

#5: CAR, TRANSIT, & BIKE OPTIONS

OPTIONAL METRIC FOR CATEGORY A & B & C COMMUNITIES

Bold, green font indicates metrics that must improve to be recognized at Step 5

METRICS

- **Vehicle Fueling Stations**

- 5.1 **Number of public electric vehicle charging station ports**
- 5.2 Number of public alternative fueling stations (e.g. e85, CNG)

- **Shared Services**

- 5.3 Does your community have a bike-sharing service? (Yes or No)
- 5.4 Do any car or ride-sharing services operate in your community? (Yes or No)
- 5.5 Percent broadband availability at 100 Mbps download/ 20 Mbps upload

- 5.6 Is the community served by weekday transit? (Yes or No)
- 5.7 Does the community have structured transit routes? (Yes or No)
- 5.8 Percent of housing units within $\frac{3}{4}$ miles of transit routes

METRIC DEFINITION

- **Number of public electric vehicle charging station ports** includes those Level 2 and Level 3/ DC Fast Chargers at gas stations and other public sites that have one or more cords/fixtures for electric vehicle charging. Do not include Level 1 120V AC outlets as these do not require special installation. This number should include all available plugs (i.e. one station with two ports/plugs = 2) [\(Metric 5.1\)](#)
- **Number of public alternative fueling stations (e85, CNG)** includes the number of businesses with stations open to the public selling one or more of biodiesel above B20, CNG, E85, hydrogen, LNG, propane. [\(Metric 5.2\)](#)
- **Bike sharing services** include bike-shares such as NiceRide or campus-based “yellow bike” programs. [\(Metric 5.3\)](#)
- **Car or ride-sharing services** include services such as HourCar, the availability of ride-sharing services such as taxi companies and Uber and Lyft, van-pool services, and organized ride-sharing services organized by a transit agency or by a campus or other entity (e.g., “ride boards”). Do not include dial-a-ride transit. [\(Metric 5.4\)](#)
- **Broadband access** refers to Internet connections that can transfer data and information (like web pages) at high speeds. Broadband service in Minnesota is delivered through the fiber and coaxial networks of cable providers; DSL service over the telephone network; optical fiber to the home or business; mobile and fixed wireless systems; and satellite connections. [\(Metric 5.5\)](#)
- **Weekday transit** means transit available at least 9 hours a day, 5 days a week. [\(Metric 5.6\)](#)
- **Transit** includes fixed-route transit service, deviated fixed-route service (where there is an established route but buses may stray roughly one mile from the fixed route), and dial-a-ride service (that may be run by organized volunteers, and where one may need to arrange a ride 24 hours in advance). [\(Metric 5.6\)](#)
- **Structured routes** for GreenStep purposes means that the city is served by transit that has structured routes with established times and stops. This includes fixed-route and deviated fixed-route service. [\(Metric 5.7\)](#)

Minnesota GreenStep Cities & Tribal Nations Performance Metrics for Recognition at Steps 4 and 5

- **Housing** means residential dwelling units: count those that are within $\frac{3}{4}$ mile of a transit stop (bus, streetcar, LRT, commuter rail) and, for deviated fixed-route service, count dwelling units within one mile of the entire bus route. Dial-a-ride service is not included in this percent of housing measure. (Metric 5.8)
- **Alternative metrics:** If you have been gathering different metrics or want to gather different metrics, report those and explain how they are a better fit for your community.

DATA SOURCES

- For the most up-to-date list of public EV charging stations, see <http://www.plugshare.com/> (Metric 5.1)
- Search by map or download results for by state for publicly available alternative fueling stations, including electric vehicle charging at <https://afdc.energy.gov/stations/#/find/nearest> (Metrics 5.1 and 5.2)
- Governmental licenses, records, and common knowledge of city staff will be needed for counting the sharing services. (Metrics 5.3-5.4)
- Minnesota Office of Broadband Development [Broadband Service Inventory Map](#) (Metric 5.5)
- City, county, tribal, or regional transit agency web sites. (Metrics 5.6 and 5.7)
- GIS maps, data from transit service web sites, city plat maps, and census tract data. (Metric 5.8)
- See the [Data Collection Process Guide](#) for more sources and optional methods on:
 - Electric Vehicle Supply Equipment (EVSE)
 - Alternative Fuel Stations
 - Transit Accessibility

METRIC CALCULATION AND PUBLIC REPORTING

- **Annual measurement and reporting** for each of these metrics is based upon the cumulative numbers as of December 31st before the reporting year.
- For some cities, go to <https://www.plugshare.com/directory/us/minnesota> to find a detailed list of charging available. You may need to click on each to add up the number of plugs available. Otherwise, use the map to find all of the icons available in your community and click on each to see the total number of plugs. (Metric 5.1)
- Use the Broadband Service Inventory Maps to identify the percent of areas served by broadband (Metric 5.5)
 - **For cities:** Use the [Interactive Minnesota Map](#) using these steps:
 - Click on “Query” in the top right

Plugs (1 Kind)		More Details	
	CCS/SAE Electrify America	8 Plugs	150 - 350 kW
		4 Stations	

ACCESS AVAILABILITY STATS/SURVEYS

UNSERVED LOCATIONS

- Unserviced Wireline (Less than 25 Mbps/3 Mbps)
- Residential Location
- Non-Residential Location

UNDERSERVED LOCATIONS

- Underserved Wireline (>=25 Mbps/3 Mbps - Less than 100 Mbps/20 Mbps)
- Residential Location
- Non-Residential Location

B2B/LD FEDERAL EDUC. & INCOME

- Built State Grants - Upgraded fixed wireless sites
- Built State Grants - Mainline Fiber
- Built State Grant Areas (as of 10/31/23)
- TO BE Built State Grant Areas (as of 10/31/23)

BOUNDARY & MISC. ANCHOR INST.

Zoom to address or place

QUERY

Query

Query Census Block Broadband Data

- Locate City or Township + Broadband Data (10/31/23)
- Locate County + Broadband Data (10/31/23)
- Locate Electric Utility + Broadband Data (10/31/23)
- Locate by Exchange
- Locate by Reservation
- Locate School District + Broadband Data (10/31/23)
- Locate by State House District + Broadband Data (10/31/23)

LEGEND DRAW EXPORT MAP HELP

No legend

Minnesota GreenStep Cities & Tribal Nations
Performance Metrics for Recognition at Steps 4 and 5

- Select “Locate City or Township + Broadband Data”
- Search for or select your City using the dropdown. Click “Apply”.
- Review the % totals for:
 - 100M/20M Availability
 - 100M/20M Wireline Availability
- The totals may be the same or different. If the same, report that number. If different, create an average of the two (add both and divide by 2).

Albert Lea	
% 25M/3M Availability	99.91
% 100M/20M Availability	99.04
% 100M/100M Availability	58.31
% 25M/3M Wireline Availability	99.04
% 100M/20M Wireline Availability	99.04
% 100M/100M Wireline Availability	58.31

■	Wireline Broadband of at Least 100M/20M
■	Underserved Area (Wireline Broadband of at Least 25M/3M but less than 100M/20M)
■	Unserved Area (No Wireline Broadband of at Least 25M/3M)

- **For tribal nations:** Use the [Tribal Maps](#) to estimate percentage of area served by wireline Broadband of at Least 100M/20M (the green shaded area).
- **Using a map, or a GIS system,** draw a boundary (zones if multiple transit routes) within which street walking (or, as the crow flies) is within ¾ miles of all stops and 1 mile of deviated fixed-routes. Then calculate the number of residential dwelling units within the boundary/ies or zones. Finally, compare the number of units to total units in the city and express the ratio as a percent. ([Metric 5.8](#))
- **For smaller communities,** dwelling units in census tracts close to transit routes can provide rough estimations, or estimation from a plat map may work fine. ([Metric 5.8](#))

METRIC RATIONALE

GreenStep communities across Minnesota are reporting the development and use of transportation options beyond single occupancy vehicles (SOVs) fueled by gasoline and diesel. This metric tries to track the growth of options in a city. It covers fuels with a lower greenhouse gas footprint, in addition to those lower-fossil-fuel, non-SOV options.

Studies show Minnesotans are willing, on average, to walk up to 3/4 mile to access a transit stop with at least hourly transit service, and so GreenStep picked this distance threshold. Studies also show, however, that economic viability of regularly scheduled transit requires housing densities, for portions of communities, above what we tend to see in many Minnesota communities. For example, as a very rough rule of thumb, at least 15 dwelling units per acre are needed to support one rush hour bus every 15 minutes. And very high levels of walking are facilitated in neighborhoods or mixed-use areas with about 20 housing units per acre.

The question for cities over a generation or two is: do we introduce transit first (and have to initially more heavily subsidize it) and then build denser, more mixed-use nodes, or do we build (zone) first (and increase congestion) and then introduce transit? Communities must fine-tune an evolution to fit their community culture, accepting the co-existence of several density zones within the community and region.

Reliable access to broadband can provide a means of telework, e-learning, or telehealth. By having access to these at home or locally, transportation miles can be further reduced.

STEP 5 METRICS

Minnesota’s [Statewide Multi-modal Transportation Plan](#) is updated every 5 years The 2022 Plan includes:

- Work with transportation partners to identify and advance statewide strategies for reducing per capita vehicle miles traveled (VMT) 20% by 2050.

It is a [state goal](#) that (1) no later than 2022, all Minnesota businesses and homes have access to high-speed broadband that provides minimum download speeds of at least 25 megabits per second and minimum upload speeds of at least three megabits per second; and (2) no later than 2026, all Minnesota businesses and homes have access to at least one provider of broadband with download speeds of at least 100 megabits per second and upload speeds of at least 20 megabits per second. There are no state-wide goals for these metrics nor any guidance useful at this point in time for all cities in Minnesota. Therefore individual cities are best equipped to set realistic targets for metric improvement, and any improvement in the metrics – higher numbers, higher percentages – has clear, quantifiable, and multiple benefits.

[LEED FOR CITIES & COMMUNITIES CRITERIA](#)

<https://www.usgbc.org/leed/rating-systems/leed-for-cities-communities>

TR Credit: Clean Transportation

- Option 2. Electric Vehicle Charging Facilities
 - Provide electric vehicle supply equipment (EVSE) in 2% of all public parking spaces. Clearly identify and reserve these spaces for the sole use by plug-in electric vehicles.
 - Demonstrate that the number of private and public electric vehicle charging stations exceed 1.07 per 10,000 residents, or comply with local or national equivalent.
- Option 3. Alternative Fuel Stations
 - Demonstrate that the total number of government and privately owned alternative fuel stations meet or exceed 1.52 per 10,000 residents, or comply with local or national equivalent.

TR Credit: Compact, Mixed Use and Transit Oriented Development

- Option 1. Density, Destinations and Transit
 - Public transit availability: At least 2 transit stops/stations from different routes are served by at least 72 weekday trips and 30 weekend trips (per direction).

TR Credit: Safe, Multimodal Accessibility

- Option 1. Transit Supportive Design and Policy
 - Demonstrate 60% of population is within ½ mile (800 meters) walking distance of high frequency transit.

[NEED HELP? CONTACT](#)

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