

U.S. Department of Environmental Protection (EPA)

Climate Pollution Reduction Grants Program: Implementation Grants General Competition

Harnessing Transportation Alternatives to Decarbonize Travel Across Greater Philadelphia:

Budget Narrative:



City of
Philadelphia

Section 7: Budget Narrative

A. Budget Detail

Total Personnel - \$2,845,513

These are the direct costs for the salaries of those individuals who will perform work directly for the project.

SEPTA- \$2,785,513

Salaries for key personnel by task are:

- **Rail Vehicle Program Management:** \$1,122,082 to support SEPTA vehicle engineering labor costs
- **Rail Infrastructure Engineering:** \$1,595,074 to support various engineers critical to the design and construction of rail infrastructure.
- **Training and Data:** \$68,357 was allocated for staff training and data system management.

City of Philadelphia - \$60,000

- **Administrative Costs:** A streamlined budget of \$60,000 is set aside for administrative roles, ensuring that project management functions are efficiently funded.

Total Fringe Benefits - \$2,361,776

Total fringe benefits are based on SEPTA's FY 2024 Fringe Rate of 83%.

Total Travel - \$500,000

These travel costs will be for attendance at meetings as well as technical work, training, and inspections. Total travel for SEPTA Silverliner VI Rail Car and Facility Improvement would be \$500,000.

Total Equipment - \$58,136,700

This section identifies each item to be purchased that has an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year.

SEPTA - \$57,471,240

SEPTA has designated \$57,471,240 for the acquisition of rail cars, each unit exceeding the cost threshold of \$5,000 and boasting a useful life surpassing one year. This includes the essential accessories required to ensure full operational capability.

The City of Philadelphia - \$665,460

The City has allocated \$665,460 for transformers needed for electric vehicle chargers.

Total Supplies - \$15,091,071

Supplies are tangible personal properties other than "equipment."

The City of Philadelphia

Indego Bike Share Program, including expansion and electrification:

To increase access to sustainable transportation options, this funding will support adding 75 bikeshare stations and 750 electric bikes in the expansion phase, and 40 bike charging station and 400 electric bikes in the electrification phase.

Expansion

1. **Station equipment:** This project will create 75 bike-sharing stations, including 1) Secure steel baseplates to the ground; 2) Add weights to the baseplates for stability; 3) Cover sharp edges with endcaps; 4) Install bike docks onto the baseplates; 5) Insert lithium-ion batteries; 6) Apply user instruction stickers; 7) Install a directional sign on a baseplate; 8) a one-time delivery cost of supplies.

Item	Price per Unit	# of Units	# of Station	Total
3.0 dock	\$ 2,074	1,500	75	\$ 3,110,250
3.0 baseplate	\$ 732	450		\$ 329,175
3.0 endcap	\$ 441	450		\$ 198,495
3.0 ballast kit	\$ 508	450		\$ 228,690
3.0 battery	\$ 268	450		\$ 120,780
3.0 decals	\$ 61	1,500		\$ 90,750
Bulk Shipping	\$ 112	1,500		\$ 168,000
Wayfinding Panel	\$ 3,936	75		\$ 295,185
Total				\$ 4,541,325

2. **Bikes:** 750 electric bikes. These include for every bike, 1) a rechargeable batter; 2) a bike battery tracking unit to monitor battery levels; 3) a nimblelink unit for real-time GPS tracking; 4) a U-lock to secure the battery to the bike; 5) instructional decals for the bike frame. In addition, there are 225 extra batteries to ensure all e-bikes have charged batteries.

Item	Price per Unit	# of Units	# of Stations	Total
E-bike	\$2,904	225	n/a	\$653,400
U-lock	\$83	68		\$18,563
BBT	\$128	225		\$28,710
Battery	\$551	225		\$37,199
Nimblelink	\$116	225		\$25,988
Decals	\$116	225		\$25,988
Shipping	\$105	225		\$23,625
Total				\$813,472

Electrification

1. **Charging Dock:** Charging docks will be procured through bike share equipment supplier. This budget item includes charging docks, baseplates, end caps, wayfinding panels, attachment hardware, and shipping and handling. Each station will include 20 charging docks, 10 baseplates, 2 endcaps, 1 wayfinding panel, and 1 set of fastening hardware.

Item	Price per Unit	# of Units	Total
Charging Dock	\$3,125	800	\$2,500,000
Baseplate	\$755	400	\$302,000
End Cap	\$500	80	\$40,000

Wayfinding Panel	\$3,530	40	\$141,200
Fastening Hardware	\$1,200	40	\$48,000
Shipping & Handling	\$211	800	\$168,800
Total			\$3,200,000

2. **Electric Bike:** Electric bikes will be procured through bike share equipment supplier, including electric bikes and shipping and handling. Electric bikes will be received from the equipment supplier with everything needed to deploy them. See breakdown of costs below for this item:

Item	Price per Unit	# of Units	Total
Electric Bike	\$2,950	400	\$1,180,000
Shipping and Handling	\$100	400	\$40,000
Total			\$1,220,000

3. **Infrastructure & Electrification:** One of the most significant costs is connecting charging bike share stations to an electrical power source. See estimated breakdown of costs below for this item:

Item	Price per Unit	# of Units	Total
Trenching	\$ 15,000	40	\$ 600,000
Electrical Connection	\$ 10,000	40	\$ 400,000
Construction Permits	\$ 5,000	40	\$ 200,000
Total			\$ 1,200,000

Electric Vehicle Charger Installation and Workforce Development Program:

Charging Stations, including 70 Level 2 charging stations, and 5 Level 3 charging stations:

- **Charge Station Hardware:** \$315,000 is allocated to procure robust and reliable Level 2 charge station hardware, facilitating an expanded network of accessible charging points. A significant \$931,640 allocation is set aside for cutting-edge Level 3 charge station hardware. These fast-charging stations are essential for meeting the needs of EV drivers and promoting the adoption of electric vehicles by reducing charging time.
- **Electrician Materials:** An investment of \$31,500 ensures that electricians have the high-quality materials required for the safe and efficient installation of Level 2 stations. \$15,970 is reserved for the purchase of specialized electrician materials for the installation of the Level 3 stations.
- **Other Materials:** An additional \$14,000 is allocated for miscellaneous materials necessary to support the infrastructure, enabling a comprehensive approach to deploying Level 2 stations. To ensure everything is noticed, \$4,000 is budgeted for additional materials that support the installation and maintenance of Level 3 stations.

Total Contractual - \$105,289,255

Contractual services (including consultant services) are those services to be carried out by an individual or organization, other than the applicant, in the form of a procurement relationship.

SEPTA

breakdowns of the total contractual costs are as follows for the two SEPTA projects:

- **Specification Writing:** \$861,221 allocated for detailed planning, ensuring that all technical requirements are accurately captured and communicated for successful project

implementation.

- **Program Management:** Totaling \$772,365, this is strategically utilized for overseeing the comprehensive rail vehicle program, encompassing \$6,486,811 for program management and \$675,819 for construction management.
- **Engineering and Design:** An aggregate of \$18,102,472 dedicated to rigorous systems engineering (\$7,911,284), SEPTA's rail design (\$6,965,765), and the Philadelphia International Airport's design activities (\$1,448,185), fostering innovation and precision in development.
- **Construction and Integration:** With a substantial sum of \$40,447,948, these funds are channeled into various construction and integration projects. This includes \$9,654,560 for Amtrak construction work, \$17,474,753 for SEPTA Communications & Signals Construction, and a sizable investment in civil construction related to third-party engagements (\$8,689,104).
- **Real Estate and Ancillary Costs:** \$4,344,552 is dedicated to essential real estate acquisitions (\$2,896,368) and the necessary grubbing & clearing for project sites (\$1,448,184).
- **Additional Expenditures:** SEPTA has also allocated funds for various other necessary components of the projects, including utility relocation (\$1,448,184), Philadelphia International Airport construction (\$9,654,560), and Amtrak design and cost agreements (\$1,930,912).

City of Philadelphia

Indego Bike Share program has contractual labor cost for both expansion and electrification. The expansion cost covers 1) Planning where to put bike-share stations; 2) Installing the stations; 3) Constructing together the electric bikes and getting them ready for use. The average cost for work done per station is about \$10,000.

	Item	Price per Unit	# of Stations	Total
LABOR	Station Planning	\$ 3,500	75 (Expansion), 40 (Electrification)	\$ 262,500 (Expansion), \$140,000 (Electrification)
	Station Installation	\$ 4,500	75 (Expansion), 40 (Electrification)	\$ 337,500 (Expansion), \$180,000 (Electrification)
	E-bike Assembly	\$ 200	750 (Expansion), 400 (Electrification)	\$ 150,000 (Expansion), \$80,000 (Electrification)
	Total			\$ 750,000 (Expansion), \$400,000 (Electrification)

Electric Vehicle Charging and Workforce Development Program:

The City of Philadelphia has budgeted \$4,561,850 for contractual services under the Electric Vehicle Charging and Workforce Development Program, with detailed allocations as follows:

Level 2 Station:

- **Electrician Labor:** \$161,000 is allocated for electrician labor, emphasizing the technical expertise required to install Level 2 stations.
- **Other Labor:** **\$700,000** is designated for additional labor, indicating the broad range of skilled work necessary.
- **Mobilization:** **\$52,500** is set aside to mobilize resources and personnel, underlining the preparatory work involved. (Details of mobilization efforts to be provided by The City)

- **Permitting: \$17,500** is budgeted to ensure all regulatory requirements are met.

Level 3 Station:

- **Electrician Labor: \$79,850** is allocated for electrician labor specific to Level 3 station installation, reflecting the complexities of fast-charging technology.
- **Other Labor: \$399,270** is assigned to further labor needs for Level 3 stations, which may include specialized skills or additional workforce.
- **Mobilization: \$31,940** is reserved for mobilizing Level 3 station installations, which is critical for project momentum.
- **Permitting: \$5,320** is for permitting processes, a crucial step for operational compliance.

These funds ensure that the program's workforce can effectively implement the electric charging infrastructure. This contractual breakdown ensures that each aspect of the labor, from skilled electrician work to necessary administrative processes, is adequately funded to support the city's sustainable transportation initiatives.

Total Other - \$3,036,900

This category includes only those types of direct costs that do not fit in any of the other budget categories.

City of Philadelphia:

Income-based E-Bike Voucher Program:

\$1,960,000. This allocation covers 2040 vouchers at a total cost of \$1,720,000, aiming to make e-bike ownership accessible to low- and moderate-income residents. \$420,000 is targeted at moderate-income households, while \$1,300,000 is targeted at low-income households. The program also includes a Workforce Subsidy and Safety Program at a total cost of \$180,000, which is a training program for e-bike voucher system, and technical training on e-bike maintenance for bike shop owners.

Electric Vehicle Charging and Workforce Development Program:

- **Network Services: \$35,000** for establishing and maintaining the network connectivity required for operational management for Level 2 stations. **\$6,650** is allocated for network services for Level 3 stations, ensuring these high-powered stations provide reliable service.
- **Maintenance:** A comprehensive budget of **\$42,000** is proposed to ensure the stations remain in optimal working condition for Level 2 stations. The budget covers routine check-ups and repairs, thereby ensuring the longevity of the EV infrastructure. **\$53,250** is reserved for maintaining Level 3 stations, including preventative maintenance and necessary repairs.
- **Workforce Investments:** A substantial \$1,000,000 is proposed to be directed towards workforce development, a strategic move that underlines the City's commitment to training and employing a skilled workforce capable of supporting the EV infrastructure. Please see the Job quality section for more detail about the associated program.

B. Expenditure of Awarded Funds

SEPTA:

SEPTA has a well-documented history of proficiently managing and expending awarded grant funds. With a rigorous infrastructure in place, SEPTA's approach to overseeing project expenditure integrates several layers of oversight and technological support:

- **Dedicated Oversight:** Project managers and planners from SEPTA's Operations Division and Planning Division are specially assigned to supervise the development and progress of initiatives such as Trolley Modernization and related projects, ensuring that every implementation stage meets the set goals and complies with budgetary guidelines.
- **Comprehensive Project Control System:** The Capital Project Management System (CPMS II) is SEPTA's authoritative tracking and reporting mechanism for all capital projects. CPMS II documents life cycle budgeting, costing, contract values, change orders, and milestones, allowing for detailed project information collection throughout the grant's duration.
- **Advanced Management Software:** SEPTA employs E-Builder, a construction management software that empowers staff to manage large-scale projects more effectively. This tool aids in proactive document management and automates processes to increase efficiency and accuracy.
- **Proven Track Record:** SEPTA's success with complex projects, such as the West Trenton Line Separation and the 30th Street Station rehabilitation, attests to SEPTA's ability to expedite projects with ambitious timelines while meeting federal regulations and technical specifications.
- **Financial Controls:** A robust system of checks and balances, SEPTA's grant administration staff, underpins our commitment to transparency and accountability. This includes regular audits, performance reviews, and the observance of federal and local funding compliance.

City of Philadelphia:

The City of Philadelphia's strategy to administer awarded funds is marked by precision and accountability, ensuring that programs are both effective and efficient:

- **Voucher System for E-Bike Program:** The City's voucher system is designed for the e-Bike voucher program, assuring that the distribution of funds is methodically aligned with programmatic objectives and milestones, effectively optimizing resource usage. The program employs a lottery system for voucher distribution, with applicants demonstrating need through tax forms or enrollment in assistance programs.
- **Phased EV Charger Installation:** The City plans to install EV charging infrastructure with a phased fund release strategy. Each phase will have clear benchmarks, ensuring that the release of funds is synchronized with project development, thus guaranteeing accountability and progressive achievement of project targets.

In reviewing the electric bicycle offerings among 25 bike shops listed, 11 shops are confirmed to sell e-bikes or have them in limited inventory, 1 shop remains uncertain of its stock status, while 13 shops do not engage in the sale of e-bikes, with some offering service only.

#	Bike Shop Name	Sells e-bikes?	Neighborhood	Website
1	Barr's Bikes and Bards	Unsure	Manayunk	https://jamesbarr320.wixsite.com/barrsbikes
2	Bells Bike Shop	Yes	East Passyunk	https://bellsbikeshop.com/
3	Bicycle Therapy	No	Graduate Hospital	https://www.bicycletherapy.com/
4	Bilenky Cycle Works	No	Holmesburg	https://www.bilenky.com/bikes
5	Bustleton Bikes (Trek)	Yes	Bustleton	Trek Bikes Bustleton
6	Cadence	No	East Falls	https://www.cadencecycling.com/

7	Fairmount Bicycles	No	Fairmount	https://www.fairmountbicycles.com/
8	Firehouse Bicycles	Yes, limited inventory	West Philly	https://firehouse-bicycles.shoplighspeed.com/
9	Firth & Wilson Transport Cycles	Yes	Fishtown & East Passyunk	https://www.transportcycle.com/
10	Frankenstien Bikeworx	No	Center City	https://www.frankinstienbikeworx.com/
11	Kayuh Bicycles & Cafe	No (Service only, no sales)	Brewerytown/ Strawberry Mansion	https://kayuhbicycles.com/
12	Kewsick Cycle	Yes	University Cycle	https://www.incycle.com/pages/keswick-cycle
13	Keystone Bike Co.	No	Kensington	https://keystone.bike/
14	Liberty Bell Bicycle	Yes, limited inventory	Holmesburg	https://www.libertybellbicycles.com/
15	Mexibike	No	Italian Market	https://www.facebook.com/Mexibike1/
16	Neighborhood Bike Works	No	West Philly	https://neighborhoodbikeworks.org/
17	Performance Bicycle	Yes	Pennsport	https://www.performancebike.com/
18	Philadelphia Bikesmith	Yes	Spring Garden	https://www.philadelphiabikesmith.com/
19	Philly Ebike Center	Yes	Bella Vista	https://phillyebikecenter.com/
20	South Philly Bike Shop	No	East Passyunk	https://southphillybikes.com/
21	Swaray's Bike Shop	No	West Philly	https://www.swaraysbikeshop.com/
22	Trek Bicycle Center City	Yes	Center City	Trek Bikes Center City
23	Trophy Bikes	Yes, limited inventory	Northern Liberties	https://trophybikes.com/
24	Velojawn	No	West Philly	https://www.velojawn.com/
25	Via Bicycles	No	Graduate Hospital	https://bikeville.net/

The EV charger locations are identified as follows

- **Community Parking Lot Locations:**
 - Fishtown: 1300 Frankford Ave, Philadelphia, PA 19125 (Located within a CEJST)
 - South Philadelphia: 401 S 9th St, Philadelphia, PA 19147 (located within a quarter mile CEJST); 1628 E Passyunk Ave, Philadelphia, PA 19148 (located within a quarter mile CEJST);
 - Little Saigon: 1012 E Passyunk Ave, Philadelphia, PA 19147 (located within a quarter mile of a CEJST)
 - Bella Vista: 719 Christian St, Philadelphia, PA 19147 (located within a quarter mile CEJST); 738 S 7th St, Philadelphia, PA 19147 (located within a quarter mile CEJST)
- **Parking Lots Serving Rail Stations**
 - Fox Chase: 500 Rhawn St, Philadelphia, PA 19111 (located within a quarter mile CEJST)
 - Torresdale: 4900 Grant Ave, Philadelphia, PA 19114 (Located near a CEJST); 9620 James Street, Philadelphia, PA 19114 (Located near a CEJST)
 - Chestnut Hill: 8400 Seminole St, Philadelphia, PA 19118
- **Other EVSE Locations to be determined** through community engagement and in partnership with the Department of Public Property. LIDAC locations will be prioritized during the site selection process.

By integrating these detailed monitoring systems and established procedures, SEPTA and the City of Philadelphia underscore their robust capabilities to judiciously manage and report on the expenditure of awarded funds, aligning with best practices for fiscal stewardship.

C. Reasonableness of Costs

SEPTA:

SEPTA upholds a stringent tradition of fiscal responsibility and cost-effectiveness, evidenced by its

systematic approach to financial management and its commitment to leveraging Climate Pollution Reduction Grants (CPRG) for transformative environmental impact. The approach integrates evidence-based practices, collaborative planning, and strategic cost management to ensure the judicious use of funds. The approach integrates proven practices and insights drawn from a legacy of successful project management:

- **Comparative Cost Analysis:** Consistent with the EPA's NOFO, SEPTA conducts exhaustive comparative cost analyses. This is demonstrated through projects like the West Trenton Line Separation, which have undergone financial scrutiny to benchmark costs against similar initiatives, validating efficiency and ensuring alignment with the Priority Climate Action Plan (PCAP).
- **Historical Data Review:** By examining historical financial data from projects such as the TIGER-funded Positive Train Control system, SEPTA evaluates cost trends and incorporates learnings to inform budgets for current and future initiatives. This practice adheres to the EPA's mandate for justifiable expenses based on historical precedents and reliable projections of GHG reductions.
- **Risk Mitigation Plan:** A structured plan to manage unforeseen costs reflects SEPTA's alignment with the NOFO's emphasis on risk assessment. This plan includes alternative funding strategies and is exemplified by SEPTA's management of the 30th Street Station improvements, which remained within budgetary targets and demonstrated fiscal prudence.
- **Technology Integration:** SEPTA's adoption of advanced cost management tools such as CPMS II and E-Builder ensures precise cost forecasting and monitoring. This capability is crucial for meeting the NOFO's criteria for cost-effectiveness and aligns with the goal of maximizing GHG reductions and community benefits, particularly in disadvantaged communities.
- **Budget Justification:** SEPTA's budget narrative meticulously details the allocation of funds, ensuring each cost component directly contributes to the efficacy and success of GHG reduction measures. The narrative encompasses the cost rationale, showcasing SEPTA's dedication to stewardship and efficiency.
- **Quantifiable Outputs and Outcomes:** SEPTA projects immediate and long-term quantifiable environmental outputs and outcomes, promising substantial GHG reductions from 2025 through 2030 and beyond. Technical analyses support these projections and underscore the enduring environmental benefits of SEPTA's proposed measures.
- **Equitable Workforce Development:** SEPTA's proposals incorporate high labor standards, emphasizing job quality and equitable workforce development in compliance with federal goals. This commitment reflects SEPTA's strategy to foster an inclusive economy and sustainable urban mobility.
- **Transparency and Accountability:** SEPTA values clear project planning and execution through transparent assumptions, detailed metrics, precise timelines, authoritative governance, and comprehensive budget details.
- **City of Philadelphia Collaboration:** The City of Philadelphia and SEPTA enforce cost reasonableness through market research comparable to strategies employed in the recent expansion of the Indego Bike Share program.

City of Philadelphia:

The City of Philadelphia showcases a rigorous approach to cost reasonableness, reflecting its alignment with EPA's strategic funding objectives and its commitment to driving substantial GHG reductions as

outlined in the Climate Pollution Reduction Grants Program (CPRG):

- **Market Research:** Consistent with the CPRG NOFO, Philadelphia conducts thorough market analyses to inform cost estimates to confirm that the e-bike Rebate Programs and EV Charger costs reflects current market conditions and is aligned with GHG reduction goals.
- **Benchmarking Data:** The City employs regional and national benchmarking to ensure competitive and reasonable pricing. This process aligns with the EPA's requirements for financial prudence by referencing data from related infrastructure projects.
- **Cost Validation:** In accordance with federal guidelines, Philadelphia utilizes external expertise from consultants, such as ESI, to validate cost estimates and methodologies for the proposed programs.
- **Innovative Funding Strategies:** The City's budget narrative highlights innovative funding strategies that target unmet needs, including the pursuit of alternative revenue streams and cost-sharing opportunities.
- **Strategic Plan Alignment:** The cost analysis process dovetails with the EPA's strategic goals, emphasizing significant cumulative GHG reductions that offer considerable benefits, particularly in low-income and disadvantaged communities.
- **Project Scalability and Economic Growth:** We value the scalability of GHG reduction initiatives, prioritizing projects that promise replicable models for broader implementation across multiple jurisdictions, in line with the CPRG program's emphasis on innovation and regional impact.
- **Equitable Community Investment:** The City's cost considerations incorporate the impact of proposed measures on disadvantaged communities, aiming to ensure that a significant portion of federal investment benefits these areas.
- **Labor and Workforce Provisions:** Aligning with federal priorities, the City ensures that its proposed measures will create high-quality jobs and advance equitable workforce development, fostering a skilled labor force ready to implement GHG reduction measures.
- **Accountability and Precision:** This narrative outlines clear budget details, timelines, specific roles, and responsibilities, demonstrating detail-oriented and transparent project planning.

The careful stewardship of funds reflects SEPTA's and the City's shared commitment to both fiscal responsibility and environmental stewardship, ensuring that each dollar spent moves us closer to a more sustainable future.