

# FEASIBILITY OF AN ELECTRIC CAR-SHARING SERVICE IN A SUBURBAN ENVIRONMENT

## RESILIENT COMMUNITIES PROJECT – RCP 31

### About the Partner

The City of Edina is a first-ring suburb located southwest of Minneapolis in Hennepin County. Regionally, Edina is known for its shopping and dining, parks and recreational facilities, and a high quality of life for residents. In 2019, Edina had a population of roughly 52,800 people, with a median age of 44.2 and a median household income of \$104,244. The three largest racial/ethnic groups in Edina are White (Non-Hispanic) (84.2%), Asian (Non-Hispanic) (7.57%), and Black or African American (Non-Hispanic) (2.6%).



**EDINA**  
MINNESOTA

### Project Description

Edina is committed to providing clean, abundant, equitable, and accessible transportation options to all who live, work, and travel through the community. Currently, more than 34,000 workers commute into the city each day. Roughly 17% travel from the Twin Cities where an existing EV car-share service is located. Additionally, an increasing number of BIPOC residents call the city home. Although Edina is a wealthy community, there are pockets of inequality and roughly 5% of the population lives in poverty. Many people who work in Edina cannot afford to live in the city, and more than half of the workers who commute to Edina earn less than \$40,000/year.<sup>1</sup>

Edina's newly passed Climate Action Plan includes goals to reduce community-wide vehicle miles traveled by 7% by 2030, and increase battery electric vehicle utilization to 25% of community-wide rolling stock. The City is also committed to prioritizing low-income household transportation opportunities. To these ends, Edina would like to learn how an electric car-sharing service might work in a suburban environment, including how such a service might provide transportation opportunities for low-income households and help the City reduce greenhouse gas emissions. Desired outcomes of this project include a literature review of best practices and case studies of electric car-sharing services in peer suburbs in Minnesota and elsewhere around the country; community outreach and engagement through surveys and interviews to potential users and providers of a suburban car-sharing service; and recommendations for how the City might proceed, including a potential EV car-sharing service area expansion map.

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<sup>1</sup> All workforce data was generated from: <https://onthemap.ces.census.gov/>.



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## Key Issues, Questions, and Ideas for Students to Explore

1. Based on current research and practice about car-sharing services in less dense areas, is an EV car-sharing service sustainable in a suburban community like Edina? What are best practices for creating and maintaining such a service?
2. How would an EV car-sharing service supplement and connect to existing transportation networks and other transit options in Edina?
3. For what purposes would commuters to and residents of Edina most likely use an EV car-sharing service if it were available?
4. How would an EV car-sharing service help to alleviate (or, conversely, exacerbate) community vulnerabilities to climate change? Is an EV car-sharing service a viable response to the climate crisis and reducing greenhouse gas emissions from the transportation sector?
5. Would an EV car-sharing service exacerbate or help mitigate community inequities? What are best practices for ensuring equitable deployment of shared mobility resources and strategies?

## How Student Work Will Build Community Resilience

A successful electric car-sharing service has the potential to reduce the city's carbon emissions, improve transportation equity for low-income households and those without regular access to a vehicle or public transit, and improve transportation access to the city for commuters and others.

### Potential Partners or Stakeholders

- HOURCAR
- Potential users of a car-sharing service
- City of Eden Prairie
- Hennepin County

### Existing Plans and Reports

- [Edina Climate Action Plan](#) (2021)
- City traffic data
- Shared-Use Mobility Center, [Twin Cities Shared Mobility Action Plan](#) (2017)

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