



Application

17088 - 2022 Unique Projects

17635 - EV Spot Network Strategic Expansion

Regional Solicitation - Unique Projects

Status:

Submitted

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## Primary Contact

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\*

Saint Paul

Minnesota

55102

City

State/Province

Postal Code/Zip

Phone:\*

651-266-6059

Phone

Ext.

Fax:

What Grant Programs are you most interested in?

Regional Solicitation - Bicycle and Pedestrian Facilities

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## Organization Information

Name:

ST PAUL, CITY OF

Jurisdictional Agency (if different):

**Organization Type:** City  
**Organization Website:**  
**Address:** DEPT OF PUBLIC WORKS-CITY HALL ANNEX  
25 W 4TH ST #1500  
  
\* ST PAUL Minnesota 55101  
City State/Province Postal Code/Zip  
**County:** Ramsey  
**Phone:\*** 651-266-9700  
Ext.  
**Fax:**  
**PeopleSoft Vendor Number** 0000003222A22

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## Project Information

**Project Name** EV Spot Network Strategic Expansion  
**Primary County where the Project is Located** Ramsey  
**Cities or Townships where the Project is Located:** Saint Paul  
**Jurisdictional Agency (If Different than the Applicant):**

In February 2022, Saint Paul launched the EV Spot Network, the nation's largest publicly-owned EV carshare and charging network, and the first 100% renewable transportation system in North America. This project was substantially funded by a \$4 million award from the 2018 Regional Solicitation.

We have developed a bold vision for expansion of the EV Spot network. Our proposal covers the first phase of this expansion, taking the network deep into Saint Paul's East Side. We are proposing an innovative two-pronged approach:

1. We will place a new kind of EV Spot adjacent to five future Gold Line stations (Mounds, Earl, Etna, Hazel, and Sun Ray). These unique EV Spots will feature "gold cars": two-way carshare vehicles designed to serve the transportation needs of current and future multifamily residents in this transit-oriented development corridor. Four of these EV Spots will be sited in the public right-of-way. The fifth will be placed at the Sun Ray Station Park-and-Ride, augmenting the planned mobility hub at that station. The gold cars at these new EV Spots will be integrated with the rest of the network; drivers will be able to park and charge them for free at any EV Spot public charging space.

2. We will extend the Evie Carshare service territory eastward, focusing on a corridor between Maryland to the north and East 7th Street to the south, and including new portions of Payne-Phalen, Dayton's Bluff and the Greater East Side neighborhoods. This captures a part of the East Side that:

- a. is predominantly non-white and low-income;

**Brief Project Description (Include location, road name/functional class, type of improvement, etc.)**

b. has many renters living in multifamily complexes;  
and

c. has very low car ownership: it includes the census tract with the highest proportion of renters owning zero to one cars in the Twin Cities.

This novel approach creates a template for potential future expansion phases:

1. Continuing to place two-way carshare hubs along the Gold Line into Oakdale and Maplewood in Washington County, and potentially along other BRT/LRT lines into other cities and counties throughout the region.

2. Continued expansion of the Evie Carshare service territory into other areas such as Saint Paul's North End and West Side, as well as North Minneapolis.

Our request for this project entails 45 EVs. 10-15 will be permanently assigned to two-way carsharing stations along the Gold Line. The rest will be integrated into the Evie Carshare fleet; since Evie vehicles are free-floating, these vehicles will not be tethered to the East Side, but will enable the increased coverage density needed to support the proposed expansion.

We plan to fund installation of the charging infrastructure separately using NEVI funds and/or other federal and local sources. This mirrors our approach in our original project.

*(Limit 2,800 characters; approximately 400 words)*

**TRANSPORTATION IMPROVEMENT PROGRAM (TIP)  
DESCRIPTION - will be used in TIP if the project is selected for funding. [See MnDOT's TIP description guidance.](#)**

CMAQ: Carsharing, Alternative Fuels and Vehicles

Include both the CSAH/MSAS/TH references and their corresponding street names in the TIP Description (see Resources link on Regional Solicitation webpage for examples).

**Project Length (Miles)** 0

to the nearest one-tenth of a mile

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## Project Funding

**Are you applying for competitive funds from another source(s) to implement this project?** No

**If yes, please identify the source(s)**

**Federal Amount** \$1,440,000.00

**Match Amount** \$382,500.00

Minimum of 20% of project total

**Project Total** \$1,822,500.00

For transit projects, the total cost for the application is total cost minus fare revenues.

**Match Percentage** 20.99%

Minimum of 20%

Compute the match percentage by dividing the match amount by the project total

**Source of Match Funds** City funds, HOURCAR contribution of carshare hardware

A minimum of 20% of the total project cost must come from non-federal sources; additional match funds over the 20% minimum can come from other federal sources

## Preferred Program Year

**Select one:** 2024

Select 2024 or 2025 for TDM and Unique projects only. For all other applications, select 2026 or 2027.

**Additional Program Years:** 2025

Select all years that are feasible if funding in an earlier year becomes available.

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## For All Projects

**County, City, or Lead Agency** City of Saint Paul

**Zip Code where Majority of Work is Being Performed**

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## For Construction Projects Only

**(Approximate) Begin Construction Date**

**(Approximate) End Construction Date**

**TERMINI: (Termini listed must be within 0.3 miles of any work)**

**From:**

(Intersection or Address)

**To:**

(Intersection or Address)

## Requirements - All Projects

### All Projects

*1. The project must be consistent with the goals and policies in these adopted regional plans: Thrive MSP 2040 (2014), the 2040 Transportation Policy Plan (2018), the 2040 Regional Parks Policy Plan (2018), and the 2040 Water Resources Policy Plan (2015).*

**Check the box to indicate that the project meets this requirement. Yes**

*2. The project must be consistent with the 2040 Transportation Policy Plan. Reference the 2040 Transportation Plan goals, objectives, and strategies that relate to the project.*

The project supports and advances a wide variety of Goals, Objectives, and Strategies in the 2040 Transportation Policy Plan, 2020 Update.

Goal C: Access to Destinations (2040 TPP 2.10)

Objectives:

- Increase the availability of multimodal travel options.
- Increase travel time reliability and predictability
- Increase the number and share of trips taken using transit, carpools, bicycling, and walking.
- Improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically under-represented populations.

**Briefly list the goals, objectives, strategies, and associated pages:**

Strategies: C1, C3, C4, C11

Goal D: Competitive Economy (2040 TPP 2.26)

Objectives:

- Improve multimodal access to regional job concentrations identified in Thrive MSP 2040.
- Invest in a multimodal transportation system to attract and retain businesses and residents.

Strategies: D1, D3, D4

Goal E: Healthy and Equitable Communities (2040 TPP 2.30)

Objectives:

- Reduce transportation-related air emissions.
- Reduce impacts of transportation construction, operations, and use on the natural, cultural, and developed environments.
- Increase the availability and attractiveness of transit, bicycling, and walking to encourage healthy communities through the use of active transportation options.
- Provide a transportation system that promotes community cohesion and connectivity for people of all ages and abilities, particularly for historically under-represented populations.

Strategies: E1, E2, E3, E4, E7

*Limit 2,800 characters, approximately 400 words*

*3. The project or the transportation problem/need that the project addresses must be in a local planning or programming document. Reference the name of the appropriate comprehensive plan, regional/statewide plan, capital improvement program, corridor study document [studies on trunk highway must be approved by the Minnesota Department of Transportation and the Metropolitan Council], or other official plan or program of the applicant agency [includes Safe Routes to School Plans] that the project is included in and/or a transportation problem/need that the project addresses.*

**List the applicable documents and pages: Unique projects are exempt from this qualifying requirement because of their innovative nature.**

Our project is in full alignment with the City of Saint Paul's Climate Action and Resilience Plan (<https://bit.ly/3kTFdit>), which was adopted in December 2019. As the plan notes, "The effects of climate change are apparent in Saint Paul and have a disproportionate impact on low-income communities, especially low-income communities of color." The plan identifies transportation as a sector of "high-impact actions," both because transportation is the largest source of GHG emissions in Minnesota, and because increasing clean transportation options is a key to fostering community resilience in the face of climate change. The plan specifically calls out EV carshare as a strategy for climate resilience (pp. 57, 59).

*Limit 2,800 characters, approximately 400 words*

*4. The project must exclude costs for studies, preliminary engineering, design, or construction engineering. Right-of-way costs are only eligible as part of transit stations/stops, transit terminals, park-and-ride facilities, or pool-and-ride lots. Noise barriers, drainage projects, fences, landscaping, etc., are not eligible for funding as a standalone project, but can be included as part of the larger submitted project, which is otherwise eligible. Unique project costs are limited to those that are federally eligible.*

**Check the box to indicate that the project meets this requirement. Yes**

5. Applicant is a public agency (e.g., county, city, tribal government, transit provider, etc.) or non-profit organization (TDM and Unique Projects applicants only). Applicants that are not State Aid cities or counties in the seven-county metro area with populations over 5,000 must contact the MnDOT Metro State Aid Office prior to submitting their application to determine if a public agency sponsor is required.

**Check the box to indicate that the project meets this requirement. Yes**

6. Applicants must not submit an application for the same project elements in more than one funding application category.

**Check the box to indicate that the project meets this requirement. Yes**

7. The requested funding amount must be more than or equal to the minimum award and less than or equal to the maximum award. The cost of preparing a project for funding authorization can be substantial. For that reason, minimum federal amounts apply. Other federal funds may be combined with the requested funds for projects exceeding the maximum award, but the source(s) must be identified in the application. Funding amounts by application category are listed below in Table 1. For unique projects, the minimum award is \$500,000 and the maximum award is the total amount available each funding cycle (approximately \$4,000,000 for the 2020 funding cycle).

**Traffic Management Technologies (Roadway System Management):** \$500,000 to \$3,500,000

**Spot Mobility and Safety:** \$1,000,000 to \$3,500,000

**Strategic Capacity (Roadway Expansion):** \$1,000,000 to \$10,000,000

**Roadway Reconstruction/Modernization:** \$1,000,000 to \$7,000,000

**Bridges Rehabilitation/Replacement:** \$1,000,000 to \$7,000,000

**Arterial Bus Rapid Transit Project:** N/A to \$25,000,000

**Transit Expansion:** \$500,000 to \$7,000,000

**Transit Modernization:** \$500,000 to \$7,000,000

**Travel Demand Management (TDM):** \$100,000 to \$500,000

**Multise Trails and Bicycle Facilities:** \$250,000 to \$5,500,000

**Pedestrian Facilities:** \$250,000 to \$2,000,000

**Safe Routes to School (Infrastructure Projects):** \$250,000 to \$1,000,000

**Check the box to indicate that the project meets this requirement. Yes**

8. The project must comply with the Americans with Disabilities Act (ADA).

**Check the box to indicate that the project meets this requirement. Yes**

9. In order for a selected project to be included in the Transportation Improvement Program (TIP) and approved by USDOT, the public agency sponsor must either have a current Americans with Disabilities Act (ADA) self-evaluation or transition plan that covers the public right of way/transportation, as required under Title II of the ADA. The plan must be completed by the local agency before the Regional Solicitation application deadline. For the 2022 Regional Solicitation funding cycle, this requirement may include that the plan is updated within the past five years.

**The applicant is a public agency that employs 50 or more people and has a completed ADA transition plan that covers the public right of way/transportation. Yes**

**The applicant is a public agency that employs fewer than 50 people and has a completed ADA self-evaluation that covers the public right of way/transportation.**

**(TDM and Unique Project Applicants Only) The applicant is not a public agency subject to the self-evaluation requirements in Title II of the ADA.**

**Date plan completed:**

01/13/2016

**Link to plan:**

[https://www.stpaul.gov/sites/default/files/Media%20Root/ADA%20Transition%20Plan%20for%20Public%20Works\\_2016.pdf](https://www.stpaul.gov/sites/default/files/Media%20Root/ADA%20Transition%20Plan%20for%20Public%20Works_2016.pdf)

**Date self-evaluation completed:**

**Link to plan:**

**Upload plan or self-evaluation if there is no link**

Upload as PDF

10. The project must be accessible and open to the general public.

**Check the box to indicate that the project meets this requirement. Yes**

11. The owner/operator of the facility must operate and maintain the project year-round for the useful life of the improvement, per FHWA direction established 8/27/2008 and updated 6/27/2017. Unique projects are exempt from this qualifying requirement.

**Check the box to indicate that the project meets this requirement. Yes**

12. The project must represent a permanent improvement with independent utility. The term independent utility means the project provides benefits described in the application by itself and does not depend on any construction elements of the project being funded from other sources outside the regional solicitation, excluding the required non-federal match. Projects that include traffic management or transit operating funds as part of a construction project are exempt from this policy.

**Check the box to indicate that the project meets this requirement. Yes**

13. The project must not be a temporary construction project. A temporary construction project is defined as work that must be replaced within five years and is ineligible for funding. The project must also not be staged construction where the project will be replaced as part of future stages. Staged construction is eligible for funding as long as future stages build on, rather than replace, previous work.

**Check the box to indicate that the project meets this requirement. Yes**

14. The project applicant must send written notification regarding the proposed project to all affected state and local units of government prior to submitting the application.

**Check the box to indicate that the project meets this requirement. Yes**

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## **Measure 1: Innovation**

A. Describe the new approach of the project to address existing and/or emerging challenge(s). Identify the challenge(s) that the approach is trying to address and discuss how the approach was developed (e.g., replicated from another region, created a new technology/idea). Also briefly describe the risk assessment of the innovation, any mitigation strategies to manage risks, and who will mitigate the risk, if needed. Examples of challenges include:

Our proposal creatively responds to the challenge of increasing transportation options and reducing the cost burden on low-income residents. It also reduces greenhouse gas and other harmful emissions, improving residents' health and well-being. And it creates a playbook for scaling up the EV Spot Network into a regional transportation asset that complements transit.

Our proposal is twofold:

1. We will place two-way carshare hubs along the Gold Line. These two-way hubs are a brand-new feature of the EV Spot Network that will provide a flexible transportation option for current and future residents. The "gold cars" at these stations will be able to park and charge at all EV Spot public charging stations. These vehicles will support residents' ability to take trips to destinations not easily reached by fixed-line transit and/or that require transporting cargo, enabling them to live with fewer cars and reducing their transportation cost burden. The addition of two-way carshare hubs along the Gold Line also creates a model for regional expansion of the EV Spot Network along LRT/BRT lines. We have already begun conversations with Washington County and the cities of Oakdale and Maplewood about adding EV Spots at the remaining Gold Line stations, and plan to explore similar expansion along additional existing and planned transitways.

2. We will expand the Evie Carshare service territory deep into Saint Paul's East Side. The East Side is underserved by transit, making it difficult for low-income residents who do not own a car to connect to jobs, education, and services. Our proposed expansion will provide a flexible transportation option that reduces the cost burden

**Response:**

of personal vehicle ownership for these residents. We are currently contemplating similar expansions into the North End and West Side, and our partners are considering an expansion in North Minneapolis. Future expansions may be either contiguous (i.e., directly connected to the existing service area) or non-contiguous (i.e., service territory "islands" not directly connected to the main service area). This type of expansion might extend to some first-ring suburbs.

The Metropolitan Council has committed to "prioritize transportation investments that connect lower-income areas to job opportunities" (Thrive 2040, p 44). The region's economic development lead, GreaterMSP, identifies "Percent of Population Living Within 30 Minutes of 100,000 Jobs by Transit or Walking"--i.e., without a personally-owned vehicle--as a critical economic, environmental, and social indicator. Despite investment in new transit routes and frequencies, however, GreaterMSP's critical indicator has fallen from 6.0% to 4.9% since 2016. For the region to accomplish its transportation goals, it must look beyond established models.

Innovation is a process of continuous iteration. When we first proposed the EV Spot Network in 2018, we conceived of a point-to-point (rather than free-floating) carshare network. It was only through the iterative process that we developed the current "semi-free-floating" model, which allows users to park vehicles anywhere in the service area but incentivizes them to return vehicles to charging hubs. We aligned our incentives with nonprofit operator HOURCAR by creating a unique contractual arrangement wherein HOURCAR earns credits toward parking costs by meeting targets for low-income and BIPOC participation. This has now

enabled us to expand the service into the City's East Side, which was the first to be cut by car2go. The proposed expansion is thus both the fruit of this ongoing innovative process and the seedbed of new innovation.

While risk is an inherent feature of innovation, the City has taken steps to manage the risks of the project. The primary risk we have identified is underutilization of the service. The City and its partners conducted a series of prototyping sessions with area residents and led an extensive community engagement process to identify and reduce or eliminate barriers to access. The early fruits of this risk-management strategy are already evident: Evie Carshare is already exceeding projections for overall usage and low-income participation.

*(Limit 4,200 characters; approximately 600 words)*

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## **Measure 2: Environmental Impact**

*A. Describe how the project will improve regional air quality.*

*Applicants must describe their methodology for determining the project impact. Also, provide a description of the people/groups that will receive either direct or indirect benefits from the project. Examples of benefits include:*

Our project will improve regional air quality by reducing SOV trips in internal combustion engine (ICE) vehicles, increasing transit and non-motorized trips through mode shift, and facilitating trips in electric vehicles powered by 100% renewable energy.

Our approach to determining project impact is derived from the FHWA 2020 CMAQ Cost Effectiveness Update (<https://bit.ly/3LEuH95>), which describes the environmental benefits of carsharing as follows: "Shared vehicles provide alternatives to reduce household LDV, and in some cases enable households to own fewer cars, both of which may result in decreases in VMT through eliminating some discretionary trips and mode shift to public transit" (p.35). FHWA defines a methodology for calculating VMT reductions from carsharing: "For purposes of this analysis, it was assumed that each shared vehicle is used by fifteen owners of light duty vehicles, fleet size of 500, and each participant reduces net annual VMT by 2500 to 4500 with average travel speed of 35 mph" (p. 37).

**Response:**

We use this methodology as follows:

- calculate on a per-vehicle basis at 15 users per vehicle
- take the mean of the high- and low-end VMT reduction estimates cited by FHWA (3,500).

Following FHWA, then, each carshare vehicle put into service reduces 52,500 VMT in SOVs annually (= 15 users x 3,500 VMT reduced), or 144 VMT per day.

The FHWA methodology anticipates the use of ICE carshare vehicles. An extra calculation is thus required to capture the benefit of substituting EVs powered by 100% renewable energy. Based on internal data provided by project partner HOURCAR, we estimate that each EV carshare vehicle will travel 18,834 miles annually, or 52 miles per day. Those 52 miles per day create zero emissions, effectively reducing an additional 52 miles of VMT over ICE carshare vehicles

We then combine the FHWA-proposed methodology with the adjustment for zero-emission carshare vehicles: 144 VMT (FHWA baseline) + 52 VMT (additional reduction) = 196 VMT reduced per EV carshare vehicle per day.

Using this methodology, we estimate that 45 shared electric vehicles will reduce 22,535,100 VMT over the 7-year project period.

By reducing VMT in SOVs and replacing ICE vehicle trips with trips in EVs, our project will significantly reduce harmful criteria pollutants. The FHWA Cost Effectiveness Update indicates that carsharing has "strong cost effectiveness" for reducing CO, NOx, and VOC (pp. 1, 14, 35-38), and moderate cost effectiveness for reducing PM2.5 (pp. 5, 12). Using the Argonne AFLEET Tool and data on criteria emissions reductions from mode shift(1), we estimate our project will reduce 28 metric tons (mTs) CO, 3.8 mTs VOC, .3 mTs NOx, and .14 mTs PM2.5.

1. "Conserving Energy and Preserving the Environment: The Role of Public Transportation" (<https://bit.ly/3j4Vak3>), p. 9

*(Limit 2,800 characters; approximately 400 words)*

*B. Describe how the project will contribute to climate change improvement. Explain how the project will reduce greenhouse gas emissions.*

Our project will reduce GHG emissions by promoting mode shift from SOVs to transit, biking, and walking; replacing trips in ICE vehicles with trips in EVs powered by 100% renewable energy; and promoting adoption of EVs through increased familiarity.

As noted in our response to Measure A, FHWA's 2020 CMAQ Cost Effectiveness Update (<https://bit.ly/3LEuH95>) defines a methodology for calculating VMT reduction. Using FHWA's methodology, and adding an additional calculation to account for carsharing with electric vehicles powered by 100% renewable energy, we arrived at the following:

- Our project will reduce 16,556,400 VMT by mode shift to public transit, biking, and walking (=45 vehicles x 144 VMT reduced per day x 365 days x 7 years)

- Our project will reduce an additional 5,978,700 VMT equivalent by replacing trips in ICE vehicles with trips in EVs powered by 100% renewable energy (=45 vehicles x 52 VMT reduced per day x 365 days x 7 years)

To calculate GHG impacts from VMT reduction, we used the following methodology:

1. For VMT reduced by mode shift to transit, we calculated GHG reductions using USDOT estimates (<https://bit.ly/3r6F7Xr>) of .96 pounds of GHG per trip-mile for an SOV and .45 pounds per trip-mile for transit, for a total of 3,755 metric tons (mTs) of GHG reduced. This is a conservative estimate, as some of these trip-miles would be accounted for by biking, walking, and foregone or batched trips.

Response:

2. For VMT reduced by direct replacement of ICE vehicle trips with EVs fueled by 100% renewable energy, we calculated the emission reduction as 100% of the GHG that would have been emitted by the ICE vehicle trips. Using the Argonne AFLEET Tool, we calculated the total GHG reduction as 2,065 mTs.

We also anticipate our project will have considerable knock-on effects in the form of increased adoption of EVs. Familiarity drives adoption: according to a recent study by JD Power and Associates (<https://bit.ly/37pfTwi>), 46% people who have previously driven an EV are "very likely" to purchase one in the future. Based on HOURCAR data for normal membership turnover, we estimate 1,800 people will use one of these 45 electric vehicles each year. As a very conservative estimate, we assume around 50 users per year (<3% of total users) will go on to purchase an EV instead of an ICE vehicle due to increased familiarity. Using the Argonne AFLEET tool set to an electricity generation mix based on Xcel Energy's Upper Midwest mix (<https://bit.ly/35Ib3tJ>) and estimating 11,467 annual miles per vehicle based on FHWA averages (<https://bit.ly/3x6Jp4E>), we estimate cumulative GHG reductions of 3,577 metric tons over seven years.

Summing these calculations, we arrive at total estimated GHG reduction of 9,397 mTs GHG reduced over the seven-year project period.

*(Limit 2,800 characters; approximately 400 words)*

*C. Describe how the project will improve surface or ground water quality and management. Examples of improvements include:*

Our project will improve regional water quality by reducing emissions of toxic hydrocarbons, particulates, and heavy metals which contaminate the region's waterways and groundwater.

In "Relating Vehicle-Generated Pollutants to Urban Stormwater Quality" (<https://bit.ly/3J28PD2>), Janaka Gunawardena describes how emissions from ICE vehicles contribute to the buildup of harmful substances, including hydrocarbons and heavy metals, on impervious surfaces (roadways, sidewalks, rooftops). These harmful substances are then washed away into waterways via stormwater ducts.

Among the findings are that:

- Runoff from road surfaces contributes 19-40% of toxic heavy metal water pollution (p. 1). Vehicle brake wear is a significant contributor to heavy metal particulate generation (p.22).

- Internal-combustion engine vehicles emit benzene, toluene, ethylbenzene, and xylene (BTEX), uncombusted fuel molecules collectively referred to as volatile organic compounds, or VOC (p. 20). These insoluble toxic compounds accumulate on surfaces and are then washed away into regional waterways.

- Vehicular emissions contribute 25-35% of ultrafine particulate (PM2.5) mass to the atmosphere. Much of the PM2.5 pollution results from incomplete combustion of hydrocarbons (p. 24). This particulate mass is then absorbed by raindrops and returned to the groundwater (p. 25).

Our project solves for these groundwater pollutants by using electric vehicles powered by 100%

Response:

renewable energy.

- In "Conserving Energy and Preserving the Environment: The Role of Public Transportation," Shapiro, Hasset and Arnold find that mode shift to public transit reduces VOC emissions by over 90% (<https://bit.ly/3j4Vak3> p. 9). Replacing trips in ICE vehicles with electric vehicles powered by 100% renewable energy, on the other hand, reduces VOC emissions by 100%. Using the Argonne AFLEET Tool to calculate the emissions benefits of both mode shift to transit and replacement of trips in ICE vehicles with EVs as documented above in Measure A, we estimate that our project will reduce 3.8 metric tons (mTs) of VOCs over seven years, the equivalent of avoiding a spill of nearly 1,400 gallons of petroleum into the region's waterways.

- Using the same method, we estimate our project will also reduce .14 mTs of PM2.5, harmful airborne particulates that would have reentered the waterways through rainfall.

- Our project will reduce heavy metal emissions from brake wear. Electric vehicles use regenerative braking, which efficiently converts kinetic energy from the vehicle's momentum into electricity to slow and stop vehicles. JD Power and Associates found that regenerative braking systems reduce wear on brake drums and pads, and associated heavy metal particulate emissions, by up to 70% (<https://bit.ly/3DIQvhk>).

*(Limit 2,800 characters; approximately 400 words)*

*D. Describe how the project will make other environmental improvements. Examples of other environmental elements include:*

Our project will reduce noise pollution by replacing trips in noisy internal-combustion engine (ICE) vehicles with quiet EVs, as well as with transit and non-motorized trips (biking, walking). This will provide a particular benefit to residents of the predominantly low-income and BIPOC residents in the neighborhoods where the service will operate. These neighborhoods are disproportionately impacted not only by air pollution, but also by noise pollution due to their proximity to major transportation corridors and industrial areas.

**Response:**

Noise pollution has significant detrimental public health effects. According to the World Health Organization's report "Burden of Disease from Environmental Noise" (<https://bit.ly/3j7aa0H>) at least one million disability-adjusted life-years (DALYs) are lost every year due to noise from traffic (cf. Abstract). The authors support this finding with research demonstrating the harmful impacts of traffic noise in terms of increased heart disease, cognitive impairment of children, sleep interruption, and annoyance/anger incitement leading to road rage and other negative outcomes. According to "Environmental Burden of Disease in Europe: Assessing Nine Risk Factors in Six Countries" (<https://bit.ly/3NWiGOv>), a separate study using WHO data, noise pollution comes in just after air pollution in terms of its harmful impacts on public health, and at a similar level to secondhand smoke and radon exposure.

Our project will reduce noise pollution by replacing nearly 6 million trip-miles in ICE vehicles with trips in EVs, which are far quieter than ICE vehicles. In fact, these vehicles are so quiet that manufacturers are now required to place noise-producing devices in the vehicles for pedestrian safety. Nissan Asia/Oceania recently performed an experiment in

Bangkok measuring the noise impacts of replacing ICE vehicles with EVs (<https://bit.ly/3NUu6Cb>). The study concluded that using EVs on city streets in place of ICE vehicles reduced the decibel (dB) level by over 75%, from 90 dB to 21 dB. As a reference point, WHO recommends nighttime ambient noise levels not exceeding 40 dB for children and adults to get healthy sleep (<https://bit.ly/3KijSD9>).

Our project will also replace trips in ICE vehicles with trips by transit, biking and walking. While transit buses are noisier than ICE cars, transit produces less noise overall by consolidating many trips into one HOV. Assuming mode shift reduces noise pollution at a similar rate as it reduces air pollution, we estimate our project will reduce noise pollution by roughly half for trips impacted by mode shift, which total an estimated 16,556,400 trip-miles.

*(Limit 2,800 characters; approximately 400 words)*

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### **Measure 3: Racial Equity**

*A. Describe how the project will improve connectivity and access to places and opportunity for black, indigenous, and people of color (BIPOC) communities. Examples of improvements include:*

The proposed EV Spot Network expansion will improve transportation options on the City's East Side, which is majority BIPOC. The City has invested heavily in community engagement around transportation and carshare, including engaging community partners on the East Side. Our project directly incorporates lessons learned through this engagement.

In late 2019 and early 2020, Saint Paul invited diverse residents, including East Side residents, to participate in focus groups about their transportation needs. Low-income and BIPOC residents were oversampled, and participants were compensated for their participation. The engagement included a) keeping a travel log; b) in-depth discussion of how that log reflected transportation needs that were met/not met/met poorly; c) how a potential carshare service, at various prices, would or would not help meet transportation needs. The engagement combined data on behavior with in-depth conversation about that behavior.

**Response:**

In 2020, project partner HOURCAR engaged ten Community-Based Organizations (CBOs) in BIPOC neighborhoods, including two CBOs representing Saint Paul's East Side (Payne-Phalen Community Council and Dayton's Bluff Community Council). Each of the ten CBOs represented a neighborhood of a majority BIPOC residents where more than 40% of households live under poverty thresholds. The CBOs were constituted as a "Core Partner Council" to advise on the design of the EV Spot Network. These CBOs conducted their own outreach and communicated results to HOURCAR and the City. HOURCAR prepared a first-of-its kind community engagement report with findings and recommendations (cf.

<https://hourcar.org/community>); To the best of our knowledge, no other shared-mobility provider in the US has ever conducted such a process on similar scale or produced such a report.

During the COVID-19 pandemic, HOURCAR convened focus groups of residents from the Powderhorn and Payne-Phalen neighborhoods specifically on transportation options during COVID. These groups again over-sampled BIPOC residents.

Participants in the engagement sessions consistently identified transportation needs that current options did not meet. These needs included traveling to medical and other time-critical appointments such as job interviews, and traveling outside the transit-served core, whether for medical or economic needs or to visit friends and family. Focus group participants consistently said that a carshare service would help meet their unmet transportation needs, supporting health and well-being. The results also underscored that post-COVID, the combination of transit limitations and increasing vehicle costs had deepened the need for a flexible and affordable transportation option. Residents saw carshare as a valuable addition to their choice set.

*(Limit 2,800 characters; approximately 400 words)*

*B. Describe how the project will remove or lessen barriers to movement, participation, or cultural recognition. Examples of improvements include:*

The community engagement process described above in Measure A underscored that carshare would be a valuable addition to resident's transportation toolkit. It also identified a number of potential barriers to accessing the service. Among these barriers was the cost of the service, language barriers for non-English speakers, and unfamiliarity with carsharing and electric vehicles.

The City responded by enshrining targets for low-income and BIPOC participation in its contract with Evie Carshare operator HOURCAR. In exchange for meeting graduated targets over five years, the City agreed to provide credits toward meter revenue recovery fees. HOURCAR was thus incentivized to invest funds it would otherwise have spent on parking to make the service more affordable and accessible. To our knowledge, no other city in the US has crafted such an arrangement with a shared-mobility provider.

**Response:**

Targets for the project include:

- a. Grow usage by Black, Indigenous, People of Color (BIPOC) to 50% of total usage.
- b. Grow usage by very low-income community members (defined as household income at or below 50% of Area Median Income) to 40% of total usage.
- c. Grow usage by BIPOC residents who are also very low income to 20%.

As a result of this arrangement, HOURCAR has worked closely with the City to reduce barriers and make Evie Carshare more accessible.

1. Cost: Before the launch of Evie Carshare, HOURCAR cut its rates by nearly 40% and implemented a qualified low-income rate structure. HOURCAR has also set up a system which allows applicants to self-certify their income level, reducing barriers to applying.

2. Language: Concern was expressed that it would be difficult for non-English speakers to navigate customer service during a stressful real-time event such as a crash. HOURCAR responded by adding a translation service to its member services hotline, whereby members can request and receive real-time translation in their preferred language.

3. Engagement: HOURCAR was recently awarded a grant from the US EPA Office of Environmental Justice to support deep engagement with two members of the original Core Partner Council mentioned in Measure A: Payne-Phalen Community Council (PPCC) and Powderhorn Park Neighborhood Association (PPNA). East Metro Strong is an advisor on the project. With this funding, PPNA and PPCC are hiring dedicated staff to help residents better understand and access multimodal transportation options, including Evie Carshare. PPCC staff will work with East Side residents to remove physical and cultural barriers to accessing EV carshare:

- Physical barriers: residents will help shape the boundaries of the Evie Carshare service area expansion

- Cultural barriers: information about the EV Spot Network will come from the trusted local CBO.

*C. Describe how the project will contribute to quality-of-life improvements for BIPOC communities. Examples of improvements include:*

Our project will provide significant quality-of-life benefits to Black, Indigenous, and People of Color communities by offering practical, cost-effective access to the full range of destinations in the Metro.

The Metropolitan Council's fundamental goal is that the region be a "great place to live, work, and do business." To that end, "Efficient transportation systems smoothly move people and goods to their destinations, and our residents enjoy a reasonable cost of living, benefitting from lower-priced public services" (Thrive 2040, pp. 2-3). As described in Measures 3A and 3B, the Metro has not yet achieved the goal of efficient transportation at a reasonable cost on the East Side, among other places.

**Response:**

This lack of transportation worsens health. According to the American Hospital Association: "Each year, 3.6 million people in the United States do not obtain medical care due to transportation issues. Transportation issues include lack of vehicle access, inadequate infrastructure, long distances and lengthy times to reach needed services, transportation costs and adverse policies that affect travel" ([bit.ly/3v5f97D](https://bit.ly/3v5f97D)). Our project will improve health outcomes by increasing transportation options and decreasing travel time to get to and from medical appointments.

BIPOC seniors are especially vulnerable to the health impacts of social isolation due to the combined effects of age and race discrimination. A 2020 study by the AARP Foundation and the United Health Foundation (<https://bit.ly/3xe4QRx>) found that seniors were at particular risk for social isolation during the pandemic, with many seniors experiencing associated symptoms of anxiety and depression. The study noted that "Key signs to

identify if someone is at risk for social isolation are access to food, healthcare, transportation and other vital resources" (p. 8). For seniors who do not own a car, access to carsharing can be a lifeline.

Our project will increase access to jobs for the majority-BIPOC communities served by our proposed expansion. University of Minnesota research has documented the existence of a "spatial/skills mismatch" whereby it is difficult for residents of low-income and majority BIPOC neighborhoods to access jobs due to the slow nature of available transit: "transit-dependent workers living in these areas face prohibitively long commutes even to spatially proximate jobs" (<https://bit.ly/3693DQg> p. 19). Evie Carshare enables such workers to make more rapid connections to BRT/LRT, improving access to jobs.

Finally, residents in our focus groups described the loss of dignity from being dependent on others for rides. Access to a carshare vehicle, they said, would make it possible for them to give rides and be helpful, making them contributors to their community.

*(Limit 2,800 characters; approximately 400 words)*

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## **Measure 4: Multimodal Communities**

*A. Describe how the project improves multiple non-single-occupant vehicle (SOV) modes within the system (e.g., transit, biking, walking, carpooling). Examples of improvements include:*

Our project is designed as a multimodal connector, complementing transit and expanding the range of multimodal options available, including adding a new mode at the proposed Sun Ray Gold Line Station mobility hub.

The 2017 Shared-Use Mobility Center's "Action Plan for the Twin Cities," with input from more than 75 regional stakeholders, identified the absence of one-way carsharing as a major gap in the region's multimodal network (<https://bit.ly/36ZxNWF>). While Evie Carshare has filled this gap where the service operates, it remains in areas like Saint Paul's East Side.

Access to carshare changes the game. Studies consistently demonstrate that access to carshare enables residents to make more multimodal choices. "Mobility and the Sharing Economy: Impacts Synopsis" (<https://bit.ly/3KdDcYx>), a summary of five studies prepared by the Transportation Research Center at UC Berkeley, finds that:

- Each carshare vehicle replaces 9-13 private vehicle purchases (current or future).
- Carshare members increase their public transit and non-motorized use
- "A majority of [carshare] members walk more frequently."
- "More people increased their overall public transit and non-motorized modal use after joining carsharing than decreased it."

Internal data from project partner HOURCAR

Response:

supports these findings: 44% of HOURCAR members reported that they shed a vehicle or deferred an auto purchase, and most increased use of transit, biking and walking as a result.

Our proposal will place new EV Spot two-way carshare hubs near transit lines, substantially expanding destinations reachable in a reasonable time without a private vehicle. We are working with Metro Transit to place an EV Carshare hub at the park-and-ride for the planned mobility hub at the Sun Ray Gold Line Station, adding an additional mode that enhances the ability of residents who use the Gold Line to live with fewer cars. One study found that living near a fixed carshare location within walking distance reduced the probability of owning a vehicle by 20% (Cervero, et al., "San Francisco City CarShare: Longer-Term Travel-Demand and Car Ownership Impacts," <https://bit.ly/3E8l28o>).

Evie Carshare also uses charging hubs as reliable points of access for carshare vehicles. Thus, residents always know where to find an Evie vehicle near their home or place of business. Our proposed expansion of the Evie Carshare service territory means that residents underserved by transit will have a new option for connecting rapidly to BRT/LRT and other transit service. EV Spots are located in close proximity to transit stations so users can easily drop a car off at a charging station and board the bus or light rail, or vice versa. Bike racks at all EV Spots facilitate easy trip-chaining between modes.

*(Limit 2,800 characters; approximately 400 words)*

*B. Describe the land use and development strategies that the project directly influences or supports that help create walkable, bikeable, and transit-friendly communities. Examples of strategies include:*

The proposed EV Spot Network expansion fulfills the TPP's goal of "Leveraging Transportation Investments to Guide Land Use Outcomes," by "help[ing] create walkable, bikeable, and transit-friendly communities."

As documented above in Measure A, the EV Spot Network supports multimodal communities. As such, it aligns with a variety of outcomes and goals in the 2040 Transportation Policy Plan (Chapter 13: Outcomes):

- Percent Non-Single Occupancy Vehicle Travel: Target of greater than 25 percent "reflects the TPP's vision of travel via multiple modes and decreased single-occupancy vehicle use"

- Transit Ridership: Increase in daily transit ridership

- Modal participation rate: Percent of people who use these modes at least once on a typical day

- On-Road Mobile Source Emissions: Total amounts.

Response:

As detailed in our response to Question 2A, the EV Spot Network will reduce VMT in SOVs. The TPP identifies minimizing VMT per capita as a preferred outcome: "When people are driving further, there are implications for the environment (beyond just air quality), the economic viability of travel and related equity of access, the potential for fatal and serious crashes, and wear and tear on the region's transportation infrastructure."

The Council's Housing Policy Plan sets a priority to "help low-income households reduce the combined costs of housing and transportation." According to

the "Impacts Synopsis" of the Transportation Research Center at UC Berkeley (<https://bit.ly/3xc2PW6>), households that use carsharing save \$1,848 - \$5,220 per year on transportation costs; these costs have only increased since that study. Averaging high- and low-end estimates, and multiplying by the anticipated number of users per vehicle (15; cf. our answer to Question 2 Measure A), we estimate our project will save residents \$2,385,450 annually, or \$16,698,150 over the seven-year project period.

Finally, carshare reduces residential off-street parking needs. Parking is a major cost driver in multifamily development. Reducing parking needs improves housing affordability, a major goal of the Metropolitan Council. The Council notes that "As car-sharing services, such as HourCar or Car2Go, become more common, the number of parking spaces needed will lessen in developments" (<bit.ly/37hHZd0>). Millard-Ball et al. (<bit.ly/3r6kACm>) outline the ways in which carshare reduces private vehicle ownership and parking demand, concluding that "making convenient and visible parking spaces available for car-sharing vehicles is one of the most useful actions partner organizations can take to implement car-sharing as a parking reduction strategy." This reduced parking demand can then be translated into more productive land uses, including the denser development called for in Council policies.

*(Limit 2,800 characters; approximately 400 words)*

*C. Describe how the project supports first- and last-mile solutions for people connecting to places they need to go. Describe the destinations the project will connect and their level of demand. Examples of strategies include.*

The proposed EV Spot network two-way carshare stations along the Gold Line will facilitate access to destinations not easily reached by fixed-line transit, and will add a new mode at the proposed Sun Ray Gold Line Station mobility hub, substantially expanding the range of destinations reachable from the Gold Line.

As noted above in our answer to Question 3A, the City and HOURCAR convened focus groups with diverse sets of residents to learn about their unmet transportation needs. Residents consistently identified needs that current options could not easily meet. These included traveling to and from medical and other critical appointments such as job interviews. While many of these destinations are in theory reachable by transit, the trips took too long and the service was not necessarily reliable. For example, to ensure timely arrival to a 30-minute medical appointment, residents described needing to take a half-day off work. In some cases, residents decided to forego the trip, degrading health outcomes and increasing downstream medical costs.

**Response:**

Access to carshare increases residents' ability get medical care. As one example, residents will be able to travel to Sun Ray on the Gold Line, and then use an EV Spot "gold car" to reach the Woodwinds medical campus:

- The bus from Sun Ray to Woodwinds comes every half hour and takes 20 minutes. Just this leg of a trip can take 50 minutes, or an hour and 40 minutes round trip. Building in buffer time to allow for occasional local bus delays, it's easy to see how travel to a medical appointment can require a half-day.
- With two-way carshare service available at Sun

Ray, travel time shrinks to 16 minutes round trip to and from the frequent and reliable Gold Line.

Other commonly expressed concerns included reliability and safety while traveling to and from work at off hours. Focus group residents consistently said they needed a way to get home when working late, or taking additional off-peak shifts, when transit may not be a viable solution. The expansion of the Evie Carshare service area helps address this need. As a one-way service, Evie Carshare is a textbook first/last mile connector, enabling people to make direct trips to and from transit stops and termini. Through the planned expansion, Evie Carshare vehicles will be located near current high-frequency service on Maryland Ave. and near planned Purple Line stations, creating similar benefits to the Gold Line expansion.

Focus group participants consistently said that carshare would help meet their unmet transportation needs. The fact that Evie Carshare use during the soft launch has exceeded projections shows that this new service is successfully meeting those needs. Expanding carshare access will make this option available to even more residents.

*(Limit 2,800 characters; approximately 400 words)*

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## **Measure 5: Regional Impact/Scalability**

*A. Describe the regional impact of the project. In the response, consider the following:*

The EV Spot Network is a project of regional significance, expanding the range of destinations for residents and allowing more people to forego personal vehicle ownership. The proposed East Side expansion will both increase the regional impact of the EV Spot Network and help the region develop the tools necessary to further expand the network and its benefits to as many people as possible.

After accounting for normal turnover, we estimate that each of the 45 vehicles in our project will be used by 40 unduplicated individuals annually, or 1,800 total. Carshare members, however, are not the only residents directly impacted by the service. Other household members, friends, and extended family members are likely to receive rides from these members. Based on data from Texas A&M (<https://bit.ly/3jxfLOI>), which finds that the average LDV trip has 1.5 occupants, we assume that at least one friend or family member will receive a ride for every two carshare members, increasing the annual number of directly impacted people to 2,700.

**Response:**

Using US Census block group data, we estimate that the total number of residents living within a half-mile radius of the 5 identified Gold Line stops is 14,502, and the number of residents in Evie Carshare expansion area neighborhoods is 18,736, a total of 33,238. We therefore estimate that our project will directly impact roughly 8% of all residents in the service area.

The geographic reach of the project includes residents of the proposed expansion area, but is not limited to them. For example, the EV Spot hub at Sun Ray Station will serve people who work or

have destinations near the Gold Line. Forecast Gold Line ridership is 6,000/day. There are 93,500 jobs within a half-mile of the Gold Line; that suggests the number of employees who could benefit from having access to a shared vehicle at Sun Ray.

The focus groups that Saint Paul convened while designing the EV Spot Network (described in 3A) included 150 residents from outside the original Evie Carshare service area. Along with the residents who lived in the proposed service area, those living outside it also saw substantial value in having a carshare option available, even if it was not in their immediate neighborhood. Our proposal will thus expand options even for residents who live beyond its boundaries.

Another important impact of the project will be developing the tools necessary to effectively serve areas with less overall density, yet with many dense clusters of residents, jobs, and destinations. To serve these new areas well, the EV Spot Network needs to develop new operational and logistical models. This in turn will provide key learnings and best practices informing potential expansion of the network to other areas, including suburban and exurban communities.

*(Limit 2,800 characters; approximately 400 words)*

*B. Describe the expandability of the project. If the project requires an adequate private market response, describe the characteristics of the market it could serve beyond the initial project. In the response, consider the following:*

Our proposal has strong potential for replication in at least two kinds of markets:

- At or near future BRT and LRT stations. The regional LRT and BRT network will continue to expand into destination-rich suburban corridors. And while stations are planned to be near clusters of destinations, the nature of the existing land use patterns means that many of these destinations will be hard to reach. These stations will also continue to attract medium density residential, and carshare will pair well with these new residents. These stations will be good candidates for two-way EV Spot Network hubs. The successful placement of such two-way carshare hubs along the Gold Line will provide a template for regional expansion along major transitways.

**Response:**

- In parts of the region that are less dense overall, but have areas of density, especially multifamily developments. Expanding the service territory into Saint Paul's East side will provide a playbook for this type of expansion. We have already identified Saint Paul's North End and West Side, as well as North Minneapolis, as potential additional expansion markets. Such expansion could be contiguous with the current service area or non-contiguous (i.e., service territory "islands" not directly connected to the main service area). This type of expansion might extend as far as some first-ring suburbs should they be willing and motivated partners.

The EV Spot Network is well-positioned for expansion. A city or county that seeks to join the network will enjoy the benefits of existing infrastructure, including a dedicated smartphone app and customer service center (provided by

project partner HOURCAR), contractual templates, and an established process for siting hubs (<https://bit.ly/373pHMz>).

Saint Paul has discussed possible EV Spot expansions with several suburban jurisdictions. These concluded that while interested in offering EV charging and carshare options, they do not yet have the policy approaches in place to do so. Expanding to the East Side would help demonstrate the efficacy of the EV Spot Network in new and different land uses. That could lead to the replication or adaptation of the proposed approach to the East Side.

A key innovation of our project is the mutually supportive nature of EV Spot Charging and Evie Carshare. EV charging and EVs have a chicken-and-egg problem; it is not economical to install chargers before there is a critical mass of EV users, but many people will not buy EVs until chargers are available. The EV Spot Network solves for this dilemma by providing an immediate anchor tenant for the chargers via Evie Carshare. This pairing makes the EV Spot Network a practical way for additional jurisdictions to respond to the growing need for, and interest in, EV charging and EVs.

*(Limit 2,800 characters; approximately 400 words)*

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## **Measure 6: Partnerships**

*A. Describe the number of stakeholder groups that have helped or will help develop the project and their role in the projects delivery. In the response, consider the following:*

The EV Spot Network is the fruit of a public-private partnership that has brought together two cities (Saint Paul and Minneapolis), a publicly-regulated utility (Xcel Energy) a local nonprofit shared-mobility operator (HOURCAR), and two additional nonprofits (East Metro Strong and the American Lung Association Minnesota Chapter). Building this partnership has required drawing up and negotiating no less than seven contracts among these partners, requiring countless hours of meetings and communication to accomplish.

The circle of partners doesn't end there, however. Early on, our partnership developed formal relationships with community-based organizations (CBOs) in 10 neighborhoods in Minneapolis and Saint Paul, all of which are predominantly non-white and low-income. The CBOs were constituted as a "Core Partner Council," with staff and residents making critical contributions to the design and promotion of the network. Project partner HOURCAR was recently awarded a two-year \$200,000 grant by US EPA to deepen its work with two of these organizations, Payne-Phalen Community Council and Powderhorn Park Neighborhood Association. The grant will enable these two organizations to hire Environmental Justice Community Coordinators to work toward cleaner air in their communities, including supporting awareness of EV carshare.

**Response:**

Our partnership has benefitted from the support of local and national philanthropy, including the McKnight Foundation, 3M, the Saint Paul Foundation, the Otto Bremer Trust, the Minneapolis Foundation, and GM's Climate Equity Fund. We have also worked closely with state and federal entities, including MnDOT and the US Department of Energy.

The partnership and support of East Metro Strong, a nonprofit that represents the transportation interests of cities, counties, and major employers on the East Side, is also worth highlighting. Although the proposed East Side expansion is within the borders of members Ramsey County and Saint Paul, members 3M, Cottage Grove, Landfall, M Health Fairview, Saint Paul Chamber, West Saint Paul, and Washington County support this proposal because of its regional benefits.

Our emphasis on partnership and collaboration helped us iterate on the initial system design and overcome a wide variety of challenges. The strong initial usage of Evie Carshare underlines the strength of this approach.

To successfully expand into the proposed new territory, we will again build new partnerships. Identified partners include Metro Transit, District Councils and CBOs on the East Side, and managers of multifamily residences. Our demonstrated success at building exactly these kinds of partnerships speaks for itself. The strength of this inclusive planning model will continue to draw partners into the circle.

*(Limit 2,800 characters; approximately 400 words)*

*B. Identify the funding partners and amounts of local match provided.*

The City of Saint Paul will provide a 20% match on the project (\$360,000) from city funds.

**Response:**

HOURCAR will provide the specialized hardware required to technologize the vehicles for carsharing operations at a cost of \$22,500.

*(Limit 2,800 characters; approximately 400 words)*

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## Attachments

File Name	Description	File Size
EV Spot Network Strategic Expansion-Project Budget.pdf	Project Budget	95 KB
HOURCAR Letter of Commitment.pdf	HOURCAR Letter of Commitment	125 KB
Letter in support of Evie application EMS.pdf	East Metro Strong Letter of Support	105 KB
Letter in support of Evie application_MoveMN.pdf	Move Minnesota Letter of Support	201 KB
MT_EV Carshare Expansion_Letter of Support_2022.pdf	Metro Transit Letter of Support	551 KB
PPCC support for City of St. Paul Application to TAB.pdf	Payne-Phalen Community Council Letter of Support	202 KB
Saint Paul Unique Projects Summary.pdf	Project SUMmary	271 KB

**EV Spot Network Strategic Expansion  
Project Budget**

<b>Item</b>	<b>Cost per unit</b>	<b>Number of units</b>	<b>TOTAL</b>
Electric vehicle leases	\$ 40,000	45	\$ 1,800,000
Carshare hardware	\$ 500	45	\$ 22,500
<b>TOTAL</b>			<b>\$ 1,822,500</b>

**Sources of funding**

Regional Solicitation	\$ 1,440,000
City match	\$ 360,000
HOURCAR in-kind match	\$ 22,500
<b>TOTAL</b>	<b>\$ 1,822,500</b>



Affordable  
Accessible  
Sustainable

April 10, 2022

Elaine Koutsoukos  
Transportation Advisory Board Coordinator  
Metropolitan Council  
390 North Robert Street  
St. Paul, MN 55101

### LETTER OF COMMITMENT

Dear Ms. Koutsoukos,

HOURCAR is partnering with the City of Saint Paul on its application to the Regional Solicitation for the proposed strategic expansion of the EV Spot Network and Evie Carshare into the City's East Side. As Minnesota's original carshare service and the current operator of Evie Carshare, HOURCAR has the expertise, capacity, and technical skills to operate this expanded service. As the region's only nonprofit shared-mobility operator, we will do so with a sharp focus on increasing transportation options available to the community, especially Black, Indigenous, and People of Color communities and low-wealth communities, improving quality-of-life outcomes and helping everyone in the region thrive.

Should the City of Saint Paul's application be selected for funding, HOURCAR commits to operate the proposed EV carshare vehicles for the duration of the project as described in the application. HOURCAR also commits to provide the in-vehicle carshare technology for the project at a cost of \$22,500 in local match.

I appreciate your consideration and that of the Transportation Advisory Board. Please feel free to reach out to me with any questions.

Sincerely,

A handwritten signature in blue ink that reads "C. Paul Schroeder".

C. Paul Schroeder  
President & CEO  
pauls@hourcar.org

428 Minnesota St., #500  
Saint Paul, MN 55101

Transportation Advisory Board  
Attention: Elaine Koutsoukos, TAB Coordinator  
390 Robert Street North  
Saint Paul, MN 55101

April 13, 2022

To whom it may concern:

East Metro Strong is a public + private partnership of businesses, cities, and counties working together to bring more and better transportation choices to the East Metro. Our members come together to support smart investment whether or not it happens to be in their city, their county, or in front of their business.

With this letter, East Metro Strong endorses the application from the City of Saint Paul to the Metropolitan Council's Regional Solicitation, to bring Evie Carshare to the Gold Line BRT and Saint Paul's East Side.

This proposal supports a number of goals established by the Metropolitan Council, including

- Increase the availability of multimodal travel options.
- Improve multimodal travel options for people of all ages and abilities to connect to jobs and other opportunities, particularly for historically under-represented populations.

And

- Provide a transportation system that promotes community cohesion and connectivity for people of all ages and abilities, particularly for historically under-represented populations.

East Metro Strong helped facilitate some of the focus groups that helped design the carshare system proposed by Saint Paul. Participants gave moving descriptions of the choices they had to make because they did not own a car. Because of poor transit connections, some needed to choose whether to take off a half day of work to make a medical appointment. Several participants described how hard it was to see family on weekends because buses became so much less frequent exactly when she needed them. The cost savings and emissions reductions produced by carshare are well quantified. It is more challenging to convey the health and community cohesion benefits, so these are worth underlining here.

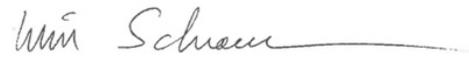
Providing "Access to Destinations" as the Transportation Policy Plan puts it, has been becoming increasingly challenging. On the public side, it is hard to hire transit drivers, and on the private side vehicles have gotten more expensive every year for 10 years. Carshare is a remarkably effective way to provide vital connections. As the region continues to grow, many more communities will be looking for ways to provide those connections in a variety of land uses.

Saint Paul's proposal would innovate to adapt the Evie carshare model to new kinds of service areas. The lessons from doing so will be invaluable to other communities and to the region.

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Thank you for your work to create and support a transportation system that connects us all.

Sincerely,

A handwritten signature in cursive script that reads "Will Schroer". The signature is written in black ink and includes a long, horizontal flourish extending to the right.

Will Schroer  
*Executive Director*

Transportation Advisory Board  
Attention: Elaine Koutsoukos, TAB Coordinator  
390 Robert Street North  
Saint Paul, MN 55101

April 9, 2022

To whom it may concern:

Move Minnesota works with more than 10,000 grassroots supporters to connect communities, end the climate crisis, expand access to jobs and resources, and improve daily life for Minnesotans of all ages, races, incomes, and abilities.

With this letter, Move Minnesota endorses the application from the City of Saint Paul to the Metropolitan Council's Regional Solicitation, to bring Evie Carshare to Saint Paul's East Side, and to the Gold Line BRT.

We endorse a proposal that fulfills years of work by many people and institutions, including Move Minnesota and the Metropolitan Council.

Move Minnesota was one of the organizations that initiated the Twin Cities Shared Mobility Action Plan ([bit.ly/35ncwoF](https://bit.ly/35ncwoF)). Metropolitan Council Councilors and staff, and Metro Transit staff, were part of more than 70 regional contributors to that Action Plan. The proposal by Saint Paul would implement Action Plan recommendations.

- *The Action Plan identified the lack of one-way and free-floating carshare as a fundamental gap in the Twin Cities' transportation system, and recommended "Public co-investment in...carshare programs."*

Four years ago, the TAB responded to that recommendation by funding a substantial portion of the budget needed to create Evie Carshare. The current initial Evie Carshare network has broken new ground regionally and nationally by launching the nation's first municipally owned free-floating, all-electric carshare system. This innovation is now improving regional mobility, health, and equity. Thank you.

Many of our members are enthusiastic users of Evie Carshare. This innovative transportation option helps them meet transportation needs that transit, biking and walking do not, without the expense and impact of buying a car.

We appreciate that Evie Carshare serves the whole region by connecting carshare vehicles to 90% of the region's transit lines. At the same time, residents in Evie Carshare's Home Service Area can use Evie Carshare for more kinds of trip purposes. We support Saint Paul's proposal to bring these benefits to many more residents.

- *The Action Plan recommended "turning transit station areas into mobility hubs by making investments in bikesharing, electric carshare stations, and wayfinding improvements."*

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Saint Paul's proposed hub at the Sun Ray Gold Line station does this, and we understand that the City is coordinating with Metro Transit to provide the other elements of a mobility hub at Sun Ray.

The ability to travel quickly to the Woodwinds Medical campus, or to errands at the many destinations in Woodbury's commercial area to the south of I-94 will be invaluable – for residents, and for the businesses to which they will be traveling.

In sum, the region has begun to implement the recommendations in the Shared Mobility Action Plan, recommendations developed with the help of the Metropolitan Council.

Saint Paul's proposal would innovate in order to bring these recommendations to new parts of the region. The innovation would bring carshare to a new, less dense land use, and create a new model for connectivity at BRT and LRT stations.

Thank you for your work to invest in the transportation system that meets the challenges in front of us today.

Sincerely,



Sam Rockwell  
*Executive Director*  
**Move Minnesota**



April 13, 2022

Attn: Elaine Koutsoukos  
Transportation Advisory Board Coordinator  
Metropolitan Council  
390 North Robert Street  
St. Paul, MN 55101

Dear Ms. Koutsoukos:

I'm writing in support of the City of Saint Paul's application to the Regional Solicitation's Unique Projects category for expansion of the EV Spot Network on the Greater East Side.

The City is proposing to place two-way electric carshare hubs at stops along the Gold Line. These hubs will provide an additional layer of multimodal access for Gold Line passengers, enhancing the service and benefitting residents who live and work on Saint Paul's East Side.

People who have access to a variety of multimodal transportation options are more likely to shed or defer purchase of vehicles and rely on shared mobility options, which in turn helps the region achieve its goals of reducing SOV trips and emissions. This project will do just that by increasing the number of options available to East Side residents.

Metro Transit is already working with the City and HOURCAR to increase awareness of Evie Carshare as a multimodal connector and first/last mile solution. Should Saint Paul's application be approved, Metro Transit plans to partner with Saint Paul to place an electric vehicle carshare hub at the Sun Ray Transit Station Park & Ride, and to work with the City on wayfinding and other cross-promotional efforts at the Gold Line stations where carshare hubs will be placed.

We see this project as a win-win, increasing overall transit ridership and multiplying options for riders, especially those in disadvantaged communities.

Thank you for considering this letter of support. Please feel free to reach out with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Wes Kooistra', with a horizontal line extending to the right.

Wes Kooistra  
General Manager

A service of the Metropolitan Council



# Payne-Phalen

COMMUNITY COUNCIL

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April 14, 2022

VIA EMAIL

Transportation Advisory Board  
Attention: Elaine Koutsoukos, TAB Coordinator  
390 Robert Street North  
Saint Paul, MN 55101

Dear Elaine,

It's been a couple of years since you and I last saw one another at TAB/TAC, so I hope this letter finds you and yours doing well. As you may know, I am now the Executive Director the Payne-Phalen Community Council on St. Pau's East Side. I'm writing to you today to express our organization's strong support the City of St. Paul's application to the Transportation Advisory Board for the Regional Solicitation.

The Payne-Phalen Community Council's mission is to improve our neighborhoods by engaging, educating, and empowering all residents in our diverse community. As one of seventeen district councils in St. Paul, PPCC exists to engage the community in advancing physical, social and economic development within our neighborhoods and commercial areas. Our organization is committed to advancing equity, reducing disparities, and improving access to district, citywide, and regional planning activities. We are an independent MN 501(C)3 non-profit, charitable organization with a voluntary, unpaid board of directors composed of seventeen community members elected by neighborhood residents. At the present time, our Board is majority woman, majority BIPOC.

Amongst St. Paul's 17 planning districts, Payne-Phalen has the largest population (31,000) and the most racial diversity (70% people of color). That diversity and cultural vibrancy is ever-present in the ethnic groceries, restaurants, and specialty services along our streets. It's found in the variety of education and training institutions and programs in our schools and parks, and in the variety of community non-profits and faith-based organizations throughout the district. All of this is a testament to the strength and resilience of our population despite some very serious realities: Payne-Phalen has the highest level of concentrated poverty in St. Paul with longstanding and present-day disparities in health, wealth, housing, education, land use, access to parks and open spaces, and clean water. Data from MN Compass describes disparities along racial, cultural, and income:

- 63% percent of our residents are Black, Indigenous, People of Color.
- 43% of our residents/families live below the federal poverty guideline
- 23% of our residents/families speak English 'less than well'

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Our residents need affordable, reliable transportation option to access education, employment, and healthy food. The economics of car ownership does not work for many of our residents; we have some of the highest percentages of zero-car households in the region.

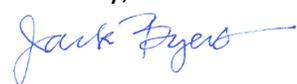
As a reflection of our organization's *Equity Investment Rational*, we are very proud to be a collaborative hands-on partner with our colleagues at The City of St. Paul to bring the benefits of Evie Carshare to families and households that need options and solutions. Together we are working in community at the grassroots level to advance equity, reduce disparities, and improve access by advancing the aims and embrace of Evie Carshare and the EV Spot Network. We are truly excited by the new mobility hubs in our district and elsewhere around both Cities. For Payne-Phalen, the EV hubs are not a luxury, nor are they an intrigue. They are an everyday solution for our transit-dependent communities, a key supplement to the regional transit system, and a low-cost, easy access solution to filling out community-based transportation options. Access to Evie Carshare has been deeply valuable to our residents. As vehicle and fuel prices continue to increase, this access is only becoming more important.

The City's proposal to implement new transportation options in the East Side would bring those benefits to more Payne-Phalen residents. We are especially excited about the proposal's innovative approach to creating better connections at the Sun Ray Transit Center. This would serve both East Side residents and all users of the Gold Line BRT.

With this letter, the Payne Phalen Community Council endorses the application from the City of Saint Paul to the Metropolitan Council's Regional Solicitation, to extend the reach of Evie Carshare further into Saint Paul's East Side to help connect our communities to the Gold Line BRT.

Elaine, allow me to extend our many thanks to you and your colleagues who work to invest in the transportation system that meets the challenges in front of us today. Please feel free to contact me if you need clarification or if I can be helpful in any other way. And thank you in advance for taking the position of the Payne-Phalen Community Council into full consideration as The TAB makes its decision.

Sincerely,



Jack Byers,  
Executive Director

cc. Russ Stark, Chief Resilience Officer, City of Saint Paul  
Paul Schroeder, President & CEO, HOURCAR  
Shannon Crabtree, *Senior Planner and Community Development Manager*, HOURCAR  
William Schroeder, Executive Director, East Metro Strong  
Rebecca Nelson, President and Board Chair, Payne-Phalen Community Council



## Project Summary

**Project Name:** EV Spot Network Strategic Expansion

**Applicant:** City of Saint Paul

**Requested Amount:** \$1,440,000

**Total Project Cost:** \$1,822,500

### Project Description:

In February 2022, the City of Saint Paul launched the EV Spot Network and Evie Carshare, the nation's largest publicly-owned electric vehicle carshare and charging project, and the first 100% renewable transportation system in North America.

Our proposal to the Regional Solicitation envisions a bold strategy for expansion of the network to the City's East Side, laying the groundwork for potential future expansion phases into other cities and counties.

We propose to place EV Spot Network "gold cars" along the Gold Line BRT, a brand-new feature of the network serving the transportation needs of current and future residents in this transit-oriented development corridor. At the same time, we will expand the Evie Carshare service area deep into Saint Paul's East side, an area underserved by transit and with many low-income residents who have limited transportation options but can't afford to own a car.



Our project takes one of the most innovative transportation projects in the region to the next level. In doing so, it will increase transportation options for cost-burdened households, saving an estimated \$16 million in transportation costs by reducing the need for personally-owned autos. It will also reduce nearly 10,000 metric tons of greenhouse gas emissions over 7 years, decrease traffic and parking congestion, and lead to quieter, more walkable and bikeable neighborhoods by shifting over 16 million vehicle miles traveled in single-occupant vehicles to transit, biking and walking.