



Pathways Toward Electric Mobility in Hennepin County, Minnesota

The U.S. Department of Energy’s (DOE) Communities LEAP (Local Energy Action Program) pilot partners with low-income, energy-burdened communities that experience environmental justice challenges and/or direct economic impacts from reducing their historical reliance on fossil fuels to build community-driven action plans for clean energy-related economic development.

Hennepin County, Minnesota, and their project team consisting of the cities of Brooklyn Park and Minneapolis, are exploring how electric mobility (e-mobility) can address the rising financial and environmental challenges of transportation that disproportionately affect climate-vulnerable communities. In the United States, transportation costs are the second-largest household expense, and low-income communities use a higher share of their income on transportation than the national average (U.S. Department of Energy 2023; U.S. Department of Transportation 2022). Furthermore, the transportation sector accounts for a third of domestic greenhouse gas emissions (Davis 2022). Climate-vulnerable communities have increased exposure and sensitivity to negative impacts of climate change yet have limited capacity to adapt (National Institute of Environmental Health Sciences 2022). Through Communities LEAP, the project team partnered with the National Renewable Energy Laboratory (NREL) to conduct community engagement that identifies the e-mobility priorities of climate vulnerable communities to inform transportation plans and projects through community-guided decision-making.

Community Engagement by the Numbers

NREL partnered with six (6) CBOs.	Over 700 community members directly engaged at summer events.
Coalition members attended or hosted 47 events and six (6) workshops between May and September 2023.	Over 500 validated questionnaire responses received.
A total of 78 participants attended the six (6) community workshops.	

Key Findings

The community engagement activities revealed a strong interest in e-mobility across demographic groups and geographic areas in Hennepin County. More than 75% of respondents were interested in personal electric vehicles (EVs), electric buses, and e-bikes. However, affordability remains a significant barrier to e-mobility adoption across all demographic and e-mobility categories.

What is e-mobility?

E-mobility refers to modes of transportation powered by electric motors, including cars, transit buses, school buses, bikes, and scooters.

Timeline

Phase 1 (October 2022–March 2023)

- Project team collected previous local engagement data related to e-mobility and identified gaps in the data.
- NREL led design of guiding questions for the summer e-mobility education and engagement campaign.
- Project team and NREL partnered with Minnesota Clean Cities Coalition and Great Plains Institute to plan e-mobility engagement.

Phase 2 (April 2023–September 2023)

- Project team and NREL selected and partnered with six community-based organizations (CBOs) to conduct community education and engagement.

Phase 3 (October 2023–March 2024)

- Project team and NREL analyzed data from questionnaires and transcripts to determine the community’s e-mobility priorities and preferred strategies.
- NREL led the development of the final report and handout to share results.
- Project team and NREL identified next steps to continue community-driven e-mobility transportation planning.

Community-Identified Strategies for Increasing Equitable Access to E-Mobility Benefits

The following strategies aim to center community-guided next steps on how to collectively build more equitable pathways toward e-mobility in Hennepin County. These strategies were informed by the priorities that community members shared during the engagement efforts throughout 2023.

For more information from the community engagement activities, visit pages 34 to 44 in the Pathways Toward Electric Mobility report: <https://www.nrel.gov/docs/fy24osti/88626.pdf>.



Information Sharing and Accessibility

Provide More Information about Rebates and Incentives to Lower the Costs of Personal EVs

Greater promotion of rebates and incentives could encourage residents to purchase personal EVs.

Increase Access to E-Mobility Information, Knowledge, and Testing Opportunities

Free opportunities to test e-mobility options, like EVs and e-bikes, could help people make more informed decisions about transportation.

Increase User Accessibility of Shared E-Mobility Instructions

Participants recommend deployment of more e-bikes, carshare, transit, etc. to increase their availability, as well more user-friendly e-mobility instructions to improve accessibility.

Centralize Methods of Utilizing Shared E-Mobility Options

Participants suggested centralizing a payment system across various shared transportation services including public transit, EV carshares, shared e-bikes, and shared e-scooters to ease the transfer between modes.



Investment Opportunities

Transition Bus Fleet to Electric Buses

Electrifying the existing bus fleet can maintain accessibility while reducing pollution.

Increase Investment in Micro-Mobility Safety

Increasing access to safety accessories, (e.g., helmets) and protected travel routes (e.g., bike lanes) can lower safety concerns relating to e-scooters and e-bikes.



Engagement Strategies

Maintain CBO Partnership to Guide the Engagement Process

Participants suggested continuing to partner with local CBOs to engage with climate-vulnerable communities and facilitate new activities that provide collaboration and community ownership in the transportation planning and implementation process.

Follow-Up Engagement with Practical Implications of Community Suggestions

Participants emphasized that the coalition should keep the community informed on how they are responding to community suggestions, including implementation measures, transportation spending, and available rebates.

Co-Develop More Transparent and Equitable Engagement Processes

Participants underscored maintaining transparency during the engagement process for future transportation planning by providing them the opportunity to review and respond to policy decisions being made. They also recommended compensating residents who participate in the engagement process.

Local Contact Information

Hennepin County: Climate@hennepin.us or Brooklyn Park: brooklynpark.org/cleap

Local Clean Cities & Communities Coalition: Minnesota Clean Cities, a U.S. Department of Energy Partnership to Advance Clean Transportation Nationwide: cleancities.energy.gov/coalitions/minnesota

References

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For more information about
Communities LEAP, visit:
energy.gov/communitiesLEAP

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