

DC Mobility Innovation District | Call for Projects - Electrification

DC's Mobility Innovation District (The MID) is a nationally visible testbed that pioneers solutions for equitable transportation and connectivity. With this Call for Projects, The MID seeks brief, high-level proposals on potential projects surrounding a myriad of electrification topics. All projects should help advance the sustainability, equity, and sustainability goals of The MID. Based on the responses submitted, The MID will engage with vendors to discuss more detailed information and convene relevant stakeholders and funding sources.

Background on the Mobility Innovation District

The District of Columbia's Mobility Innovation District (MID) is a multi-year initiative funded by the District's Deputy Mayor's Office of Planning and Economic Development (DMPED) to establish the premier global innovation hub for mobility. The MID offers the opportunity to take advantage of the District Government's unique role as both a city and state, connect federal and regional policy goals, and deploy local projects to test these goals and improve mobility for residents. The MID aims to create a neighborhood economy that enhances residents' quality of life and connectivity and demonstrates how policies, programs, and technology can scale regionally and nationally.

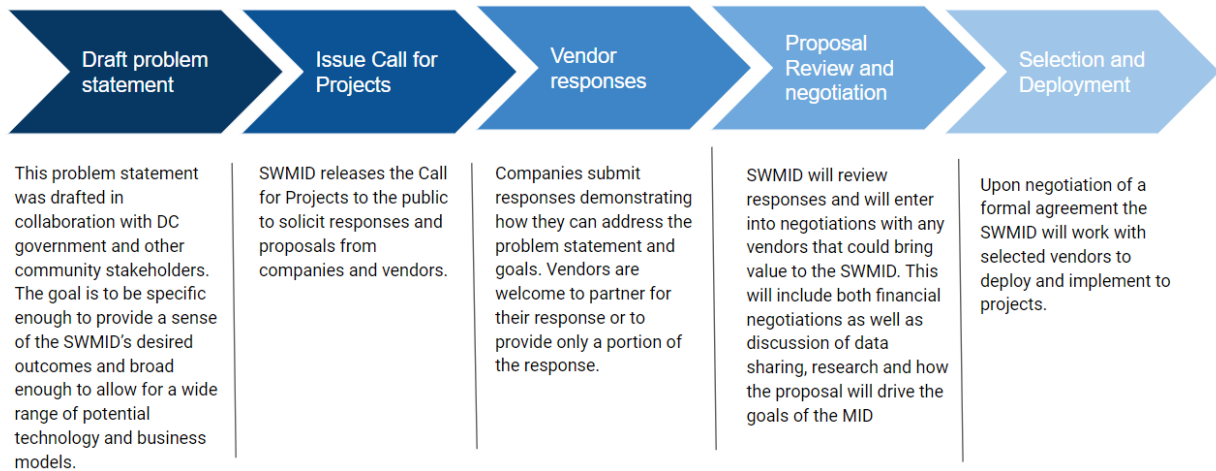
The Southwest quadrant of DC and near Southeast neighborhoods are rapidly becoming the most densely populated parts of the city and will have a population equivalent to a mid-size city by 2030. While the population is growing, infrastructure capacity is not. Now more than ever, it is time to find innovative urban transportation solutions in a rapidly changing and densifying part of the District of Columbia.

The MID allows policymakers, private companies, and the local community to demonstrate how mobility innovation can make a city more equitable, sustainable, and prosperous. The MID is both a living lab for entrepreneurs and "Policy R&D" for government to address emerging mobility technologies.

Washington, DC, is unique for its vast array of stakeholders. The federal government, industry associations, embassies, think tanks, foundations, media, venture capitalists, entrepreneurs, and virtually every major corporation have a footprint in DC. The city is a global hub for conferences and major events. In addition, Fortune 500 CEOs, Mayors, State Legislators, Governors, World Leaders, and senior officials from around the world spend time here.

The MID taps into this set of stakeholders to create a connected ecosystem for solving mobility challenges for D.C. residents and businesses and turns DC into a hub for innovation in the neighborhood economy.

Overview of the Process



The goal of the Call for Projects is to seek innovative solutions that can improve the mobility ecosystem in the District of Columbia.

The MID feels that if proposed solutions fit the established needs, it will formally contact vendors to discuss potential projects and negotiate a contractual agreement. This 'Call for Projects' is not a formal solicitation, and The MID is not under obligation to select any of the vendors who respond to this request or may enter into agreements with multiple respondents.

Respondents should know that the MID Program Management team is not naive to the inherent challenges both operationally and financially in the transportation space and wants to provide opportunities that have positive potential impacts for private sector partners (while not necessarily knowing ahead of time if a given technology or service will be deemed "successful" in a pilot implementation.) This means a fair deal for everyone involved financially and in modeling for the scalability of successful deployments in Washington, DC, and other geographies.

By definition, the MID is focused on "co-creation" opportunities in this testbed with the goal of positive societal outcomes. As such, vendors are welcome to collaborate with other organizations and partners to present a more comprehensive solution or to submit projects that address a part of the overall problem statement. Based on all the submissions received, the SWMID may facilitate collaborations between vendors where we feel that synergies could improve the mobility solution or comprehensive transportation system within the MID.

KEY DATES

Call for Projects Released	10/19/2022
Last Day to Submit Questions	11/2/2022
SWMID response to Questions	11/18/2022
First Round of Project Proposals Due	12/19/2022

Problem Statement:

The electrification of the transportation sector is quickly accelerating, driven by growing consumer preference, affordability, and government incentives designed to move industry and consumers to address the climate crisis. Despite increasing investments, access to charging infrastructure is a significant barrier to many people acquiring an electric vehicle. Especially in a dense environment such as SWDC, at-home charging is simply out of the question for many residents.

Additionally, charging stations create new challenges and opportunities for the electric grid. Electrification of personally owned vehicles is essential to addressing the climate crisis. Across the country, nearly 60% of trips are less than 6 miles.¹ Especially in dense urban areas such as DC, a personally owned vehicle is often an inefficient mode of transit. The rise of electric micromobility (both shared and personally owned) provides an efficient and effective way for moving individuals and goods, especially in dense urban environments where the average trip length is usually only a few miles. While electric micro-mobility has exploded in popularity over the past five years, there are still significant gaps related to charging and equitable access. These obstacles include financial barriers and mobility solutions for individuals who are not able or comfortable riding a two-wheeled vehicle).

Mobility Innovation District Goals

- 1) SAFETY - Improve safety in Southwest (and regionally) by reducing vehicular injuries and fatalities in alignment with the city's [Vision Zero goals](#)
- 2) URBAN ENVIRONMENT & NEIGHBORHOOD ECONOMY - Incentivize shared-use transportation instead of single-occupancy vehicles thereby reducing vehicular congestion.
- 3) ENVIRONMENT and SUSTAINABILITY - Reduce GHG emissions, air pollution, and noise pollution from congestion and automobile traffic
- 4) EQUITY - Provide equitable and low-cost mobility options to residents without vehicles

¹ <https://www.energy.gov/eere/vehicles/articles/fotw-1042-august-13-2018-2017-nearly-60-all-vehicle-trips-were-less-six-miles>

Desired Solutions

The MID welcomes a wide range of business models and technical solutions that could accelerate a range of electric solutions. Below are a few potential solutions that The MID is considering. Vendors are welcome to respond to a single solution or integrate multiple solutions into a more comprehensive package. Additionally, The MID recognizes that there are many solutions that we may not have considered. We welcome and encourage new hardware, software, or business models to promote a more sustainable and equitable transportation ecosystem in the District.

**The MID intends to engage with multiple vendors with different business models or focus on other use cases.

A) Electric Vehicle Charging:

- a) **Community/curbside charging** - The MID is seeking solutions to provide publicly accessible charging solutions to DC residents and visitors. This could include curbside solutions or publically accessible charging hubs in off-street locations, pole-attached charging, etc.
- b) **B2B Charging** - Mobile fleet charging solutions, battery and solar-supported charging solutions, etc. will be considered
- c) **Transit Buses** - Bus depot or on-street charging solutions, while not a priority at this stage, can be submitted for consideration.
- d) **Reduction in personal vehicle ownership**- In addition to traditional charging solutions, The MID welcomes and encourages responses /solutions that recognize the need to reduce personally owned vehicles in the MID. This could include solutions such as a car-share vehicle with every charger installed or multimodal sharing systems with charging.
- e) **Grid Supporting Solutions** - The MID is seeking charging solutions that can mitigate stress on the electric grid and enhance system resilience and reliability.
 - i) **V2X Charging** - Solutions that are testing business models and technologies that enable bi-directional charging
 - ii) **Battery Supported Charging** - Solutions that incorporate battery systems to optimize charging electric demand in a manner that reduces peak demand on the grid and lowers the cost of charging
 - iii) **Renewable Powered Charging** - Solutions directly utilize renewable energy resources to charge vehicles

B) Micro-mobility

- a) **Charging/storage** - Both personally owned and shared micro-mobility (bikes, scooters, and other devices) are an increasingly important component of the urban mobility ecosystem. However, charging and storage often remain a limiting factor to deployment and operations. The MID is seeking solutions to improve access to charging all types of micromobility.
- b) **E-cargo bikes** - The MID seeks vendors that can provide e-cargo bike solutions. This could include B2B applications, operations for delivery service providers,

and/or community lending programs for citizens. There is particular interest in a program to share between consumers and businesses

- c) **Community e-bikes** - The MID seeks innovative solutions to increase e-bike adoption within the District. This could include e-bike loan programs/libraries, monthly subscription services, or other new models for adoption
- C) **Mobility Hubs** - The MID seeks solutions that combine multiple mobility solutions and services into a single, accessible public location. Mobility Hubs can include the co-location of first/last mile transit solutions, vehicle charging, and access to car share and/or public transportation. Vendors are welcome to submit a comprehensive mobility hub solution or express willingness to participate in a mobility hub(s) that the MID assembles between multiple vendors.

Information Requested:

Applicants are welcome to provide additional information or analysis on their company and /or proposed solution. At a minimum, please respond to the questions as formatted below. As noted above, this Call for Projects is just the first step in the process, and The MID will engage with respondents to request more detailed information before entering into a formal agreement. Thus, we seek between three to five pages of responses and will engage with respondents of particular interest for more detailed proposals.

Team/Company Contact: Company name(s), address(es), contact name, contact information

Company background and qualifications: Please provide a brief summary of your companies background and experience and any relevant implementation examples

Proposed Solution: Describe the company/team's interest; technology offered; overall approach for delivering the product(s) and/or service(s); experience/expertise of company/team; how the technology offered may address the goals and aims expressed in this document. Please include details regarding consumer-facing applications, the technology utilized, and available payment capabilities for the low-income subsidy to be applied when needed.

Financial Support/Business Model: What is your proposed/or preferred business model for this project? (ex. Paid service under a contract from the MID; donated services; revenue share agreement, advertising-supported, etc.) If seeking funding from the MID, please provide an estimate of financial support needed for both minimum viable deployment and a full-scale deployment (if applicable)

* Please note that there is not one preferred business model for projects. We recognize the cost incurred with operating services and that companies have a wide range of revenue models.

Grid Interconnection: State if your project will require a grid interconnection or additional utility system upgrades. Additionally, please provide your experience working with utilities in other jurisdictions

Partners: Please outline if there are other partners you are teaming with for this project. Further, please identify any known gaps that may need to be filled by partners yet to be determined. The MID may be able to help facilitate partnerships

Regulatory and Permitting: Please provide any known restrictions with operating service under the current regulatory environment in DC

Data-sharing: One of the goals of the MID is to demonstrate how new technologies and services can improve equitable access to mobility, reduce emissions and create a more dynamic urban environment. Please outline how you plan to collect and share data to help demonstrate success toward these goals

Roles: The optimal role of the SWBID, District Government, and other project partners

Accessibility: How does the proposed service meet the needs of all community members

Equity and Mobility: The MID envisions eventually developing a Universal Basic Mobility program that will provide qualified residents with access to a wide range of mobility solutions. How do you envision your pilot assisting in providing mobility to low-income residents?

Alignment to MID Goals: Please explain how your proposed solution will further the goals of the MID outlined above

RESPONSE SUBMISSION

All responses must be submitted electronically in one PDF file to info@dcmid.org

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*SWMID may elect to hold a call with prospective respondents for Q/A after the 11/2/22 questions submission date.

This document does not obligate the SWBID, the District of Columbia, or its agencies to issue a contractual agreement.

If certain portions of your response are considered confidential and proprietary, please mark sections as such and provide a separate redacted copy for sharing electronically with DC agencies. Because the DC government is a partner in this project, we cannot guarantee that the information provided by respondents will not be subject to public release through a Freedom of Information Act (FOIA) request.