

Section 1. Overall Project Summary and Approach: Create a Regional Electric Vehicle Carshare Service

In 2020, Saint Paul, Minnesota's Capital City, asked our residents what they needed to live better lives. Many said: "I can't get where I need to go." One woman, "Paula," said she took the bus to work every day, but when she needed to go to the doctor, the bus took too long. She'd have to take a half day off work to get to the doctor and back, and she couldn't take that time off. So, Paula often doesn't go to the doctor when she needs to.¹ The same transportation system that doesn't connect Paula to her doctor is also the largest source of greenhouse gas emissions (GHGs) in Minnesota and US.

The cities of Saint Paul and Minneapolis are partnering to request CPRG funding that would enable us to expand our successful electric carshare program and substantially reduce emissions from transportation in the Twin Cities region. Our proposal helps solve both crises: we will connect people to the people and places they need, and we will quickly and substantially reduce GHGs.

Listening to our residents, and working to reduce our GHGs, in 2022 Saint Paul and Minneapolis launched the [EV Spot Network](#). This network provides publicly owned electric vehicle carshare + chargers:

- [Evie Carshare](#): Today, residents can check out 170 shared electric vehicles and return them to any legal on-street parking space across 35 square miles. This is generally called 'one-way' carshare because people can take the car one way and leave it at their destination. Users do not need to return the car to where they started.
- [EV Spot Charging](#): Today, residents can use 70 EV Spots to charge electric vehicles.
 - Each EV Spot is located in the public right of way, and contains two charging heads for Evie Carshare, and two charging heads for public use.
 - The cities contract with regional utility Xcel Energy so that these chargers provide 100% zero-GHG, renewable energy.



Our Coalition's EV Spot Network provides residents shared EVs and chargers. Each EV Spot contains two charging heads dedicated to Evie Carshare (shown), and two charging heads for public charging (adjacent but not shown). If users plug an Evie into a charger after a trip, they receive a credit towards their next trip, but they do not need to do so. This maximizes the usefulness of the system for residents.

¹ This is consistent with national research. See: www.rwif.org/en/insights/our-research/2023/04/more-than-one-in-five-adults-with-limited-public-transit-access-for-go-healthcare-because-of-transportation-barriers.html

The vehicles and chargers are owned by the cities of Saint Paul and Minneapolis. The Evie Carshare service is operated under contract to the City of Saint Paul by HOURCAR, a local nonprofit. The system was designed from the beginning to serve those with the greatest transportation needs:

- The service area was designed so that at least half served disadvantaged neighborhoods.
- Pricing options include the Access Plus plan, with reduced rates for low-income users.

Our system works. In 2023, residents of Minneapolis-Saint Paul used Evie Carshare to make 123,000 zero-emission trips—to the doctor, to buy groceries, to see their families.² Evie Carshare is equitably serving those who need it most: in 2023, 43% of utilization came from Black, Indigenous, People of Color (BIPOC)/non-white users, and 43% by very low-income users. Together, in 2023 Evie Carshare and its users reduced 4,424 metric tons (mT) of CO₂e.

The rapid growth of Evie Carshare demonstrates:

- Evie Carshare is meeting a substantial need
- The model of public ownership and non-profit operation works
- Making electric carshare available leads to rapid uptake and corresponding rapid emissions reductions.

As a result of this rapid growth, the current Evie Carshare system is near its capacity. Demand often exceeds the available number of cars; people who need a car cannot find one. In a 2024 survey of Evie Carshare users conducted by HOURCAR (648 total respondents), 70% of respondents said that the lack of available carshare vehicles had prevented them from taking a trip, and 60% said that this had occurred either “sometimes” or “most of the time.” Users end many trips right at the border of the service area, demonstrating that they want to use Evie Carshare to reach destinations outside the current service area. Minneapolis and Saint Paul receive frequent requests from jurisdictions and residents outside the current service area to expand to them.

This proposal builds on Evie Carshare’s success to bring its benefits to a larger share of the Twin Cities region. Expanding will produce immediate and substantial GHG reductions and community benefits.

a. Description of GHG Reduction Measures

The Minnesota Priority Climate Action Plan (PCAP) includes the following measures:

1. Clean transportation

1.1. Accelerate the transition to low- and no-carbon fuels in vehicles and equipment

Increase adoption of light-duty electric vehicles..., with a focus on reducing co-pollutants in LIDACs.

1.1.1. Electrify light-duty vehicles....

1.1.2. Improve equitable access to electric vehicle charging infrastructure by...providing public chargers.... Focus on charging infrastructure and workforce development that would benefit LIDACs.

1.2 Increase availability and adoption of clean travel options

Enhance the availability and adoption of clean travel options such as ...transit, and car-sharing as alternatives to single-occupancy vehicle use to promote health, provide equitable access to clean travel options, reduce vehicle miles traveled, and reduce noise, air, and water pollution.

1.2.3. Facilitate equitable access to transit and electric vehicle car-share programs in the Minneapolis-St. Paul-Bloomington metropolitan statistical area....

This proposal implements these PCAP Measures through a program of integrated electric vehicle charging infrastructure + electric carshare. The EV Spot Network is the only charging network in the US that includes both public charging and dedicated charging for electric carshare. That approach has been successful: the chargers ensure that the carshare vehicles have a place to charge, and the carshare vehicles

² See the HOURCAR 2023 Community Impact Report: <https://hourcar.org/2023impactreport/>.

provide a guaranteed base load—an “anchor tenant” —for the charging network. We build on this paired strategy in this proposal.

This section describes how our proposal implements the above-referenced Minnesota PCAP measures. To do so, we will complete four specific tasks, as follows.

Task 1. Add 200 shared electric vehicles to the one-way carshare network in 2025

We know that demand for electric carshare exceeds supply because users tell us. We conducted a user survey in February 2024. 70% of users said “lack of vehicles has prevented me from taking a trip.”

In response, we will add 200 vehicles in the current service area. These vehicles will help meet current demand and help ensure that people who want to move without their own car can do so.

These additional vehicles will bring the total one-way vehicles in the service area to 370. We say that this will ‘help’ meet demand because demand is so high; we cannot be sure that 200 vehicles will be enough. The most successful carshare program in North America is Communauto in Montreal. Montreal is roughly comparable to the Twin Cities in population. In 2023, Communauto announced plans to add nearly 900 cars, bringing their total fleet to 3,500 vehicles.³ Even with this expanded fleet, Communauto is still not meeting demand.⁴ This proposal will help us grow towards that level of availability.

Task 2. Extend the service area to contiguous areas, and add 100 additional one-way vehicles in 2026

We will expand the Evie Carshare Service Area to new neighborhoods. In defining this expanded Service Area, we will look especially at the Areas of Interest (AOIs) shown in Figure 1 (page 5). To define the expanded Service Area, the Coalition will engage with residents and other stakeholders through Community Based Organizations (CBOs) and elected officials. AOIs represent a starting point for discussion; they are anticipated to change during the engagement process outlined in Section 4.

- We plan to add an estimated 10 square miles of Service Area.
- To serve that additional area, we will add 100 Evies (= 10 Evies/sq mi), and add 20 new EV Spot charging stations, maintaining our current density of 2 EV Spots per square mile.

Task 3. Add two-way electric carshare and public charging hubs on City property in the expanded service area

In addition to operating Evie Carshare, HOURCAR operates a fleet of two-way carshare vehicles. Also referred to as “round trip” vehicles, these can be scheduled weeks or months in advance. One-way and two-way carshare work together to meet users’ needs, with one-way providing the convenience of ending a trip at the destination, and two-way providing the opportunity to schedule a trip.

In Task 3, we will expand access to two-way electric carshare by adding EV Spot hubs in the expanded Service Area with two-way shared electric vehicles and public charging. These charging and carshare hubs will be located off-street at city-owned properties, including parks, recreation centers, libraries, and parking ramps. Locations for these EV Spots will be chosen through the process described in Section 4.

Task 4. Add two-way electric carshare hubs at or near transit stations

The region has high-frequency transit (HFT) to areas outside urban cores and is rapidly building more HFT lines. But many important destinations are not reachable from transit stations, limiting the usefulness of transit and the mobility of residents who use it. In this Task, Saint Paul and Minneapolis will work with regional transit provider Metro Transit and with other cities to locate and place two-way shared electric vehicles at or near transit stops outside the one-way service area. Transit users, and those living and

³ <https://montreal.ctvnews.ca/communauto-adding-more-than-800-new-vehicles-to-fleet-in-montreal-including-80-evs-1.6395962>

⁴ <https://communauto.com/fall-2023-availability-update/?lang=en>

working nearby, will be able to use these shared electric vehicles to reach numerous important destinations that are not served conveniently or at all by transit. We anticipate that most of these hubs will be located on the portions of transit lines that lie in Saint Paul and Minneapolis. A smaller proportion of the hubs will be located in other cities. We will add hubs, including charging stations and shared electric vehicles as appropriate for each chosen location: on Metro Transit right-of-way (ROW), on city-owned ROW, and/or on off-street on city-owned property. We will add 75 hubs with dedicated and public charging ports and 150 two-way electric carshare vehicles between Tasks 3 and 4. The number of hubs located in each Task will be determined through the stakeholder-driven process described in Section 4.

Summary of Tasks and Outcomes

TABLE 1 TASK	ELECTRIC CARSHARE VEHICLES AND CHARGERS	TIMING	WHEN GHG AND COMMUNITY BENEFITS WILL BEGIN
1. Add 200 shared electric vehicles to the current service area.	200 vehicles No additional charging hubs	Coalition will order EVs on receipt of award. All systems necessary to technologize EVs for carshare, and maintain them, are in place.	Improved transportation and GHG reductions for residents of the current Evie Carshare service area will begin in 2025 .
2. Expand Evie Carshare service area and add 100 shared electric vehicles.	100 vehicles 20 charging hubs , each with 2 charging ports dedicated to carshare, and 2 for public charging. Total: 80 ports.	Under a current US DOE grant, the City and HOURCAR are working with CBOs on Saint Paul's East Side to develop a protocol for how to define new service areas and locate charging hubs. We will build on these results and work with new CBOs to choose expansion areas.	Improved transportation and GHG reductions for residents of the expanded Evie Carshare service area will begin in 2026 .
3. Add two-way electric carshare and public charging hubs on City property in the expanded service area	Total of 75 new hubs between Tasks 3 and 4: - 150 vehicles - 150 charging ports for electric carshare - 150 charging ports for public charging	The Cities have a successful process in place for selecting, implementing, and operating carshare hubs. The Cities can start immediately on award.	New hubs providing transportation and GHG reductions for residents of the whole region can begin in 2026 .
4. Add two-way electric carshare and public charging hubs at or near stations on high-frequency transit.	Need one dedicated charging port per round-trip carshare vehicle because the vehicle always comes back. Cannot share charging heads between vehicles, as one-way vehicles do.	Under a current US DOE grant, Saint Paul is working with Metro Transit to create EV carshare stations at Gold Line Bus Rapid Transit stations. We will launch these when the Gold Line opens in 2025. We will use that knowledge to implement EV carshare hubs at or near additional transit stations.	Conservatively, begin providing transportation and GHG reductions beginning in 2028 .

The risks to these timelines lie predominantly in the supply chain for vehicle chargers and any associated delays in installing new charging infrastructure. Because the Coalition has already installed a charging network with capacity for more than twice the current fleet, any delays installing charging infrastructure will not slow implementation of the additional electric carshare vehicles in Tasks 1 and 2. Another risk is associated with vehicle procurement, but our fleet has multiple models and we do not depend on one manufacturer. We are confident in our ability to deploy the planned number of vehicles on schedule.

We will work closely with our communities and other stakeholders to choose areas for expansion, and locations for new hubs. To help envision possible outcomes, we offer the following *illustrative* maps.

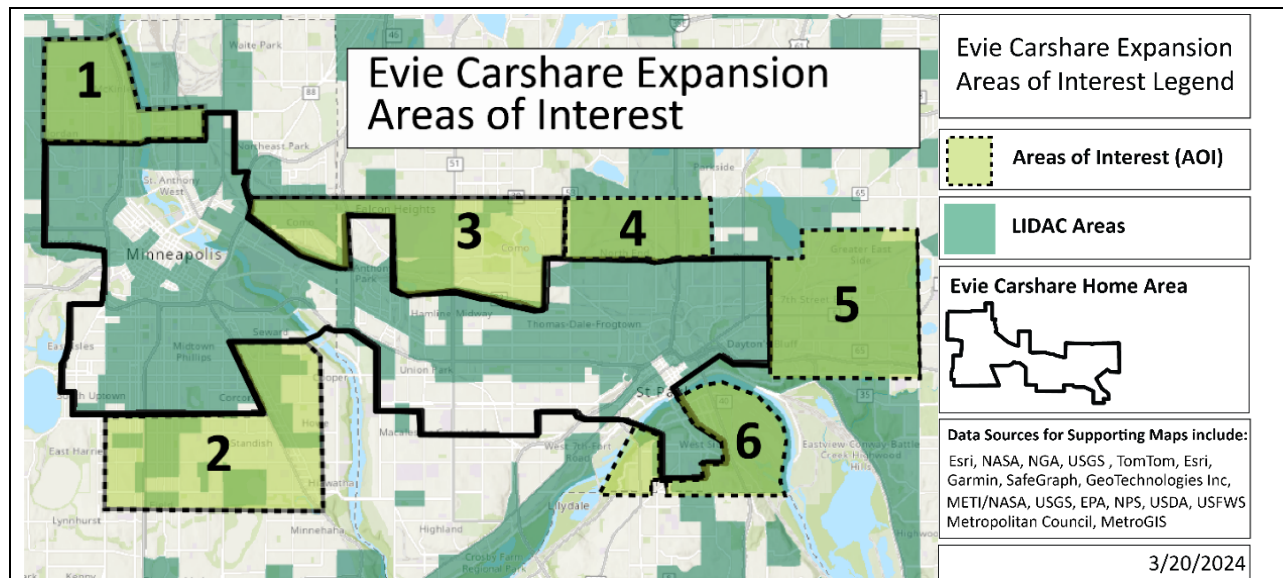


Figure 1: Current Evie carshare service area and Areas of Interest for potential expansion

Many LIDACs border the current service area, shown by the black outline. We will engage with residents and stakeholders in areas beyond the current boundary to choose areas for an expanded Evie Carshare Service Area.

The Areas of Interest include areas that are not LIDACs in response to constituent feedback. For example, AOI 3 contains Saint Paul's Como Park Zoo, one of the last remaining free public zoos in the US. The Park and Zoo is a popular destination. Families of all kinds—including lower-income families—tell us that they would like to be able to take an Evie Carshare to the Zoo and end their trip there. So although the Zoo is not in a LIDAC, expanding the service area to include the Zoo would clearly benefit disadvantaged families. The coalition will use both kinds of input to define Evie Carshare service area expansion.

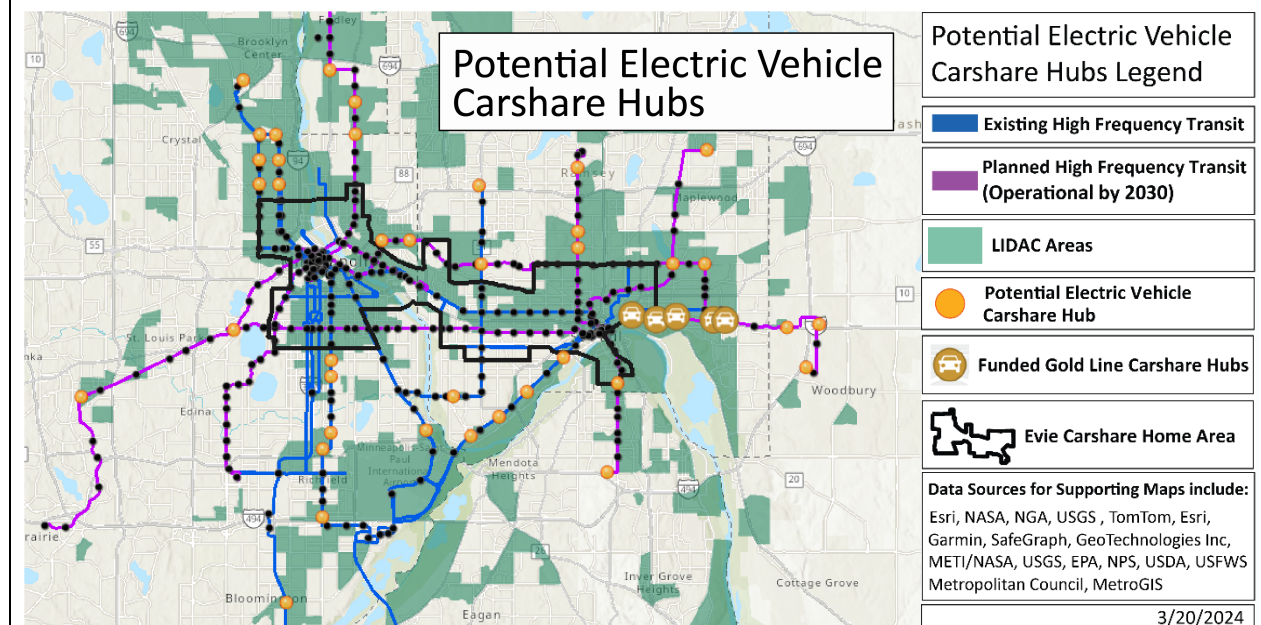


Figure 2: Illustrative map of potential new EV carshare hubs at or near high-frequency transit.

Figure 2 shows high-frequency transit lines in service and planned to open by 2030. The black dots are current or planned stops. The orange dots illustrate places where 2-way EV carshare hubs could help transit users reach critical destinations outside the urban core. The Coalition will work with Metro Transit and other cities to choose appropriate hub locations.

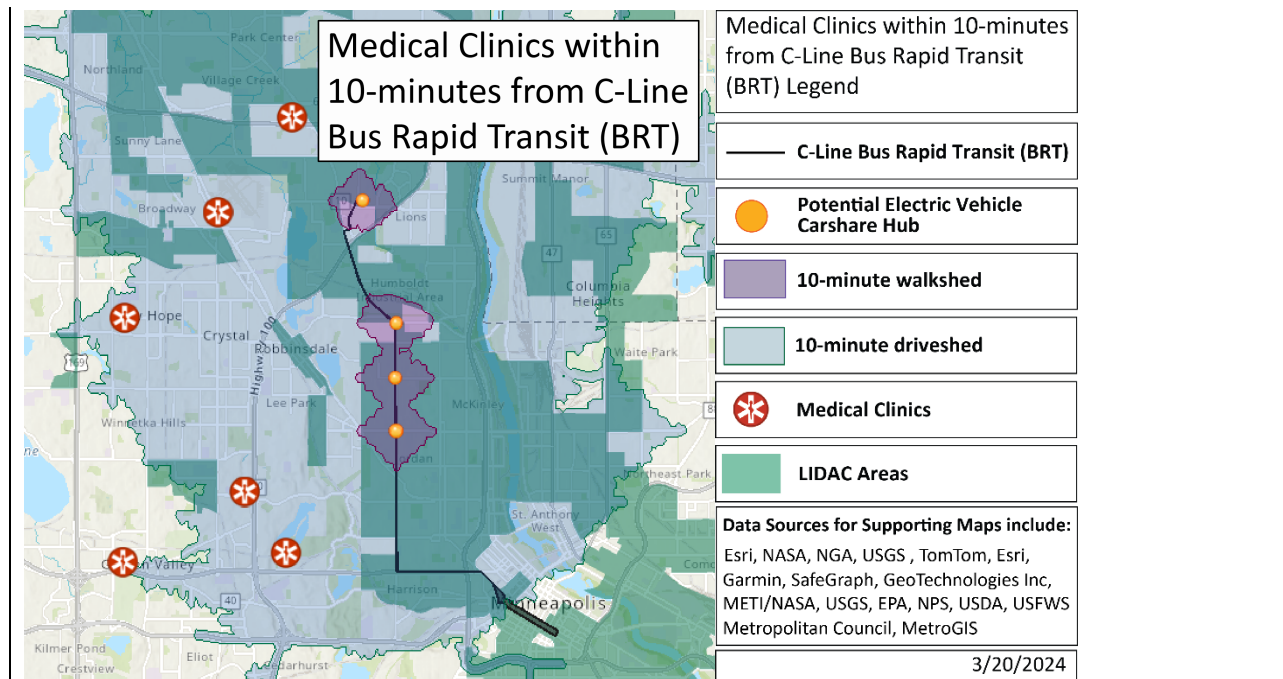


Figure 3: How EV hubs at transit would create access to medical care

This map illustrates the value of the 2-ways hubs on transit in Task 4. The map shows two 10-minute travelsheds for users of the current C Line Bus Rapid Transit: 1) the area users can reach by walking, and 2) the area users could reach from 2-way EV carshare hubs at or near C Line stations. The map shows six medical clinics not reachable from the C line now, that could be reached with carshare. Although the C Line directly serves LIDACs, it does not connect those residents to all the destinations they need to reach. They may require a vehicle to reach critical destinations.

b. Demonstration of Funding Need

Evie Carshare was launched with the support of many funders. Regional and national philanthropy funded initial engagement with the community. Next, private (Xcel Energy), local (Cities of Saint Paul and Minneapolis), state (Minnesota Pollution Control Agency), and federal (US EPA, US DOE, US DOT) funders supported both community engagement and capital investment (vehicles and chargers). To date, total capital investment has totaled more than \$12 million.

These funds have enabled a robust and successful proof of concept. Evie Carshare use has grown quickly, with usage doubling from 2022 to 2023, and use by a diverse set of residents, as described in Section 1.a. This success has led other regional jurisdictions to explore whether this service can help meet their residents' transportation needs and their climate goals. However, no local, state, or federal funding programs, like those that fund roads, bridges and transit, exist to regularly fund or expand carshare. While federal CMAQ funds have supported Evie Carshare, these funds are limited and are not available at the scale needed to create a regional network. All the US EPA and US DOE funds have been to 'pilot' the EV carshare concept or expand into a small additional part of the region.

To significantly reduce GHGs from the transportation sector will require investments comparable to the size of the transportation system. Our region is a national leader in transit expansion and will benefit from a ¾-cent sales tax for transit adopted in 2023. Much of that tax revenue will go to filling a budget shortfall; the rest will support the expansions shown in Figure 2. While vital, these transit expansions cannot connect people to all critical regional destinations 24/7/365. We need EV carshare to expand the usefulness of transit and provide critical connections that transit cannot.

In sum, EV carshare is a proven, vital, transformative service that has no source of funding at the scale needed to provide both the connections and the emissions reductions that are so urgently needed.

c. Transformative Impact

Our ability to use federal funds to produce pathbreaking results is shown through our performance of the US DOE grant to create a “Sustainable Electric Vehicle Ecosystem” (DE-EE0009226), awarded in 2020. Saint Paul and Minneapolis, and partner HOURCAR, used this grant to launch:

- EV Spot Network: 1-way Evie Carshare + EV Spot chargers in the public right of way
- 2-way EV carshare at affordable multifamily buildings.

Starting from the 2020 award, we launched in 2022 and grew use to more than 14,000 trips a month in 2023. The responses to HOURCAR’s user survey in February 2024 describe the transformative impact of this investment:

- More than half took carshare to medical appointments.
- More than half took carshare to school and/or work.
- Other use categories included buying groceries and going to daycare.
- 76% of users sold or put off buying a car because carshare was available.

This proposal opened with Paula, who couldn’t get to the doctor. Now she can. Others chose to own a car that they couldn’t afford, so they could get to the doctor. Now families don’t have to make that choice.

While electric carshare improves access and saves users money, is also substantially reduces transportation emissions. The transportation sector is the largest contributor of GHGs in part because it has proven challenging to identify actions that reduce emissions cost-effectively without reducing mobility. Electric carshare transforms mobility by adding usefulness and reducing emissions.

Section 1 Summary

Electric carshare is a proven, transformative transportation service. It has no source of funding at the scale needed to allow it to provide both the connections and the emissions reductions that are so urgently needed. In response to this need, critical stakeholders have committed to implement this proposal.

Coalition of Cities of Saint Paul and Minneapolis. The Coalition will:

- Own (or lease) new electric carshare vehicles.
- Locate new chargers on City-owned right-of-way and maintain chargers.
- Contract with HOURCAR to manage Evie Carshare operations.
- Work with other stakeholders, including other cities and Metro Transit, to identify and locate new 2-way electric carshare hubs.

HOURCAR. This local non-profit has 20 years of experience operating carshare, and will operate the proposed expansions under contract to Saint Paul and Minneapolis.

Community-Based Organizations will engage with residents and local institutions to ensure that these investments are made in the places and ways that meet community needs.

The Coalition of the Cities of Saint Paul and Minneapolis affirmatively declare that Saint Paul, as the lead applicant, will submit an MOA signed by all coalition members by July 1, 2024. We attach Letters of Intent to do so. We also attach Letters of Commitment from five CBO partners, committing to work with the Coalition to perform the outreach described in this proposal. Finally, we attach letters from stakeholders—cities, and Metro Transit—who support this proposal and affirm their desire to work with the Coalition to implement the Tasks. Section 4 describes how we will work with them as participants in the process. The timeframe for the CPRG application did not allow these cities, and Metro Transit, to complete the process to provide letters of commitment. Their letters describe how this proposal would help achieve their goals, so they look forward to working with the Coalition to implement this proposal.



Section 2: Impact of GHG Reduction Measures

a. Overview of GHG reduction methodology

The GHG reduction measures reduce CO₂e through in a variety of distinct and measurable ways.

Measure 1.1.2 – Improve equitable access to electric vehicle charging infrastructure	<i>Fuel switching to renewable energy</i> through the ease and convenience of charging electric vehicles in the public right-of-way
	<i>Accelerated adoption</i> of personally owned electric vehicles through increased public charging availability/decreased range anxiety
Measure 1.2.3 Facilitate equitable access to electric vehicle car-share programs	<i>Direct replacement of vehicle miles traveled (VMT)</i> taken in gas-powered vehicles with trips taken in shared electric vehicles
	<i>Mode shift due to behavior change</i> from trips in gas vehicles to transit, non-motorized, and batched or foregone trips as a result of the carshare service
	<i>Accelerated adoption</i> of personally owned electric vehicles through increased visibility of/familiarity with electric vehicles

For ease of introduction, we follow the user journey of our illustrative resident, Paula, to demonstrate the ways that this project reduces CO₂e emissions. A more technical and nuanced description, including our methodologies, key assumptions, and the data and research basis underlying these assumptions, are detailed in the Technical Appendix, and our full calculations can be found in the attached GHG Emission Reduction Calculations Spreadsheet (“GHG Spreadsheet”).

Step One: Joining an Electric Carshare Service (Direct Replacement of VMT)

Paula is a low-income individual with a young child in her household. She owns one car, which she uses to take her daughter to childcare and then travel to and from work, a round-trip journey of 24.2 miles.⁵ Her car recently broke down, and the repair shop quoted her \$1,200 to fix it, which is more than she can afford to pay this month and still make rent. Paula has recently started seeing community carshare vehicles in her neighborhood, so she looks up the service on her phone and signs up for a special offer that lets her take her first couple of trips for free. Paula uses a shared electric vehicle for her commute, *directly replacing* 24.2 miles in a gasoline vehicle with the same number of miles in an electric vehicle powered by renewable energy, thereby reducing 21.3 pounds CO₂e each trip.

Step 2: Shedding a Gas-Powered Vehicle (Mode Shift/Behavior Change)

After using the carshare service for a couple of months and getting used to it, Paula feels comfortable enough to sell her unreliable car. She figures that she can use an electric carshare vehicle to drop her child off at childcare, drive partway to work, and then catch a Bus Rapid Transit (BRT) the rest of the way, which takes about the same amount of time and costs her less than using the carshare vehicle for the entire trip. Paula shifts 8.5 miles (35%) of her daily commute to public transit because of the carshare service, a phenomenon known as *mode shift*. Paula saves about \$295 on transportation costs each month compared to what she would have spent for gas, insurance, maintenance, and depreciation on her car.

Step 3: Buying an Electric Vehicle (Accelerated Adoption)

After using the carshare service for a couple of years, Paula’s life situation starts to change. Her daughter is in school now, and there are more activities requiring travel in the evenings and on weekends. Paula has saved up some money and decides to purchase a car. She’s quite familiar with electric vehicles after driving one regularly, and she knows that the station where she often picks up an electric carshare vehicle

⁵ The Twin Cities regional average one-way commute trip length, as determined by the 2011 Travel Behavior Inventory conducted by Metropolitan Transportation Services, is 12.1 miles.

has public charging available as well. Her comfort level with electric vehicles leads to *accelerated adoption*: when she sees a good deal on a used electric car, she decides to purchase it, whereas she never would have even considered buying an electric car just a couple of years ago.

Step 4: Charging the Electric Vehicle (Fuel Switching to Renewable Energy)

Paula charges her vehicle at home using power from the grid generated by Xcel Energy’s Upper Midwest Mix, which is 69% carbon free (28% nuclear and 41% renewables). Since she rents her home, she can’t install a Level 2 charger in her garage, so she “trickle charges” using a standard 110-volt outlet, which is slow. About once a week, Paula “tops off” her electric vehicle at the Level 2 public charging station near her home, which is faster than her home charging and is powered by 100% renewable energy.

There is strong evidence, cited in our Technical Appendix, that Paula’s choices are representative of how our project will produce GHG reductions. In the next section, we summarize our estimates from the Technical Appendix and our GHG Spreadsheet.

b. Magnitude of GHG Reductions from 2025 through 2030

Our project is positioned to achieve rapid GHG reductions. The Coalition has built a charging network in the right-of-way that can support more than double the number of vehicles in service, and has already done significant engagement with residents in the current service area (see Section 4. “Community Engagement”). We can move quickly to add 200 electric vehicles in the first year of the project without the need to wait for construction of charging infrastructure, leading to rapid emissions reductions.

In addition to the charging stations, the Coalition has in place the necessary ordinances, the process for selecting sites with siting requirements is in place,⁶ and experience designing, constructing, and operating charging infrastructure. These reduce the risk of delays and create the opportunity for rapid expansion of the electric carshare and charging network and corresponding reduction of GHG.

Based on the assumptions in the Technical Appendix and the calculations in our GHG Spreadsheet, we estimate the following GHG reductions in 2025-2030:

Measure 1.1.2 – Improve equitable access to electric vehicle charging infrastructure	
Fuel Switching to 100% renewable energy	Increased availability of public charging will result in 93,906 charge sessions with 100% renewable energy, reducing 446 mT CO ₂ e.
Accelerated adoption of personally owned electric vehicles	Increased availability of public charging will facilitate adoption of 715 personally owned electric vehicles, achieving CO ₂ e reduction of 6,577 mT.
Measure 1.2.3 Facilitate equitable access and electric vehicle car-share programs	
Direct replacement of VMT	Access to electric carshare will result in replacement of 27,604,260 VMT in gas-powered vehicles with VMT in electric carshare vehicles, achieving CO ₂ e reduction of 10,648 mT.
Mode shift/behavior change	Access to electric carshare will shift 278,775,000 VMT from gas vehicles to transit, non-motorized, and batched or deferred trips (the equivalent of taking 13 vehicles on average off the road each year for every carshare vehicle put in service), achieving CO ₂ e reduction of 63,707 mT.

⁶<https://www.stpaul.gov/sites/default/files/Media%20Root/Twin%20Cities%20Electric%20Vehicle%20Mobility%20Network%20Infographic%201%20%28English%29.pdf>

Accelerated adoption of personally owned electric vehicles	Increased visibility of/familiarity with electric vehicles will facilitate adoption of an estimated 2,604 personally owned electric vehicles, achieving CO ₂ e reduction of 25,672 mT CO ₂ e.
Total GHG reductions 2025-2030: 107,050 metric tons	

c. Magnitude of GHG Reductions from 2025 through 2050

In addition to rapid near-term GHG reductions, our project has strong potential to achieve massive long-run reductions of GHG totaling nearly 1.4 million metric tons (MMT) by 2050. The project produces these long-run reductions by being economically sustainable. By the end of the useful life of the charging stations and vehicles (~seven years), the network will generate sufficient economic returns (including revenue from the carshare service and charging network, local and national sponsorships and grants, and other revenue-generating opportunities) to be self-sustaining with replacement costs. The initial investment by EPA will thus produce tremendous long-term gains.

We forecast the following GHG reductions in 2025-2050:

Measure 1.1.2 – Improve equitable access to electric vehicle charging infrastructure	
Fuel Switching to 100% renewable energy	Increased availability of public charging will result in 3,570,664 charge sessions with 100% renewable energy, reducing 1,452 mT CO ₂ e.
Accelerated adoption of personally owned electric vehicles	Increased availability of public charging will facilitate adoption of 4,515 personally owned electric vehicles, achieving CO ₂ e reduction of 201,364 mT.
Measure 1.2.3 Facilitate equitable access to electric vehicle car-share programs	
Direct replacement of VMT	Access to electric carshare will result in replacement of 180,726,660 VMT in gas-powered vehicles with VMT in electric carshare vehicles, achieving CO ₂ e reduction of 61,455 mT.
Mode shift/behavior change	Access to electric carshare will shift 1,696,275,000 VMT from gas vehicles to transit, non-motorized, and batched or deferred trips (the equivalent of taking 13 vehicles on average off the road each year for every carshare vehicle put in service), achieving CO ₂ e reduction of 436,307 mT.
Accelerated adoption of personally owned electric vehicles	Increased visibility of/familiarity with electric vehicles will facilitate adoption of an estimated 15,204 personally owned electric vehicles, achieving CO ₂ e reduction of 688,617 mT CO ₂ e.
Total GHG reductions 2025-2050: 1,389,194 metric tons	

d. Cost Effectiveness of GHG Reduction Measures

Cost effectiveness of GHG reductions 2025-2030: EPA investment in this project would lead directly to 107,050 mT GHG reduced, for a cost-effectiveness of \$445.44/mT (\$47,684,000 ÷ 107,050 mT).

This project produces cost-effective GHG reductions in large part because users and sponsors cover operational costs. Ongoing operational costs for the service are borne by the project rather than by funds from this application. After engaging with the community to define expansion areas, the project needs only capital and some initial startup operational funds. This makes the direct funding for the project extremely effective.

The project will also produce substantial savings in the community. While not included in the above cost-effectiveness calculation, this is an important part of broader cost-effectiveness. The Transportation Studies Research Center at UC Berkeley found that carshare members save an average \$295 a month on transportation costs.⁷ Thus, implementing these measures will save users of the electric carshare service over \$300 million in transportation costs 2025-2030. Every dollar invested by EPA in the project will produce an estimated sixfold return to the community over the period of performance.

It is worth understanding the source of these financial savings in more detail. Many consumer-oriented GHG reduction measures reduce emissions and consumer costs by making a given technology more efficient. Examples include making refrigerators more efficient and converting home heating from furnaces to heat pumps. But in virtually all cases, one must still own a refrigerator or a heater. In this case, many people do *not* need to own a car. They only endure the cost because other options are not available to them. When access to carshare arrives, many people choose to sell or defer purchase of a vehicle and meet their occasional needs for a car via carshare. Rather than saving money via a capital investment that consumes less energy, people save money by doing away with the capital expense *and* its ongoing costs. These substantial financial savings are especially important to our low-income residents.

It is also worth emphasizing that carshare users make this choice because it improves their quality of life. We do not promote carshare, and users do not choose it, as “give something up to improve the environment.” Carshare does not work for everyone at every stage of life, but for many residents it offers a highly effective way to improve their transportation options *and* save substantial money.

Section 3: Environmental Results

a. Expected Outputs and Outcomes

We anticipate the following outputs and outcomes from implementation of the GHG reduction measures.

Measure 1.1.2 – Improve equitable access to electric vehicle charging infrastructure	
Output 1: Construct 95 charging stations with 190 public charging ports powered by renewable energy	Outcome 1a – Fuel switching to 100% renewable energy: Implementing Measure 1.1.2 will reduce 1,452 mT GHG by replacing kWh generated using Xcel Energy’s Upper Midwest Mix (currently 69% carbon free) with kWh generated using 100% renewable sources.
	Outcome 1b – Accelerated adoption of electric vehicles: Implementing Measure 1.1.2 will facilitate adoption of 4,515 personally-owned electric vehicles by 2050, achieving CO ₂ e reduction of 201,364 mT.
	Outcome 1c: Reduction of CAPs/HAPs: Implementing Measure 1.1.2 will reduce criteria air pollutants from electricity generation by replacing electricity generated by fossil fuels with electricity generated using 100% renewable sources. ⁸
Measure 1.2.3: Facilitate equitable access to electric vehicle car-share programs	
Output 2: Place 450 electric carshare	Outcome 2a – Direct replacement of VMT: Replace an estimated 180,726,660 VMT in ICE vehicles with VMT in electric carshare vehicles, achieving CO ₂ e reduction of 61,455 mT.
	Outcome 2b – Mode shift: Shift an estimated 1,696,275,000 VMT from SOV travel to transit, non-motorized, and batched or deferred trips, reducing 436,307 mT CO ₂ e.

⁷ Cf. https://innovativemobility.org/wp-content/uploads/2015/07/Innovative-Mobility-Industry-Outlook_SM-Spring-2015.pdf, p. 2.

⁸ According to FHWA, charging stations and carsharing have “strong cost effectiveness” at reducing CAPs and HAPs: Congestion Mitigation and Air Quality Improvement Program 2020 Cost-Effectiveness Tables Update, p.1: cf. www.fhwa.dot.gov/ENVIronment/air_quality/cmaq/reference/cost_effectiveness_tables/fhwahep20039.pdf.

vehicles in service.	<u>Outcome 2c</u> – Accelerated adoption of electric vehicles: Facilitate adoption of 15,204 personally owned electric vehicles by 2050, achieving CO ₂ e reduction of 688,617 mT
	<u>Outcome 2d</u> – Reduction of CAPs/HAPs: Significantly reduce Criteria Air Pollutants (CAPs) and Harmful Air Pollutants (HAPs).
	<u>Output 2e</u> – Congestion reduction: Reduce the number of cars on the road; in turn reduce noise pollution, crashes, and bicycle and pedestrian deaths. ⁹
	<u>Output 2f</u> – Increased mobility options in LIDACs: Enable 12,508,875 electric carshare trips, significantly improving mobility options in the LIDACs served by the project.

b. Performance Measures and Plan

Our proposed performance measures (based on metrics in the Minnesota PCAP) and plan for reporting:

Measure 1.1.2: Improve equitable access to electric vehicle charging infrastructure	Number of registered electric vehicles: We will track the number of new electric vehicle registration in Hennepin and Ramsey Counties using the Minnesota DOT's Electric Vehicle Dashboard ¹⁰ to track increases in electric vehicle adoption from increased access to charging infrastructure (Outcome 1a).
	Carbon intensity of transportation fuels: Track kWh from charging sessions and calculate the GHG reduction from using 100% renewable energy based on Xcel Energy's annual carbon intensity reports (Outcome 1b)
	Air quality: Calculate reductions in CAPs and HAPs using data from Xcel's annual Environmental Disclosure and charging station session data on kWh (Outcome 1c)
Measure 1.2.3: Facilitate equitable access to electric vehicle car-share programs	Usage statistics: Provide annual reports as to the number of users, trips, and miles driven using the electric carshare service. These metrics will be used to calculate GHG emissions reductions direct replacement of VMT (Outcome 1a)
	User behavior surveys: HOURCAR will survey users to determine changes in transportation (mode shift, Outcome 1b) and purchasing (adoption, Outcome 1c)
	Number of services available or projects funded: Track the number of electric carshare vehicles put into service in LIDACs and calculate the reduction of CAPs/HAPs in these communities (Outcome 1d).

Reporting: We will create semi-annual public progress reports on project implementation progress and metrics, including the metrics outlined above. These reports will be posted on the City of Saint Paul's Climate Dashboard, and the underlying measures will be incorporated into the dashboard measures.

c. Authorities, Implementation Timeline, and Milestones

The coalition members, additional municipal partners, and Metro Transit all control the rights-of-way (ROW) where the charging hubs will be constructed (on-street in the public ROW, off street on city-owned property and/or Metro Transit controlled ROW). Ordinances allowing electric carshare and public charging in the ROW are on the books in Saint Paul and Minneapolis. The project partners therefore have full authority to carry out the proposed measures. We plan to select a Charging Network Contractor by RFP in year one of the project; we have already done one such RFP for the original EV Spot Network and so have experience and resources to draw upon. We will use SourceWell to procure vehicles as we have done in the past.

⁹ Implementing electric carshare will reduce the number of cars on the road, which will in turn reduce negative externalities from congestion, especially in LIDACs that disproportionately suffer the effects of high congestion. Per our GHG Spreadsheet ("Mode Shift"), each carshare vehicle put into service will take 13 vehicles off the road.

¹⁰ <https://www.dot.state.mn.us/sustainability/electric-vehicle-dashboard.html>.

Authority	Roles and Responsibilities
City of Saint Paul	Coalition lead applicant. Responsible for contracting with subawardees (including City of Minneapolis, additional municipal partners, HOURCAR, CBOs), procurement of electric vehicles, procurement of charging stations, construction and O&M of charging stations in Saint Paul, engagement with CBOs in Saint Paul AOIs.
City of Minneapolis	Coalition member. Responsible for construction and O&M of charging stations in Minneapolis. Engagement with CBOs in Minneapolis AOIs.
Additional Municipal partners	Responsible for construction and O&M of charging stations on city property at transit line termini.
Metro Transit	Transit agency operated by local MPO. Responsible for permitting construction of electric carshare hubs on Metro Transit ROW.
HOURCAR	Nonprofit carshare operator/subawardee. Responsible for operation of carshare vehicles, including technologizing, maintenance and repair. HOURCAR's community engagement staff will co-lead engagement with CBOs together with Saint Paul and Minneapolis staff.
Community-Based Organization partners	Nonprofit organizations/subawardees. Responsible for engagement with local community in areas of interest, including convening, gathering community input and reporting to partners, and awareness building once the measures are implemented.

Our implementation schedule and proposed milestones align with those in the State of Minnesota PCAP, which notes that certain actions may follow an “accelerated timeline” if conditions warrant. In our case, we plan to expand electric carshare beginning in Year One since community engagement in LIDACs and construction of charging stations in the current carshare service area has already taken place.

Project Timeline, Activities and Milestone Schedule

(Semi-annual reports are assumed in the second and fourth quarter of each project year.)

Proj. Year	Activity/Partner Responsible	Milestone
Y1	MOA for coalition partners complete (Saint Paul, Minneapolis)	X
Q1	Contracts with subrecipients complete (Saint Paul, HOURCAR, CBOs)	X
	QAPP complete (if required) (Saint Paul)	X
	RFP developed for charging network contractor and charging equipment provider (Saint Paul)	X
	Order first tranche of 200 vehicles (Saint Paul)	
Y1	Round one of community engagement in AOIs to determine locations of first tranche of 45 carshare and public charging hubs and expanded carshare service area. (Saint Paul, Minneapolis, HOURCAR, CBOs.)	
Q2	First tranche of 200 vehicles received, begin process to decal, technologize, and in-service (HOURCAR)	
	Issue RFPs for charging network contractor and charging equipment provider (Saint Paul)	X
Y1	200 vehicles technologized, decaled, and in service (HOURCAR)	X
Q3	Collect and analyze round one of community feedback (Saint Paul, Minneapolis, HOURCAR, CBOs)	
	Review RFP responses and select charging network contractor and charging equipment provider (Saint Paul)	X
	Order first tranche of 90 dual-port chargers for 45 charging hubs (Saint Paul, Charging Equipment Provider)	
Y1	Sites of 45 carshare and public charging hubs and expanded carshare service area determined based on community feedback (HOURCAR, Saint Paul, Minneapolis)	X
Q4		
Y2	First tranche of chargers received, begin construction on first tranche of 45 carshare and public charging hubs (Saint Paul, Minneapolis, Charging Network Contractor)	
Q1	MOA with Metro Transit complete (Saint Paul, Metro Transit)	X
	Order second tranche of 150 vehicles (Saint Paul)	

Y2 Q2	Round two of community engagement in AOIs to determine location of second tranche of 30 public charging hubs near high-frequency transit (HFT) stations (City of Saint Paul, City of Minneapolis, HOURCAR, CBOs)	
	15 charging hubs completed and operational (Saint Paul, Minneapolis, Charging Network Vendor)	
	Second tranche of 150 vehicles received, begin to decal, technologize, and in-service (HOURCAR)	
Y2 Q3	Second tranche of 150 vehicles technologized, decaled, and in-serviced; 350 total vehicles operational (HOURCAR)	
	15 carshare and public charging hubs completed; 30 total charging hubs operational (Saint Paul, Minneapolis, Charging Network Vendor)	
	Expanded one-way service areas in AOIs open (HOURCAR)	X
	Order second tranche of 60 dual-port chargers for 30 charging hubs (Saint Paul, Charging Equipment Provider)	
	Collect and analyze round two of community feedback (Saint Paul, Minneapolis, HOURCAR, CBOs)	
Y2 Q4	Sites of 30 carshare and public charging hubs near high-frequency transit (HFT) stations determined based on community feedback (HOURCAR, Saint Paul, Minneapolis)	X
	15 carshare and public charging hubs completed; 45 total operational; first tranche complete (Saint Paul, Minneapolis, Charging Network Contractor)	X
Y3 Q1	MOAs with municipal partners complete (Saint Paul, municipal partners)	X
	Order third tranche of 60 vehicles (Saint Paul)	
	Second tranche of chargers received, begin construction on second tranche of 30 carshare and public charging hubs (Saint Paul, Minneapolis, Charging Network Contractor)	
	Third tranche of 60 vehicles received, begin to decal, technologize, and in-service (HOURCAR)	
Y3 Q2	15 charging hubs completed; 60 charging hubs operational (Saint Paul, Minneapolis, Charging Network Vendor)	
	Round three of community engagement in AOIs to determine location of third tranche of 20 public charging hubs near high-frequency transit (HFT) stations and at termini (City of Saint Paul, City of Minneapolis, HOURCAR, CBOs)	
Y3 Q3	Third tranche of 60 vehicles technologized, decaled, and in service; 410 total vehicles operational (HOURCAR)	X
	15 carshare and public charging hubs completed; 75 charging hubs operational; second tranche complete (Saint Paul, Minneapolis, Charging Network Vendor)	X
	Collect and analyze round three of community feedback (Saint Paul, Minneapolis, HOURCAR, CBOs)	
Y3 Q4	Sites of 20 public charging hubs near high-frequency transit (HFT) hubs and at termini selected (HOURCAR, Saint Paul, Minneapolis, Municipal Partners)	X
	Order third tranche of 40 dual-port chargers for 20 charging hubs (Saint Paul, Charging Equipment Provider)	
Y4 Q1	Order fourth tranche of 40 vehicles (Saint Paul)	
	Third tranche of chargers received, begin construction on third tranche of 20 carshare and public charging hubs (Saint Paul, Minneapolis, Charging Network Contractor)	
Y4 Q2	Fourth tranche of 40 vehicles received, begin to decal, technologize, and in-service (HOURCAR)	
	10 carshare and public charging hubs completed; 85 charging hubs operational (Saint Paul, Minneapolis, Charging Network Vendor)	
	Round four of community engagement in AOIs to build awareness of new services (City of Saint Paul, City of Minneapolis, HOURCAR, CBOs)	
Y4 Q3	Fourth tranche of 40 vehicles technologized, decaled, and in service; 450 vehicles operational (HOURCAR)	X
	10 carshare and public charging hubs completed; 95 charging hubs operational; third tranche complete (Saint Paul, Minneapolis, Charging Network Vendor)	X
Y4 Q4	Final reports from CBOs received and analyzed (City of Saint Paul, City of Minneapolis, HOURCAR, CBOs)	X

Section 4: Low-Income and Disadvantaged Communities

a. Community Benefits

Implementing Minnesota PCAP Measures 1.1 and 1.2 will accelerate the transition to low and no-carbon fuels in vehicles and equipment and increase availability and adoption of clean travel options in Low-Income Disadvantaged Communities (LIDAC) areas.

The PCAP notes that

LIDACs in urban areas tend to have higher traffic proximity, leading to greater exposures to traffic crashes, air pollution and noise pollution, and higher temperature levels. LIDACs are more likely to have higher rates of zero-car households, lower access to jobs, goods, services, greenspace, and higher transportation cost burden, which increases risks of financial insecurity, housing instability, and stress. LIDACs experience barriers to electric vehicle uptake due to high upfront costs and low access to charging options (e.g., street parking). (p. 24)

It is crucial that LIDAC communities receive the largest investment in low and no-carbon transportation to mitigate the negative health and social impacts experienced by these communities.

Identified LIDAC Areas

Our project will engage residents and stakeholders in six Areas of Interest (AOIs), all of which are either entirely or substantially composed of LIDAC areas. The AOIs were determined by a combination of factors, including community input, EJSCREEN Supplemental Indexes, current and planned transit service, population density, and natural and municipal boundaries.

AOI 1: North Minneapolis, including expansion along the C and D BRT lines toward Brooklyn Center. Northside Residents Redevelopment Council will lead engagement in AOI 1.

AOI 2: Powderhorn/South Minneapolis, including expansion along the D line BRT toward Richfield. Powderhorn Park Neighborhood Association will lead engagement in AOI 2.

AOI 3: Como Neighborhood, including expansion along Route 3 and the H line BRT. HOURCAR will lead engagement in AOI 3.

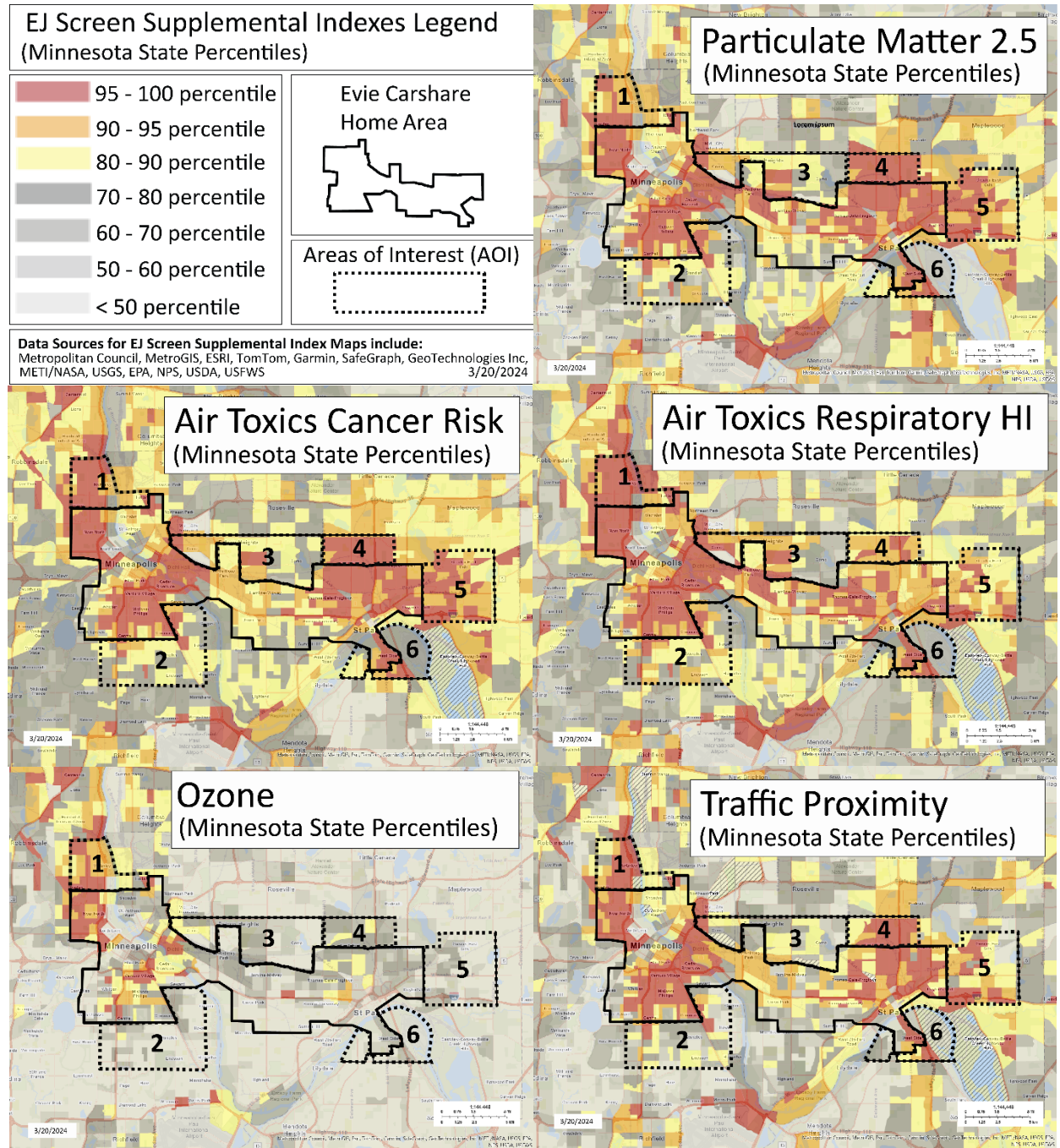
AOI 4: North End, including expansion northward along the G line BRT. Rice Larpenteur Alliance will lead engagement in AOI 4.

AOI 5: East Side, including expansion westward along the Gold Line BRT. Payne-Phalen Community Council will lead engagement in AOI 5.

AOI 6: West Side, including expansion southward along the G line BRT and southwest along the Riverview Corridor. West Side Community Organization will lead engagement in AOI 6.

Figure 4: These maps show EJ Screen Supplemental Index data across the Minneapolis-Saint Paul region. The current Evie Carshare Service Area was designed to serve burdened communities; the identified AOIs seek to expand the Service Area to additional such communities.

The dashed lines indicate that the area of potential expansion is not predetermined. Input from residents and other stakeholders will help set the Coalition set the expansion area.



Direct Benefits and Indirect Benefits

The project will produce the following direct and indirect benefits in these communities:

1. Increased vehicle electrification reduces local air pollution and traffic noise, supporting health benefits including improvements in mental and cognitive development, reduction in respiratory and cardiovascular health risks, decreased asthma rates, and fewer hospital admissions.
2. Electric carsharing and electric vehicle adoption decreases fuel and car maintenance costs, reduces transport costs, improves transportation reliability and mobility, and improves access to transit.

3. Electric carsharing expansion would produce an \$300 million in cost savings from 2025-2030 (\$295 savings per month, per household). Lower transportation costs predict health outcomes, directly impact carshare users, and indirectly benefits the local economy.
4. Carsharing access directly improves mobility, access to goods, services, education, and jobs.
5. Electric vehicle adoption and carsharing increase resilience to climate change directly by reducing local and regional GHG emissions, reducing heat island effects, and improving health.
6. Creation of high-quality jobs and workforce development opportunities in disadvantaged communities creates direct benefits for workers from disadvantaged populations and under-represented small businesses/contractors.
7. Enhancing community engagement, increasing public awareness of projects and results, and building community capacity directly and indirectly benefit residents.

During our previous community engagement, residents of LIDACs particularly emphasized five needs:

1. Affordable car access without the burden of ownership
2. Time savings (with expanded transportation choices)
3. Carshare membership access for international driver license holders (new immigrants, students)
4. Better transit and carshare overlap, especially in communities that are under-served by transit
5. Interpretation services in real-time for carsharing and community members (available 24/7/365)

This project will meet all of those needs.

Potential disbenefits and anticipated negative impacts to LIDACs include the following:

1. Dust, construction noise, sidewalk closures temporarily effect air quality and sidewalk access
2. Reduced parking in some places due to charger installation and access to businesses

Concrete strategies for mitigating those risks:

1. Contractors must use best practices to mitigate dust and noise when possible.
2. Community engagement will help the project best locate hubs and chargers.

Plan and Process for continuing to assess, quantify and report benefits and avoided disbenefits:

Coalition members and partners will work together to assess, quantify, and report benefits and avoided disbenefits. Through this plan and process, we will:

1. Calculate yearly GHG reductions from electric vehicle charging and carsharing use.
2. Calculate cost savings by carshare users.
3. Engage LIDAC residents early, continuously, and deeply in partnership with multiple CBOs through planned workshops, surveys, and community events. A detailed workplan will be developed with CBO partners with concrete, actionable measures.
4. Work with Saint Paul College to develop a plan to hire graduates from their EV training program to work in varying aspects of the project. This will provide high-quality jobs to disadvantaged residents, advancing economic security in growing clean energy and transportation sectors.
5. Conduct ongoing community engagement with partner CBOs to increase community buy-in, utilization, and understanding of electric vehicles, charging, and carsharing.
6. Explore technological improvements to allow for carpool integration and rideshare capabilities for unlicensed residents, securing funding to develop technology and systems that allow for this.

Workforce Development Strategies

This project will create the need for a new workforce to install chargers and maintain new EVs. Our partnership will provide training for green jobs to disadvantaged job seekers in two ways:

1. *Through procurement:* As part of the RFP process to select a contractor to install the charging stations, the City of Saint Paul will prioritize vendors who meet the following requirements:

- a. The preferred charging equipment provider will have established partnerships with one or more workforce training programs to help educate, train, and prepare underserved and minority residents for work in the electrical trades.
- b. Intentional steps will be taken to target, recruit and train BIPOC residents.
- c. Trainees to be paid hourly for field labor in accordance with prevailing wage requirements (Little Davis Bacon).
- d. After completing training in EV charging installation, project partners will work with local electrical contracting companies to place these individuals in apprentice positions.

2. *Through a partnership with Saint Paul College (SPC):* Saint Paul College is the most racially diverse college in the Minnesota State Colleges and Universities system, enrolling 65 percent students of color, and more than 10,000 full and part-time students. SPC has an electric vehicle lab that includes electric vehicles and chargers, and the specialized tools necessary to work with both. SPC teaches a class in hybrid and electric vehicles and charging and will launch an EV training program in 2025.

Saint Paul College will partner with the Coalition to build on this capacity to deliver training in EV maintenance, and in EV charger installation and maintenance. SPC regularly develops such training programs in response to specific employment and project-related needs. Through this partnership, SPC would deliver trainings open to all: both residents aiming to be hired to work on this project, and those seeking to be trained in the EV ecosystem for other opportunities. HOURCAR will preferentially hire mechanics/technicians from this program.

b. Community Engagement

Engaging Low-income and Disadvantaged Communities

We began in 2019 to engage with low-income and disadvantaged communities (LIDACs) to help shape the EV Spot Network and Evie Carshare. Continuous engagement with residents and CBO partners since then has informed and shaped this proposal. Feedback from community conversations, surveys, and data have been thoroughly integrated into our proposal, including the identification of the Areas of Interest (AOIs). Input by LIDACs has been incorporated into this application as follows.

1. Community Advisory Boards: In 2020, before the EV Spot Network and Evie Carshare launch, our partnership assembled a council of 10 community-based organizations in LIDAC communities. The council worked with the two cities and project partner HOURCAR to identify community assets and barriers to transportation for residents. After understanding those, we asked residents to help design a system that would help overcome those barriers. HOURCAR's Community Engagement Report¹¹ details findings and recommendations, including a scorecard to track progress. The City of Saint Paul is using a similar strategy to plan for expansion on the East Side of the City (AOI 5). The City created a group consisting of four District Councils led by a local consultant to develop a community-led process to identify expanded boundaries of the Evie Carshare service area and the locations of new charging hubs on the East Side. This community-driven process provided the template for expansion plans in other AOIs for our CPRG proposal.
2. Community Conversations and Public Input Meetings: After the completion of the initial community engagement process, HOURCAR continued to work closely with two of the original council members, Powderhorn Park Neighborhood Association (South Minneapolis) and Payne-Phalen Community Council (East Saint Paul), to create awareness around EV carsharing and explore intersecting environmental justice topics. Each partner CBO held multiple community forums each year for two years to share information about electric carshare and clean mobility

¹¹ Cf. https://hourcar.org/wp-content/uploads/2021/10/TCEVMN-CE-Report_Final-20210304.pdf

options and gather community feedback about transportation barriers and gaps. Community feedback from this project informed our expansion proposal by reinforcing the need for better mobility options for residents. We heard repeatedly from community members that slow public transit service and lack of mobility options led to missed medical appointments, job interviews, and connections with family and friends, resulting in costs to both the individual (worsening medical conditions due to lack of treatment, worsening mental health due to social isolation) and the community (downstream costs for untreated medical conditions, costs of social programs). This feedback directly contributed to our plan to place carshare hubs alongside transit outside the expanded Evie Carshare service area.

3. Prioritizing community feedback: As a local nonprofit shared mobility company, HOURCAR prioritizes collection of community feedback. HOURCAR's in-house member services team communicates with carshare users daily and has their finger on what the community wants from the service. HOURCAR also employs a community engagement team. This team participated in 42 events for Evie Carshare in 2023, with total estimated attendance across all events of 3,405,816. HOURCAR regularly surveys carshare users, including the recent survey referenced in Section 1, where 70% of respondents said that the lack of available carshare vehicles had prevented them from taking a trip, and 60% said that this had occurred either "sometimes" or "most of the time." Data on the home address of respondents was mapped and used in developing our Areas of Interest for expansion.
4. Ensuring Participation by Limited English Speakers: To make sure information about the EV Spot Network and Evie Carshare is accessible to limited-English speakers, information about the services has been translated into multiple languages, including Somali, Karen, Spanish, and Hmong, and many events were hosted with translation into other languages. Project partner HOURCAR contracts with [Language Line](#) for its member services call line so that users of the service can communicate easily in their language of choice, including multi-lingual assistance with filling out surveys.

Continuous Engagement with Low-income and Disadvantaged Communities over the Life of the Grant

Building on years of engagement around public charging and electric carshare and the strong relationships our coalition has built with partner CBOs, we will use these community-led approaches:

1. Develop a Community Work Group: We will strengthen relationships with existing partners, including HOURCAR, Powderhorn Park Neighborhood Association, Payne-Phalen Community Council, and the West Side Community Organization, and develop relationships with new partners, including Northside Residents Redevelopment Council and the Rice & Larpenteur Alliance, to form a community work group. We will develop a collaborative work plan. These organizations represent varied geographical areas that will connect with residents, businesses, and groups in their respective areas. These partnerships will engage residents early in the project, beginning with building awareness of existing services, programs, and infrastructure, and leading to a series of community workshops that will ask community members to identify ideal locations for charging infrastructure, Evie Carshare service area expansion, and two-way hub placement.
2. Get Community Feedback: We will work closely with our CBO partners to gather and assess community feedback and incorporate it into carshare program design. Methods and tools of engagement will include surveys, focus groups, design charettes, door knocking, direct mail, a centralized website with continuously updated information, story sharing, presentations and in-person tabling at community events.
3. Ensure Participation by Non-English Speakers: We will use existing translated materials and draft additional translated materials to reach linguistically diverse residents. We plan to reach out to public libraries, community centers, schools and universities, culturally specific community organizations and elected officials to amplify reach in multiple languages.

4. **Continue Engagement:** Once planning workshops have been completed, ongoing engagement with communities of focus will continue through consistent awareness building and surveying to grow utilization of public charging and electric vehicle carsharing and their related benefits.

Section 5. Job Quality

The project will be led by employees of the Cities of Saint Paul and Minneapolis. Each City strives to provide high-quality, family-sustaining jobs with the free and fair choice to join a union.

City of Saint Paul. The City of Saint Paul is known for its awesome benefits. The City has a number of separate unions and bargaining units and the exact nature of benefits varies with each one of these contracts. The City of Saint Paul is an equal opportunity/affirmative action employer. Veterans, women, persons of color, members of the LGBTQ community, and individuals with disabilities are strongly encouraged to apply. See: <https://www.stpaul.gov/departments/human-resources/benefits/general-benefits-overview>.

Saint Paul will procure all contractors. City Ordinance requires all contractors and subcontractors on construction projects in excess of \$25,000 to pay their laborers and mechanics not less than the prevailing wage rate for corresponding classes of laborers and mechanics employed on similar projects in the area.

Saint Paul has a citywide minimum wage ordinance. Further, all Saint Paul employers with employees working in Saint Paul must provide Earned Sick and Safe Time (ESST) to their employees.

City of Minneapolis. The City of Minneapolis is an Equal Opportunity Affirmative Action Employer. We encourage applications from all individuals, including (but not limited to): Persons with disabilities, Persons of color, Veterans, LGBTQ.

HOURLCAR. HOURLCAR is an independent 501(c)3 committed to providing employees with more than just a job. HOURLCAR strives to create fulfilling careers that offer opportunities for growth, development and meaningful contributions to the community. This commitment encompasses fair compensation, comprehensive benefits, and a supportive work culture that values diversity, equity and inclusion.

Section 4 describes the Workforce Development Strategies that the Coalition will pursue in two ways: 1) through the procurement process for electric vehicle chargers, and 2) through a partnership with Saint Paul College to train people for jobs in the electric vehicle area, including chargers and electric vehicle maintenance. That workforce development will enable residents to fill the electric vehicle and charger-related jobs that the Coalition and its partners will need, and empower the region's residents to take these skilled, quality jobs of the future.

6. Programmatic Capability and Past Performance

a. Past Performance

The City of Saint Paul has extensive experience successfully implementing federal awards.

1. **Project Title:** Twin Cities Electric Vehicle Mobility Network (now known as EV Spot Network/Envie Carshare) City of Saint Paul is a subrecipient to American Lung Association
Federal Agency and Listing Number: USDOE Vehicle Technical Office Grant Energy Efficiency & Renewable Energy EE-1, U.S. Department of Energy. Award No. DE-EE0009226. **CFDA No.:** 81.086
Brief Description: Install a network of 70 public EV charging stations and lease a fleet of electric vehicles to be used as a publicly accessible community electric carshare program.
Contact: David Kirschner, National Energy Technology Laboratory, Kirschner, David (NETL), david.kirschner@netl.doe.gov
Reporting Requirements: The City of Saint Paul has met all reporting requirements on time.

- 2. Project Title:** City of Saint Paul - Municipal Building Decarbonization Plan Development
Federal Agency and Listing Number: Department of Energy DE-SE0000368. **CFDA No.:** 81.128
Brief Description: The City of Saint Paul was awarded \$317,800 from the U.S. Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG) Program in January 2024. The grant funds will be used for technical consulting services to develop a Municipal Buildings Decarbonization Plan, identifying pathways for the City of Saint Paul to achieve carbon neutrality in municipal building operations by 2030.
Contact: Thomas Schultz, DOE Project Officer; thomas.schultz@hq.doe.gov, 240-848-8950
Reporting Requirements: The City of Saint Paul has met all reporting requirements on time.
- 3. Project Title:** Westside Intersection Control Enhancements
Federal Agency and Listing Number: Under DCP agreement. Federal project #: CMAQ 6223(194); State project #: 164-030-016. **CFDA No.:** n/a
Brief Description: \$1,196,000 federal funding to implement improvements to the traffic signals on its West Side. This work is on pace to be complete in the Summer of 2024.
Contact: Colleen Brown, 651-234-7779, colleen.brown@state.mn.us
Reporting Requirements: The City of Saint Paul has met all reporting requirements on time.
- 4. Project Title:** Capital City Bikeway on Kellogg Phase 1
Federal Agency and Listing Number: Under DCP agreement. Federal project #: TA 6223(045); State project #: 164-080-081, 164-158-026. **CFDA No.:** n/a
Brief Description: \$6,761,880 federal funding to construct a protected, off-street bikeway along Kellogg Blvd. in downtown Saint Paul, as part of the City's Capital City Bikeway Project.
Contact: Colleen Brown, 651-234-7779, colleen.brown@state.mn.us
Reporting Requirements: The City of Saint Paul has met all reporting requirements on time.
- 5. Project tile:** Snelling/Lexington ITS Traffic Management
Federal Agency and Listing Number: Under DCP agreement. Federal project #: CMAQ 6221(138); State project #: 164-010-069. **CFDA No.:** n/a
Brief Description: \$2,001,320 federal funding to relieve congestion and improve traffic signal operations, incident and emergency management, along Snelling Avenue and Lexington Parkway.
Contact: Colleen Brown, 651-234-7779, colleen.brown@state.mn.us
Reporting Requirements: The City of Saint Paul has met all reporting requirements on time.

b. Reporting Requirements

This section outlines the City of Saint Paul's ("The City") adherence to reporting obligations under previously awarded assistance agreements outlined in Section 6a. The City's commitment to transparency, accountability and effective communication has been demonstrated through consistent and thorough reporting compliance.

Interim Reporting and Final Reporting Compliance

The City has a strong track record of submitting interim reports and requests for reimbursement that meet standards set forth by the funding partner.

The City, and its agreement partners, have

- Submitted all required reports within the stipulated deadlines, ensuring that no report was delayed or missed
- Ensured that each report was comprehensive, clearly articulating the progress made towards objectives outlined in the agreement
- Received feedback from funding agencies affirming the acceptability and quality of reports, with no unmitigated instances of reports being rejected or deemed unacceptable

The City and the coalition partners for this project have reviewed and agree to meet the reporting requirements outlined in the Federal Funding Accountability and Transparency Act, as well as the Federal Financial Report (FFR_SF425) and are confident that all requirements will be met on this project. If awarded, the City and partners will review grant agreement reporting requirements and ensure compliance.

c. Staff Expertise

The staff expertise necessary to implement this proposal is demonstrated by the Coalition's implementation of previous federal grants. In July 2020, US DOE awarded the Saint Paul and Minneapolis \$6.6 million to launch a "Twin Cities Electric Vehicle Community Mobility Network." Just three months earlier, the State of Minnesota had declared a State of Emergency around COVID. Saint Paul and its partners, with much of the rest of the world, met extraordinary challenges in delivering on the promises in that grant. These included our promise to meet with constituents to understand and respond to their transportation needs, and our promise to buy and install electric vehicles and chargers, and to make these available to our residents to help them get where they needed to go.

Saint Paul and Minneapolis and our partners met COVID's challenges and delivered on those promises. We worked with residents to develop a service rooted in community: Evie Carshare and EV Spot Charging. We overcame supply chain challenges and put chargers in the ground, and shared vehicles on the street. In February 2022, we launched the largest electric carshare system in the United States.

Residents immediately began using the EV Spot Network. In 2022, residents used Evie Carshare to make 57,103 trips. In 2023, residents doubled their use to make 123,000 trips.

This performance demonstrates the deep programmatic capability that we have developed. The individual expertise of the staff who would implement this proposal is described in the attached resumés. It is equally important to detail the *organizational capacity* that the Coalition has developed.

Saint Paul is the lead applicant for the Coalition. The city's electric carshare work is part of its Climate Action Plan, whose implementation is led by the City's Chief Resilience Officer, Russ Stark. This office was created by Mayor Melvin Carter III, Saint Paul's first Black Mayor, to lead implementation of the City's Climate Action & Resilience Plan. The plan focuses on achieving carbon neutrality in city operations by 2030 and citywide by 2050 with actions to decrease emissions across every sector.

The EV Spot Network is owned and operated by Coalition members Saint Paul and Minneapolis. Each city performs its own public engagement and internal processes to choose charger locations and works with Xcel Energy to install necessary infrastructure. The electrical infrastructure to the charger is maintained by Xcel, the charger sites are maintained by each city, and the charger vendor maintains the charger. The City of Saint Paul leases the Evie Carshare vehicle fleet and is reimbursed by the City of Minneapolis for its share of the fleet.

The cities have a joint contract with HOURCAR to operate the Evie Carshare Fleet. HOURCAR's staff of 35 performs all operational functions. HOURCAR owns and operates its own maintenance facility and works closely with local dealers for more significant repairs. HOURCAR also manages all user-facing user account management and billing and operates a user call center. Users report high satisfaction.

These contractual arrangements establish clear roles, and place organizational responsibilities with those best equipped to meet them. The team of Saint Paul, Minneapolis, HOURCAR, and Xcel Energy meets weekly to review and address any issues.

These successful contractual arrangements would continue for the new Evie Carshare vehicles proposed in Tasks 1, 2, and 3, and for the new EV Spot Charging sites proposed in Tasks 2 and 3.

Task 4 would locate new 2-way hubs at or near transit stations. Most of these stations would be in Saint Paul and Minneapolis, so the same contractual arrangements would continue. As described in Sections 3

and 4, we will work with additional regional stakeholders, including other cities, to evaluate and potentially locate hubs at or near transit stations in other cities. Cities (or Metro Transit) requesting a hub would become sub-recipients to Saint Paul for this award. Those cities would maintain those new hubs. The electric carshare vehicles would be managed in the same way that current electric carshare vehicles are: owned or leased by the City of Saint Paul and managed by HOURCAR. Users would see all cars on the same mobile application.

In sum: this performance demonstrates that

- Our model of public ownership and non-profit operations works.
- Our team of public and private institutions has developed the programmatic capability necessary to deliver this project, at this scale.

We overcame COVID-era challenges to create the zero-emission, affordable, reliable transportation option that residents of Saint Paul and Minneapolis told us they need. We have the expertise, the processes, and the physical capacity in place to grow this system and deliver the benefits of electric carshare system to the region.

7. Budget

a. Budget Detail

BUDGET BY YEAR							
COST-TYPE	CATEGORY	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	TOTAL
Direct Costs	TOTAL PERSONNEL	\$151,917	\$159,513	\$167,488	\$175,863	\$184,656	\$839,437
	TOTAL FRINGE BENEFITS	\$50,133	\$52,639	\$55,271	\$58,035	\$60,937	\$277,014
	TOTAL TRAVEL	\$0	\$0	\$0	\$0	\$0	\$0
	TOTAL EQUIPMENT	\$8,000,000	\$7,039,500	\$3,093,000	\$2,062,000	\$0	\$20,194,500
	TOTAL SUPPLIES	\$0	\$48,750	\$48,750	\$48,750	\$48,750	\$195,000
	TOTAL CONTRACTUAL	\$2,818,204	\$8,398,696	\$6,758,561	\$5,465,694	\$2,564,749	\$26,005,904
	TOTAL OTHER	\$10,000	\$0	\$0	\$0	\$0	\$10,000
	TOTAL DIRECT	\$11,030,253	\$15,699,098	\$10,123,071	\$7,810,342	\$2,859,091	\$47,521,855
TOTAL INDIRECT		\$41,205	\$33,590	\$29,651	\$28,265	\$29,434	\$162,145
TOTAL FUNDING		\$11,071,458	\$15,732,689	\$10,152,722	\$7,838,607	\$2,888,526	\$47,684,000

BUDGET BY PROJECT			
Project Number	Project Name	Total Cost	% of Total
MPCA PCAP 1.1.2	Improve equitable access to electric vehicle charging infrastructure	\$17,464,447	37%
MPCA PCAP 1.2.3	Facilitate equitable access to electric vehicle car-share programs	\$30,219,554	63%
Total		\$47,684,000	100%

b. Expenditure of Awarded Funds

The City of Saint Paul has a robust set of procedures and controls in place to manage Federal funds. First, the City Council and the Mayor must approve a resolution allowing departments to apply for all grants, and another resolution to accept and budget grants that have been awarded. Accounting and Budget procedures are in place to accurately account for grant revenue, spending, and budgeting, and Procurement procedures are in place to adhere to Federal requirements for contracting.

The City is also establishing a central Grants Division within its Office of Financial Services this year to provide broad oversight, best practices, and audit preparation for all City grants, and this division will ensure compliance with Federal requirements for subrecipients. The City's new Grants Manager, who will lead this new division, has recently been hired. A new City of Saint Paul Grants Manual is a 43-page document currently in draft form and is being circulated internally for feedback prior to final approval. The Grants Manual identifies, among many other things, procurement procedures, the key elements that must be kept in grant files, personnel and non-personnel budgeting, how to approach subrecipients, beneficiaries and contractors, and grant award modifications.

The City of Saint Paul and its partners are committed to transparent, accountable, and efficient use of grant funds to achieve the measures outlined in this application. The development of this application as well as the procedures and controls to be used during project implementation are designed to ensure that grant funds are expended in a timely and efficient manner within the five years of the grant period. As the primary applicant, the City of Saint Paul will be the recipient of funds and is prepared to be responsible for any funds awarded through this program as the pass-through entity. Given this arrangement, the sections below outline Saint Paul's Approach, Procedures and Controls.

Approach

1. **Clarity** – The project objectives, timeline and budget allocations have been clearly defined to ensure that collaborators and stakeholders understand the proposed scope of work and the expectations of partnership from the beginning stages of project development.
2. **Accountability** – Robust financial and project management systems will be used to track expenses, monitor progress, and address deviations from the plan. Each expense will be documented and subject to review processes to maintain transparent accounting.
3. **Adaptability** – Unforeseen challenges may arise during the grant period. The project team is well equipped with the management tools necessary for agile decision making and resource reallocation while staying within the funding parameters.

Procedures

1. **Execution of Agreements** – The project team has been working very closely with District Energy Saint Paul and other project partners and will be prepared to enter into agreements quickly should funds be awarded.
2. **Budget Allocation** – Funds will be allocated according to the approved budget, by organization, as outlined in the budget narrative. A dedicated team will oversee the management of grant funds, including budget monitoring, expense tracking and financial reporting.
3. **Financial Oversight** – Internal audits are regularly conducted at the City of Saint Paul (Prime Recipient) to assess project fund health and mitigate any errors.

Controls

1. **Segregation of Duties** – Responsibilities related to grant fund management, procurement, and financial reporting are segregated among team members to prevent conflicts of interest and ensure accountability.

2. Documentation and Recordkeeping – All financial transactions and supporting documentation are recorded and retained in accordance with industry best practices and regulatory requirements. Reimbursement requests will be managed by the Project Manager at the City of Saint Paul, and paid by a non-project team member within the Office of Financial Services.
3. Compliance Monitoring – Periodic reviews will be conducted to ensure compliance with the terms and conditions of the grant agreement, as well as relevant laws and regulations. At minimum, the project team will comply with the City of Saint Paul annual auditing process; it is expected that more regular reviews will occur as reimbursement requests are processed.

c. Reasonableness of Costs

Before making any purchases or contract awards, the City of Saint Paul will determine fair and reasonable pricing. When possible, these determinations will be based on competitive quotes. Given the City's experience with the existing charger installations, the budget for this application was created based on market research, current pricing and personal knowledge. Federal guidelines to determine whether prospective contractors are responsible will be adhered to through requests for information, quotes and proposals where applicable. See the *Budget Narrative* attachment for detailed descriptions of each budget item and cost.

All costs will comply with the factors outlined in 2 CFR 200.

Summary & Conclusion

This proposal will produce the four main outcomes that US EPA seeks for CPRG Implementation Grants.

A Regional Electric Vehicle Carshare and Public Charging Network will:

1. *Implement an ambitious plan to achieve significant GHG reductions by 2030 and beyond*

Growing the current electric carshare service to serve the region is ambitious; growing it from a successful base ensures that we can begin expanding the system immediately. We will produce significant GHG reductions by 2030, from the largest emitting sector.

2. *Achieve substantial community benefits, particularly in low-income and disadvantaged communities*

Residents of low-income and disadvantaged neighborhoods in the current Service Area use electric vehicle carshare to save money and reach critical destinations that they could not otherwise reach. Their increased mobility comes with lower emissions, in neighborhoods that especially need cleaner air. A regional system will bring these benefits to more people and more neighborhoods who need them.

3. *Complement other funding sources*

This plan will build on a system created with substantial public, private, and philanthropic funding. The expansion will complement and substantially expand the usefulness of the region's transit system, which has been and will continue to be built and operated with billions of dollars of local, state, and federal funds.

4. *Scale up an innovative policy across jurisdictions*

The proposal builds on a successful municipal partnership and will expand it to more directly serve residents of other jurisdictions.

This proposal will improve people's freedom and access, quickly and substantially reduce global and local emissions, and save Americans money.