CITY of ALBUQUERQUE TWENTY THIRD COUNCIL

COUNCIL BILL NO. <u>R-19-205</u> ENACTMENT NO. **SPONSORED BY:** Isaac Benton 1 RESOLUTION 2 APPROVING AND AUTHORIZING THE FILING OF A GRANT APPLICATION FOR 3 **REVENUE VEHICLE PURCHASE WITH THE FEDERAL TRANSIT** ADMINISTRATION (FTA) OF THE U.S. DEPARTMENT OF TRANSPORTATION 4 AND PROVIDING FOR AN APPROPRIATION TO THE TRANSIT DEPARTMENT. 5 6 WHEREAS, the Administrator of the Federal Transit Administration of the 7 U.S. Department of Transportation has made federal funds from the 5339 Bus 8 and Bus Facility Low No funds available to the City of Albuquerque in the total 9 of \$2,786,875 for Revenue Vehicle Purchase; and 10 WHEREAS, the Revenue Vehicle Purchase involves projects identified in Bracketed/Strikethrough Material] - Deletion 11 the 2018-2023 Transportation Improvement Program (TIP) that will ultimately Bracketed/Underscored Material] - New 12 provide another type of transit service within the Albuquerque Urbanized 13 Area; and 14 WHEREAS, the above project supports the desired community condition 15 for safe and affordable integrated transportation options associated with Goal 16 3 -Public Infrastructure on the City's Five-Year Goals Plan; and 17 WHEREAS, the City desires to appropriate these funds and City funds in 18 the amount of \$450,625 from Transit Capital Implementation Program Fund 19 305 for the local match and includes the City's portion of Indirect Overhead 20 (IDOH). 21 BE IT RESOLVED BY THE COUNCIL, THE GOVERNING BODY OF THE CITY OF 22 **ALBUQUERQUE:** 23 Section 1. That the attached application to aid for financing of public

- transportation projects pursuant to 49 U.S.C., 5339 with the Federal Transit
- 25 Administration of the U.S. Department of Transportation in the amount of

1

\$3,237,500 is hereby approved, and its acceptance and filing with the

appropriate official or office is in all respects approved.

Section 2. That upon award, funds in the amount of \$3,237,500 consisting of \$2,786,875 in federal funds from the Federal Transit Administration which include \$48,961 for IDOH, and \$450,625 from the Transit Capital Implementation Program fund 305 which includes \$7,970 for IDOH is hereby

appropriated to the Transit Grant fund 665 for Fiscal Year 2020.

Section 3. That in the event this grant is received, upon execution of an agreement of the parties, the amounts indicated above will be appropriated in their respective fund, with the provision the amount will be adjusted to reflect actual Federal participation and the corresponding percentage of required local matching funds.

- Bracketed/Strikethrough Material] - Deletion Bracketed/Underscored Material] - New



CITY OF ALBUQUERQUE Albuquerque, New Mexico Office of the Mayor

INTER-OFFICE MEMORANDUM

September 6, 2019

TO: Klarissa J. Peña, President, City Council

FROM: Timothy M. Keller, Mayor

SUBJECT: Funding for 5339 Funds Low No Grant

The Transit Department desires to apply for \$2,786,875 in Federal Transit Administration (FTA) Section 5339 Bus and Bus Facility Funds for Low-No revenue vehicle. A local match totaling \$450,625 is available and will be appropriated from Transit Capital Implementation Program Fund 305 to Transit Grant Fund 665. Indirect costs in the amount of \$56,932 are included in the total grant amount and will be cost shared according to the FTA 5339 Formula rate of 86% by grantor and 14% local match.

The grant provides funding for zero-emissions revenue vehicle replacement and will allow the Transit Department to acquire revenue vehicles and associated equipment, including depot chargers, manufacturing inspections, and project management and technical assistance.

A resolution has been prepared and is forwarded to City Council for approval.

Tim Keller, Mayor

Legislation Title: Funding for 5339 Funds Low No Grant

Date

Recommended:

Approved as to Legal Form:

10 Sarita Nair Date Date guilar Jr., Este Chief Administrative Officer City Attorney

19

Lawrence Rael Chief Operating Officer

Recommended:

Cus

A AL 12/14 9

Santiago Chavez Date Acting Director Transit Department

1. What is it?

This approves the 5339 Bus and Bus Facility Funds for Revenue Vehicle Purchase and provides for an appropriation to the Transit Department.

2. What will this piece of legislation do?

This legislation authorizes the Transit Department to apply for Federal Transit Administration funds for **Revenue Vehicle Purchase** and appropriates those funds to the Transit Department.

3. Why is this project needed?

The project is needed to acquire revenue vehicles, associated equipment including depot charges, manufacturing inspections and project management and technical assistance. This funding will go towards the purchase of 5 forty-foot battery electric buses, along with 5 depot chargers and installation. The new buses will replace forty-foot diesel-electric hybrid buses currently in service that have reached their useful life.

4. How much will it cost and what is the funding source?

The 5339 Bus and Bus Facility Low No Fund portion of the Revenue Vehicle Purchase totals \$3,237,500. Federal Funds in the amount of \$2,786,875 are from the Federal Transit Administration. Local funds in the amount of \$450,625 are available in the Transit Capital Implementation Program Fund 305. IDOH in the amount of \$56,932 is included in the total grant amount and will be split according to the FTA 5339 Formula rate of 86% by grantor and 14% local match.

5. Is there a revenue source associated with this contract? If so, what level of income is projected?

None.

FY 2019 Low or No Emission Bus Program (5339(c))

Applicant and Proposal Profile

Is this a resubmission due to an invalid/error message from FTA? (Yes No

Section I. Applicant Information

Organization Legal Name:	City of Albuquerque
FTA Recipient Number:	1523
Organization Chief Executive Officer: (Name and Direct Phone Number)	Sarita Nair
Applicant Eligibility:	Direct or Designated recipient
	C State
	C Local Governmental Authority
	C A Federally-recognized Native American Tribe
Population Served:	C Small Urbanized Area
	Large Urbanized Area
	C Rural

Description of services provided and areas served.

The City of Albuquerque's Transit Department, also known as ABQ Ride, provides public transportation services in the Albuquerque metropolitan area.

It is the largest transportation system in the state and serves approximately 12 million passengers. ABQ Ride operates a variety of bus routes including fixed service routes on the city's major streets and commuter routes services. This service is operated out of two facilities, the Yale Transit Facility built in 1945 and the Daytona Transit Facility built in 2006.

In addition to its fixed route services, ABQ Ride operates a para-transit service called Sun Van, and will begin operating a bus rapid transit servicing Central Avenue starting in the winter of 2019.

Section II. Project Information

About the Project

Project Title: City of Albuquerque Zero Emission Bus Deployment Project (Descriptive title of this project)

Project Executive Summary:

City of Albuquerque will purchase and deploy five battery electric buses in a partnership with the Center for Transportation and the Environment with an emphasis on planning before the deployment in order to promote a successful second deployment of battery electric buses for the City of Albuquerque.

ty of Albuquerque is requ	(One sentence summarizing request) lesting \$2,786,875 to fund the purchase of 5 forty-foot battery electric buses to replace 5 diesel- electri eeded their useful life, along with 5 depot chargers and installation.
Project Type:	🔀 Vehicle
	Facilities
	🖂 Equipment
10	Other
	If Other, specify:
Technology:	🔀 Battery electric
	Diesel-electric hybrid
	Hydrogen fuel cell
	Other
	If Other, specify:
of Supporting Documen	

- _____ Attachment C Futures 2040 Metropolitan Transportation Plan 3.8, 3.9 and Appendix F
- _____ Attachment D Letters of Support
- _____ Attachment E Council Bill No. CS R-17-148
- _____ Attachment F Budget
- _____ Attachment G Project Management Plan
- _____ Attachment H Project Timeline
- _____ Attachment I CTE Letter of Commitment
- _____ Attachment J CTE Qualifications

Section III. Evaluation Criteria

Address each of the evaluation criteria as described in the Notice of Funding Opportunity.

Demonstration of Need

ABQ Ride currently has fifty-seven (57) forty-foot diesel-electric hybrid buses that were purchased in 2007 which have exceeded their 500,000 mile service life and currently have an average of 590,597 miles, and are currently consuming 11,712 gallons of fuel annually per bus. Attachment A - Fleet Replacement Schedule shows that these buses are scheduled to be replaced in 2021 which will be 2 years longer than the FTA useful life replacement schedule.

In order to reduce environmental impacts and operating expenses, ABQ Ride is seeking to replace a portion of these diesel-electric hybrid buses with zero-emission battery-electric buses. The Department currently has electrical infrastructure at ABQ Ride's Daytona facility to support charging up to sixty (60) buses and is seeking to make use of that infrastructure to achieve the goals of reduced emissions and operating costs. This grant application will provide the additional funding needed to accomplish these goals. This facility operates up to seven days per week on a wide range of routes, from short "commuter" routes covering total distances fewer than 100 miles to some all-day routes with total distances of fewer than 200 miles, which are also well within the proven range of current battery-electric buses. By beginning with a modest number of standard, forty-foot battery-electric buses, ABQ Ride will have flexibility to put these buses on routes with appropriate operating conditions in order to establish a firm basis for potential future expansion of the battery-electric fleet.

ABQ Ride has previous experience with a battery electric bus deployment. The Department purchased 20 BYD K11 sixty-foot battery electric buses, of which the agency had received delivery of 15. When the range in service in Albuquerque fell short of the expected marketed range, and it was determined that these vehicles would not work for the intended bus rapid transit deployment, these vehicles were returned. However, this experience provided many valuable lessons learned to ABQ Ride and the agency has not been discouraged from zero emission deployments. This time, the agency will employ project management and technical assistance from the Center for Transportation and the Environment to reduce project risk by leveraging their ZEB experience to successfully deploy these buses. Due to this previous deployment, ABQ Ride has much of the necessary infrastructure work for installing the chargers already completed. The new chargers that are compatible with the vehicles purchased, and their installation will be the primary components of the facility work needed.

Responders to the RFP will need their vehicles to have successfully completed Altoona testing by the date of delivery of the vehicles to ABQ Ride. The OEM will be a certified transit vehicle manufacturer with full Buy America compliance. CTE will perform the pre- and post-award Buy America Audits in order to ensure compliance.

Vehicle Description	QTY	Vehicle Year	Vehicle Mileage
New Flyer DE41LFR Bus 40' 37 Pass Chr Lft Eqpd D (S706)	1	2007	594,287
New Flyer DE41LFR Bus 40' 37 Pass Chr Lft Eqpd D (S712)		2007	588,450
New Flyer DE41LFR Bus 40' 37 Pass Chr Lft Eqpd D (S713)	1	2007	589,514
New Flyer DE41LFR Bus 40' 37 Pass Chr Lft Eqpd D (S714)	1	2007	591,998
New Flyer DE41LFR Bus 40' 37 Pass Chr Lft Eqpd D (S736)	1	2007	588,735

For vehicle replacement/facility rehabilitation projects only:

Facility Description	Years Facility Used by Applicant	Facility Construction Date	Last Renovation Date

Demonstration of Benefits

The proposed project will allow ABQ Ride to remove five 2007 model year diesel-electric hybrid buses from service and deploy five zeroemission battery electric buses in their place. Combined, the five buses being replaced operate for approximately 246,082 miles and consume 58,560 gallons of diesel fuel each year.

By deploying battery electric buses in place of the existing diesel-electric hybrid vehicles, ABQ Ride will reduce the energy consumption and harmful emissions, including the emission of greenhouse gases, associated with its fleet. The battery electric buses that ABQ Ride is proposing to put into service consume less energy per mile driven than buses that use other common propulsion technologies, such as gasoline, diesel, and natural gas engines. Even when considering well-to-wheel energy requirements, battery electric buses are a more efficient transit solution than these other vehicle technologies. Operating battery electric buses instead of a comparable standard bus (model year 2019 diesel-electric hybrid bus) will reduce the amount of energy that ABQ Ride uses each year by 8.9 terajoules (TJ). That energy is equivalent to 154 years' worth of gas for the average American car driver every year.

Deploying the zero-emission buses in place of the existing vehicles will reduce ABQ Ride's fleet emissions by approximately 601 short tons of greenhouse gases each year. In addition, the project will prevent the release of 17.9 lbs particulate matter under 10 micrometers (PM10) annually, 16.3 lbs of which is fine particulate matter (PM2.5), which has a considerable health impact on the local community.

Deploying the zero-emission buses in place of comparable standard buses (model year 2019) will prevent the release of about 601 short tons of greenhouse gases each year. In addition, the battery electric buses will reduce the emission of particulate matter under 10 micrometers (PM10) by 9.2 lbs annually, 8.7 lbs of which is fine particulate matter (PM2.5), which has a considerable impact on human health.

Please see Attachment B – Benefits Calculation Methodology.

Planning and Local/Regional Prioritization

The City of Albuquerque, under the leadership of its current administration, has adopted several key priorities that drive the adoption of electrified buses in our transit routes. First, Albuquerque's Mayor Keller has joined the national coalition of "Climate Mayors" in signing on to carrying out the goals of the Paris Climate Agreement which supports emissions-reducing actions such as increasing electrified mass transit options.

Additionally, the City of Albuquerque committed to several major goals to eliminate greenhouse gas emissions in response to receiving the American Cities Climate Challenge Award from Bloomberg Philanthropies. Some of the goals Albuquerque is working toward include utilizing 100% renewable energy in municipal operations, reducing building energy use through energy efficiency upgrades, and encouraging electrified transportation options. Albuquerque is currently working to electrify 63% of its light duty city fleet by 2025, and provide electric vehicle charging stations to encourage the use and purchase of electric vehicles.

The City of Albuquerque is also utilizing the emissions reductions strategy included in the "Futures 2040 Metropolitan Transportation Plan" for the Mid-Region Metropolitan Planning Organization for the Albuquerque Metropolitan Planning area. This strategy promotes implementing technologies to reduce the rate of tail pipe emissions, such as conversion to alternative fuels for buses. ABQ RIDE's purchase of Battery Electric Buses is consistent with this alternative fuels strategy.

In the 2040 Future Metropolitan Plan contained in Attachment C, section 3.8 Public Health discusses how "switching from driving to more active modes can measurably reduce emissions and improve air quality" (P. 3-144). Section 3.9 discusses the goals and objectives to reduce air quality including the three ways to reduce emissions: by encouraging ridesharing, transit use, bicycling or walking; improving traffic flow, and reducing the rate of emissions by using alternate fuels (pages 3-157). Appendix F to the Plan describes in more detail "Transportation-Related Greenhouse Gas Mitigation Strategies and Potential Applications in Central New Mexico," including improvements to light-duty and heavy-duty vehicles. The above-referenced sections of the C2040 Future Metropolitan Plan are fundamental guiding documents, specific to the Albuquerque metro area, that solidify the city's actions in pursuing low and no-emission buses.

Albuquerque also is guided by an Indicators Progress Commission mandated by city ordinance that releases a yearly report capturing

the feedback of residents on top city priorities. One of the highest-reported concerns that drive city work includes taking additional steps to maintain healthy air quality including reducing ozone levels among other harmful emissions. Utilizing funding through the FTA No or Low Emissions grant will help support action to respond to call from residents to be proactive in taking steps to ensure healthy air quality for all neighborhoods, regardless of income or background.

Attachment D contains the letters sent by local entities in support of ABQ Ride making the transition to zero emission vehicles. These include the Mid-Region Metropolitan Planning Organization, the Mid-Region Council of Governments, the Southwest Energy Efficiency Project, and more.

Local Financial Commitment

For this project the City of Albuquerque will obligate other federal fund consisting of 5307 federal funds in the amount of \$2,125,000, and a local match amount of \$375,000. The City will also provide a local match in the amount of \$450,625 for the 5339 matching funds. The local match funds are available from the City's General Obligation Bond Proceeds, which are documented in Attachment E – Council Bill No. CS R-17-148. Please also see Attachment F – Budget for the detailed allocation of how these funds will contribute to the completion of this deployment.

	F	roject Budg	ει		
Description	QTY	5339(c) Amount	5339(c) Local Match	Other Federal Funds	Total Cost
Buses	5	255,000	45,000	500,000	4,000,000
Configurables/Options	5	85,000	15,000	0	500,000
Paint/Wrap	5	8,500	1,500	0	50,000
Delivery	5	8,500	1,500	0	50,000
Diagnostic Tools & Laptop	1	4,250	750	0	5,000
Data Access Tools	5	2,125	375	0	12,500
Pre/Post Buy America Audit	1	8,500	1,500	0	10,000
QMS/QA Periodic Inspection	1	42,500	7,500	0	50,000
Project Mgt & Tech Assistance	1	306,000	54,000	0	360,000
Depot Chargers (Equipment Only)	5	112,500	12,500	0	625,000

Depot Design, Construction & Installation	1	22,500	2,500	0	25,000
Depot Charger Installation	5	9,000	1,000	0	50,000
	Total:	2,786,875	450,625	2,500,000	5,737,500

	Matching Funds Information
5339(c) Matching Funds Amount:	450,625
Source of Matching Funds.	
The matching funds are available from portion.	the City's General Obligation Bond Proceeds 2017 Transit Revenue Vehicle Replacement
resolution ABQ Ride/Transit has \$4,500,	tch. Io. CS R-17-148, Enactment No. R-2017-020 for the approved 2017 GO Bond. On page 5 of the 000 Revenue and Support Vehicle Replacement/Expansion. If awarded this grant, ABQ Ride will I match funds. Please see Attachment F – Budget.

	Project Scalability
Is Project scope scalable? 💿 Yes 🛛 🤇 No	
If Yes, specify minimum Federal Funds necessary:	2,306,250
Provide explanation of scalability with specific ref	ferences to the budget line items above.
	875, the City of Albuquerque will be able to purchase five (5) forty-foot battery nds towards the incremental cost of the vehicles and the purchase and installation of
	06,250, the agency will instead purchase four (4) forty-foot battery electric buses, its of installation. With the scalable project, the 5339(c) match would then be 00,000.

Project Implementation Strategy

ABQ Ride has selected the Center for Transportation and the Environment (CTE) to serve as project manager and provide technical assistance throughout the project. ABQ Ride plans to use CTE's electric bus deployment experience to develop a deployment strategy which will ensure the success of the project.

Grant funds can be obligated within 12 months of selection and the project can be implemented within a reasonable time frame. ABQ Ride and CTE are ready to initiate project immediately upon award. According to Attachment H – Project Timeline, funds will be obligated by December of 2019 upon the execution of the contract with the selected bus OEM.

The project can be included in the Transportation Improvement Program (TIP) and Statewide Transportation Improvement Program (STIP) following the Mid-Region Metropolitan Planning Organization's standard procedures coordinated with the NM Department of Transportation's procedures for updating the STIP. (Please note the MRMPO's readiness to assist in this process as noted in their attached letter of support.) Although these procedures provide for regular quarterly opportunities to amend existing projects in the TIP by adding funding, they also accommodate "out of cycle" amendments to facilitate changes like adding this funding if it is made available. The TIP currently includes a project for ABQ Ride to purchase vehicles and equipment (Control Number TA00059), and this funding would be added to that existing project. The amendment process takes about three months to complete, including approval by FTA and FHWA. The proposed project is expected to qualify for a categorical exclusion under the National Environmental Policy Act (NEPA) (23 CFR 771.117 (a)) as the bus deployments do not expand or change the function of ABQ Ride's service. The installation of charging infrastructure will occur within the confines of an existing facility.

The project plan includes nine primary phases:

- 1. FTA Award and Project Partner Contract Execution (3 months)
- 2. Project Planning and Initiation (1 month)
- 3. Requirements Analysis (4 months)
- 4. Bus Procurement and Build (20 months)
- 5. Infrastructure Procurement, Design, and Build (13 months)
- 6. Bus and Infrastructure Deployment (2 months)
- 7. Deployment Validation (16 months)
- 8. Project Close-out (4 months)
- 9. Project Management, Administration, Reporting, and Control (3 years, 6 months)

Detailed descriptions of each phase and project work plan are provided in Attachment G – Project Management Plan and Attachment H – Project Timeline. The entire program will be guided by project and risk management controls and procedures and incorporate elements of FTA's Quality Management System. CTE will assist ABQ Ride to ensure elements of their Quality Management System include the necessary components for the Low-No program deployment.

CTE is experienced in developing, implementing, and administering advanced transportation technology projects, with a focus on zeroemission transit buses. CTE has a track record of success in assembling project teams, leading the development of competitive proposals, and managing FTA discretionary deployment projects.

CTE has developed a Zero-Emission Smart Deployment Methodology to assist transit agencies through their zero-emission bus deployment programs. The cornerstone of CTE's approach is to ensure that the fleet operator matches the most appropriate propulsion technology to the intended use, operational strategy, and deployment situation.

As evidenced by their Letter of Commitment in Attachment I, CTE has the resources and capacity to quickly implement the project.

Is this application a partnership between an eligible applicant and one or more private section partners? • Yes • C No

	CTE is experienced in developing, implementing, and administering
Center for Transportation and the Environment	advanced transportation technology projects, with a focus on zero-emission transit buses. The lack of widespread deployments can present challenges for transit agencies unfamiliar with the technology. CTE has provided technical assistance and project management services to more than 60 transit agencies that have either deployed, or will soon deploy, more than 265 zero-emission buses. CTE has developed a Zero-Emission Smart Deployment Methodology to ensure that the fleet operator matches the most appropriate propulsion technology to the intended use, operational strategy, and deployment situation. Please see Attachment J – CTE

Timeline Description	Timeline Item Date
TA Award & Project Partner Contracts	12/30/2019
roject Planning & Initiation	01/29/2020
Requirements Analysis	05/28/2020
Bus Procurement & Build	12/14/2021
nfrastructure Procurement, Design, & Build	06/02/2021
us & Infrastructure Deployment	02/09/2022
eployment Validation	03/10/2023
Project Management & reporting	03/20/2023
roject Close-Out	06/13/2023

If selected, can this project be obligated within 12 months from the time of award? 💿 Yes 💦 🔿 No

Technical, Legal, and Financial Capacity

ABQ Ride has been a recipient of FTA funding since at least 1975. The staff, from the Grant Manager to the Director, has been working with FTA for many years and has a solid understanding of project management, fund management, grant reporting, and FTA compliance. In addition to the knowledgeable staff of ABQ Ride, the City of Albuquerque has several departments such as Department of

Municipal Development, Legal Department, and the Department of Finance and Administrative Services Purchasing Division, which provide support and expertise is various areas. ABQ Ride will work closely with staff from these departments to manage this project according to the FTA guidelines and within the regulations of the City of Albuquerque.

	Congressional Districts (Project Location)
	Congressional District
NM-001	

Section IV . Review And Selection Process - Additional Information

Departmental Objectives

If applicable, describe how this application addresses one or more departmental objectives addressed in the NOFO The deployment of these five battery electric buses will help the City of Albuquerque move closer towards a zero-emission vehicle fleet. The knowledge gained from this deployment will help ABQ Ride purchase more alternatively fueled vehicles in the future to replace the currently aging fleet, which will help to promote a state of good repair. Replacing the older, polluting technology with newer, cleaner technology might also promote non-Federal infrastructure investment by revitalizing interest in the new technology.

ABQ Ride, with assistance from CTE, will collect vehicle performance data for these new zero-emission buses which will help to determine the measurable benefits of the new technology. These could come in the form of energy savings, cost savings, and greenhouse gas emissions reductions. These data will help to produce Key Performance Indicators (KPIs) to validate the performance of battery electric buses against the other vehicles in ABQ Ride's fleet.

Opportunity Zone: 💽 Yes 🤇 No

If Yes, name of Opportunity Zone: Bernalillo County, NM

Describe how how the proposed project will impact the Opportunity Zone: (Two sentences max) ABQ Ride's service area includes 13 qualified opportunity zones in Albuquerque. This project would support improved air quality and public health outcomes for local residents and the workforce in QOZ(s) served by the selected route.