



COMMISSION POLICY

Electric Vehicle Charging

Category: Electric	Subcategory: Distributed Energy	Policy Number: 4.3.001
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Section 1 - Introduction

This policy was developed to be used as a guide by Grand Rapids Public Utilities (GRPU) personnel and to provide GRPU customers the greatest practicable latitude in the use of utilities services consistent with reliable, economical, and safe service to all customers. The result of using this policy should be consistent, logical, and fair treatment of GRPU customers regarding electricity delivery and infrastructure integrity.

The legal ramifications of these policies are addressed in various parts of the Municipal Code.

Section 2 – Policy

Customers or property owners must submit an application to GRPU when adding a Level 2 or higher electric vehicle (EV) charging load to their service. This application is essential to verify the appropriate electric service, as the EV load was not considered in the original service size estimation. The verification process assesses transformer and external wire sizes to prevent possible overloading and ensuing reliability issues. Note that GRPU’s service size verification does not extend to the customer’s internal electrical panel.

Customers using Level 2 or higher chargers have access to various rate options. One option is the Time of Use (Electric Vehicle – Off Peak) rate which allows users to save money by shifting their EV charging to evening hours. Customers can also choose to have the load remain on their general service meter. The different rates can be found on the GRPU website under Billing Rates [here](#).

EVs represent a new frontier for many GRPU customers. To assist in this transition, we encourage customers to explore vehicle and charging options through online resources or consulting with a vehicle dealer. A valuable resource is the nonprofit website [Drive Electric Minnesota - Drive Forward \(driveelectricmn.org\)](http://driveelectricmn.org) which offers comprehensive information. It’s important to note that charging capabilities vary among EV models, and not all charge at the same rate or use the same type of charger. Additionally, it is advised that customers have a qualified professional assess their electrical setup, whether it be in a garage, residential or commercial space. Customers should be aware that EV chargers cannot be installed on load

management panels, and adherence to all required state electrical permits is needed. Below is basic charger information and its relevance to GRPU customers:

- **Level 1** charging occurs when an EV is charged using the charger provided with the vehicle. These chargers can be connected by plugging one end into a standard 120V outlet and the other end directly into the car. (source: [Chargehub.com](https://www.chargehub.com)) There are no specific requirements from GRPU for Level 1 charging, but customers can notify GRPU if they wish to be added to a list for future program offerings if they choose.
- **Level 2** chargers are typically purchased separately from the vehicle, although they are often acquired at the same time. These chargers entail a slightly more complex setup, involving connection to a 240V outlet, which enables charging 3 to 7 times faster, depending on the EV and the charger used. Installation of Level 2 chargers usually necessitates the services of an electrician. (source: [Chargehub.com](https://www.chargehub.com))

To add Level 2 charging, an EV application ([EV charger application](#)) is required. Additionally, the time-of-use (TOU) rate option requires the installation of another meter. The TOU meter measures the power consumption specifically for the vehicle and transmits that data for billing purposes. The meter base and wiring for TOU must be installed by the customer or by an electrician.

- **Level 3** chargers are high powered commercial DC chargers. The GRPU requirements are the same as Level 2 chargers.
- **Bidirectional** chargers have the capability to offer backup power to buildings or specific loads. It's important to note that not all vehicles are compatible with this type of charging, and additional hardware is necessary to prevent the unintended flow of power back into the electrical grid during an outage.

The EV application information will allow GRPU to properly align the grid to effectively accommodate the additional load. It may also serve as an incentive for users to consider adjusting their usage for the overall benefit of the system.

Following EV application submittal, GRPU staff will review the information provided and evaluate the local system that supplies power to the neighborhood. If inadequacies are identified, necessary changes will be implemented to accommodate the new load. Customers can expect to receive information from GRPU on the status of their application within 1-2 weeks.

Customers or their electrician requiring more guidance on how to properly prepare for a charger installation can review the GRPU website for EV FAQs or call the office during regular business hours.

GRPU Commissioner

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POLICY HISTORY:

Adopted:

Revised: