



Environmental Protection Agency (EPA)
Climate Pollution Reduction Grants (CPRG) Program:

Carbon-Free Shared Mobility

Budget Narrative

April 1, 2024



BUDGET

a. Budget Detail

The following tables details the costs associated with adding five hydrogen buses, a hydrogen fuel skid, and expanding bike share within the RTC region. The program aims to reduce greenhouse gas (GHG) emissions and improve air quality. Each category outlines the specific personnel, resources, and services required to successfully achieve the project's goals.

Table 1. Equipment Budget Details

Description	Quantity	Cost/Unit	Total Cost
Hydrogen Buses and Fuel Skid			
Hydrogen buses (Narrative Note 1)	5	\$1,442,000.00	\$7,210,000.00
Hydrogen fuel skid (Narrative Note 2)	1	\$4,750,000.00	\$4,750,000.00
Subtotal			\$11,960,000
Cost Escalation (5%)		5%	\$598,000
Total for Hydrogen Buses and Fuel Skid			\$12,558,000
Bike Share			
Bike share dock	330	\$1,885.00	\$622,050.00
E-Bike (3-speed) includes shroud	275	\$2,715.00	\$746,625.00
Bike share station spare battery	20	\$222.00	\$4,440.00
Bike share station battery charger	20	\$30.00	\$600.00
E-Bike battery lock	275	\$75.00	\$20,625.00
E-Bike spare battery	83	\$455.00	\$37,765.00
Station wayfinding panel	55	\$1,325.00	\$72,875.00
Station wayfinding panel shipping cost	55	\$350.00	\$19,250.00
E-Bike battery charger	83	\$88.00	\$7,304.00
E-Bike GPS unit	275	\$90.00	\$24,750.00
E-Bike GPS unit shipping cost	275	\$25.00	\$6,875.00
Bike share dock shipping cost	330	\$100.00	\$33,000.00
E-Bike shipping Costs	275	\$90.00	\$24,750.00
Subtotal			\$1,620,909.00
Cost escalation (5%)		5%	\$81,045
Total for Bike Share			\$1,701,954
Total			\$14,259,954.00

Table 2. Contractual Details

Description	Quantity	Cost/Unit	Total Cost
Hydrogen Buses and Fuel Skid			
Hydrogen fuel skid construction (Narrative Note 3)	1	\$1,250,000	\$1,250,000
Bike Share			
Community outreach contractor to assist with an education and outreach program for bike share (Narrative Note 3)	1	\$380,952	\$380,952
Cost Escalation (5%)			\$81,547.6
Total			\$1,712,499.60

Table 3. Total Budget Summary

Category	Amount Requested from EPA
Equipment	\$13,580,909.45
Contractual	\$1,630,952.00
Cost Escalation	\$760,593.00
Total	\$15,972,454.45

Narrative Note 1: A hydrogen bus manufacturer has not been selected. The selection will commence after EPA grant award.

Narrative Note 2: The cost per unit amount is determined based on last purchase price and adding inflation.

Narrative Note 3: Competitive process will be used to determine contractor when required by regulation.

b. Expenditure of Awarded Funds

RTC has an extensive track record of successfully managing and executing projects funded through various federal discretionary grant programs, as mentioned in the section about past performance. This proven experience demonstrates the agency's capabilities to expend awarded CPRG funds in a timely and efficient manner over the grant period.

In fiscal year 2020, the RTC secured funding through the Federal Transit Administration's Low or No Emissions program to kickstart its transition to hydrogen buses. This initial grant enabled construction of critical hydrogen fueling infrastructure and procurement of the first two hydrogen buses for the fixed-route transit fleet. The \$3.8-million grant from the USDOT Low or No Emission Grant has already been expended in a timely and efficient manner within three years of the award.

Building on this foundational investment, the RTC obtained additional FTA discretionary grants in FY 2021 and 2022 to purchase seven more hydrogen buses scheduled for operations by early 2025. Comprehensive project management and financial controls allowed the phased rollout of vehicles and fueling assets according to the planned implementation timeline.

RTC ensures grant funds are spent in a timely and efficient manner through coordinated communication with the project managers that oversee the grant-funded projects. In addition, RTC holds monthly project meetings in which all project statuses are reviewed. Once any perceived delays are brought forward, the RTC grants team will coordinate with the granting agency for direction.

c. Reasonableness of Costs

Hydrogen Buses

RTC is requesting \$13,870,500 to implement the hydrogen bus and fuel station component. This includes \$7,570,500 to procure five new 40-foot hydrogen buses at \$1,442,000 (\$1,514,100 with 5% escalation), \$4,750,000 for a hydrogen fuel skid, and \$1,250,000 for hydrogen fuel skid construction at the Sunset Maintenance Facility. Each itemized budget item is estimated based on pricing for hydrogen buses and hydrogen fuel skid from recent procurement and taking inflation into consideration. The budget incorporates a 5% cost escalation factor to mitigate the risk of potential price increases for materials, labor, and equipment over the project duration, ensuring that the RTC has sufficient funds to successfully implement the hydrogen bus component of the Project.

Bike Share

RTC is requesting \$1,701,954 to expand its Bike Share system along the new Maryland Parkway BRT corridor. This funding covers the capital costs of 330 new docking points across 55 stations, 275 electric pedal-assist bikes, spare batteries, chargers, locks, and GPS units. The itemized estimates are based on the RTC's extensive experience operating and maintaining the existing Bike Share program, accounting for ongoing upgrades, electric bike enhancements, and service area expansions.

At \$1,885 per dock, 330 new docking points total \$622,050 (\$653,153 with 5% escalation), with shipping costs adding \$34,650. The 275 e-bikes at \$2,715 each come to \$746,625 (\$783,956 with 5% escalation) plus \$25,988 for delivery. Spare batteries, chargers, and locks add \$73,641, while GPS tracking units total \$33,206 with shipping. Wayfinding signage for the 55 new stations is budgeted at \$1,325 per panel plus \$19,250 for shipping, totaling \$96,731 including 5% escalation.

The funding request for the bike share GHG measure also includes \$400,000 to develop and implement an education and outreach program that will promote the expanded bike share system.