



**Transit and Intercity Rail Capital Program  
Third Round Selected Projects – Project Detail Summary  
April 26, 2018**

**Total Funding Awarded:**

- **\$2.65 billion of FY18-19 through FY22-23 of SB1 and GGRF Funding**
- **\$1.675 billion of Additional Multi-Year Funding Agreement Funding**

**28 projects recommended for funding, with budgets totaling over \$19 billion**

**Estimated 31,942,000 metric tons of CO<sub>2</sub>e (MTCO<sub>2</sub>e) reduced**

**26 of 28 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**

*(AB 1550 categories are collectively referred to as Priority Populations by the California Air Resources Board in their Draft Revised Funding Guidelines, released in April 2018. Because of this term was not used at the time of guidelines development and the call for projects, this document retains the use of the term AB 1550 community benefits and other similar terms.)*

## 1. Alameda Contra Costa Transit District (AC Transit)

**Project:** Zero Emission High Capacity Buses to Support Transbay Tomorrow and Clean Corridors Plan

**Award:** \$14,000,000

**Total Budget:** \$67,145,000

**Estimated TIRCP GHG Reductions** 14,000 MTCO<sub>2</sub>e

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$7,425,000 to the project)*

*Award contingent on regional funding measure passage or other non-TIRCP funds of an equivalent amount.*

Acquires 45 zero-emission buses (including up to 5 for support service integration) and associated infrastructure to transform the MacArthur-Grand Corridor Local and Transbay services, and improve network connectivity with Amtrak services at Emeryville. Converts one of the highest ridership corridors serving many AB1550 community members to fully-electric service, allowing significant reduction in corridor emissions. This corridor was one of 4 top corridors identified in the AC Transit Clean Corridors Plan. Project award includes \$500,000 of funding to address network integration opportunities with Amtrak rail and bus services at Emeryville and with other transit providers at Transbay Terminal (including the SamTrans Express Bus Pilot), as well as to enhance AB 1550 benefits of the service.

This project is expected to be coordinated with other SB 1 funding, including the California Transportation Commission's Local Partnership Program, in order to maximize project benefits, and was rated and selected on the basis of that coordination.

### Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	Medium-High
Increased Ridership	Medium
Service Integration	Medium
Improve Safety	Medium
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium
Project Readiness	High
Funding Leverage	Medium-High

## 2. Anaheim Transportation Network (ATN)

**Project:** #Electrify Anaheim: Changing the Transit Paradigm in Southern California

**Award:** \$28,617,000

**Total Budget:** \$45,201,000

**Estimated TIRCP GHG Reductions:** 61,000 MTCO<sub>2</sub>e

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$3,800,000 to the project)*

Deploys 40 zero-emission electric buses and 10 zero-emission micro-cruisers to double service levels on 8 routes, add 2 new routes, and implement a new circulator/on-demand first-mile/last-mile service in Downtown Anaheim. Also includes construction of a new maintenance facility with solar canopy structures, capable of charging a significant portion of the fleet with renewable energy. Project includes a public-private partnership that includes a trip-planning and ticketing application development to increase regional visitor use of the regional rail and ATN transit system. This component will be coordinated with statewide integrated travel efforts. Increased service levels benefit passengers on connecting rail services at the Anaheim Regional Transportation Intermodal Center and increase network ridership. Project leads to a 57% zero emission ATN fleet by 2020. Provides frequent service in corridors that serve AB 1550 community residents.

### Key Project Ratings:

Reduced GHG Reductions	Medium-High
Increased Ridership	Medium-High
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium-High
Funding Leverage	Medium

### 3. Antelope Valley Transit Authority (AVTA and Long Beach Transit (LBT)

**Project:** From the Desert to the Sea: Antelope Valley Transit Authority and Long Beach Transit Zero Emission Bus Initiative

**Award:** \$13,156,000

**Total Budget:** \$18,581,000

**Estimated GHG Reductions** 23,000 MTCO<sub>2</sub>e

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$2,127,000 to the project.)*

Deploys 7 zero-emission battery electric buses and upgrades charging infrastructure serving AVTA local and commuter bus routes, bringing the entire AVTA system to fully electric status (the first in the country) by the end of 2019. Converts local rural routes 50, 51, and 52, and commuter route 790 (connecting the Palmdale Transportation Center with the Newhall Metrolink Station), to zero emission status.

Deploys 5 zero-emission battery electric buses and related infrastructure for Long Beach Transit (LBT) services. Buses provide cleaner and more frequent service on LBT routes 22, 45/46, 170, 180, and 190. Each route will receive one additional bus in order to enhance frequency, and all routes provide improved and extended feeder bus service to either the Metro Rail Green Line or Blue Line, including from Downey (a 2.2 mile extension of route 22 previously provided with operations funding by the Low Carbon Transit Operations Program).

The Long Beach Transit STAR Initiative, advanced in part by this award, provides a transformative change to the route structure within the LBT service area by providing increased frequency of service – both weekdays and weekends, expanded service in unserved and underserved areas, and modified service times – both earlier and later, as well as improved connections and enhanced bus stop amenities. By extending routes and strengthening connections to both the Blue Line and Green Line, this award will provide customers in disadvantaged communities with more and faster travel options to further destinations such as downtown Los Angeles.

Project award includes \$250,000 of funding to address network integration opportunities (with Metrolink, Amtrak and Los Angeles Metro) as well as to enhance AB 1550 benefits of the service.

Long Beach Transit is also the beneficiary of additional SB 1 funding allowing it to expand its electric bus fleet, with \$504,501 being awarded from SB 1 2017-18 State Transit Assistance

State of Good Repair funds in support of the purchase of 10 zero-emission battery electric buses.

Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	Medium-High
Increased Ridership	Medium
Service Integration	Medium
Improve Safety	Medium
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium-High
Project Readiness	High
Funding Leverage	Medium

#### 4. Bay Area Rapid Transit (BART)

**Project:** The Transbay Corridor Core Capacity Program

<b>Award:</b>	<b>\$144,490,000</b>
<b>Multi Year Funding Agreement</b>	<b>\$174,110,000</b>
<b>[Total Award:</b>	<b>\$318,600,000]</b>

**Total Budget:** **\$3,409,000,000**

**Estimated GHG Reductions** **4,272,000 MTCO<sub>2e</sub>**

*Award contingent on regional funding measure passage or other non-TIRCP funds of an equivalent amount.*

*This project also has a Full Funding Grant Agreement contingency related to future federal funding through the Core Capacity Program of the Federal Transit Administration.*

The Core Capacity Program will allow the number of trains operating through the Transbay Tube to increase from 23 to 30 per hour, and peak hour train lengths to be increased from an average of 8.9 to 10 cars, maximizing throughput capacity in the most heavily used part of the BART system.

This project installs a new communication-based train control (CBTC) system, which increases the frequency and capacity of trains operating on the system by reducing headways. The CBTC system will replace the existing train control system originally built 40 years ago and reaching the end of its useful life. The new CBTC system uses proven technology already used in similar systems worldwide and will help relieve overcrowding by increasing the frequency of service on the most congested segment of the system, which in

turn improves safety on loading platforms. Existing ridership on the Transbay Corridor exceeds capacity during peak hours and the overall increase in peak hour capacity created by the Core Capacity Program is estimated to be 45%.

The funding in this program is sufficient to procure approximately 272 new rail vehicles, which contributes to the overall goal of expanding the rail car fleet by 306 cars. The expansion of the rail car fleet will allow for trains of 10 cars, creating additional capacity in the system. In conjunction, these components will relieve current levels of crowding during peak hours while creating the opportunity for ridership growth while providing improved service to residents of disadvantaged communities through increased frequency and capacity of trains.

This project is recommended for a multi-year funding agreement due to its extended timeline for delivery. Federal funding priorities across multiple Bay Area projects may result in adjustment of TIRCP award levels among highly-rated Bay Area projects.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	Medium
Improve Safety	High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium-High
Funding Leverage	High

**5. Capitol Corridor Joint Powers Authority (CCJPA)**

**Project:** Northern California Corridor Enhancement Program

**Award:** \$ 80,340,000  
**Total Budget:** \$275,041,000

**Estimated GHG Reductions** 1,348,000 MTCO<sub>2e</sub>

The project provides funding to reroute Capitol Corridor services between Oakland and Newark, and to establish a new connection to Dumbarton Express Bus service, as well as employer operated bus shuttles, at the foot of the Dumbarton Bridge in Alameda County. Reduces Oakland Coliseum to San Jose journey times by about 13 minutes, providing key service differentiation and access to new markets in the congested corridor. The project also benefits from the prior TIRCP award in the Travel Time Savings project, which will deliver

additional time savings between Newark and San Jose in 2018. The project also expands park and ride capacity to the benefit of Capitol Corridor and Dumbarton Bridge services.

In addition, the project invests in statewide service and ticket integration pursued through the next phases of the statewide Integrated Travel Program, providing opportunities for riders on at least 10 rail and transit systems to plan travel and purchase tickets in a single, seamless transaction. This investment will take place over about five years, and will lead to significant improvements in ridership, efficiency and connectivity on rail and transit systems across California by providing a single, unified mechanism by which customers can travel on multiple modes of transport. It will be developed with a framework that allows for rapid expansion following the pilot program to interested public and private sector partners.

The corridor also benefits from the SB 1-funded enhancement of the State Transportation Improvement Program capacity, with \$20 million of funding programmed by the California Transportation Commission for Coast Subdivision Rail Corridor Improvements in March of 2018 (implemented by Caltrans). This funding includes the installation of Positive Train Control in the Coast Subdivision corridor, enhancing safety for all trains in the corridor.

Project award includes \$2 million of funding to address network integration opportunities among the East Bay-Altamont-Dumbarton services (including connectivity in the vicinity of Shinn Junction and connections to bus services on the Dumbarton Bridge), service and ticket integration with agencies not specifically receiving a TIRCP award (including the San Joaquin Regional Transit District), integration opportunities with the Second Transbay Crossing, integration with statewide fleet planning, and to enhance AB 1550 benefits of the Capitol Corridor projects.

Greenhouse gas emission reduction benefits are expected to further increase following the connectivity work completed in this effort, including increased benefits from improved connectivity with Stanford University shuttles and AC Transit services.

This project is coordinated with significant contributions from non-TIRCP Senate Bill 1 revenue sources. These include the Caltrans award of a FY 2017-18 SB 1 Adaptation Planning Grant of \$250,000 to CCJPA to develop a Proposed Alternatives Study to design and evaluate feasible alternatives for the railroad tracks in the Alviso Wetlands. Corridor planning in the Bay Area will also be coordinated with the results of the Metropolitan Transportation Commission's Goods Movement Investment Strategy, which received a \$44,000 grant award from the FY 2017-18 SB 1 Sustainable Communities Formula Grant Program. Finally, in January of 2018, CalSTA approved \$7,839,471 of funding from the State Rail Assistance Program for the CCJPA's investments in project development related to this project.

A number of California Transportation Commission-recommended SB1 programming actions would also make significant additional improvements to the performance of the Bay Area

Capitol Corridor route. These recommendations include \$175 million of Trade Corridor Enhancement Program (TCEP) funding for the 7<sup>th</sup> Street Grade Separation in Oakland, and a \$4.2 million TCEP investment in the Emeryville Quiet Zone project.

\$7.98 million of SB 1 Local Partnership Program Formulaic Funding was also awarded to the 7<sup>th</sup> Street Grade Separation East Segment by the California Transportation Commission in March of 2018.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	High
Improve Safety	High
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	High
Project Readiness	Medium-High
Funding Leverage	Medium-High

**6. City of Fresno**

**Project:** Southwest Community Connector

**Award:** **\$7,798,000**  
**Total Budget:** **\$8,638,000**

**Estimated GHG Reductions** **9,000 MTCO<sub>2e</sub>**

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$840,000 to the project)*

This project includes the purchase of six long-range battery electric buses for cleaner and more frequent service on routes 29 and 38, allowing service frequencies every 15 minutes throughout the day when current services generally exceed 30 minutes. These routes will allow direct access from the southwest to northern part of Fresno, and provides new connectivity to serve future job, shopping and educational centers in addition to AB 1550 communities.

This project is coordinated with the recent Transformative Climate Communities grant award of \$70 million to the City of Fresno by the Strategic Growth Council to provide additional community benefits.



The City of Fresno is also the beneficiary of additional SB 1 funding allowing it to expand its electric bus fleet, with \$1,060,828 being awarded from SB 1 2017-18 State Transit Assistance State of Good Repair funds for the purchase of 1 replacement bus.

This project also provides geographic diversity to the state’s transit investments.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	Medium
Increased Ridership	Medium
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	High
Multi-Agency Coordination/Integration	Medium-High
Project Readiness	Medium
Funding Leverage	Medium-Low

**7. City of Los Angeles (LA DOT)**

**Project:** Leading the Transformation to Zero-Emission Electric Bus Transit Service

<b>Award:</b>	<b>\$36,104,000</b>
<b>Total Budget:</b>	<b>\$102,790,000</b>

**Estimated TIRCP GHG Reductions:** **196,000 MTCO<sub>2e</sub>**

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$16,240,000 to the project; the Low Carbon Transit Operations Program, contributing \$919,350; and the Transformative Climate Communities program, contributing \$1,713,015)*

Increases ridership and reduces greenhouse gas emissions through investments that support a shift to zero emission technology while improving service frequency on all existing DASH routes, spanning 28 communities throughout the City of Los Angeles, and offering expanded service in the underserved San Fernando Valley. Purchases 112 zero-emission battery electric buses, including replacing existing propane vehicles and adding new vehicles to the existing fleet, in order to increase frequency to 15-minute service on all existing DASH routes. Increased frequency will be implemented through a combination of modifying existing routes and adding four new routes that will improve access to key activity centers, network hubs, as well as first-mile last-mile connections and support improved regional rail and bus connectivity.

Improves local and regional system integration through improved connectivity with multiple rail and transit systems, as well as improvements in existing and future connectivity with

expanding LA Metro Rail, Bus Rapid Transit, and other bus services. Improves geographic equity through reductions in air pollutants, improving public health and decreasing health disparities experienced by disadvantaged and low-income communities.

Includes the acquisition of 56 chargers and facility upgrades at Sylmar and Washington Yards to support electric buses. Leverages Transformative Climate Communities grant funding which will support expansion of economic opportunities through education and training, including support for local businesses in the Watts community. Supports sustainable housing and land use development while providing meaningful benefits to disadvantaged and low-income communities that will improve mobility and access through expanded and enhanced service.

This project is coordinated with the recent Transformative Climate Communities grant award of \$35 million to the Watts neighborhood of the City of Los Angeles by the Strategic Growth Council to provide additional community benefits.

Project award includes \$250,000 of funding to address network integration opportunities and to enhance AB 1550 benefits. Project is also recommended for technical assistance to enhance AB 1550 benefits.

**Key Project Ratings:**

Reduced GHG Reductions	High
Increased Ridership	High
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	High
Multi-Agency Coordination/Integration	Medium
Project Readiness	High
Funding Leverage	Medium-High

## 8. City of Santa Monica

**Project:** Electric Blue: Electrification of City of Santa Monica’s Big Blue Bus

**Award:** \$3,050,000

**Total Budget:** \$9,698,000

**Estimated TIRCP GHG Reductions:** 17,000 MTCO<sub>2</sub>e

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$1,100,000 to the project)*

Increases ridership and reduces greenhouse gas emissions through investments that support a transition to cleaner technology and implementation of new express bus service that complements existing, heavily-used Rapid 7 bus service between Santa Monica and Downtown Los Angeles. Investment includes purchase of ten new zero-emission battery electric buses that will be deployed on an express route operating every 20 minutes on weekdays from Wilshire/Western Station in downtown Los Angeles, connecting with LA Metro’s Purple Line, to downtown Santa Monica where it provides critical first-mile last-mile connectivity to the LA Metro’s Expo Line and that will complement the existing local service by adding needed capacity and faster travel. The express bus service will target key destinations including the Santa Monica College and is anticipated to reduce travel time by up to 25%, approximately 15 minutes for end-to-end riders, by stopping at only 7 of the 21 stops currently served by Rapid 7.

Investments complement existing efforts including transit signal prioritization on the Pico corridor in Los Angeles, new pre-paid fare media incentives to attract new riders, and implementation of queue jump lanes at select intersections. Supports improved mobility and reduced air pollutants within disadvantaged and low-income communities.

The City of Santa Monica is also the beneficiary of additional SB 1 funding allowing it to expand its electric bus fleet, with \$469,210 awarded from SB 1 2017-18 State Transit Assistance State of Good Repair funds towards the purchase of 1 replacement bus.

**Key Project Ratings:**

Reduced GHG Reductions	High
Increased Ridership	Medium-High
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium
Funding Leverage	Medium-High

**9. Livermore Amador Valley Transit Authority (LAVTA)**

**Project:** Dublin/Pleasanton Capacity Improvement and Congestion Reduction Program

**Award:** \$20,500,000  
**Total Budget:** \$34,500,000

*(This project will facilitate greenhouse gas emissions reductions, but specific quantification will be established following completion of integration efforts identified below. While this project is not located within an AB 1550 disadvantaged community, low-income community,*

*or low-income community within ½-mile of a disadvantaged community, funding has been provided to identify opportunities to enhance benefits to such communities. Therefore, the project may provide benefits to AB 1550 communities once the scope is finalized and implementation begins.)*

Increases ridership to BART and other transit lines through the construction of a new, multi-level parking structure at the Dublin-Pleasanton BART station on county owned land. The new multi-level parking structure will accommodate over 500 additional parking spaces daily and will include electric vehicle charging stations with preferred parking for vanpools to maximize utilization. The location is a highly congested area at the intersection of six transit providers. Capacity at the current BART parking lot is often reached early in the morning, which forces commuters—who would otherwise be park-and-riders—to drive to their destination. Parking structure will be built with convertible uses in mind.

Project award includes \$500,000 of funding to address network integration opportunities with regional and local bus services, including service in the I-680 and I-580 Corridors, to develop strategies to maximize achievement of greenhouse gas reductions, and to identify opportunities for AB 1550 benefits.

This project also provides geographic diversity to the state’s transit investments.

**Key Project Ratings:**

Increased Ridership	Medium
Service Integration	Medium
Improve Safety	Medium
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium
Funding Leverage	Medium

**10. Los Angeles County Metropolitan Transportation Authority (LA Metro)**

**Project:** Los Angeles Region Transit System Integration and Modernization Program

<b>Award:</b>	<b>\$ 330,200,000</b>
<b>Multi Year Funding Agreement:</b>	<b>\$ 758,299,000</b>
<b>[Total Award:</b>	<b>\$1,088,499,000]</b>

**Total Budget:** **\$5,767,700,000**

**Estimated GHG Reductions** **7,966,000 MTCO<sub>2</sub>e**

*(Additional project benefits accrue to the Low Carbon Transit Operations Program, which is expected to contribute \$683,469 to the Gold Line Foothill Extension portion of the program)*

A transformative investment in Los Angeles Metro's transit capacity expansion program that will significantly increase ridership and reduce greenhouse gas emissions across their network, adding approximately 62 miles of new light rail and bus rapid transit service. This investment provide funding to complete five projects before 2028, including the following:

1. Gold Line Light Rail Transit Extension to Montclair (12.3 miles)
2. East San Fernando Valley Transit Corridor (9.2 miles)
3. West Santa Ana Branch Light Rail Transit Corridor (20+ miles)
4. Green Line Light Rail Extension to Torrance (4.6 miles)
5. Orange/Red Line to Gold Line Bus Rapid Transit Connector (North Hollywood to Pasadena) (16+ miles)

The program also invests at least \$5 million of TIRCP funding in the project development phase of the Vermont Transit Corridor project, a key future investment in the overall network, expected to be ready for completion by 2028 as well.

This set of network investments performs significantly better in combination than as separate investments and leverages large investments of local funding approved by local voters. The five fully funded corridor projects add more than 120,000 riders per day by 2028 and more than 230,000 riders per day after 50 years.

Project award includes \$7 million of funding to address network integration opportunities with other rail and transit systems, including linkages to the statewide rail system, Ontario Airport, and with San Bernardino County transit services, and to enhance AB 1550 benefits.

This project is recommended for a multi-year funding agreement due to its extended timeline for delivery.

This project budget contains significant non-TIRCP Senate Bill 1 (SB1) revenues from the State Transportation Improvement Program, which programmed \$95,000,001 of new funding for the East San Fernando Valley Transit Corridor Project in March of 2018.

A number of California Transportation Commission-recommended SB1 programming actions would also make significant additional improvements to the performance and ridership of the Los Angeles Metro network. These recommendations include \$75 million through the Local Partnership Program for the Los Angeles Orange Line BRT system, enhancing the value of the Orange/Red Line to Gold Line Bus Rapid Transit Connector and the East San Fernando Valley Transit Corridor. Recommended programming actions also include a \$150 million investment of Congested Corridor program funds in the Airport Metro Connector 96<sup>th</sup> Street Transit Station project (which received \$40 million of TIRCP funding in 2016), which increases access from LAX Airport to the entire LA Metro network.

\$23,941,000 of SB 1 Local Partnership Program (LPP) Formulaic Funding was also awarded to the West Santa Ana Branch Transit Corridor and \$19,745,000 of LPP Formulaic Funding awarded to the Green Line Extension (Redondo Beach-Torrance) by the California Transportation Commission in March of 2018.

Prior TIRCP awards have also invested in improvements to the Blue Line and the future service frequency at Union Station through establishing new Red/Purple Line Turnaround facilities. These investments are critical to providing the network capacity and efficiency needed as connecting services at Los Angeles Union Station all grow future ridership.

**Key Project Ratings:**

Reduced GHG Reductions	High
Increased Ridership	High
Service Integration	Medium-High
Improve Safety	Medium-High
AB 1550 Community Benefits	High
Multi-Agency Coordination/Integration	High
Project Readiness	Medium
Funding Leverage	High

**11. Los Angeles-San Diego-San Luis Obispo Rail Corridor Agency (LOSSAN)**

**Project:** All Aboard 2018 - Transforming SoCal Rail Travel

**Award:** \$40,412,000  
**Total Budget:** \$65,570,000

**Estimated TIRCP GHG Reductions:** 957,000 MTCO<sub>2e</sub>

Increases ridership through investments in improved on-time performance, safety and rail corridor capacity for Pacific Surfliner and Coaster trains by investing in signal optimization, more robust capitalized maintenance, and right of way fencing. Prepares the corridor for higher frequency services being introduced by the Pacific Surfliner (expected to reach 17 roundtrips during the project life) and on the Coaster, resulting from previously funded capital projects, and allows them to operate in the corridor on a regular interval schedule. Also includes study of San Diego maintenance/layover facility relocation opportunities.

TIRCP funding to enhance capitalized maintenance is phased out over a ten year agreement period during which ridership and revenue for services is expected to increase. Overall project benefits will grow beyond those currently modeled as run-through capacity at Los Angeles Union Station is phased in to the corridor beginning in 2023.

Project award includes \$250,000 of funding to address network integration opportunities, including development of better schedules among Coaster, Metrolink, and Amtrak services, and to enhance AB 1550 benefits.

Most project elements will be implemented through a partnership with SANDAG and North County Transit District (NCTD).

The corridor also benefits from the SB 1 funded expansion of State Transportation Improvement Program capacity that is advancing Phase 2 of the San Onofre to Pulgas Double Tracking project, with \$30,040,000 of funding programmed by the California Transportation Commission in March of 2018. Prior TIRCP awards have also invested in improvements to the San Diego portion of the LOSSAN Corridor, including significant double track investments that will increase capacity and reliability in the corridor for all users.

A California Transportation Commission-recommended SB1 programming action would also make significant additional improvements to goods movement in the LOSSAN Corridor, with \$10.5 million from the Trade Corridor Enhancement Program recommended for the Sorrento to Miramar Phase 2 Intermodal Improvements Project.

\$18,940,000 of SB 1 Local Partnership Program (LPP) Formulaic Funding was also awarded to the advancement of a number of San Diego County Regional Transportation Commission-sponsored projects in the LOSSAN Corridor by the California Transportation Commission in March of 2018.

Key Project Ratings:

Reduced GHG Reductions	High
Increased Ridership	Medium
Service Integration	High
Improve Safety	High
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	High
Project Readiness	High
Funding Leverage	Medium

## 12. Los Angeles-San Diego-San Luis Obispo Rail Corridor Agency (LOSSAN)

**Project:** Building Up: LOSSAN North Improvement Program

**Award:** **\$147,930,000**

**Total Budget:** **\$201,669,000**

**Estimated TIRCP GHG Reductions:** **1,160,000 MTCO<sub>2</sub>e**

Investments that increase frequency on Pacific Surfliner service to Santa Barbara from five to six round trips, and to San Luis Obispo from two to three round trips, and that improve travel time, reliability and safety for both Metrolink and the Pacific Surfliner in the Los Angeles to San Luis Obispo rail corridor. Travel time and reliability savings on the trains will lead to significant ridership gains, and also more flexibility in scheduling service on a regular interval schedule during peak periods.

Project includes significant signaling and switch upgrades, siding and station improvements, investment in the Goleta Layover Facility (coordinated with Santa Barbara County Association of Governments (SBCAG) projects also recommended for TIRCP awards in this cycle), and a more robust capitalized maintenance program intended to reduce travel time and delays in the corridor. TIRCP funding to enhance capitalized maintenance is phased out over a ten year agreement period during which ridership and revenue for services is expected to increase.

Project benefits are enhanced through companion TIRCP investments by Metrolink in the Los Angeles Union Station to Moorpark segment and in Los Angeles Union Station run through capacity. Benefits are also enhanced through Proposition 1B investment in the Seaciff Siding Extension project and the State Transportation Improvement Program investment of \$12.5 million in the Central Coast Layover Facility in San Luis Obispo.

This project budget contains significant non-TIRCP Senate Bill 1 (SB1) revenues from the State Rail Assistance Program.

The project safety benefits would also be enhanced by the California Transportation Commission recommended programming action of SB1 Trade Corridor Enhancement Program funds totaling \$68,606,000 for the SR34 & Rice Avenue Grade Separation.

The project will be coordinated with the efforts of the SB 1 Sustainable Communities Formula Grant on the South Coast Rail Station Multimodal Access Plan, which received \$41,105 in December of 2017.



Key Project Ratings:	
Reduced GHG Reductions	High
Increased Ridership	High
Service Integration	High
Improve Safety	High
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	Medium-High
Project Readiness	Medium
Funding Leverage	Medium

### 13. Peninsula Corridor Joint Powers Board (PCJPB)

**Project:** Peninsula Corridor Electrification Expansion Project

<b>Award:</b>	<b>\$123,182,000</b>
<b>Multi Year Funding Agreement</b>	<b>\$ 41,340,000</b>
<b>[Total Award:</b>	<b>\$164,522,000]</b>

**Total Budget:** **\$203,638,000**

**Estimated GHG Reductions** **737,000 MTCO<sub>2e</sub>**

Provides for all-electric service and seating capacity increase on Caltrain, taking advantage of currently available options on the existing rolling stock contract. All-electric service significantly improves corridor operations and capacity.

The project also includes targeted funding for 8-car platforms, improves wayside bicycle facilities (bike sharing and bike parking), and installs a broadband communications system that expands onboard Wi-Fi and enhances reliability by creating the capability to conduct remote diagnostics and optimize ongoing operations and maintenance.

Project award includes \$3 million of funding to address network integration opportunities, including development of integrated regular interval schedules and connections to other corridors in conjunction with the development of the Caltrans Business Plan (including to SamTrans' US 101 Express Bus Project), integration with statewide fleet planning, and to enhance AB 1550 benefits.

This project is recommended for a multi-year funding agreement due to the project delivery schedule.

This project is coordinated with expenditures from non-TIRCP Senate Bill 1 (SB1) revenues from the State Rail Assistance Program on this and complementary projects, as well as

expenditures from other non-TIRCP funds, over the life of the multi-year funding agreement.

Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	Medium-High
Improve Safety	Medium-High
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	Medium-High
Project Readiness	High
Funding Leverage	Medium

**14. Sacramento Regional Transit (SacRT)**

**Project:** Accelerating Rail Modernization and Expansion in the Capital Region

<b>Award:</b>	<b>\$40,535,000</b>
<b>Multi Year Funding Agreement</b>	<b>\$23,815,000</b>
<b>[Total Award:</b>	<b>\$64,350,000]</b>

**Total Budget:** **\$144,350,000**

**Estimated GHG Reductions** **234,000 MTCO<sub>2</sub>e**

*(Additional project benefits accrue to the Low Carbon Transit Operations Program, which is anticipated to contribute \$2,599,360 to the more frequent operations of the Folsom line service.)*

Procures 7 new low-floor light rail vehicles (LRV) to support 15-minute service frequencies during weekdays to Folsom, plus three Express Trains in each rush hour in the peak-demand direction. Includes funding for capacity enhancements on the Gold Line to support both limited stop and more frequent service. Express service is partially supported by the 2015 TIRCP award to SacRT that allowed overall fleet expansion through the refurbishment of rail vehicles.

Also procures 13 new low-floor LRVs to support the first phases of fleet replacement (total need is 36 replacement vehicles), as well as conversion of the highest-priority stations to provide low-floor boarding and allow efficient and accessible boarding. This investment will deliver benefits that increase over time as additional station and fleet conversions are funded.

This project budget contains significant non-TIRCP Senate Bill 1 (SB1) revenues from the California Transportation Commission-recommended Solutions for Congested Corridor Program (SCCP) programming action to the US50 Multimodal Corridor Enhancement Program. \$20.3 million of funding for SacRT related to this project is included in the recommended SCCP budget.

Project award includes \$250,000 of funding to address network integration opportunities, including development of improved connections to other rail and transit services, and to enhance AB 1550 benefits.

This project is recommended for a multi-year funding agreement due to the project delivery schedule.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	Medium-High
Increased Ridership	Medium-High
Service Integration	Medium
Improve Safety	Medium-High
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium
Funding Leverage	Medium-High

**15. San Bernardino County Transportation Authority (SBCTA)**

**Project:** DMU to ZEMU - Diesel Multiple Unit (DMU) Vehicles to Zero-Emission Vehicle (ZEMU) Conversion

**Award:** \$30,000,000  
**Total Budget:** \$306,240,000

**Estimated GHG Reductions** 67,000 MTCO<sub>2</sub>e

*(This project is an additive phase to the 2016 selected project for Redlands Passenger Rail. GHG benefits are based on the incremental increase associated with updated ridership and the emissions benefits associated with running zero emission multiple unit trains in the corridor.)*

This project provides for the development and purchase of an additional rail vehicle by SBCTA that will demonstrate the ability to provide zero emission service using multiple units train sets in California. The project will also fund the conversion of Diesel Multiple Unit (DMU) vehicles used in the Redlands Passenger Rail service, so that regular revenue

operations are provided by zero emission fleet, dramatically changing the corridor-level emissions of the new rail service.

This project is of statewide significance as it lays the groundwork for conversion of diesel rail services to zero emission for commuter and intercity rail services statewide. Research efforts that are part of this project scope are expected to be coordinated with Caltrans, the California Air Resources Board, federal agencies, and California academic and research institutions, in order to maximize the future value of this effort. The project will also provide for the testing of ZEMU service on other routes throughout the state, including on the Metrolink system and on other candidate corridors to be selected through statewide stakeholder outreach. The project budget may be augmented by additional non-TIRCP resources to increase its overall statewide benefits over time.

Low-income residents of communities along the corridor will be the direct beneficiaries of using a rail system that has invested in renewable technologies to further reduce GHG emissions, and improve air quality in a severely impacted, non-attainment air quality region in southern California.

This project budget contains significant non-TIRCP Senate Bill 1 revenues, including already approved funding from the State Transit Assistance program (\$27.26 million), and the State Transportation Improvement Program (\$12,826,000). In addition, additional funding for the project is included in the California Transportation Commission-recommended programming actions for the Solutions for Congested Corridors Program (\$65 million) and the Local Partnership Program (\$10,831,000). Total funding from TIRCP is \$39,204,000 over 2 cycles.

Project is also recommended for technical assistance to enhance AB 1550 benefits.

Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	Medium-High
Increased Ridership	Medium
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	High
Project Readiness	Medium
Funding Leverage	High

## 16. San Diego Association of Governments (SANDAG)

**Project:** Ride Between the Lines: Enhancing Access to Transit in San Diego

**Awarded:** \$5,763,000

**Total Budget:** \$7,204,000

**Estimated TIRCP GHG Reductions:** 7,000 MTCO<sub>2e</sub>

Invests in an improved safety and travel experience for bus riders, cyclists and walkers along the busiest bus route in San Diego, along University Avenue (Route 7). Investments include construction of ADA-compliant transit islands, separated bike lanes, improved transit signage, shelters, storm water improvements, bike storage, and other amenities that facilitate rapid boarding and support Complete Streets along University Avenue. Upgrades 19 local bus stops over 2.5 miles. Results in faster, safer service between residential communities in Mid-City with transit and rail connections downtown, with many transit-dependent and low-income residents benefiting from the service improvements.

This project also provides geographic diversity to the state's transit investments and AB 1550 community benefits.

Key Project Ratings:

Reduced GHG Reductions	Medium
Increased Ridership	Medium
Service Integration	Medium-High
Improve Safety	High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium-High
Funding Leverage	Medium

## 17. San Diego Metropolitan Transit System (MTS)

**Project:** Blue Line Rail Corridor Transit Enhancements

**Award:** \$40,098,000

**Total Budget:** \$50,200,000

**Estimated TIRCP GHG Reductions:** 68,000 MTCO<sub>2e</sub>

*(Additional project benefits accrue to the Low Carbon Transit Operations Program, which is anticipated to contribute \$3,200,000 to the total budget)*

Increased ridership through significant capacity enhancements to station and rail infrastructure between Old Town and the American Plaza trolley stations, and at 12<sup>th</sup> & Imperial, where the Green Line terminates. Resulting improvements will provide for more reliable and higher frequency service, concurrent with the opening of the Blue Line Mid-Coast Extension.

Also provides for an expanded Rapid bus service, running at 15-minute headways, between Imperial Beach and the Otay Mesa International Border Crossing, connecting to the Blue Line at Iris Avenue. Includes funding to acquire 11 60-foot articulated zero-emission electric buses, as well as station improvements on the new Rapid 925 corridor. This project is coordinated with the first phases of the zero emission bus pilot for MTS.

Project award includes \$250,000 of funding to address network integration opportunities, including development of improved connections to other rail and transit services, and to enhance AB 1550 benefits (including cross-border travel benefits).

This project budget contains non-TIRCP Senate Bill 1 revenues from the State Transit Assistance State of Good Repair program (\$1,747,000).

**Key Project Ratings:**

Reduced GHG Reductions	Medium-High
Increased Ridership	Medium
Service Integration	Medium-High
Improve Safety	Medium-High
AB 1550 Community Benefits	High
Multi-Agency Coordination/Integration	Medium
Project Readiness	High
Funding Leverage	Medium

**18. San Francisco Municipal Transportation Agency (SFMTA)**

**Project:** Transit Capacity Expansion Program

**Award:** \$ 26,867,000

**Total Budget:** \$287,309,000

**Estimated GHG Reductions** 156,000 MTCO<sub>2</sub>e

*(This project is an additive phase to the 2016 selected project for Muni’s Light Rail Modernization and Expansion Program. GHG benefits are based on the incremental increase associated with updated ridership and the emissions benefits associated with running 50 light rail vehicles (out of 64 planned) in the corridor.)*

Increases ridership and reduces greenhouse gas emissions by funding an additional 8 expansion vehicles for the Muni light rail system, bringing the total expansion fleet expansion funded through the TIRCP and local fund sources to 50 vehicles. Total funding from TIRCP is \$113,140,000 over the 3 cycles.

The new vehicles feature significantly increased energy efficiency and have very low life cycle emissions while using zero emission electricity. Continued investment in capacity for high-frequency transit is a critical element in the City and County of San Francisco’s plans to provide low-carbon footprint jobs and housing.

Surging demand on the Muni system continues to cause congestion with existing service, and the new zero-emission vehicles will allow Muni to carry additional riders who would otherwise be crowded out of the system through providing for more frequent and longer trains, including riders from disadvantaged communities in San Francisco. The project also supports integration transit services at the Transbay Transit Terminal.

Operational safety is significantly improved with the new vehicles, which have better operator visibility to the front and sides of the vehicle, smoother acceleration and braking, and crash energy management features that protect both passengers and the operator in case of an impact.

This project is matched by significant investment in light rail modernization provided by an array of sales tax commitments, revenue bonds, and federal funding sources. These projects deliver many additional benefits that will make the light rail system even more attractive to riders, including efforts to improve travel time and reliability throughout the system, including the potential to acquire additional vehicles to complete the light rail expansion program if RM3 or other local sources are approved.

Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	Medium
Improve Safety	Medium-High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium-Low
Project Readiness	High
Funding Leverage	Medium-High

## 19. San Joaquin Joint Powers Authority (SJPA) and San Joaquin Regional Rail Commission (SJRRC)

**Project:** Valley Rail

<b>Award:</b>	<b>\$426,700,000</b>
<b>Multi Year Funding Agreement</b>	<b>\$ 73,800,000</b>
<b>[Total Award:</b>	<b>\$500,500,000]</b>

<b>Total Budget:</b>	<b>\$904,600,000</b>
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<b>Estimated GHG Reductions</b>	<b>4,369,000 MTCO<sub>2</sub>e</b>
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Integrated expansion of intercity and commuter rail service between Ceres, Modesto Stockton and Sacramento, as well as between Fresno and Sacramento, allowing growth in both peak period and off peak travel. Results in an early extension of San Jose-bound commuter rail service to Sacramento using existing commuter rail equipment (expected by 2020), and 4 trains out of Ceres (with feeder electric bus connections from Merced) to Sacramento and San Jose by no later than 2023 (primary train services go to one destination with a connection available to the other). Also results in 2 new round trips between Fresno, Merced and Sacramento, on top of the 2 round trips available today (additional connections by bus or commuter rail services to Sacramento available in Stockton from the 5 round trips that serve the Bakersfield to Oakland market, and to San Jose for all trains originating in Fresno or Bakersfield). Total rail service between Stockton and Sacramento will be 9 round trips across all available routes and service providers (including 1 Sacramento to Stockton only round trip).

Includes numerous new stations serving Madera and Oakley (served by San Joaquin trains); Ceres, Modesto, Ripon, Manteca, and North Lathrop (served by ACE trains); and Lodi, Elk Grove, Sacramento City College, Sacramento Midtown, Old North Sacramento, and Natomas, with shuttle connections to the Sacramento Airport (served by both ACE and San Joaquin trains). Results in improved connectivity for Bay Area and Bakersfield services.

Phased service expansion beginning with 1 existing Altamont Corridor Express train originating in Sacramento, allowing a one-seat ride to and from San Jose during the peak period.

Includes zero emission bus procurement to support feeder services, and acquires rolling stock to support service increase, coordinated with consideration of statewide rolling stock requirements and opportunities. Also coordinated with 2016 TIRCP investments in expanding platforms and train lengths to up to 10 cars in order to add capacity on the 4 ACE round trips that currently cross Altamont Pass.



This project budget contains significant non-TIRCP Senate Bill 1 revenues from the State Rail Assistance Program and the enhanced State Transportation Improvement Program, including \$36 million in San Joaquin Corridor 2<sup>nd</sup> Platforms. The project budget also includes significant contributions from SB 132 TIRCP funds.

This project is recommended for a multi-year funding agreement due to the project delivery schedule.

Project award includes \$1 million of funding to address network integration opportunities, including development of improved connections to other rail and transit services and consideration of network integration improvements throughout the Central Valley, and to enhance AB 1550 benefits. Project is also recommended for technical assistance to enhance AB 1550 benefits.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	High
Project Readiness	Medium
Funding Leverage	Medium

**20. San Mateo County Transit District (SamTrans)**

**Project:** SamTrans Express Bus Pilot

**Award:** \$15,000,000

**Total Budget:** \$36,503,000

**Estimated GHG Reductions** 47,000 MTCO<sub>2</sub>e

*(Additional project benefits accrue to the Low Carbon Transit Operations Program, contributing \$3,500,000 to the total budget)*

Introduces four (4) limited-stop express bus routes (at least 3 bi-directional) along US-101 in San Mateo, Santa Clara, and San Francisco Counties, using 37 new zero-emission electric buses, for reduced travel times and improved reliability of operations. Proposes 15-minute peak-period service along US-101 in conjunction with the completion of the managed lanes project in late 2021, and includes service to the Transbay Terminal. Proposed routes include San Bruno to Sunnyvale, Foster City to San Francisco, Redwood Shores to San Francisco, and San Mateo to San Francisco.

California Transportation Commission-recommended programming actions of \$233.2 million from the Solutions for Congested Corridors Program and \$20 million from the Local Partnership Program for the US 101 Managed Lanes Project would provide for the highway improvements necessary to offer this transit service.

Service will be coordinated with Caltrain and AC Transit services through their respective integration efforts.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	Medium-High
Increased Ridership	Medium-High
Service Integration	Medium
Improve Safety	Medium
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium
Funding Leverage	Medium-High

**21. Santa Barbara County Association of Governments (SBCAG)**

**Project:** Coastal Express/Pacific Surfliner Peak Hour Service Expansion and Integration Project

**Award:** \$9,600,000  
**Total Budget:** \$10,175,000

**Estimated GHG Reductions** 7,000 MTCO<sub>2e</sub>  
*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$575,000 to the project.)*

Complements rail service for commuters between Ventura and Santa Barbara counties by enhancing bus services that will allow seamless use of both rail and transit service for commute to employment centers in the Santa Barbara area from Oxnard and Ventura in Ventura County with 5 zero-emission over-the-road electric buses. Includes service extension to Oxnard, and development of layover facilities that can host expanded zero-emission bus service in the future.

California Transportation Commission-recommended programming actions of \$132,880,000 from the Solutions for Congested Corridors Program, and \$51 million from the Trade Corridor Enhancement Program, to the US 101 HOV Lanes project would contribute significant additional benefits to bus riders in the corridor not yet captured in the project

ratings. The proposed investment will lead to significant rider travel time reductions once the HOV lanes are completed. Current estimates expect a 45-minute round trip travel time reduction for passenger using these buses, and the ridership gain from this improved travel time will further expand the greenhouse gas emission reduction benefits of the project.

The project will be coordinated with the efforts of the SB 1 Sustainable Communities Formula Grant on the Clean Air Express Short Range Transit Plan, which received \$100,000 in December of 2017.

This project also provides geographic diversity to the state’s transit investments.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	Medium
Increased Ridership	Medium
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	Medium
Multi-Agency Coordination/Integration	High
Project Readiness	High
Funding Leverage	Medium-Low

**22. Santa Barbara County Association of Governments (SBCAG)**

**Project:** Goleta Train Depot Improvements

**Award:** \$13,009,000  
**Total Budget:** \$19,709,000

**Estimated GHG Reductions** 73,000 MTCO<sub>2</sub>e

*(While this project has not been specifically counted as providing AB 1550 benefits, funding has been provided to focus on identifying and enhancing benefits to such communities.)*

Improves the transit facility for bus, train, bicycle and pedestrians by constructing a modern, multi-modal train station and provides a safe, functional and inviting facility that accommodates improved bus transit service, shuttles from Santa Barbara Airport and the University of California Santa Barbara. Includes a zero emission shuttle bus to serve the Santa Barbara airport and improvement in local bus service providing station access to AB 1550 communities.

Project award includes \$250,000 of funding to address network integration opportunities, including development of improved connections to other rail and transit services, and to identify opportunities for AB 1550 benefits. These efforts will be coordinated with TIRCP

projects awarded to SBCAG for the Clean Air Express and LOSSAN for the improvement and expansion of service between Los Angeles and San Luis Obispo.

Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	Medium
Improve Safety	Medium-High
Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium
Funding Leverage	Medium

**23. Santa Clara Valley Transportation Authority (SCVTA)**

**Project:** VTA’s BART Silicon Valley Extension, Phase II

<b>Award:</b>	<b>\$ 238,360,000</b>
<b>Multi Year Funding Agreement</b>	<b>\$ 491,640,000</b>
<b>[Total Award:</b>	<b>\$ 730,000,000]</b>

**Total Budget:** **\$4,779,935,000**

**Estimated GHG Reductions** **4,063,000 MTCO<sub>2</sub>e**

*(This project is an additive phase to the 2016 selected project. GHG benefits are based on the incremental increase associated with updated ridership and emissions benefits.)*

*This project has a Full Funding Grant Agreement contingency related to future federal funding through the New Starts Program of the Federal Transit Administration.*

Extends BART by 6 miles and 4 stations into downtown San Jose and to Santa Clara by 2027. Serves more than 52,000 new riders per day by 2035 and more than 100,000 riders by 2075. Provides significant new service to AB 1550 communities, and a high degree of connectivity to other rail and transit services at a variety of stations, including San Jose Diridon station. Also leverages broader investments in BART capacity, allowing for frequent, all-day travel throughout the BART system using the 10-car train capacity and expanded Transbay tunnel capacity recommended for awards of other TIRCP funding. Total funding from TIRCP is \$750 million over 2 cycles.

An element of the project budget includes funding for the BART Communications Based Train Control (CBTC) system to be installed on this Santa Clara County segment. The BART Core Capacity project budget has been adjusted to account for this overlap.

This project is recommended for a multi-year funding agreement due to the project delivery schedule. Federal funding priorities across multiple Bay Area projects may result in adjustment of TIRCP award levels among highly-rated Bay Area projects.

Project is also recommended for technical assistance to enhance AB 1550 benefits.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	High
Improve Safety	High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium-High
Project Readiness	Medium-High
Funding Leverage	High

**24. Shasta Regional Transportation Agency (SRTA)**

**Project:** North State Intercity Electric Bus System

<b>Award:</b>	<b>\$8,641,000</b>
<b>Total Budget:</b>	<b>\$9,516,000</b>

**Estimated GHG Reductions** **26,000 MTCO<sub>2</sub>e**

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$875,000 to the project, and to the Low Carbon Transit Operations Program, which is anticipated to contribute \$10,000 to the North Valley Feeder route.)*

New service between the north state and Sacramento, through a coordinated and connected intercity bus system using 7 battery electric over the road coaches, including connections to the San Joaquin and Capitol Corridor train services, and the Sacramento international Airport. Funds the I-5 Backbone Service (Redding-Red Bluff-Williams-SMF Airport-Sac) and the North Valley Feeder (Red Bluff-Corning-Orland-Willows-Williams), providing 4 inter-connected round trip services per day on each route. The project will be implemented in coordination with intercity and commuter rail services that connect to the new service in Sacramento.

Project is also recommended for technical assistance to enhance AB 1550 benefits.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	Medium-High
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Increased Ridership	High
Service Integration	Medium-High
Improve Safety	Medium-High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium-High
Project Readiness	Medium-High
Funding Leverage	Medium-Low

**25. Solano Transportation Authority (STA)**

**Project:** Solano Regional Transit Improvements

<b>Award:</b>	<b>\$10,788,000</b>
<b>Total Budget:</b>	<b>\$24,204,000</b>

**Estimated GHG Reductions** **138,000 MTCO<sub>2e</sub>**

*(Additional project benefits accrue to the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Program, which may contribute up to \$2,148,000 to the project.)*

Increases frequency and reduces travel time on a restructured, zero-emission, electrified SolanoExpress system serving travelers along the I-80/680 corridor, connecting Vallejo, Benicia, Suisun, Fairfield, and Vacaville to Sacramento and to the Walnut Creek and El Cerrito del Norte BART stations, as well as the Vallejo Ferry Terminal.

SB1 also has the potential to fund other improvements on the 80/680 Corridor in which much of this service would operate, with a California Transportation Commission recommendation for \$53.2 million from the Trade Corridor Enhancement program for 80-680-12 Interchange improvements and \$33.6 million from the Local Partnership Program for 680/SR-4 interchange improvements. Both of these investments would remove sources of delay and lead to reduced travel times during the life of the project by buses travelling in the corridor and provide increased rider benefits not yet reflected in the project rating.

Project award includes \$250,000 of funding to address network integration opportunities, including development of improved connections to other rail and transit services, and to enhance AB 1550 benefits.

Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	Medium
Service Integration	Medium-High
Improve Safety	Medium
AB 1550 Community Benefits	Medium

Multi-Agency Coordination/Integration	Medium
Project Readiness	Medium-High
Funding Leverage	Medium-High

**26. Sonoma-Marín Area Rail Transit District (SMART)**

**Project:** Larkspur to Windsor Corridor Project

<b>Award:</b>	<b>\$21,000,000</b>
<b>Total Budget:</b>	<b>\$144,100,000</b>

<b>Estimated GHG Reductions</b>	<b>134,000 MTCO<sub>2e</sub></b>
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*Award contingent on regional funding measure passage or other non-TIRCP funds of an equivalent amount.*

Completion of the Larkspur and Windsor Extensions, allowing for direct connection to the Larkspur Ferry in 2019 and service to Windsor by 2021. Completes critical rail segments extending rail service to Larkspur with its regional ferry service and northward to Windsor’s transit-oriented Town Green. Also provides for project development efforts related to the extension of service to Healdsburg and Cloverdale, including efforts related to ensuring efficient provision of goods movement requirements in the corridor in the context of growing passenger service.

Project award includes \$1 million of funding to address network integration opportunities, including development of improved connections to other rail and transit services both in the East Bay and in Napa and Solano counties, and related to efficient expansion to Cloverdale and the connecting services to the North State, as well as to enhance AB 1550 benefits.

**Key Project Ratings:**

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	Medium-High
Service Integration	Medium-High
Improve Safety	High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	High
Project Readiness	High
Funding Leverage	High

## 27. Southern California Regional Rail Authority (SCRRRA - Metrolink)

**Project:** Southern California Optimized Rail Expansion (SCORE)

<b>Award:</b>	<b>\$ 763,712,000</b>
<b>Multi Year Funding Agreement</b>	<b>\$ 111,996,000</b>
<b>[Total Award:</b>	<b>\$ 875,708,000]</b>

**Total Budget:** **\$2,049,700,000**

**Estimated TIRCP GHG Reductions:** **5,714,000 MTCO<sub>2</sub>e**

Delivers initial run-through capacity for Metrolink and Surfliner trains at Los Angeles Union Station, and 30-min bi-directional service on multiple Metrolink corridors in the LA Basin. Includes significant investments to improve the frequency and performance of services to Moorpark, Santa Clarita, San Bernardino, Riverside, and Orange County. Part of a high-performance long-range vision for transformation of the Southern California rail system.

The project includes significant work on the early phases of Link US at Los Angeles Union Station, enabling the first run-through services to be provided by 2023. Part of the early work in Phase 1 is funded through SB 1 State Rail Assistance investments that improve the track and signals at the throat of Union Station, with \$10,500,000 of SRA funds awarded in January 2018.

The project provides for 30-minute bi-directional service on the highest ridership segments of the Metrolink system. It features station and signal improvements (allowing 5-min headways on certain segments and faster speeds on other segments), investments in turnouts and crossovers, additional station platforms, and targeted siding extensions or double track. Leverages investments already being made by the State Transportation Improvement Program in Van Nuys Station and in the Rosecrans-Marquardt Grade Separation, including targeted LA-Fullerton corridor investments to improve operations and reduce conflicts between passenger and freight trains. Allows for tightly timed transfers at Riverside Downtown station, enhancing connectivity to the Perris Valley Line and operations on the Riverside, 91 and IEOC lines. Funds the reconfiguration of the Irvine Station, allowing for local-to-express connections to be made in both directions, and funds the initial train layover facility in Irvine so that Metrolink trains can originate and terminate in Irvine overnight, benefiting service patterns on the Metrolink Orange County Line and the Inland Empire Orange County Line. Includes double track and bridge improvements north of Control Point Songs in territory controlled by North County Transit District. Includes targeted rolling stock investments, coordinated with statewide rolling stock considerations.



The project also benefits from investments being made by the State Transportation Improvement Plan, including \$3 million in the Laguna Niguel-San Juan Capistrano passing siding.

Project award includes a minimum of \$10 million of funding to address network-wide environmental and integration planning, development of integrated regular interval schedules and connections to other corridors, integration with statewide fleet planning, implementation planning to achieve maximum greenhouse gas reduction benefits from each phase, and to enhance AB 1550 benefits.

The project benefits would also be enhanced by the California Transportation Commission-recommended programming actions of SB1 Trade Corridor Enhancement Program (TCEP) funds and Local Partnership Program (LPP) funds. Recommended TCEP programming includes \$60,000,000 for the Etiwanda Grade Separation in the City of Rancho Cucamonga on the Metrolink San Bernardino Line, as well as funding for the Rosecrans-Marquardt Grade Separation, Montebello Boulevard Grade Separation and Turnbull Canyon Road Grade Separation, all within the Southern California Rail Project. These grade separation projects benefit the Metrolink 91 Line, the Metrolink Orange County Line, and the Metrolink Riverside Line, as well as the Amtrak Pacific Surfliner. Finally, the project is enhanced by the recommended programming action of \$8,908,000 to the Vista Canyon Metrolink Station from the LPP, benefiting the Metrolink Antelope Valley Line.

Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	High
Improve Safety	High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	High
Project Readiness	Medium
Funding Leverage	Medium-High

## 28. Transportation Agency for Monterey County (TAMC)

**Project:** Rail Extension to Monterey County

**Award:** \$10,148,000

**Total Budget:** \$81,519,000

**Estimated GHG Reductions** 81,000 MTCO<sub>2</sub>e

Extension of 2 round trip passenger rail services from Gilroy to Salinas, track improvements including the implementation of positive train control along the Salinas-Gilroy corridor, along with a two-train layover facility that can be expanded to support up to six-trains, providing future expansion and rail capacity in the corridor. Adds about 95,000 new riders in the opening year (with further growth over time) from the Salinas market to San Jose and Silicon Valley.

This project will be eligible to receive its TIRCP construction funding subject to a future agreement with Union Pacific Rail Road.

Project award also includes \$500,000 of funding to address network integration opportunities, including development of improved connections to other rail and transit services, planning related to infill stations, integration with statewide fleet planning requirements and opportunities, and to enhance AB 1550 benefits.

### Key Project Ratings:

Reduced Greenhouse Gas (GHG) Emissions	High
Increased Ridership	High
Service Integration	Medium-High
Improve Safety	High
AB 1550 Community Benefits	Medium-High
Multi-Agency Coordination/Integration	Medium-High
Project Readiness	Medium
Funding Leverage	High