

# Zero Emissions Fleet Transition Plan Update October 2023



October 2023

prepared for  
South Central Regional Transit District

prepared By  
SBLB, LLC  
SCRTD Staff

with  
Gillig  
El Paso Electric Company  
Mesilla Valley MPO

## Table of Contents

Section A. Transit Agency Information .....	3
Section B. Rollout Plan General Information .....	4
Section C. Required Elements for Zero Emissions Fleet Transition Plan .....	5
Element 1. Long-Term Fleet Management Plan .....	5
Element 2. Availability of Resources to Meet Cost.....	7
Element 3. Policy & Legislation.....	9
Element 4. Current and Future Facility Needs and Plans .....	10
Element 5. Utility Provider Engagement .....	17
Element 6. Impact on Applicant’s Workforce.....	18
Section D. Zero Emissions Grant Application Additional Considerations .....	19
1. Climate Change Impacts .....	19
2. Environmental Justice .....	20
3. Racial Equity & Barriers.....	21
4. Good-paying jobs (related to facility projects only) .....	21
5. Workforce Development .....	22
6. Urban vs. Rural Funding.....	22
APPENDIX A. Board Resolution .....	24
APPENDIX B. Zero Emissions Vehicle Information .....	25
APPENDIX C. Funding Opportunities .....	29
APPENDIX D. Letters of Commitment .....	35
APPENDIX E. System Map .....	37

## Section A. Transit Agency Information

South Central Regional Transit District (SCRTD) provides public transit services in a multicounty area in the Doña Ana County and surrounding unincorporated rural and urban areas. SCRTD's service consists of 8 fixed routes and a new micro-transit mobility service scheduled to commence in July 2024. The SCRTD provides regional transit service with an annual operating budget of approximately \$2.7 million. Capital funding fluctuates annually.

SCRTD's fixed route fleet operates out of two facilities, one at 830 Anthony Drive, Anthony, New Mexico, and another at 295 Quinella, Sunland Park, New Mexico. This location includes the agency's main maintenance facility, operations center, and bus parking. Currently, the site can accommodate up to 75 buses.

The Anthony facility includes a small administrative building, maintenance garage, and bus parking.

Transit Agency Name	South Central Regional Transit District
Mailing Address (number, street, city, county, zip code)	830 Anthony Drive, Anthony, Doña Ana County, New Mexico 88027
Name of Transit Agency's Air Basin(s)	Mesilla Valley Air Basin
Total Number of buses in annual maximum service	19
The population of the urbanized area a transit agency is serving as last published by the Census Bureau before July 1, 2021.	221,508
Contact information of the general manager, chief operating officer, or equivalent:	
a) Contact name (last name, first name, MI)	David Armijo
b) Title	Executive Director, SCRTD
c) Phone Number	(575)325-1620
d) Email	<a href="mailto:darmijo@scrted.org">darmijo@scrted.org</a>

## Section B. Rollout Plan General Information

SCR TD's zero-emission bus (ZEB) rollout plan will enable the agency to transition its bus fleet to zero-emission by 2035. Transitioning to 100% zero-emission will provide significant air quality and health benefits to the local population and SCR TD staff. The agency operates a substantial level of service in its southern service area, which lies within a non-attainment air quality area of West Texas and Southern New Mexico. Improving air quality in this area is essential to New Mexico and Texas residents.

The final fleet composition will be a mixture of battery electric buses (BEB) that are 35 and 25 feet long. The exact mix was determined to ensure the current level of service will be maintained while minimizing cost. Each new ZEB was designed to join the fleet as a 1:1 replacement for a Diesel or Gasoline vehicle. SCR TD will utilize 35-ft BEBs on more extended and more demanding bus routes because of the advantage of their greater range and peak power capabilities. The 25-foot BEBs will be assigned to routes with shorter distances.

The bus replacement schedule has been designed so that each bus will operate for its entire useful life to avoid early retirement. It also seeks to limit the number of new bus purchases required in any year to maintain the annual capital requirement for bus procurements at a relatively consistent level. As the plan is executed, the number of purchases will likely fluctuate yearly based on the available funding, but the overall trend will follow.

In May 2022, the El Paso Electric Company engaged with SCR TD to provide technical assistance supporting the District's Electric Vehicle Program. In addition, the El Paso Electric Company is offering rebates and special Electric Vehicle (EV) charging rates to SCR TD through its commission-approved Transportation Electrification Plan (TEP). As a part of TEP's Public Transit and Customer Fleet Smart Charging Program, EPE offers a rebate of up to \$3,500 to offset 50% of the installation costs of a qualifying Level 2 charging station with up to \$13,000 to offset 50% of any necessary service upgrades.

The first of three planned chargers will be installed at the District's Sunland Park's existing facility beginning in Spring 2023. No on-route opportunity chargers will be needed. The rollout plan was designed to ensure ZEB deployment can be done with either the Level I or Level II charging stations. Funding has been secured to install Level I chargers.

The South Central Regional Transit District approved this ZEB Rollout Plan at their Board Meeting on May 25, 2022, under Resolution ID 2022-26. The board-approved resolution is attached in Appendix B. This Rollout Plan was developed by the SBLB, LLC, in collaboration with the SCR TD staff, the El Paso Electric Company, and the Mesilla Valley MPO. For additional information on the Rollout Plan, please contact:

David Armijo, Executive Director  
South Central Regional Transit District  
(575) 323-1620, admin@scrtd.org

## Section C. Required Elements for Zero Emissions Fleet Transition Plan

### Element 1. Long-Term Fleet Management Plan

This element describes how the Zero Emissions Fleet Transition Plan aligns with the SCRTD overall Fleet Management Plan. SCRTD’s fixed route fleet comprises four standard 35’ buses, including 2 Diesel buses and two diesel hybrid buses. The average age of SCRTD’s fixed route fleet is seven years. SCRTD plans to replace all of its current buses with zero-emissions buses as the buses qualify for replacement under the Federal Transit Administration (FTA) rules for replacement.

The chart below lists all SCRTD revenue vehicles, their life miles as of October 2023, the miles required for replacement, and their anticipated replacement year.

SCRTD Revenue Vehicle Fleet									
Unit Number	Number of buses	Year Acquired	Fuel Type	Vehicle Make	Vehicle Type	Current Odometer Reading	FTA Required years before replacement	FTA Required life miles before replacement	Projected year of replacement
1	1	2015	Gasoline	Startrans	Cutaway	292,478	7	200,000	2023
2	1	2015	Gasoline	Startrans	Cutaway	296,159	7	200,000	2023
3	1	2015	Gasoline	Startrans	Cutaway	330,438	7	200,000	2023
5	1	2015	Gasoline	Startrans	Cutaway	347,393	7	200,000	2023
6	1	2016	Diesel	Chevy	Cutaway	229,243	7	200,000	2023
7	1	2014	Gasoline	Startrans	Cutaway	122,779	7	200,000	2023
8	1	2018	Gasoline	Aerotech	Cutaway	201,880	7	200,000	2025
9	1	2019	Gasoline	Aerotech	Cutaway	209,598	7	200,000	2026
10	1	2015	Gasoline	International	Cutaway	80,153	7	200,000	2023
11	1	2023	Gasoline	Aerotech	Cutaway	293,006	7	200,000	2030
12	1	2023	Gasoline	Aerotech	Cutaway	80,297	7	200,000	2030
13	1	2023	Gasoline	Startrans	Cutaway	202,770	7	200,000	2030
2001	1	2020	Diesel Hybrid	Gillig	35’ Low Floor	121,021	12	500,000	2032
2002	1	2020	Diesel Hybrid	Gillig	35’ Low Floor	140,344	12	500,000	2032
2301	1	2023	Gasoline	ARBOC	Cutaway	24,290	7	200,000	2030
2302	1	2023	Gasoline	ARBOC	Cutaway	13,582	7	200,000	2030
2303	1	2023	Gasoline	ARBOC	Cutaway	11,279	7	200,000	2030
2304	1	2023	Gasoline	ARBOC	Cutaway	11,179	7	200,000	2030
<b>Total Buses</b>	<b>18</b>								

The following chart lists the Procurement schedule for the District’s Bus Fleet by Year through 2032.

### SCRTD Future Bus Fleet Procurements by Year

SCRTD Future Bus Fleet Procurements by Year										
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenue Fleet Size - Year Start	15	18	21	25	27	30	32	33	34	35
# of Gas/diesel Bus Buys	4	2	1	2	0	0	0	0	0	0
Gas/Diesel Cost per Bus	\$149,840	\$179,800	\$185,194	\$190,750	\$196,472	\$202,366	\$208,437	\$214,691	\$221,131	\$227,765
Gas/Diesel Total Cost	\$599,360	\$359,600	\$185,194	\$381,500	\$0	\$0	\$0	\$0	\$0	\$0
# of Full-sized ZEB Buys	0	2	3	2	2	1	0	0	0	0
Full-sized Cost per ZEB	\$1,071,610	\$1,071,610	\$1,071,610	\$1,103,758	\$1,136,871	\$1,170,977	\$1,206,106	\$1,242,290	\$1,279,558	\$1,317,945
Full-sized Total ZEB Cost	\$0	\$2,143,220	\$3,214,830	\$2,207,517	\$2,273,742	\$1,170,977	\$0	\$0	\$0	\$0
# of Mid-sized ZEB Buys	0	2	1	2	1	1	1	1	1	1
Mid-sized Cost per ZEB	\$278,100	\$106,995	\$286,500	\$295,095	\$303,948	\$313,066	\$322,458	\$332,132	\$342,096	\$352,359
Mid-sized Total ZEB Cost	\$0	\$213,990	\$286,500	\$590,190	\$303,948	\$313,066	\$322,458	\$332,132	\$342,096	\$352,359
Total Annual Cost	\$599,360	\$2,716,810	\$3,686,524	\$3,179,206	\$2,577,690	\$1,484,043	\$322,458	\$332,132	\$342,096	\$352,359
Number of buses retired	1	3	1	4	0	0	0	0	0	0
Fleet Size - Year End	18	21	25	27	30	32	33	34	35	36

SCRTD’s fixed route fleet transition plan will gradually phase in ZEBs over the next 15 years. The size of the fleet will increase from 15 buses to 33 between 2023 and 2028. The plan maximizes the number of BEBs deployed while ensuring the vehicles can satisfy service requirements with a 1:1 replacement without exceeding the available electrical capacity.

It was assumed that each fixed route bus typically lasts ten years, but the expected retirement date was sometimes staggard to minimize the fluctuation of bus purchases required between years.

All cutaway bus purchases before 2023 will be Gas/Diesel, and the last gasoline bus will leave the fleet in 2035. All cutaway ZEBs are planned to be BEBs due to the Anthony facility’s limited space. Following the ICT regulation required replacement schedule, SCRTD’s fleet will be 100% ZEV by 2035. SCRTD will continue to evaluate the transition plan for mid-size vehicles as new zero-emission vehicle options become available.

### Conventional Bus Conversions

SCRTD is not considering converting any conventional buses in service to zero-emission buses. The transition plan is based on new purchases of ZEBs only.

## Element 2. Availability of Resources to Meet Cost

This element discusses how SCRTD will meet its requirements for the provision of the match to Federal FTA funding of the Zero Emission Buses contained in both the current year grant request and future grant request covered in this plan. The match for Federal FTA funding will be provided through a combination of the State of New Mexico and local funding sources.

The table below details how many buses SCRTD plans to purchase each year and their cost.

### SCRTD Future Bus Fleet Procurements by Year

SCRTD Future Bus Fleet Procurements by Year										
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Revenue Fleet Size - Year Start	15	18	21	25	27	30	32	33	34	35
# of Gas/diesel Bus Buys	4	2	1	2	0	0	0	0	0	0
Gas/Diesel Cost per Bus	\$149,840	\$179,800	\$185,194	\$190,750	\$196,472	\$202,366	\$208,437	\$214,691	\$221,131	\$227,765
Gas/Diesel Total Cost	\$599,360	\$359,600	\$185,194	\$381,500	\$0	\$0	\$0	\$0	\$0	\$0
# of Full-sized ZEB Buys	0	2	3	2	2	1	0	0	0	0
Full-sized Cost per ZEB	\$1,071,610	\$1,071,610	\$1,071,610	\$1,103,758	\$1,136,871	\$1,170,977	\$1,206,106	\$1,242,290	\$1,279,558	\$1,317,945
Full-sized Total ZEB Cost	\$0	\$2,143,220	\$3,214,830	\$2,207,517	\$2,273,742	\$1,170,977	\$0	\$0	\$0	\$0
# of Mid-sized ZEB Buys	0	2	1	2	1	1	1	1	1	1
Mid-sized Cost per ZEB	\$278,100	\$106,995	\$286,500	\$295,095	\$303,948	\$313,066	\$322,458	\$332,132	\$342,096	\$352,359
Mid-sized Total ZEB Cost	\$0	\$213,990	\$286,500	\$590,190	\$303,948	\$313,066	\$322,458	\$332,132	\$342,096	\$352,359
Total Annual Cost	\$599,360	\$2,716,810	\$3,686,524	\$3,179,206	\$2,577,690	\$1,484,043	\$322,458	\$332,132	\$342,096	\$352,359
Number of buses retired	1	3	1	4	0	0	0	0	0	0
Fleet Size - Year End	18	21	25	27	30	32	33	34	35	36

The following table shows the total projected capital cost of all Zero Emission bus-related purchases and activities per year. These line items include bus purchases, charging station purchases, vehicle delivery charges, and employee training costs.

### SCRTD Future Zero Emission Grant Purchases

SCRTD Zero Emission Bus Related Capital Purchases by Year										
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
# of ZEB Purchases	0	4	4	4	3	2	1	1	1	1
Total ZEB Vehicle Cost	\$0	\$2,357,210	\$3,501,330	\$2,797,707	\$2,577,690	\$1,484,043	\$322,458	\$332,132	\$342,096	\$352,359
Cost per charge station	\$90,466	\$93,180	\$95,975	\$98,855	\$101,820	\$104,875	\$108,021	\$111,262	\$114,600	\$118,038
Total Charge Station Cost	\$0	\$372,720	\$383,902	\$395,419	\$305,461	\$209,750	\$108,021	\$111,262	\$114,600	\$118,038
Total ZEB Capital Cost	\$0	\$2,729,930	\$3,885,232	\$3,193,125	\$2,883,151	\$1,693,793	\$430,479	\$443,394	\$456,696	\$470,396
Employee Training	\$0	\$136,496	\$194,262	\$159,656	\$144,158	\$84,690	\$21,524	\$22,170	\$22,835	\$23,520
Total ZEB Program Cost	\$0	\$2,866,426	\$4,079,493	\$3,352,781	\$3,027,308	\$1,778,483	\$452,003	\$465,563	\$479,530	\$493,916
Federal Share	\$0	\$2,448,274	\$3,477,051	\$2,861,652	\$2,581,277	\$1,517,963	\$388,528	\$400,184	\$412,189	\$424,555
Local Share	\$0	\$418,153	\$602,442	\$491,129	\$446,031	\$260,519	\$63,476	\$65,380	\$67,341	\$69,362

In addition to Federal funding of \$14,511,673 over the ten years, SCRTD will need to secure \$2,483,833 to cover the local share of the estimated capital expenditure to achieve its ZEB Rollout Plan. This funding will come from various sources – including the local Dona Ana County MOU and Membership Fees. Predicting what programs and funding levels will be available entirely is difficult. SCRTD plans to apply for competitive grants and voucher programs

to fund the procurement of ZEBs and accompanying infrastructure directly. SCRTD Federal funds are provided through Urbanized Area Formula Grants (5307), Bus and Bus Facilities Program (5339) funding, and the Enhanced Mobility of Seniors & Individuals with Disabilities Program (5310) funding source.

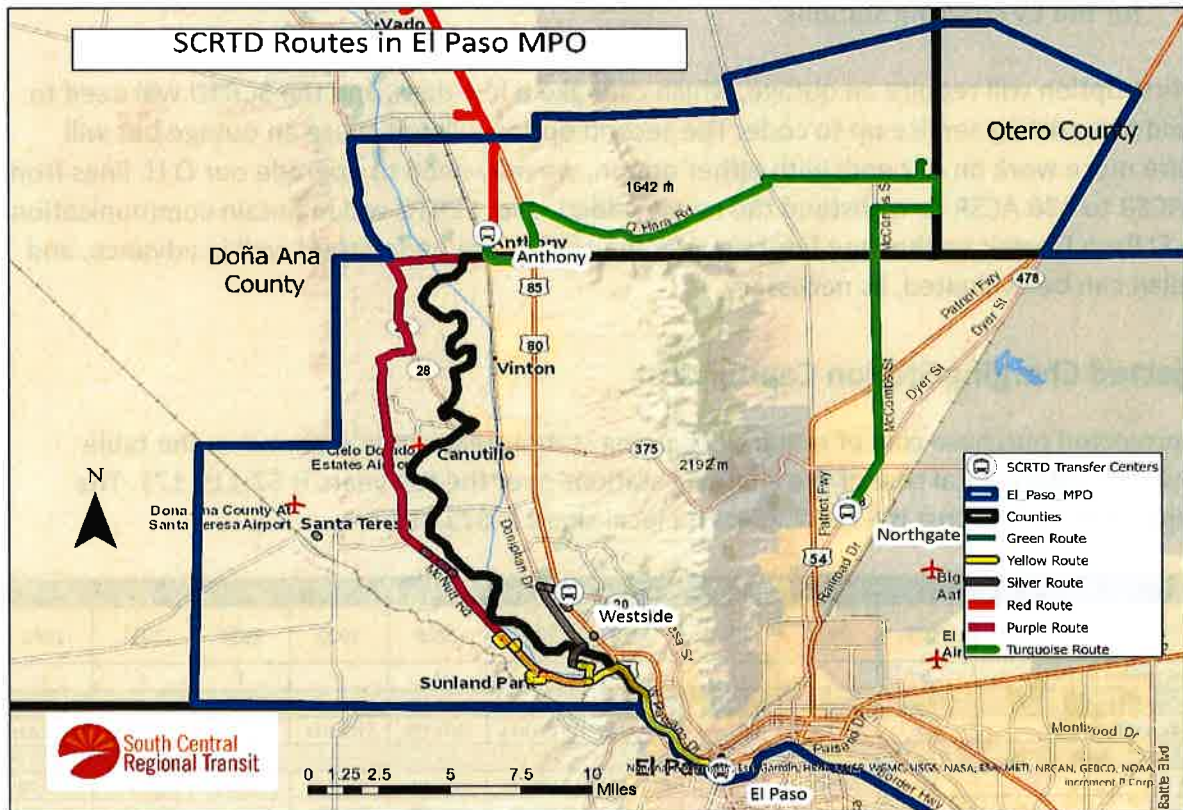


### Element 3. Policy & Legislation

SCR TD has researched issues for its Zero Emissions Plan caused by current or proposed policies or legislation enacted either at its local governmental level or through statewide New Mexico legislation. It needs to be aware of any legislation currently on the books or proposed at the local or state level that would cause a problem for or otherwise impact its ability to pursue its Zero Emissions Plan.

As a New Mexico state-authorized transit district that is under the direction of and receives funding through the New Mexico Department of Transportation (NMDOT), it receives notice from the NMDOT whenever there is legislation under consideration that will in any way impact SCR TD and other local transit districts within New Mexico.

Further, as of Fiscal Year 2022, the Transit District is now a direct grant recipient and receives Section 5307 federal funds from the Region VI Federal Transit Administration office. New Mexico transportation funds that flow through the El Paso Metropolitan Planning Organization (MPO) office are now directed to the South Central Regional Transit District. These funds are reserved for transit services provided in the Southern part of Dona Ana County. This area includes Anthony, Chaparral, Sunland Park, and unincorporated communities in Dona Ana County.



## Element 4. Current and Future Facility Needs and Plans

### **Electrical Charging Infrastructure**

The BEB charging infrastructure will be deployed and scaled to match SCRTD’s BEB purchases. The deployment timeline can be split into two phases: Phase I, 2020-2030, and Phase II, 2030-2040. The engineering and design for Phase I is currently in development and will only encompass the Sunland Park facility at 295 Quinella. As part of SCRTD’s application for EPE’s TEP’s Public Transit and Customer Fleet Smart Charging Program, El Paso Electric can offer a rebate of \$3,500 to offset 50% of the installation costs of each level 2 charging station and a rebate for up to \$13,000 to offset 50% of the costs of any necessary infrastructure upgrades. Regarding SCRTD’s existing electrical infrastructure at the Sunland Park facility on 295 Quinella Dr, there are currently two transformers on the property, one single phase 10KVA 120/240V and the other 3 phase 150 KVA 120/208V. Based on the expected additional load from these level 2 charging stations and the existing electrical infrastructure, as seen in the image below, there are two options for providing service:

1. Upgrade the existing 150 KVA underground transformer to 500 KVA to serve both the charging stations and SCRTD’s existing facility.
2. Run a new underground line from the back overhead (O.H.) lines to a separate service for the EV charging stations.

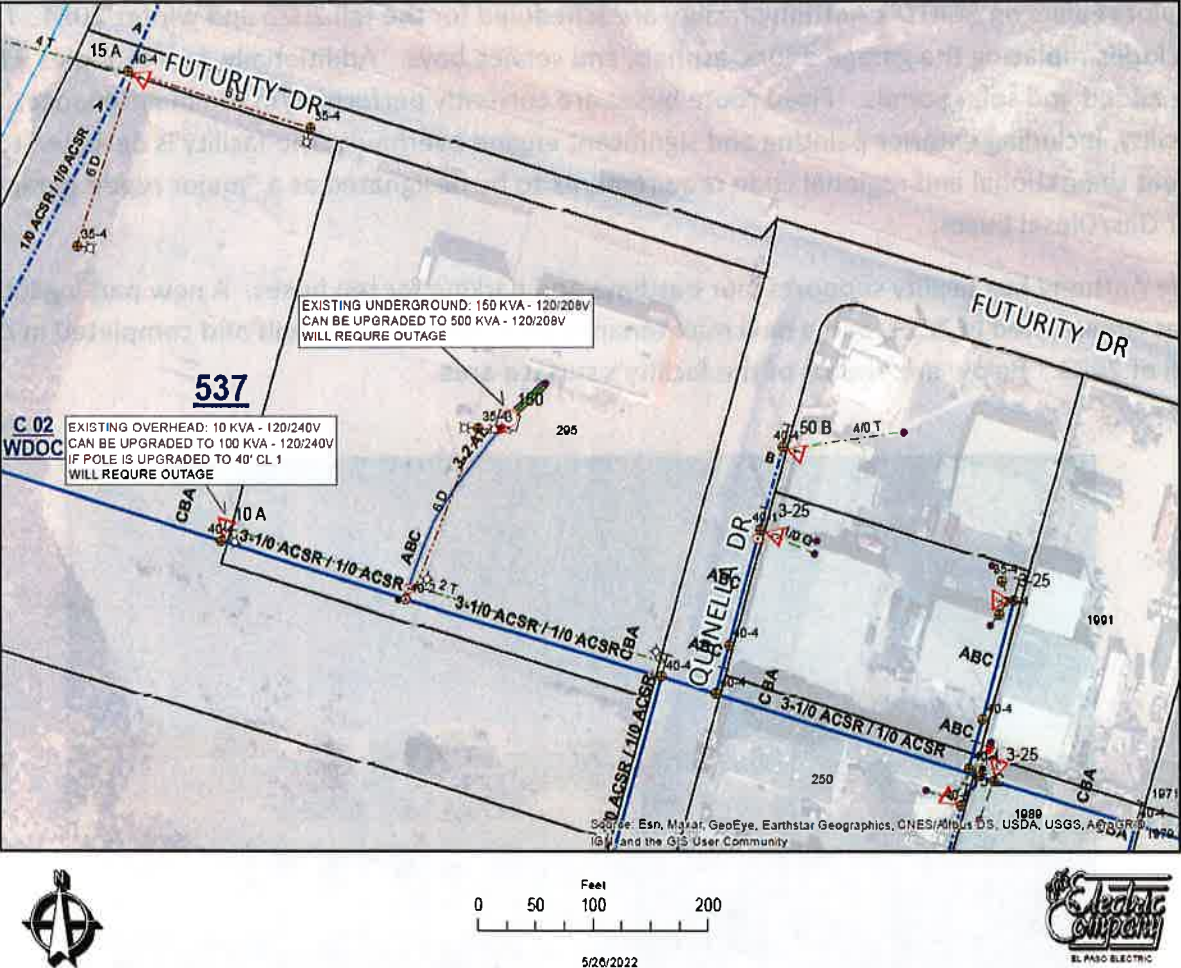
The first option will require an outage, which can take a few days, and the SCRTD will need to rebuild the existing service up to code. The second option will not cause an outage but will require more work on our end; with either option, we may need to upgrade our O.H. lines from 1/0 ACSR to 336 ACSR to withstand the newly added load. SCRTD will maintain communication with El Paso Electric so that any future power limitations are understood well in advance, and the plan can be evaluated, as necessary.

### **Projected Charging Station Capital Cost**

The projected purchase cost of required charging stations each year is shown in the table below. The total capital cost of the charging stations over the ten years is \$2,119,171. The Federal Share of the cost is \$1,907,254. The local share is \$211,917.

SCRTD Charging Station Purchases By Year										
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Charging Stations Installed	0	4	4	6	3	2	1	1	1	1
Cost per charge station	\$90,466	\$93,180	\$95,975	\$98,855	\$101,820	\$104,875	\$108,021	\$111,262	\$114,600	\$118,038
Total Charge Station Cost	\$0	\$372,720	\$383,902	\$593,128	\$305,461	\$209,750	\$108,021	\$111,262	\$114,600	\$118,038
Federal Share	\$0	\$335,448	\$345,511	\$533,815	\$274,915	\$188,775	\$97,219	\$100,136	\$103,140	\$106,234
Local Share	\$0	\$37,272	\$38,390	\$59,313	\$30,546	\$20,975	\$10,802	\$11,126	\$11,460	\$11,804

The Sunland Park facility with the utilities present and required changes proposed. The facility is located across from Futurity Drive. The aerial photo below shows the prospective modifications required for the project.



Cumulative fuel savings over the next ten years resulting from the introduction of battery electric buses at SCRTD are shown below. Battery electric buses are projected to operate 3,955,000 miles of revenue service over the next ten years reducing fuel use by 988,750 gallons over the ten year period.

**Zero Emission Bus Projected Gas/Diesel Fuel Savings Per Year**

SCRTD Zero Emission Bus Projected Gas/Diesel Fuel Savings Per Year										
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SCRTD Zero Emission Buses	0	0	4	8	12	15	17	18	19	20
Miles operated with Battery Operated Buses	0	0	140,000	280,000	420,000	525,000	595,000	630,000	665,000	700,000
Annual gallons of fuel saved	0	0	35,000	70,000	105,000	131,250	148,750	157,500	166,250	175,000
Cumulative fuel gallons saved	0	0	35,000	105,000	210,000	341,250	490,000	647,500	813,750	988,750

Phase I requires SCRTD to purchase and install a dedicated as well as BEB charging infrastructure.

### **Anthony Maintenance Facility**

Major repairs on SCRTD’s Anthony facility are scheduled for the fall 2023 and winter 2024. This includes replacing the garage doors, asphalt, and service bays. Additionally, bus canopies will be added and solar panels. Fixed route buses are currently performed in the maintenance facility, including exterior painting and significant engine overhauls. The facility is designed to meet the national and regional code requirements to be designated as a “major repair garage” for Gas/Diesel buses.

The Anthony bus facility supports four bus bays and parking for ten buses. A new parking lot was constructed in 2021, and a new maintenance shop room will be built and completed in the fall of 2023. Below are photos of the facility's surface area.



The facility is located near the center of the service area and across the street from the Anthony Transfer Station. As such, this reduces deadhead to less than one percent of service, allows buses to be exchanged at midday, and provides bus operators with breaks and lunch breaks during the day. Further, as midsize electric buses are acquired in the plan's second phase, they will operate from this location. This will mitigate the need to charge buses during the service day. Consequently, the charging stations will be Tier II and will support the requirements of the service day in the off-peak or overnight charging.

The photo below shows the maintenance doors; four bays support the bus fleet.

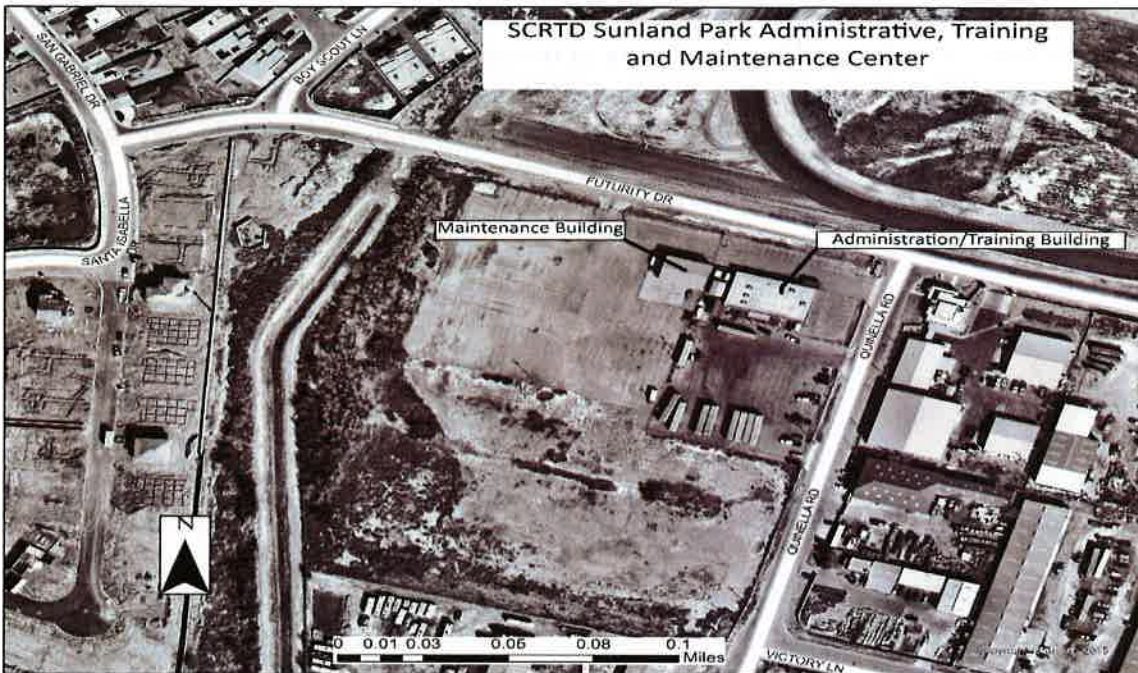


### **Sunland Park Facility Modifications**

No modifications are required to incorporate ZEBs into SCRTD's fixed route fleet. There are currently ten dedicated 25' to 35' bus parking stalls at the site, and the final transitioned fleet is projected to be 20 buses in 2035, not including any contingency. Below is an aerial photo of the bus maintenance facility and the future site of the administrative headquarters and training center. This facility will be the location for the first three zero-emission electric buses in 2024, followed by two additional buses in 2025. The facility has ample space for the fleet and the associated charging stations to be installed and for employee training.



The Sunland Park Maintenance facility is on an 11-acre parcel, with forty percent of the area undeveloped and available for future construction and development. Per the aerial photo below, the two buildings are used for vehicle maintenance of the 35-foot Gillig buses and as a training center. The larger administrative building will serve as the district's administrative offices and training center. Conference rooms and advanced IT are in place to add a centralized control center for vehicle operations.



The BEB charging infrastructure will be designed for SCRTD’s existing overnight parking arrangement. The BEBs will be parked at open area charging stations.

**Infrastructure Summary**

The table below identifies the type of buses that will operate out of each of SCRTD’s facilities.

**NOx-Exempt Area and Electric Utilities’ Territories**

Division Name	Type(s) of Bus Propulsion System	Located in Nox Exempt Area? (Yes/No)
Sunland Park	Gas/Diesel, Battery Electric	Yes
Anthony	Gas/Diesel, Battery Electric	Yes

**Facility Information**

**Charging**

GILLIG’s experts will provide complete turnkey infrastructure support, including consulting, project management, and streamlined equipment procurement to support SCRTD’s transition to electric buses. Gillig offers broad access to state-of-the-art charging technology and expedited lead times from the leading U.S. manufacturers for plug-in, overhead conductive, and inductive charging solutions. They thoroughly test non-proprietary chargers to assure compatibility and performance while providing maximum flexibility.

**Gillig Electric Bus Options**

Gillig Bus Information		
Bus Length	35 foot bus	40 foot bus
Battery Capacity	490 kWh, 588 kWh, 686 kWh	
Motor	Cummins Direct Drive, Permanent Magnet Motor	
Passenger Capacity (seated / total)	31 / 62	38 / 75
Gross Vehicle Weight Rating	48,200 lbs	48,200 lbs
Maximum Height	135"	135"



Gillig Electric Bus displayed in Las Cruces, New Mexico.



## Element 5. Utility Provider Engagement

In May 2022, the El Paso Electric Company engaged SCRTD in technical assistance supporting the District's Electric Vehicle Program. In addition, the El Paso Electric Company is offering rebates and special Electric Vehicle (EV) charging rates to SCRTD through its commission-approved Transportation Electrification Plan (TEP). As a part of TEP's Public Transit and Customer Fleet Smart Charging Program, EPE offers a rebate of up to \$3,500 to offset 50% of the installation costs of a qualifying Level 2 charging station with up to \$13,000 to offset 50% of any necessary service upgrades.

All planned chargers will be installed at the District's Sunland Park's existing facility. No on-route opportunity chargers will be needed. The rollout plan was designed to ensure ZEB deployment can be done with Level II charging stations.

Documentation showing El Paso Electric Company's support of the project is provided as an attachment to this plan. Below is an example of the charging stations that may be used for this project to fuel the Gillig Electric buses. Fortunately, the Sunland Park facility has space for the buses to be parked and charged overnight or during the day.



## Element 6. Impact on Applicant’s Workforce

SCR TD will design its training program and schedule with a “train the trainer” approach. This approach aims to select critical operations and maintenance personnel, such as lead technicians and supervisors, to participate in the OEM and vendor training programs to bring the technical expertise and knowledge in-house. The selected personnel will then train the rest of SCR TD’s operations and maintenance staff on the specific knowledge and skills required for each role. The critical training topics are summarized below.

### Battery Electric Bus Training

Training will be provided by the selected OEM (Gillig) in the following areas:

1. General bus overview introduction training
2. High voltage safety training
3. Bus maintenance and repair training
4. Bus driver and operations staff training

### BEB Charging Infrastructure Training

Training will be provided by the selected equipment vendor (Gillig) in the following areas:

1. Charging infrastructure maintenance training
2. Emergency first responder training for Sunland Park and Doña Ana County Fire Department representatives and SCR TD onsite first responder staff.

BEB Training Plan							
Date	Course Title	Purpose	Conducted By	Participants	Number of Participants	Frequency	Cost
2024	Operator Training	Operator orientation	BEB OEM	Operator trainers, supervisors, or bus operators	16	One time	\$4,000
2024	Bus Introduction	Overview of the bus	BEB OEM	Maintenance technicians or other yard personnel who need to be aware of bus operation during initial acceptance and launch period	16	One time	TBD
2024	Structural Composites Training	Hands-on training for structural composites repairs on buses	BEB OEM	Maintenance technicians	24	One time	TBD
2024	Bus Maintenance Training	Training of bus maintenance technicians on routine servicing	BEB OEM	Bus maintenance technicians	32	One time	\$10,000

Electric Charging Infrastructure Training Plan							
Date	Course Title	Purpose	Conducted By	Participants	Number of Participants	Frequency	Cost
2024	Charger Maintenance Training	Training of charger infrastructure maintenance	Electric Charger Vendor	Charger Infrastructure maintenance technicians	4	One time	TBD
2024	Emergency First Responder Training	First responder training on electrical buses and infrastructure	Electric Charger Vendor	Charger Infrastructure maintenance technicians	4	One time	TBD

# Section D. Zero Emissions Grant Application Additional Considerations

## 1. Climate Change Impacts

SCR TD’s Zero Emissions Fleet Transition Plan will reduce fuel emissions, improve systemwide energy efficiency, and provide a transition plan to complete the electrification of its revenue vehicle bus fleet over the next 15 years.

EPE continues to be a coal-free utility after completing the sale of the Company’s ownership interest in the Four Corners Power Plant in 2016. EPE also continues its efforts to utilize cleaner resources such as natural gas and nuclear and expand its renewable portfolio.

The replacement of gasoline and diesel buses with battery-operated buses powered with El Paso Electric electricity will reduce an estimated 175,000 gallons of carbon-based fuel annually by the tenth year of the plan.

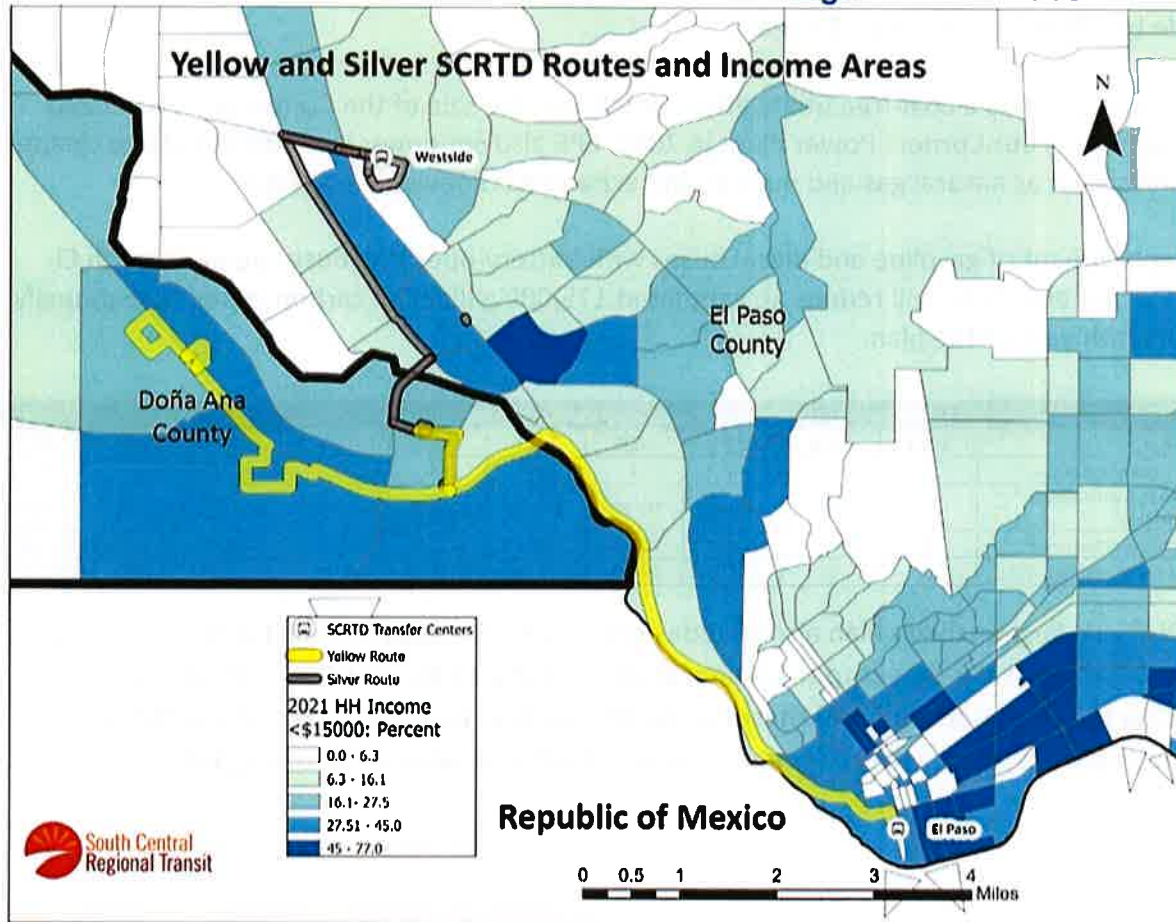
SCR TD Zero Emission Bus Projected Gas/Diesel Fuel Savings Per Year										
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
SCR TD Zero Emission Buses	0	0	4	8	12	15	17	18	19	20
Miles operated with Battery Operated Buses	0	0	140,000	280,000	420,000	525,000	595,000	630,000	665,000	700,000
Annual gallons of fuel saved	0	0	35,000	70,000	105,000	131,250	148,750	157,500	166,250	175,000
Cumulative fuel gallons saved	0	0	35,000	105,000	210,000	341,250	490,000	647,500	813,750	988,750

The District’s Sustainability Plan also includes reductions in energy at each facility. This may consist of adding solar power to the buildings at the Anthony and Sunland Park facilities. Reducing the carbon footprint of these bus facilities will be an integral part of the climate change impact as part of the requirement to provide transit services to the region.

## 2. Environmental Justice

Figure 13 shows the disadvantaged communities in SCRTD’s service territory and the fixed routes that pass through them. This includes many communities that fall under the top 5% and 25% disadvantaged communities within Doña Ana County.

### SCRTD transit routes over low-income and disadvantaged communities



Sunland Park – El Paso County is part of the West Texas regional and Mesilla Valley air basin and does not meet EPA air quality standards and is non-attainment. It is designated as an ozone, PM<sub>2.5</sub>, and PM<sub>10</sub> non-attainment area. Ozone is formed from a chemical reaction between nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), and volatile organic compounds (VOCs) in the presence of heat and sunlight. Ozone acts like a corrosive gas, burning lung tissue and damaging the respiratory tract. It causes coughing and shortness of breath, triggering asthma, lung and heart disease, and potentially premature death. Pollutants emitted by fossil fuel combustion vehicles contribute to ozone formation.

### 3. Racial Equity & Barriers

Multiple sources of pollution disproportionately burden disadvantaged communities and typically have population characteristics that make them more sensitive to pollution than the wider population. As SCRTD transitions gasoline/diesel vehicles to BEBs, it will improve local air quality by reducing critical emissions of criteria pollutants NO<sub>x</sub>, VOC, and CO that contribute to ozone production. These reductions directly support state and local government efforts to achieve EPA's "attainment" classifications. In addition, zero-emission vehicles do not emit particulate matter (PM<sub>2.5</sub>) and contribute significant reductions in GHG emissions, further contributing to improved local air quality. SCRTD will prioritize deploying ZEBs on routes servicing disadvantaged communities wherever possible in the early stages of the transition.

Local air quality will improve by reducing critical NO<sub>x</sub>, VOC, and CO emissions contributing to ozone production. Zero-emission buses also do not emit particulate matter (PM<sub>2.5</sub>), contributing to significant reductions in GNG emissions.

### 4. Good-paying jobs (related to facility projects only)

The construction of the three battery charging stations at the SCRTD Sunland Park bus garage will employ those involved with installing the charging stations during construction. Periodic maintenance and repair of the charging stations will provide in-house or outside-contracted employment opportunities.

Further charging stations, related equipment, and facilities will be needed throughout the process of converting the entire SCRTD bus fleet to zero-emissions buses. Additional temporary construction or periodic contracted labor will be required for future transition phases.

## 5. Workforce Development

SCRTD has communicated its plan for the future Zero Emissions Bus fleet to its employees. SCRTD maintains an open-door policy where all employees are encouraged to provide input on future transit plans to management staff, including the SCRTD Executive Director.

The principal area of need for SCRTD staff training and development is preventive maintenance and repair of low and zero-emissions buses. SCRTD will focus its training and workforce development efforts in this area. SCRTD will consider all avenues to improving its workforce, including through labor–management joint partnerships, maintenance division apprentices, and enhanced strategies to recruit, retrain, and retain skilled employees.

SCRTD intends to leverage training offered by vehicle OEMs and infrastructure providers wherever possible. SCRTD will supplement vendor training with courses offered by other transit agencies and outside programs.

SCRTD’s first ZEBs will be BEBs provided by Gillig, who will deliver the vendor training for these buses. SCRTD will evaluate multiple bus original equipment manufacturers (OEM) and equipment vendors as more ZEBs and fueling infrastructure are procured.

The outline training plan was based on generalized training information provided by the OEMs and vendors during preliminary discussions.

## 6. Urban vs. Rural Funding

The SCRTD service area includes both urban and rural areas. SCRTD receives 5307 (Urban Area) and 5311 (Rural Area) funding through the Federal Transit Administration.

The percentage of urban to rural mileage of SCRTD fixed bus routes is 35 percent to 65 percent rural. There are three intercity or urban bus routes to five rural routes. The latter operate longer routes and generate more total miles.

As SCRTD transitions to a fully Zero-emissions bus fleet, these buses will be used in all service areas. SCRTD currently projects that its needs for transit service within its region and its provision will remain roughly equivalent to its current mix of urban and rural area services and service levels.

The service expansion outlined in the District’s Ten-Year Service and Financial Plan identifies increased service frequency and the addition of one route. All of these changes will be within the urbanized area but will include service connections that will collectively increase service in the urban areas.

Below are the Zero Emission Bus Related Capital purchases by year, including all costs for buses, charging stations, and training costs for the program. This table shows the Zero Emission Bus Capital and related program costs.

## Zero Emission Bus Capital Purchases

The plan balances the route planning needs of both longer and shorter bus routes. This allows for purchasing smaller buses when appropriate to the service requirements while reserving larger buses for the more extended service day when more miles will be required.

The costs reflect the current inflation costs of bus purchases but will require an update to the plan once the adverse effects of the pandemic have run their course and when the cost for vehicles levels off.

SCRTD Zero Emission Bus Related Capital Purchases by Year										
Fiscal Year	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
# of ZEB Purchases	0	4	4	4	3	2	1	1	1	1
Total ZEB Vehicle Cost	\$0	\$2,357,210	\$3,501,330	\$2,797,707	\$2,577,690	\$1,484,043	\$322,458	\$332,132	\$342,096	\$352,359
Cost per charge station	\$90,466	\$93,180	\$95,975	\$98,855	\$101,820	\$104,875	\$108,021	\$111,262	\$114,600	\$118,038
Total Charge Station Cost	\$0	\$372,720	\$383,902	\$395,419	\$305,461	\$209,750	\$108,021	\$111,262	\$114,600	\$118,038
<b>Total ZEB Capital Cost</b>	<b>\$0</b>	<b>\$2,729,930</b>	<b>\$3,885,232</b>	<b>\$3,193,125</b>	<b>\$2,883,151</b>	<b>\$1,693,793</b>	<b>\$430,479</b>	<b>\$443,394</b>	<b>\$456,696</b>	<b>\$470,396</b>
Employee Training	\$0	\$136,496	\$194,262	\$159,656	\$144,158	\$84,690	\$21,524	\$22,170	\$22,835	\$23,520
<b>Total ZEB Program Cost</b>	<b>\$0</b>	<b>\$2,866,426</b>	<b>\$4,079,493</b>	<b>\$3,352,781</b>	<b>\$3,027,308</b>	<b>\$1,778,483</b>	<b>\$452,003</b>	<b>\$465,563</b>	<b>\$479,530</b>	<b>\$493,916</b>
Federal Share	\$0	\$2,448,274	\$3,477,051	\$2,861,652	\$2,581,277	\$1,517,963	\$388,528	\$400,184	\$412,189	\$424,555
Local Share	\$0	\$418,153	\$602,442	\$491,129	\$446,031	\$260,519	\$63,476	\$65,380	\$67,341	\$69,362

# APPENDIX A. Board Resolution

**South Central Regional Transit District  
Resolution No. 2022-23**

**A RESOLUTION AUTHORIZING THE SOUTH CENTRAL REGIONAL TRANSIT DISTRICT STAFF TO APPLY FOR FEDERAL FUNDING THROUGH THE FY2022 LOW NO EMISSIONS PROGRAM FOR THREE ELECTIC BUSES TO REPLACE EXISTING FLEET VEHICLES AND FACILITY IMPROVEMENTS**

**WHEREAS**, the USDOT issued a notice for funding opportunity for the FY2022 Low No Emissions program on December 1, 2021; and

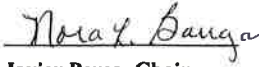
**WHEREAS**, the SCR TD staff has submitted its application to NMDOT (to be included in the State's consolidated application); and

**WHEREAS**, the SCR TD has identified capital improvements related to the efficient and effective day-to-day operations and maintenance of fleet; and

**WHEREAS**, upon selection to receive FFY2022 Section Low or No Emission Grant Program funds, the SCR TD is committed to provide a twenty (20) percent match (\$608,071) of the project cost (\$3,040,354).

**NOW, THEREFORE, BE IT RESOLVED** by the SCR TD Board that, the request for SCR TD Board authorization and support of Staff submitting for a FY2022 Low or No Emission Grant for Buses and Support Equipment in the amount of \$3,040,354 with a SCR TD match of \$608,071 to fund the purchase of three electric buses to replace existing fleet vehicles.

**PASSED, APPROVED AND ADOPTED BY THE GOVERNING BODY OF THE SOUTH CENTRAL REGIONAL TRANSIT DISTRICT ON THIS 25th DAY OF May 25, 2022.**

  
Javier Perea, Chair

Approved as to form:

  
David Armijo, Executive Director



## APPENDIX B. Zero Emissions Vehicle Information

### **Smaller Vehicle Option (Ford E-Transit Vehicles)**

*Small electric transit vehicles, with a targeted range designed to fulfill fleet needs, based on insight from 30 million miles of customer telematics data – and at a price that helps make it easy to switch to electric. The average daily range for commercial all-electric vans in the U.S. is 74 miles. With a usable battery capacity of 68 kilowatt-hours, E-Transit has a targeted range of 126 miles in the low-roof cargo van configuration. E-Transit cutaway models have a starting MSRP of \$43,295 – and come with an eight-year, 100,000-mile electric vehicle component warranty.*

*Ford Pro Charging is the only North American solutions provider that combines light-duty electric vehicle chargers with a single source for design/build services and offers a variety of solutions to fit fleet and driver needs, including home, public, and depot. E-Transit comes with access to the BlueOval™ Charge Network – North America’s most prominent public charging network – providing drivers with seamless general payment capability and fleet managers with central account and billing management.*

### **Capability plus lower cost of ownership**

*Designed for uncompromised cargo capacity, the E-Transit battery is underneath the vehicle body, allowing up to 487.3 cubic feet of cargo space inside the high-roof, extended-wheelbase configuration.*

*Ford engineers designed the E-Transit rear-wheel drive and rear suspension to optimize cargo space. This creates a heavy-duty semi-trailing arm suspension system that enables better steering precision, more confident handling, and better traction in laden and unladen conditions.*

*E-Transit cargo vans offer commercial customers the capability they need to get the job done, delivering a maximum payload of 3,880 pounds and up to 4,428 pounds for cutaway versions – with a powerful electric motor providing 266 horsepower/198 kilowatts of power and 317 lb.-ft. of torque across all configurations.*

*E-Transit is backed by Ford’s powerhouse network of more than 650 Commercial Vehicle Centers across the U.S., plus over 2,300 electric-vehicle-certified dealers.*

*Cities worldwide – from London to Los Angeles – are pledging to create emissions-free zones to improve air quality, reduce greenhouse gas levels and improve noise pollution. California has also mandated that all new cars and passenger trucks sold in the state be zero-emission vehicles by 2035.*

*E-Transit is part of a Ford investment in electrification of more than \$30 billion through 2025. The all-new, all-electric Mustang Mach-E arrived last year, while the all-electric F-150® Lightning™ production begins this spring.*

*Ford intends to achieve carbon neutrality globally by 2050. It is the only full-line U.S. automaker committed to doing its part to reduce CO2 emissions in line with the Paris Climate Agreement and working with California for more robust vehicle greenhouse gas standards.*

*E-Transit will help companies operate with the benefits of electrification and offer clear cost-of-ownership advantages. Scheduled maintenance costs for the all-electric E-Transit are estimated to be 40 percent less than the average planned maintenance costs for a gas-powered 2020 Transit over eight years/100,000 miles. With lower maintenance requirements and the opportunity to avoid fill-ups, SCRTD can help improve uptime and productivity.*

### **Standard Vehicle Option (New Flyer, Gillig)**

#### **New Flyer**

Xcelsior CHARGE NG is New Flyer's next-generation battery-electric, zero-emission bus. It is a lighter, simpler, and more extended range with better energy recovery. It has a capacity of 32-61 passengers with two wheelchair locations. It is available in 35', 40', and 60' configurations. It has a Siemens ELFA3 traction motor, Lithium Manganese Cobalt (NMC) batteries, and electric roof-mounted HVAC(s)

New Flyer's Xcelsior CHARGE NG™ battery-electric buses provide up to 525kWh of power and 220 miles of range on a single charge.

#### **Gillig**

Gillig uses AKASOL, a leading manufacturer of high-performance battery systems, for its next-generation battery. With 490 kWh, 588 kWh, and 686 kWh configurations and the largest selection of available charging options, GILLIG can configure the bus to meet any agency's requirements. Gillig is partnering with Cummins, who provides the bus's highly efficient and reliable powertrain system, to integrate and validate the new batteries with the bus ahead of the 2023 production start date.

The Gillig battery-electric buses provide up to 686 kWh of available energy and 290 miles of range on a single charge, the largest North American transit bus capacity.

### **Electric Bus Considerations**

#### **State of the Market Maturity**

The electric bus market exceeded \$28 billion in 2020 and is expected to grow at an 11% compound annual growth rate (CAGR) between 2021 and 2027. The market is forecast to grow exponentially due to the rapid increase in the uptake of electric buses as a sustainable mode of transport.

Electric buses are primarily operated by integrated electric batteries. This also includes plug-in hybrid buses and fuel-cell electric buses. The report says stringent emission regulations and directives imposed by governments across the globe will propel the adoption of electric buses. In 2019, France announced its 100% zero-emission vehicle target for 2040. As a part of the Paris Climate Agreement, the country passed a law to ban ICE vehicle sales by 2040.

Electric buses are 100% eco-friendly as they operate on electrically powered motors. They do not release smoke or toxic gases into the environment as they work on clean energy from battery packs. Several benefits of electric buses, such as low maintenance costs and reduced pollution by emissions, augment their representation in the market.

### **Full-size buses**

Proterra Inc 35ft, 40ft

BYD Motors Inc 23ft, 35ft, 40ft, 45ft

NFI Group Inc 35ft, 40ft, 60ft

GILLIG LLC 35ft, 40ft

Nova Bus 40ft

ARBOC (Now a Part of NFI) 30ft, 35 ft

Green Power Bus 30ft, 40ft

### **Medium-sized buses**

BYD Motors Inc 23ft, 35ft, 40ft, 45ft

ARBOC (Now a Part of NFI) 30ft, 35 ft

Ebus 22 ft

Green Power Bus 30ft, 40ft

### **Proven Vehicle Emissions Improvements**

Battery electric buses significantly improve a fleet's air quality profile because they have no tailpipe. Any emissions related to the bus's operation are sourced at the point where the electricity is generated. Shifting to this technology immediately improves local air quality.

Battery electric buses improve the Green House Gas (GHG) profile of a fleet by improving the efficiency of the vehicles. Well-to-wheels, electric buses are more efficient than their Internal Combustion Engines (ICE) counterparts and have fewer GHG emissions associated with running

them off grid-sourced electricity. As grids improve and reduce their carbon intensity, the operations only get cleaner.

### **Arguments for Maintenance and Fuel Savings**

Electric buses are more expensive than fossil-fueled buses; electric buses can provide cost savings over the long run. An average purpose-built, heavy-duty diesel transit bus costs around \$500,000, compared with \$1,000,000 for an electric bus.

According to figures from New Flyer, electric buses could save \$400,000 in fuel expenses and \$125,000 in averted maintenance costs. Electric buses could provide fuel and maintenance savings of up to \$50,000 a year over fossil fuel-powered buses, resulting in a five-year payback period, according to estimates from another bus manufacturer, Proterra. Electric buses have significantly fewer parts than fossil fuel buses. They do not have an exhaust system, their braking systems last longer, and they do not require oil changes.

The Federal Transit Administration's Low or No Emission Program funds state and local government agencies to purchase or lease zero-emission and low-emission transit buses and related infrastructure. In 2019, the program allocated under \$85 million in grants to 38 projects in 38 states.

Seneca, South Carolina, switched to an electric fleet in 2014. The city's transportation agency has found the charging time for the buses to be quicker and the range longer than expected.

In a comparison between its electric buses and diesel buses operating in other locations it serves, the transit agency found the fuel efficiency of the electric fleet to be 16.5 miles per gallon equivalent compared with 3.8 miles per gallon for the diesel fleet and the fuel per mile cost \$0.28 for the electric buses compared with \$0.59 for diesel. Maintenance costs for the electric buses were \$0.55 per mile compared with \$1.53 for the diesel fleet.

Albuquerque, New Mexico, on the other hand, experienced a string of mechanical problems, inadequate infrastructure planning, and a rocky relationship with the bus manufacturer. However, the city's experience provides valuable lessons, and Albuquerque announced plans to relaunch its electric bus efforts in August.

Gillig will provide buses and training for maintenance and operations staff before, during, and after vehicle rollout. Technical support is critical to the partnership between the manufacturer and SCRTD staff. Gillig currently provides two hybrid electric buses to the district and has a certified contractor in El Paso to support the bus fleet in Sunland Park.

## APPENDIX C. Funding Opportunities

The most significant challenge facing SCRTD in the execution of this transition plan is the availability of funding. Procuring and operating ZEBs will be more expensive than conventional Gas/Diesel buses, increasing the agency's annual capital and operating budgets. Financial support from the federal, state, and local governments will be necessary to achieve the Zero Emissions Transition Plan targets.

The incremental cost of replacing Gas/Diesel buses with ZEBs will increase the financial burden on the agency every year. Over the next few years, the price of ZEBs is expected to drop as technology improves and the scale of manufacturing increases, but the cost of ZEBs is always likely to be greater than Gas/Diesel vehicles. Funding in the near term is significant because of the high incremental cost.

SCRTD will need support to fund the required BEB charging infrastructure installation. These costs are likely lower for SCRTD than other agencies due to the available space for new infrastructure. Section C describes the Anthony facility as highly space-constrained and will be particularly so during the ZEB transition.

SCRTD has not previously deployed ZEBs, so quality workforce training will ensure a smooth transition. Classes will be required to train staff on the operations and maintenance of new ZEBs and accompanying infrastructure. Driver behavior can significantly impact ZEB performance – affecting the range of BEBs by as much as 10-20%. In addition to training, it will be essential to establish buy-in on the new technologies from all aspects of the labor force through education and outreach activities.

Long-term planning of ZEB deployments is complex due to many sources of uncertainty. Commercially available ZEBs are new, and the number of deployments is somewhat limited. Continuing access to data showing the real-world performance of ZEBs will help determine the ideal fleet mix. It is essential to understand how BEBs perform under various conditions, including during inclement weather when cabin heating/cooling demand is high and at the end of life when the batteries and other components have degraded. Performance will likely change as technology improves in future vehicle generations, so continued evaluation is required. SCRTD will monitor the performance of its fleet, but it would be helpful to share information across agencies to maximize the learning potential and inform purchase decisions.

### **Use of FTA 5307, 5311, 5339c**

The primary purpose of the Low-No Program is to support the transition of the nation's transit fleet to the lowest polluting and most energy-efficient transit vehicles. The Low-No Program funds state and local governmental authorities to purchase or lease zero-emission and low-emission transit buses, including acquiring, constructing, and leasing required supporting

facilities. Additionally, recipients are permitted to use up to 0.5 percent of their requested grant award for workforce development activities eligible under federal public transportation law (49 U.S.C. 5314(b)) and an additional 0.5 percent for costs associated with training at the National Transit Institute.

Federal public transportation law (49 U.S.C. 5339(c)) authorizes FTA to award grants for low or no-emission buses through a competitive process, as described in this notice. The Low-No Program funds State and local governmental authorities to purchase or lease zero-emission and low-emission transit buses, including acquiring, constructing, and leasing required supporting facilities such as recharging, refueling, and maintenance facilities.

FTA recognizes a significant transformation in the transit bus industry, with the increasing availability of low and zero-emission bus vehicles for transit revenue operations. This program supports FTA's strategic goals and objectives through timely and efficient investment in public transportation. This program also supports the President's Build Back Better initiative to mobilize American ingenuity to build a modern infrastructure and an equitable, clean energy future. In addition, the Low-No Program and this NOFO will advance the goals of the President's January 20, 2021, Executive Order on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis.

Eligible applicants include designated recipients, States, local governmental authorities, and Indian Tribes. Proposals for funding projects in rural (non-urbanized) areas may be submitted as part of a consolidated State proposal. To be considered eligible, applicants must demonstrate the requisite legal, financial, and technical capabilities to receive and administer Federal funds under this program. States and other qualified applicants may submit consolidated proposals for projects in urbanized areas. Proposals may contain projects to be implemented by the recipient or its eligible subrecipients. Eligible sub-recipients are entities that are otherwise eligible recipients under this program.

As permitted by the Consolidated Appropriations Act 2021, applicants to the Low-No Program may submit applications that include partnerships with other entities that intend to participate in the implementation of the project, including, but not limited to, specific vehicle manufacturers, equipment vendors, owners or operators of related facilities, or project consultants. Suppose an application that involves such a partnership is selected for funding. In that case, the competitive selection process will be deemed to satisfy the requirement for a competitive procurement under 49 U.S.C. 5325(a) for the named entities.

Applicants are advised that any changes to the proposed partnership will require FTA written approval, must be consistent with the scope of the approved project, and may necessitate a competitive procurement.

The maximum Federal share for projects that involve leasing or acquiring transit buses (including clean fuel or alternative fuel vehicles) to comply with or maintain the Clean Air Act is 85 percent of the net project cost. The maximum Federal share for the cost of acquiring,

installing, or constructing vehicle-related equipment or facilities (including clean fuel or alternative fuel vehicle-related equipment or facilities) for purposes of complying with or maintaining compliance with the Clean Air Act is 90 percent of the net project cost of such equipment or facilities that are attributable to compliance with the Clean Air Act. The award recipient must itemize the cost of specific, discrete, vehicle-related equipment associated with compliance with the Clean Air Act to be eligible for the maximum 90 percent Federal share for these costs.

The Federal share of the cost of other projects shall not exceed 80 percent. Eligible sources of the match include the following: cash from non-government sources other than revenues from providing public transportation services; revenues derived from the sale of advertising and concessions; amounts received under a service agreement with a State or local social service agency or private social service organization; revenues generated from value capture financing mechanisms; funds from an undistributed cash surplus; replacement or depreciation cash fund or reserve; new capital; or in-kind contributions. Transportation development credits or in-kind matches may be used for local matches if identified and documented in the application.

Under the Low-No Program (49 U.S.C. 5339(c)), eligible projects include projects or programs of projects in an eligible area for 1) purchasing or leasing low or no-emission buses; 2) acquiring low or no-emission buses with a leased power source; 3) constructing or leasing facilities and related equipment for low or no emission buses; 4) constructing new public transportation facilities to accommodate low or no emission buses; 5) or rehabilitating or improving existing public transportation facilities to accommodate low or no emission buses (49 U.S.C. 5339(c)(1)(B)).

As required by Federal public transportation law (49 U.S.C. 5339(c)(5)), FTA will only consider eligible projects relating to the acquisition or leasing of low or no-emission buses or bus facilities that make more significant reductions in energy consumption and harmful emissions than comparable standard buses or other low or no emission buses and are part of the recipient's long-term integrated fleet management plan.

A low or no-emission bus is defined as a passenger vehicle used to provide public transportation that significantly reduces energy consumption or harmful emissions, including direct carbon emissions, compared to a standard vehicle. The statutory definition includes zero-emission transit buses, which produce no plain carbon or particulate matter emissions under any possible operational modes and conditions. Examples of zero-emission bus technologies include, but are not limited to, hydrogen fuel-cell buses and battery-electric buses.

All new transit bus models must complete FTA bus testing for production transit buses under FTA's Bus Testing regulation (49 CFR part 665) to be procured with funds awarded under the Low-No Program. All transit vehicles must be procured from certified manufacturers by the Disadvantaged Business Enterprise (DBE) regulations (49 CFR part 26). Developing or deploying prototype vehicles is not eligible for funding under the Low-No Program. Recipients are

permitted to use up to 0.5 percent of their requested grant award for workforce development activities eligible under Federal public transportation law (49 U.S.C. 5314(b)) and an additional 0.5 percent for costs associated with training at the National Transit Institute.

Applicants must identify the proposed use of funds for these activities in the project proposal and place them separately in the project budget. Suppose a single project proposal involves multiple public transportation providers, such as when an agency acquires vehicles that another agency will operate. In that case, the proposal must include a detailed statement regarding the role of each public transportation provider in implementing the project.

### **Use of EPA funds**

EPA's Office of Transportation and Air Quality solicits nationwide applications for projects significantly reducing diesel emissions.

Eligible diesel vehicles, engines, and equipment may include buses, Class 5 –Class 8 heavy-duty highway vehicles, marine engines, locomotives and nonroad engines, equipment, or vehicles such as those used in construction, handling of cargo, agriculture, mining, or energy production.

Eligible diesel emissions reduction solutions include verified retrofit technologies such as exhaust after-treatment technologies, engine upgrades, cleaner fuels, additives, idle reduction technologies, demonstrated aerodynamic technologies, verified low rolling resistance tires, certified engine replacements and conversions, and certified vehicle or equipment replacement.

Eligible entities include regional, state, or local agencies, tribal governments (or intertribal consortia) and native villages, or port authorities, which have jurisdiction over transportation or air quality, and nonprofit organizations or institutions that: a) represent or provide pollution reduction or educational services to diesel fleets or b) have, as their principal purpose, the promotion of transportation or air quality. Although private fleet owners are not eligible to apply directly to the EPA for DERA funding, both public and private fleets can benefit from the programs implemented by DERA national grant recipients.

Priority for funding is given to fleets operating in areas designated as having poor air quality and fleets that service goods movement facilities. Further priority for funding is given to projects with outcomes that benefit affected communities, those that engage involved communities in the design and performance of the project, and those that demonstrate the ability to promote and continue efforts to reduce emissions after the project has ended. Full information is available at <https://www.epa.gov/sites/production/files/2021-01/documents/2021-1-8-dera-national-grants.pdf>

### **Use of RAISE funds**

The Rebuilding American Infrastructure with Sustainability and Equity, or RAISE Discretionary Grant program, provides a unique opportunity for the DOT to invest in road, rail, transit, and port projects that promise to achieve national objectives. Previously known as the Better



Utilizing Investments to Leverage Development (BUILD) and Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grants, Congress has dedicated nearly \$8.9 billion for twelve rounds of National Infrastructure Investments to fund projects that have significant local or regional impact.

DOT receives hundreds of applications in each competition to build and repair critical pieces of our freight and passenger transportation networks. The RAISE program enables DOT to examine these projects on their merits to help ensure that taxpayers are getting the highest value for every dollar invested.

The eligibility requirements of RAISE allow project sponsors at the State and local levels to obtain funding for multi-modal, multi-jurisdictional projects that are more difficult to support through traditional DOT programs. RAISE can fund port and freight rail projects, for example, which play a critical role in our ability to move freight but have limited sources of Federal funds.

RAISE can provide capital funding directly to any public entity, including municipalities, counties, port authorities, tribal governments, MPOs, or others, unlike traditional Federal programs, which fund particular groups of applicants (mostly State DOTs and transit agencies).

This flexibility allows RAISE and our traditional partners at the State and local levels to collaborate directly with a host of entities that own, operate, and maintain much of our transportation infrastructure but otherwise cannot turn to the Federal government for support.

### **Additional Alternative Funding Opportunities**

Electric Buses and Clean Energy Financing: How Transit Authorities Can Leverage State and Federal Funds to Buy More Zero-Emission Buses.

<https://www.law.georgetown.edu/environmental-law-review/wp-content/uploads/sites/18/2020/01/GT-GELR190049.pdf>

Future formula funding from these three sources was estimated based on the level of funding previously received and the percent allocation of these funding sources historically to capital purchases. It was assumed that the 5307 and 5339 funding would increase annually at a rate of 1.5% while the 5310 funding remains constant, consistent with historical trends.

## **Summary of Potential Competitive Special Funding Sources**

Name	Purpose	Offering	Available Funds
FTA 5339(b) Bus & Bus Facilities	Bus procurement and related facilities	80% of capital cost	\$1.1 billion (FY 2022)
FTA 5339© Low or No Emission Vehicle	ZEB procurement and fueling / charging infrastructure	85-90% of capital cost	\$1.1 billion (FY 2022)
FTA 5310	Small bus procurement and related facilities	80% of capital cost	

### Potential Voucher Type Funding Sources

Name	Purpose	Offering	Funds Available
VW Mitigation	ZEB Procurement	\$500,000/FCEB, \$180,000 BEB	\$130 million (until exhausted)
HVIP	ZEB Procurement	\$300,000/FCEB, \$175,000 BEB	\$142 million (FY2019 currently exhausted)

# APPENDIX D. Letters of Commitment

## Gillig Corporation – Buses and Charging Station



April 15, 2022

David Armijo  
Executive Director  
South Central Regional Transit District  
PO Box 2104  
Las Cruces, NM 88004  
575-323-1620 Work

Subject: GILLIG, LLC Letter of Commitment  
For FTA's FY2022 Low-No Emission Vehicle Program

Dear David:

In support of the FTA's Low-No Emission Vehicle Program, GILLIG LLC is pleased to join South Central Regional Transit District as your OEM Partner to assist in the successful completion of this exciting project. GILLIG is committed to serving as the Battery Electric Bus Manufacturer on the project to ensure efficient and effective deployment of Battery Electric Buses as well as our commitment to reduce harmful emissions as part of your long-range fleet plan. GILLIG has extensive experience in the design, manufacture, deployment and service of heavy-duty transit buses including low emission and no emission buses. As GILLIG continues its aggressive deployment of Zero Emission Bus technology to pursue its benefits, we realize that we are seeking to achieve similar goals to that of South-Central Regional Transit District, thus presenting a great partnering opportunity. This would also fulfill the requirement of the competitive procurement process as outlined by FTA in the FY2022 NOFO.

GILLIG has vast experience and knowledge of the requirements of South-Central Regional Transit District as we have been your bus supplier for many years. Our 35' and 40' Battery Electric Bus's utilize the same Low Floor bus platform that has proven its reliability and durability throughout your service environment. In our role as the bus manufacturer for the project, GILLIG will provide our technical design expertise in advanced bus engineering, manufacturing, and design expertise with the latest technological advancements available at our state-of-the-art bus manufacturing facility in Livermore, CA and our industry leading aftermarket parts and service support. We can also assist with Zero Emission Transition Planning, in route and plug in charging solutions as well as bus deployment strategies including training and Workforce Development Activities as applicable from the OEM side. Our Battery Electric Bus technology will allow South Central Regional Transit District and Gillig to collect and analyze operational data to ensure successful bus operation and the achievement of all project goals.

Thank you in advance for your consideration of this project. GILLIG looks forward to partnering with South Central Regional Transit District on this project and deploying Battery Electric Zero Emissions Buses throughout your communities.

Sincerely,

William Fay Jr  
Vice President Sales  
GILLIG LLC



## El Paso Electric Company – Local Utility and Engineering Support Services



May 23, 2022

Ms. Amy Volz  
Low-No/Bus Grant Program Manager  
Federal Transit Administration  
1200 New Jersey Ave. SE  
Washington, DC 20590

Dear Ms. Volz:

El Paso Electric ("EPE" or the "Company") is pleased to support the South Central Regional Transit District ("SCRTD") grant application for the Federal Transit Administration's ("FTA's") "Low or No Emission Vehicle Program" funding opportunity. The EPE point of contact for this potential collaboration is Angie Rodriguez, 100 N Stanton, El Paso, TX 79901.

EPE is a regional, vertically integrated electric utility providing generation, transmission, and distribution service to approximately 437,000 retail and wholesale customers in a 10,000 square mile area of the Rio Grande valley in west Texas and southern New Mexico. Its service territory extends from Hatch, New Mexico, to Van Horn, Texas.

As the electric utility serving SCRTD in New Mexico, EPE is uniquely positioned to support SCRTD application for this grant with available rebates for the installation of Level 2 charging stations as well as rebates for potential service upgrades, offered by the company as a part of its Transportation Electrification Plan ("TEP"). Additionally, the Company can assist with the evaluation of any potential infrastructure upgrades necessary for the timely interconnection of charging stations needed to support SCRTD. Finally, and arguably most importantly, EPE will help evaluate the various rate options available to SCRTD in order to determine the most cost-effective means of incorporating electric buses in SCRTD operations.

EPE is excited to participate in this endeavor with SCRTD as we address common challenges with deployment of electric vehicle charging infrastructure and work toward common goals of advancing initiatives that positively contribute to regional air quality. Should you have any questions or need additional information contact Angie Rodriguez at (915) 487-4893 or [angie.rodriguez@epelectric.com](mailto:angie.rodriguez@epelectric.com).

Sincerely,

A handwritten signature in blue ink, appearing to read "Jessica Christianson".

Jessica Christianson  
Vice President of Innovation and Sustainability

# APPENDIX E. System Map

