium-Low

7. Los Angeles County Metropolitan Transportation Authority (LA Metro) and Southern California Regional Rail Authority (Metrolink)

Project: Metrolink Antelope Valley Line Capital and Service Improvements

Award:	**$107,050,000**
Total Budget:	**$220,850,000**
Estimated TIRCP GHG Reductions:	**584,000 $MTCO_2e$**

The proposed Metrolink Antelope Valley Line Capital and Service Improvements Project will add targeted capacity-increasing infrastructure on the Antelope Valley Line, increase service in step with new capacity, and assess the feasibility of rail multiple unit and zero-emission propulsion service through a pilot project on the Metrolink Antelope Valley Line. The 4 infrastructure projects included allow Metro to initiate regular 60-minute, bi-directional service, followed by introduction of regular 30-minute bi-directional service from Los Angeles Union Station to Santa Clarita, in deployment waves that accelerate delivery of new service as planned under the Southern California Optimized Rail Expansion (SCORE) program.

The 4 infrastructure projects include:

1. Balboa Double Track Extension
2. Lancaster Terminal Improvements
3. Canyon Siding Extension
4. Brighton-McGinley Double Track

This award builds on the investment in Phase 1 of the Southern California Optimized Rail Expansion (SCORE) Program awarded in 2018 and expands those benefits. This award accelerates delivery of key AVL Projects, which provide regional “bookend” capacity for state-supported Intercity and High-Speed Rail, as well as significantly advances the County’s ability to integrate the regional rail system into the Metrolink station communities.

In addition, this project includes funding for a zero-emission rail multiple unit (ZEMU) equipment pilot to assess potential to provide more cost-effective and flexible rail service and reduce the carbon and emissions footprint of rail service. The ZEMU pilot tests rail technology in one of the more challenging Metrolink corridors due to topography, density, temperature variations and elevation differences between Lancaster and Los Angeles. If the pilot project is successful on this corridor, it will bode well for ZEMU operations throughout the entire Metrolink regional rail network and help provide data and performance measurements useful to other agencies in California seeking to implement similar ZEMU rail technology. Technical assistance will be provided by the California Department of Transportation to integrate rail demonstration pilot efforts with statewide rolling stock planning.

Over 1 million residents of the 3.3 million residents in the census tracts in the Antelope Valley station catchment areas are from Disadvantaged Communities. The AVL investments will improve rail mobility and access for these priority populations to major employment centers

and other regional destinations, including Hollywood Burbank Airport.

Due to the extended timeline for delivery that goes beyond this cycle's 5-year program (completion date: 2027), the project is expected to receive allocations over the life of the implementation schedule.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	Medium-High
Service Integration:	High
Improves Safety:	Medium-High
Project Readiness:	Medium-High
Funding Leverage:	Medium-High
Multi-Agency Coordination/Integration:	High
Priority Population Benefits:	Medium
Housing Co-Benefits:	Medium

8. Los Angeles – San Diego – San Luis Obispo Rail Corridor Agency (LOSSAN)

Project: Building Up Control: LOSSAN Service Enhancement Program

Award:	**$38,743,000**
Total Budget:	**$87,196,969**
Estimated TIRCP GHG Reductions:	**325,000 $MTCO_2e$**

Designs and constructs two new maintenance facilities in San Diego and San Luis Obispo that enable longer trains and better departure times to be operated out of both locations, contributing to both frequency and ridership growth for the Pacific Surfliner. Aligned with needs identified in the 2018 State Rail Plan.

Provides funding for design and construction of a dedicated maintenance, support and storage location for the Pacific Surfliner service in National City, at the southern end of the LOSSAN rail corridor. The facility will allow storage and maintenance of additional and longer trains (up to 7 7-car trains, or equivalent), increasing the efficiency and ridership of services into San Dan Diego. It also will move primary maintenance activities away from the Santa Fe Depot in San Diego, which is primarily surrounded by residential and commercial land uses. In addition, this new facility can be utilized by COASTER service to support service expansion goals within San Diego County, supporting additional opportunities for integration and connectivity to the regional transit network.

Provides for design and construction of an expanded maintenance and layover facility south of the station in San Luis Obispo, allowing for the storage and maintenance of additional and longer trains (up to 4 7-car trains, or equivalent). Allows for train movement between maintenance facility and station without impacting mainline passenger and freight train operations. Facility design and construction will be coordinated with the City of San Luis Obispo to integrate the facility into the community plan for the roundhouse district and

provide the opportunity for the City to connect the surrounding development within the district to the station in San Luis Obispo by way of a pedestrian and bike trail that will also provide a natural barrier between the facility and the existing and planned developments within the district. Ability to maintain more trainsets in San Luis Obispo is aligned with the State Rail Plan and allows for better departure times that capture higher ridership. Facility is also supportive of future service expansion to northern California once additional investments are made in improving the infrastructure on the Central Coast. The San Luis Obispo investment is coordinated with additional investment through Proposition 1B and the State Transportation Improvement Program, reflected in the project matching funds.

As part of the overall scope of this project, state funding from the Public Transportation Account will be used to enhance the condition of the Pacific Surfliner fleet, providing a fleet that has improved reliability and meets customer expectations. Technical assistance will be provided by the California Department of Transportation to integrate maintenance facility planning with statewide rail planning, facility development, and fleet deployment efforts.

Project benefits are enhanced through complementary service improvements in the corridor awarded in previous years, which includes investments in signal optimization and various capital improvements which prepares the corridor for higher frequency services to be introduced by the Pacific Surfliner.

Due to the extended timeline for delivery that goes beyond this cycle's 5-year program (completion date: 2026), the project is expected to receive allocations over the life of the implementation schedule.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	Medium-High
Service Integration:	Medium-High
Improves Safety:	Medium
Project Readiness:	Medium
Funding Leverage:	Medium-High
Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	Medium-Low
Housing Co-Benefits:	Medium-Low

9. Sacramento Regional Transit (SacRT)

Project: Light Rail Modernization and Expansion of Low-Floor Fleet

Award:	**$23,600,000**
Total Budget:	**$47,200,000**
Estimated TIRCP GHG Reductions:	**85,000 $MTCO_2e$**

(This project is an additive phase to the 2018 selected project for SacRT's Accelerating Rail Modernization and Expansion in the Capital Region. GHG benefits are based on the

incremental increase associated with updated ridership and emissions benefits associated with running an entirely low-floor fleet on the Gold Line augmenting the targeted low-floor conversions awarded in 2018).

Purchases 8 new low-floor light rail vehicles (LRVs) to enable extensive low-floor fleet operations on the Gold Line, providing increased reliability, access and capacity to riders. Project leverages investment in targeted low-floor conversions along the Gold Line awarded in 2018.

Paired with the 20 LRVs funded by the TIRCP program in 2018, this project will complete a major step towards modernizing its fleet, which will support retaining and attracting new light rail riders. Low-floor LRVs are anticipated to produce operational efficiencies by speeding up train run times and optimizing boarding convenience and safety along with needed increased capacity. These investments support 15-minute service frequencies during weekdays on the Gold Line, along with additional peak-direction express service.

The project supports sustainable housing and land use development while providing meaningful benefits to priority populations by improving mobility and access to transit options. Of SacRT's 52 light rail stations, 41 are in priority population communities. The project complements investments in a transit-oriented development plan at the 65th Street Station along the Gold Line near Sacramento State University, where there is planned construction of up to 223 housing unit with new retail space. The transit-oriented development, being constructed on excess SacRT property adjacent to the station, includes the reconstruction and modernization of nearby bus stops and new ADA compliant crosswalks, making it easier and safer for residents to connect to transit.

With attention paid to enhancing local workforce development, Sacramento has an established Local Hire and Community Workforce Training Program to facilitate the employment of local residents to develop increased numbers of local skilled workers to meet the requirements of the regional construction economy. The program has a goal of 50% of the workforce hours to be completed by priority apprentices who are residents of targeted zip codes.

Technical assistance will be provided by the California Department of Transportation to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2024.

Key Project Ratings:

Cost per GHG Ton Reduced:	Medium-High
Increased Ridership:	Medium
Service Integration:	Medium-Low
Improves Safety:	Medium-High
Project Readiness:	Medium-High
Funding Leverage:	Medium-High

Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	Medium-High
Housing Co-Benefits:	Medium

10. San Bernardino County Transportation Authority (SBCTA) & Omnitrans

Project: West Valley Connector Bus Rapid Transit Phase 1 & Zero-Emission Bus Initiative

Award:	**$15,000,000**
Total Budget:	**$286,966,000**

Estimated TIRCP GHG Reductions: **33,000 $MTCO_2e$**
(Additional project benefits accrue to the Low Carbon Transit Operations Program, which is anticipated to contribute $5,000,000 to the project)

Construction of a 19-mile Bus Rapid Transit (BRT) project that will provide clean and efficient transit service connecting the cities of Pomona, Montclair, Ontario, and Rancho Cucamonga. The project is a collaborative effort of SBCTA, the corridor cities, and OmniTrans, proposed as a 100% zero-emission system, representing the first stage of the San Bernardino County Zero-emission Bus Initiative. The West Valley Connector (WVC) runs parallel to the two most congested freeways in San Bernardino County and population for WVC corridor cities is forecast to increase by 30 percent by 2045, and employment by 29 percent, further increasing the need for a multimodal approach to corridor mobility.

The WVC will provide connections to the Ontario International Airport passenger terminals from the Metrolink San Bernardino Line in Rancho Cucamonga as well as the Riverside Line at Downtown Pomona. It also links other major destinations along the route such as Ontario Mills shopping/entertainment complex, Ontario Convention Center, and Victoria Gardens as well as other mixed-use development in Rancho Cucamonga. It will position the corridor to build on the current local initiatives for transit- oriented development (TOD) and serve substantial numbers of residents in priority populations along the line, providing improved connections to regional transit options, including Metrolink services, and better access to economic opportunities.

The project includes constructing 22 new stations, purchasing 18 zero emission buses, implementing transit signal priority, and approximately 3.5 miles of the route will be constructed as dedicated bus-only lanes with level boarding at median stations. Once implemented, 10-minute service frequencies during the peak and 15-minute frequencies in the off-peak will be achieved, providing a high level of service to the community.

This project is matched by significant investment from an array of local sales tax commitments, federal funding sources, and other state sources. Once implemented, this project will make the regional transit system even more attractive to riders by creating a new, efficient service connecting multiple cities and linking to high-quality connections with Metrolink.

Technical assistance will be provided by the California Department of Transportation to integrate bus procurement efforts with statewide zero emission bus efforts, and to ensure

service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2023.

Key Project Ratings:	
Cost per GHG Ton Reduced:	Medium-High
Increased Ridership:	Medium-Low
Service Integration:	Medium-High
Improves Safety:	Medium-High
Project Readiness:	Medium-High
Funding Leverage:	High
Multi-Agency Coordination/Integration:	Medium-High
Priority Population Benefits:	High
Housing Co-Benefits:	Medium-High

11. San Diego Association of Governments (SANDAG)

Project: SDConnect: San Diego Rail Improvement Program

Award:	**$12,100,000**
Total Budget:	**$35,944,000**
Estimated TIRCP GHG Reductions:	**34,000 $MTCO_2e$**

The construction of an additional track and platform along a one mile stretch in El Cajon that is currently single-track, to allow for the Green Line and Orange Line to terminate at the El Cajon Transit Center and provide operational flexibility and efficiencies. Most of the 53-mile Trolley network is double-tracked and closing this one-mile gap helps to reduce bottlenecks at this location in the system. A one-car Trolley shuttle would then continue to provide service between El Cajon Transit Center and Santee Trolley Station. This would relieve operational constraints currently impacting the entire line, while still providing service between El Cajon and Santee.

Overall the project will reduce operating costs on the Green Line by efficiently targeting service between busy stations and improve overall system reliability and increases the ability to improve frequency on the Green Line due to the elimination of the single-track segment on the alignment. This will improve mobility and access for residents and priority populations through enhanced and greater service reliability. Over the life of the project, ridership to the trolley system is expected to increase by over 750,000 annually, making it a cost-effective strategy for growing ridership.

Additional planning and outreach is planned during project implementation to ensure benefits to priority populations are enhanced, in coordination with technical assistance

available through the California Department of Transportation. SANDAG's Community-Based Organizations (CBO) Working Group is a key coordinator of this ongoing process.

Award includes $4.9 million in funding for work to expand the work achieved by Phase 5 of the Del Mar Bluffs Stabilization Project, in combination with other federal, state and local funds committed and being pursued for the project. Significant investment in stabilizing the rail corridor through the Del Mar Bluffs is critical to a reliable and safe corridor for passenger and goods movement. Technical assistance will be provided by the California Department of Transportation, in order to coordinate the work efforts related to the Del Mar Bluffs Stabilization Project and to ensure integration of regional and interregional capital improvements and service.

Project completion is expected by 2023.

Key Project Ratings:	
Cost per GHG Ton Reduced:	Medium-High
Increased Ridership:	Medium-Low
Service Integration:	Medium
Improves Safety:	Medium-High
Project Readiness:	Medium
Funding Leverage:	Medium-High
Multi-Agency Coordination/Integration:	Medium-High
Priority Population Benefits:	Medium-Low
Housing Co-Benefits:	High

12. San Francisco Municipal Transportation Agency

Project: Core Capacity Program

Award:	**$41,668,000**
Total Budget:	**$86,948,000**
Estimated TIRCP GHG Reductions:	**369,000 $MTCO_2e$**

Implements two of the three highest priority routes in the Muni *Forward* program, which includes a combination of transit signal priority, transit-only lanes, stop consolidation, and complementary facility and pedestrian improvements. Included in the award are a set of targeted improvements to two key rail corridors—the J and M-Lines.

Specific features of the project include:

- Conversion of travel lanes to dedicated transit only lanes.
- Redesign of intersections for pedestrian safety, platform access, and transit priority through the addition of new crosswalks, signalization of intersections, and construction of transit and pedestrian bulbs to reduce crossing distance and improve access to trains.
- Stop consolidation and realignment of boarding islands to reduce train idle time at

intersections.

- Installation of wheelchair accessible ramps at several stops.
- Upgraded and expanded boarding platforms to accommodate longer trains.

Implementation of the project directly supports efforts by SFMTA to operate the J, K and L-Lines exclusively on the surface without entering the subway while operating the M-line in the subway. This will free up space in the subway to allow for high-frequency shuttle service between the Embarcadero and West Portal, resulting in a 20 percent increase in vehicle volumes in the subway, where existing crowding is most concentrated. Taken together, the project will lead to an increase near term capacity and efficiency of the system as well as build service capacity and enable future growth.

Priority population communities will benefit directly considering that the M-line is a Muni Service Equity Strategy priority line. A high percentage of the neighborhoods that the M-line serves are priority population communities. The project will expand access and enhance reliability for customers. Project is recommended for technical assistance to enhance priority population benefits, including addressing displacement burdens along the corridors, in coordination with the California Department of Transportation.

Includes $1,668,000 in project development funding to advance the both Train Control Upgrade Program and third Muni Forward corridor, which did not receive construction funding in this TIRCP cycle.

Due to the extended timeline for delivery that goes beyond this cycle's 5-year program (project completion of funded Muni *Forward* elements: 2026), the project is expected to receive allocations over the life of the implementation schedule.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	Medium-High
Service Integration:	Medium-High
Improves Safety:	High
Project Readiness:	Medium-High
Funding Leverage:	Medium-High
Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	Medium
Housing Co-Benefits:	Medium-High

13. Santa Monica Big Blue Bus

Project: For People, Place and Planet: Connecting Inglewood to Regional Opportunities

Award:	**$1,105,000**
Total Budget:	**$6,743,000**
Estimated TIRCP GHG Reductions:	**18,000 $MTCO_2e$**

Procures 7 zero-emission buses to enhance and extend local Route 14 from Playa Vista to Inglewood. Route 14 will be extended an additional 3.6 miles and its southern terminus will be at the new Westchester/Veterans Station on the LA Metro K Line in Inglewood. The route extension creates a new high-quality rail line connection while also providing local residents in Inglewood with a time-saving, direct connection to the jobs-rich areas of Playa Vista and the Westside of Los Angeles.

The new southern terminus of the route extension is 0.6 miles from a non-profit organization that provides housing and other services to veterans and their families, and which currently provides over 600 beds. The northern terminus of the route reaches the Veterans Home of California, a 396-bed long-term healthcare facility for veterans and the campus is proposing to add 1,200 additional permanent supportive housing units.

Project is recommended for technical assistance to enhance priority population benefits and assist with the additional planning efforts described in the TIRCP award to the City of Inglewood, in coordination with the California Department of Transportation and the Torrance Transit Department.

Technical assistance will be provided by the California Department of Transportation to integrate bus procurement efforts with statewide zero emission bus efforts, and to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2022.

Key Project Ratings:	
Cost per GHG Ton Reduced:	Medium-High
Increased Ridership:	Medium-High
Service Integration:	Medium
Improves Safety:	Medium
Project Readiness:	High
Funding Leverage:	High
Multi-Agency Coordination/Integration:	Medium-Low
Priority Population Benefits:	Medium
Housing Co-Benefits:	Medium-High

14. Solano Transportation Authority (STA)

Project: Solano Regional Transit Improvements Phase 2

Award:	**$10,400,000**
Total Budget:	**$17,150,000**
Estimated TIRCP GHG Reductions:	**125,000 $MTCO_2e$**

(Additional project benefits accrue to the Low Carbon Transit Operations Program, which is anticipated to contribute $600,000 to the project)

This project improves the frequency, access, safety and integration of regional transit connections in and around Solano County, and does so in a manner that considers all elements of travel and all segments of the population. While improvements include many benefits to the SolanoExpress system, many other operators will also benefit from the investments. Investments are planned for:

(1) Improvements at the Vacaville Transit Center (VTC) – a new Class I pathway connecting Downtown Vacaville, 250 Transit-Oriented Development housing units and the VTC; a pedestrian promenade connecting 270 Transit-Oriented Development housing units and the VTC; transit signal prioritization around VTC at 3 intersections, in order to save time and increase reliability for transit buses serving the station; and ticketing investments to speed boarding of buses.

(2) Multi-Modal Improvements at the Fairfield-Vacaville Hannigan Rail Station – develop pedestrian and bike access at the south station portal, connecting to new development and opening the facility up to the large military community to the south of the station. The bike and pedestrian improvements will provide first/last mile connections for hundreds of homes and thousands of military personnel that occupy the Travis Air Force Base located less than one mile away. Connect to the Fairfield Train Station Affordable Workforce Housing development, featuring 312 units of affordable housing (deed restricted at 50% and 70% of area median income). Construct a 119-space park and ride lot with vanpool, carpool parking, and electric vehicle charging, increasing ridership on the Capitol Corridor services at the station, primarily using local funding.

(3) Improvements at the Fairfield Transit Center (FTC) – Construct a new SolanoExpress Blue Line stop on the westbound on-ramp to I-80 at West Texas St., saving significant time for westbound travelers. Also construct a new bicycle/pedestrian connection on W. Texas St to connect the new stop to existing parking at the FTC.

Awardee will also implement shared inductive charging infrastructure at five regionally significant locations – Vallejo Transit Center, Suisun City Amtrak, Walnut Creek BART, Sacramento Valley Station, and the Fairfield Transit Center. These charging facilities will charge electric buses used by STA, but also be available to other transit agencies, including Napa Vine and Contra Costa County Connection. This project element will allow the sharing of electricity costs and seeking to reduce greenhouse gas emissions for all transit systems sharing the infrastructure.

Residents of priority populations will see immediate benefits with access to the regional transit centers that are being improved by this project. This will improve mobility and access to regional transit services.

Network integration funds were also awarded to provide real-time transit service coordination and passenger information for SolanoExpress customers, including integration of service schedule and frequency with other transit providers including WETA ferries, Amtrak Capitol Corridor trains, and BART, as well as the ability to hold SolanoExpress buses for up to

5 minutes for a late-arriving connection. Funding is also provided to develop plans for transitioning SolanoExpress to Bus Rapid Transit Lite by improving the frequency, in-haul line time and access to the service using techniques that include transit signal prioritization, adaptive ramp metering, implementation of managed lanes on freeways, improved bus stop shelters and branding. Full electrification will also be completed, identifying charging facilities and supportive infrastructure needed for the service.

Technical assistance will be provided by the California Department of Transportation to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2023.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	Medium
Service Integration:	High
Improves Safety:	Medium-High
Project Readiness:	Medium
Funding Leverage:	Medium
Multi-Agency Coordination/Integration:	Medium-High
Priority Population Benefits:	Medium
Housing Co-Benefits:	High

15. Torrance Transit Department

Project: Torrance Transit Bus Service Enhancement Program

Award:	**$6,000,000**
Total Budget:	**$7,200,000**
Estimated TIRCP GHG Reductions:	**30,000 $MTCO_2e$**

Purchase 7 zero-emission buses to expand and enhance services on four routes, including:

(1) expansion of the only express route in Torrance Transit's system connecting Torrance to Downtown Los Angeles;
(2) extension of a local route which serves the LA Metro Green Line Crenshaw Station and provides future service to the Inglewood Stadium and Entertainment District;
(3) extension of local route 9 to serve the new Kaiser Permanente South Bay Medical Center—one of the largest medical centers in the South Bay region;
(4) acquire the western portion of LA Metro's Route 130 between the Blue Line Artesia Station and the South Bay Galleria Mall.

The four routes, supported by the additional buses, provide critical connections to job centers

in the region and expands service to meet existing and future service demand. This project, and others in the region (City of Inglewood, Santa Monica Big Blue Bus), are part of a coordinated effort to develop public transportation services to the Inglewood Sports and Entertainment to alleviate the anticipated influx of traffic to the area. The extended and enhanced routes bolster the regional transit system and makes it more attractive to riders.

The project augments efforts by Torrance Transit to operate a fully zero-emission fleet by 2030—fully 10 years before the 2040 date set forth by the California Air Resources Board's Innovative Clean Transit Rule. This award will provide customers in priority population communities with access to greater economic opportunities, LA Metro's regional rail system, and healthcare facilities. The zero-emission buses being purchased helps to decrease health disparities and improve public health.

Project is recommended for technical assistance to enhance priority population benefits and assist with the additional planning efforts described in the TIRCP award to the City of Inglewood, in coordination with the California Department of Transportation and the City of Santa Monica Big Blue Bus.

Technical assistance will be provided by the California Department of Transportation to integrate bus procurement efforts with statewide zero emission bus efforts, and to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2021.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	Medium-High
Service Integration:	Medium-High
Improves Safety:	Medium-High
Project Readiness:	High
Funding Leverage:	Medium-Low
Multi-Agency Coordination/Integration:	Medium-Low
Priority Population Benefits:	Medium-Low
Housing Co-Benefits:	Low

16. Transit Joint Powers Authority for Merced County

Project: Improving Air Quality and the Economic Growth with Electric Buses in Merced County, the Gateway to Yosemite

Award:	**$3,112,000**
Total Budget:	**$3,696,513**

Estimated TIRCP GHG Reductions: **31,000 $MTCO_2e$**
(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which is anticipated to contribute $585,000 to the project)

Purchases 3 zero-emission electric buses to increase fleet size and extend bus service levels on 2 fixed routes in Merced county. The proposed project allows for an expansion of service frequency on one existing inter-community fixed-route connecting rural communities, Planada and Le Grand, to the urban city of Merced. This route currently operates on limited frequency with only one bus in operation and is not sufficient to keep up with existing demand. The project also expands local service coverage on one local route to provide better bus service to a large developed residential area, with a sizeable population of students attending the University of Merced and Merced Community College, currently with limited access to the local service.

The whole of the service expansion for the two routes is located within priority population communities. Merced County is among the most economically disadvantaged in California and in a nonattainment region. Benefits of this project will create positive direct impacts to priority populations primarily increasing mobility and access to transit options, as well as reducing public health disparities.

Technical assistance will be provided by the California Department of Transportation to integrate bus procurement efforts with statewide zero emission bus efforts, and to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2022.

Key Project Ratings:	
Cost per GHG Ton Reduced:	High
Increased Ridership:	Medium-High
Service Integration:	Medium
Improves Safety:	Medium
Project Readiness:	High
Funding Leverage:	Medium-Low
Multi-Agency Coordination/Integration:	Medium
Priority Population Benefits:	Medium-High
Housing Co-Benefits:	Medium

17. San Francisco Bay Area Water Emergency Transportation Authority (WETA)

Project: Expansion of WETA Ferry Service

Award:	**$9,060,000**
Total Budget:	**$54,670,000**

Estimated TIRCP GHG Reductions: 41,000 $MTCO_2e$

Acquisition of a new all-electric vessels and related shoreside charging infrastructure to provide a critical 2.6-mile link between the Mission Bay and the Downtown San Francisco Ferry Terminal, on a regular 40-minute headway that is consistent with connections to other ferry routes. The new ferry route will open a Transbay transit option to other ferry terminals for Mission Bay residents, employees and visitors and relieve traffic congestion on surface streets and bridges.

The Mission Bay ferry service will increase ridership on existing ferry routes from Alameda, Oakland Vallejo, and Richmond, as well as future route expansions. Increasing options for water transit reduces vehicle congestion and uses an innovative, zero-emission ferry to provide that service.

Implementation of this project will link disadvantaged communities in the East Bay to the large employment center in Mission Bay which employs a diverse population of workers. Creating a connection to Mission Bay is regionally significant as it is a large employment center, which is host to two medical campuses and the new Chase Center. 1900 units of affordable housing for low-income residents are near the terminal for the new Mission Bay ferry service and will have improved accessibility to regional jobs through the ferry service expansion.

As part of the contracting process to build the Mission Bay ferry terminal, the Port of San Francisco requires a 30% mandatory participation level of project work hours with a goal of at least 15% of project work hours to be performed by residents of priority populations.

Technical assistance will be provided by the California Department of Transportation to ensure service integration with other adjoining services. Technical assistance will also be provided by the Department of Transportation to ensure hardware and software systems involved in providing and processing connectivity, data and information are consistent with statewide integration efforts, so that maximum ridership benefits and greenhouse gas reduction benefits are achieved.

Project completion is expected by 2022.

Key Project Ratings:

Cost per GHG Ton Reduced:	Medium-High
Increased Ridership:	Medium-High
Service Integration:	Medium-High
Improves Safety:	High
Project Readiness:	High
Funding Leverage:	High
Multi-Agency Coordination/Integration:	Medium-High
Priority Population Benefits:	Medium
Housing Co-Benefits:	Medium