

EV Charging Requirements in Minnesota

Edina

The City of Edina has required, as a condition of development approval, EV charging stations when the property is rezoned or receives PUD approval. They feel comfortable doing this because they have seen strong use of chargers on public property. A recently installed EV incidental charger in Edina was used every day in the 90 days after installation, providing 175 charges in that time period.

St. Louis Park

The City of St. Louis Park has the strongest EV readiness ordinance in Minnesota. It requires EV chargers as well as EVSE (conduit and electrical panel space) with all new construction. Their requirements are show in Table 1 below. Requirements also apply to handicap stalls and there is a provision that allows properties to appeal if the cost of installation would exceed 5% of total project cost. The full ordinance is attached.

Table 1 – St. Louis Park EV Charging Requirements

	Chargers	EVSE
15-49 spaces		
Multi-family	5% of required parking must have Level 1 stations	10% of required parking have EVSE for Level 2 chargers
Non-residential	One Level 2 station	10% of required parking have EVSE for Level 2 or higher chargers
50+ spaces		
Multi-family	10% of required parking must have Level 1 stations	10% of required parking have EVSE for Level 2 chargers
Non-residential	1% of required parking with minimum two Level 2 charging stations	10% of required parking have EVSE for Level 2 or higher chargers

The City of White Bear Lake is also considering adopting St. Louis Park’s approach.

Golden Valley

The City of Golden Valley requires properties seeking PUD flexibility to achieve a certain number of “Amenity Points.” Developers can receive one amenity point for installing EV Charging Stations.

Public Funding

Many cities throughout Minnesota, including the cities of St. Paul and Rochester, require EV Charging stations on all projects receiving public funding, such as TIF.

Ordinance No. ____-19

Ordinance regarding parking standards including electric vehicle supply equipment

The City of St. Louis Park does ordain:

Section 1. Chapter 36 of the St. Louis Park City Code is hereby amended by adding underscored language. Section breaks are represented by ***.

Section 36-142. Descriptions

(d) Commercial uses

(20) *Motor fuel station* means a facility which supplies and dispenses at retail motor fuels, including electrical charging, directly into a motor vehicle; it also includes the sale of lubricants, batteries, tires and motor vehicle accessories. Motor fuels may be self-serve or dispensed by an attendant. Light maintenance activities to vehicles including engine tune-ups, lubrication, repairs, and carburetor cleaning may also be conducted. Motor fuel stations may also include facilities for the retail electric charging of vehicles. Characteristics include outdoor activity, high traffic generation and extended hours of operation. This use excludes heavy automobile repair including, but not limited to, engine overhauls, automobile painting, and bodywork.

Section 36-193. C-1 neighborhood commercial district

(d) Uses permitted by conditional use permit. No structure or land in a C-1 district shall be used for the following uses except by conditional use permit.

(1) *Motor fuel station*. The conditions are as follows:

k. Refer to Section 36-361 (e)(3)c for electric vehicle supply equipment (EVSE) requirements.

Section 36-194. C-2 general commercial district.

(d) Uses permitted by conditional use permit. No structure or land in a C-2 district shall be used for the following uses except by conditional use permit.

(1) *Motor fuel station.* The conditions are as follows:

h. Refer to Section 36-361 (e)(3)c for electric vehicle supply equipment (EVSE) requirements.

Section 36-223. O office district.

(d) Uses permitted by conditional use permit. No structure or land in an O district shall be used for the following uses except by conditional use permit. These uses shall comply with the office restrictions and performance standards of section 36-222 and all those general conditions provided in section 36-33 regarding conditional use permits, and with the specific conditions imposed in this subsection.

(1) *Motor fuel station.* The conditions are as follows:

g. Refer to Section 36-361 (e)(3)c for electric vehicle supply equipment (EVSE) requirements.

Section 36-244. I-G general industrial district.

(e) Accessory uses. The following uses shall be permitted within any I-G district:

(9) Motor fuel station. Subject to the following conditions:

g. Refer to Section 36-361 (e)(3)c for electric vehicle supply equipment (EVSE) requirements.

Section 36-361. Off-street parking areas, paved areas, and loading spaces.

(e) Electric Vehicle Supply Equipment. The intent of this section is to facilitate and encourage the use of electric vehicles, to expedite the establishment of a convenient, cost-effective electric vehicle infrastructure, and establish minimum requirements for such infrastructure to serve both short and long term parking needs.

(1) Definitions.

- a. Accessible electric vehicle charging station means an electric vehicle charging station where the battery charging station is located within accessible reach of a barrier-free access aisle and the electric vehicle.
- b. Battery charging station means an electrical component, assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles.
- c. Battery electric vehicle means any vehicle that operates exclusively on electrical energy from an off-board source that is stored in the vehicle's batteries, and produces zero tailpipe emissions or pollution when stationary or operating.
- d. Charging levels means the standardized indicators of electrical force, or voltage, at which an electric vehicle's battery is recharged. The terms 1, 2, and DC are the most common charging levels, and include the following specifications:
1. Level 1 is considered slow charging with 120v outlets.
 2. Level 2 is considered medium charging with 240v outlets, charging head and cord hard-wired to the circuit.
 3. DC is considered fast or rapid charging. Voltage is greater than 240.
- e. Electric vehicle means a vehicle that operates, either partially or exclusively, on electrical energy from the electrical grid, or an off grid source, that is stored on board for motive purposes. "Electric vehicle" includes:
1. Battery electric vehicle.
 2. Plug-in hybrid electric vehicle.
- f. Electric vehicle charging stations (EVCS) means a public or private parking space that is served by battery charging station equipment that has as its primary purpose the transfer of electric energy (by conductive or inductive means) to a battery or other energy storage device in an electric vehicle.
- g. Electric vehicle charging station – private restricted use means an electric vehicle charging station that is:
1. Privately owned and restricted access (e.g., single-family home, executive parking, designated employee parking, assigned parking at multi-family residential buildings); or
 2. Publicly owned and restricted (e.g., fleet parking with no access to the general public).
- h. Electric vehicle charging station – public use means an electric vehicle charging station that is:

1. Publicly owned and publicly available (e.g., Park & Ride parking, public library parking lot, on-street parking); or
2. Privately owned and available to visitors of the use (e.g., shopping center parking).
- i. Electric vehicle supply equipment (EVSE) means any equipment or electrical component used in charging electric vehicles at a specific location. EVSE does not include equipment located on the electric vehicles themselves.
- j. Electric vehicle infrastructure means conduit/wiring, structures, machinery, and equipment necessary and integral to support an electric vehicle, including battery charging stations and rapid charging stations.
- k. Electric vehicle parking space means any marked parking space that identifies the use to be exclusively for the parking of an electric vehicle.
- l. 'Electrical capacity' shall mean, at minimum:
 1. Panel capacity to accommodate a dedicated branch circuit and service capacity to install a 208/240V outlet per charger;
 2. Conduit from an electric panel to future EVCS location(s).
- m. Plug-in hybrid electric vehicle means an electric vehicle that:
 1. Contains an internal combustion engine and also allows power to be delivered to drive wheels by an electric motor;
 2. Charges its battery primarily by connecting to the grid or other off-board electrical source;
 3. May additionally be able to sustain battery charge using an on-board internal-combustion-driven generator; and
 4. Has the ability to travel powered by electricity.

(2) Number of Required Electric Vehicle Charging Stations.

- a. All new or reconstructed parking structures or lots with 14 or fewer parking spaces shall be allowed, but not required, to install EVSE.
- b. All new or reconstructed parking structures or lots with at least 15 but no more than 49 spaces, or expanded parking structures or lots that result in a parking lot with 15 to 49 parking spaces, shall install EVSE as required below.
 1. Multiple-family residential land uses shall have 5% of required parking as Level 1 stations for resident parking. At least one handicapped accessible parking space shall have access to an EVCS.

2. Non-residential land uses with parking spaces available for use by the general public shall have one Level 2 station. At least one handicapped accessible parking space shall have access to an EVCS.
- c. All new or reconstructed parking structures or lots with at least 50 parking spaces, or expanded parking structures or lots that result in a parking lot with 50 or more parking spaces, shall install EVSE as required below.

 1. Multiple-family residential land uses shall have 10% of required parking as Level 1 stations for resident parking, and one Level 2 station for guest parking. At least one handicapped accessible parking space shall have access to an EVCS.
 2. Non-residential land uses with parking spaces available for use by the general public shall have at least 1% of required parking as Level 2 stations with a minimum of two spaces served by Level 2 charging, with at least one station adjacent to an accessible parking space. In non-residential zoned districts, DC charging stations may be installed to satisfy the EVCS requirements described above on a one-for-one basis.
- d. Notwithstanding the requirements of subsections a above, all new or reconstructed motor fuel stations as defined in Section 36-142(d)(20) shall be required to install at least one additional Level 2 charging station. A DC charging station may be installed to meet this requirement.
- e. In addition to the number of required EVCSs, the following accommodations shall be required for the anticipated future growth in market demand for electric vehicles:

 1. Multiple-Family Residential Land Uses: all new, expanded and reconstructed parking areas shall provide the electrical capacity necessary to accommodate the future hardwire installation of Level 2 EVCSs for a minimum of 10% of required parking spaces.
 2. Non-Residential Land Uses: all new, expanded and reconstructed parking areas shall provide the electrical capacity necessary to accommodate the future hardwire installation of Level 2 or DC EVCSs for a minimum of 10% of required parking spaces.
- f. These requirements may be revised upward or downward by the City Council as part of an application for a conditional use permit or planned unit development based on verifiable information pertaining to parking.
- (3) Reductions to EVSE requirements. When the cost of installing EVSE required by this Chapter would exceed five percent of the total project cost, the property owner or applicant may request a reduction in the EVSE requirements and submit cost estimates for city consideration. When City Council approval of the project is not required, the Zoning Administrator may administratively approve a reduction the required amount of EVSE in order to limit the EVSE installation costs to not more than five percent of the total project cost.

(4) Permitted Locations.

- a. Level 1 and Level 2 EVCSs are permitted in every zoning district, when accessory to the primary permitted use. Such stations located at single-family, two-family, and multiple-family shall be designated as private restricted use only.
- b. DC EVCSs are permitted in the non-residential districts, when accessory to the primary permitted use.
- c. If the primary use of the parcel is the retail electric charging of vehicles, then the use shall be considered a motor fuel station for zoning purposes. Installation shall be located in zoning districts which permit motor fuel stations.

(5) General Requirements for Single-Family Residential Zoning Districts.

- a. EVSE shall be located in a garage, or on the exterior wall of the home or garage adjacent to a parking space.
- b. EVSE shall comply with all relevant design criteria as outlined in section (5)d, unless specifically exempted.

(6) General Requirements for Multi-Family Residential and Non-Residential Development Parking.

- a. Accessible Spaces. A charging station will be considered accessible if it is located adjacent to, and can serve, an accessible parking space as defined and required by the ADA. It is not necessary to designate the EVSE exclusively for the use of vehicles parked in the accessible space.
- b. EVSE – public use shall be subject to the following requirements:
 1. The EVCSs shall be located in a manner that will be easily seen by the public for informational and security purposes.
 2. The EVCSs shall be located in desirable and convenient parking locations that will serve as an incentive for the use of electric vehicles.
 3. The EVCS must be operational during the normal business hours of the use(s) that it serves. EVCS may be de-energized or otherwise restricted after normal business hours of the use(s) it serves.
- c. Lighting. Site lighting shall be provided where EVSE is installed, unless charging is for daytime purposes only.
- d. Equipment Design Standards.
 1. Battery charging station outlets and connector devices shall be mounted to comply with state code, and must comply with all relevant Americans with Disabilities Act (ADA) requirements. Equipment mounted on pedestals, lighting

posts, bollards, or other devices shall be designed and located as to not impede pedestrian travel or create trip hazards on sidewalks.

2. Electric vehicle charging devices may be located adjacent to designated parking spaces in a garage or parking lot as long as the devices do not encroach into the required dimensions of the parking space (length, width, and height clearances).
 3. The design should be appropriate to the location and use. Facilities should be able to be readily identified by electric vehicle users and blend into the surrounding landscape/architecture for compatibility with the character and use of the site.
 4. EVCS pedestals shall be designed to minimize potential damage by accidents, vandalism and to be safe for use in inclement weather.
- e. Usage Fees. The property owner may collect a service fee for the use of EVSE.
- f. Maintenance. EVSE shall be maintained in all respects, including the functioning of the equipment. A phone number or other contact information shall be provided on the equipment for reporting problems with the equipment or access to it.

(k) Design Requirements

(8) Lighting.

a. Required parking lots~~areas~~ for six or more vehicles shall provide lighting. When lighting is provided in parking lots, during business hours the average horizontal illumination shall not exceed 5.0 footcandles during business hours, the ~~an average~~ average minimum horizontal illumination shall be of 0.5 footcandles on asphalt and 1.0 footcandle on concrete, and the maximum horizontal illumination shall not exceed 7.0 footcandles on asphalt and 14.0 footcandles on concrete. between 0.4 and one footcandle. When parking lots are illuminated between 10 p.m. to 6 a.m., or 30 minutes past business hours, whichever is later, the minimum horizontal illumination shall be 0.2 footcandles and the maximum illumination shall be 2.8 footcandles during these times. The maximum average horizontal illumination level after business hours must be within 0.2 and 2.8 footcandles.

b. In all parking ramps where lighting is visible from off-site, the maximum average horizontal illumination shall be 5.0 footcandles, the ~~average~~ average minimum horizontal illumination shall be 1.0 ~~one~~ footcandle, and the maximum horizontal illumination shall be 14.0 footcandles. If the parking ramp uses motion-activated lighting, the minimum required lighting level shall be lowered to 0.2 footcandles when no motion is detected and the maximum lighting level shall be lowered to 2.8 footcandles when no motion is detected. The top level of parking ramps shall use the required lighting levels of parking lots when uncovered and open to the sky. Lighting levels at entries and exits shall be a minimum 1.0 footcandles and shall not exceed 14.0 footcandles, regardless of motion detected.

Section 2. This ordinance shall take effect fifteen days after its publication.

First Reading	January 7, 2019
Second Reading	January 22, 2019
Date of Publication	February 1, 2019
Date Ordinance takes effect	February 16, 2019

Reviewed for administration:

Adopted by the City Council Jan. 22, 2019

Thomas K. Harmening, City Manager

Jake Spano, Mayor

Attest:

Approved as to form and execution:

Melissa Kennedy, City Clerk

Soren Mattick, City Attorney