



MTCC636 - 55 WELLESLEY ST EAST TORONTO, ONTARIO

# SUPPORT DOCUMENT FOR EV CHARGING STATIONS

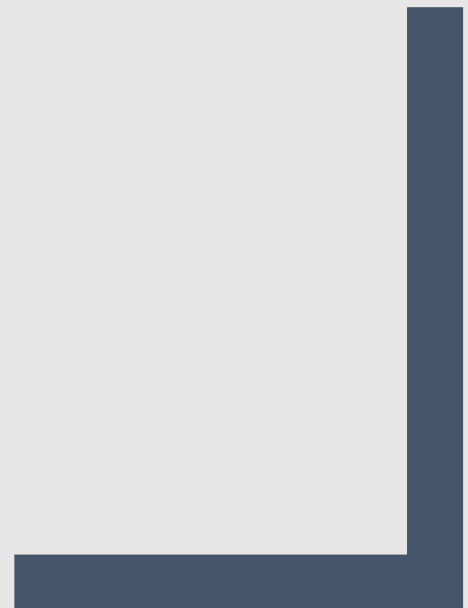


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# Condominium Authority of Ontario (CAO) Step by Step Guide

## A. Installation by the Corporation

- If a condominium corporation wants to install an EVCS in the common elements of the condominium corporation, they may be able to do so without a vote of the owners, or they may need to provide owners with an opportunity to vote on the installation. An overview of both situations is provided below.
- **Please note:** If the corporation will be doing the installation, all costs associated with the EVCS installation, and are considered common expenses of the corporation. Accordingly, all owners are responsible for paying for the costs associated to the installation, based on the statement of proportion set out in the condominium corporation's declaration.

### No vote required by owners

If the condominium corporation wants to install an EVCS, they can install an EVCS without a vote of the owners if:

- The estimated cost of the installation is less than 10 per cent of the annual budgeted common expenses; and,
- In the opinion of the board, owners will not regard the installation of the EVCS as negatively impacting the use and enjoyment of units, common elements, or assets of the corporation.
- If the corporation is proposing to take this route, they must send a notice to the owners at least 60 days before the installation begins. This notice to owners must contain all of the following:
  - A description of the proposed installation;
  - Estimated costs of the EVCS installation and a description of how the corporation will pay for the costs;
  - A statement indicating that the board believes that the owners **would not** consider the installation of the EVCS to constitute a significant reduction or elimination of the use or enjoyment of units, or of common elements, or assets of the corporation; and,
  - Any other information that the by-laws of the corporation require.
- After the notice has been sent and 60 days have passed, the condominium corporation can begin installation of the EVCS.

### Possible vote by owners

- If the estimated cost of the installation is more than 10 per cent of the annual budgeted common expenses, or if the board's opinion is that the owners might consider the installation of the EVCS to significantly impact their enjoyment of the units, common elements, or assets of the corporation, then the corporation must follow the process below.
- In these scenarios, the corporation must send a notice to the owners notifying them of the plan to install an EVCS. This notice must contain:
  - A description of the proposed installation;

- Estimated cost of the EVCS installation, and a description of how the corporation will pay for the costs;
- A statement that the board believes that the owners would regard the installation of the EVCS as causing a material reduction or elimination of the use or enjoyment of the units that they own or the common elements;
- A statement that the owners have a right to requisition a meeting within 60 days of receiving the notice;
- A copy of section 46 of the Act and section 24.2 of Ontario Regulation 48/01; and
- Any other information that the by-laws of the corporation require.
- Once the notice has been sent, the corporation can proceed with the installation of the EVCS only if:
  - The owners have not requisitioned a meeting within 60 days of receiving the notice;
  - A meeting was requisitioned and held, but quorum was not met; or,
  - A meeting was requisitioned and held where quorum was met, and the owners did not vote against the installation of the EVCS.

## B. Installation by the Condo Owner

- If a condo owner wants to install an EVCS, a process defined in sections 24.4 to 24.6 of Ontario Regulation 48/01 under the Condominium Act, 1998 allows them to seek and obtain approval from their condominium corporation.
- Any owner who wants to install an EVCS in their condo building must follow the process below:

### Step 1: Written application

- The owner must create an application and deliver it to the corporation. The application must:
  - Identify the owner and the owner's address for service
  - Be signed by the owner, and
  - Include drawings, specifications, and / or information relating to the proposed installation.

The corporation has an obligation to respond in writing to an owner's requests for information, permission, or authorization to assist the owner in meeting the requirements for providing drawings, specifications, and / or other information.

### Step 2: Decision

- Once the application has been submitted to the corporation, the corporation will have 60 days to respond to the written application (though this timeline can be extended upon agreement of the owner and the condominium corporation). The corporation can only reject the request for installation if, based on the opinion or report of a qualified professional:
  - The installation would be in violation of the Condominium Act, 1998, or any other legislation;
  - The installation would adversely affect the structural integrity of the property; and/or
  - The installation poses a health and safety risk to the property and its occupants.

- If the condominium corporation is rejecting an application for one of these reasons, it is required to provide a copy of the report or opinion of the qualified professional to the owner.
- If none of these reasons apply, the condominium corporation must accept the application, or must propose an alternative installation plan that does not result in unreasonable costs to the owner.

### Step 3: Agreement

- Once the condominium corporation has accepted the owner's application, the owner and the corporation have 90 days to enter into a written agreement that outlines who is responsible for the installation, maintenance, insurance, and repairs for the EVCS, and the associated costs. Unless the condominium corporation and the owner agree otherwise, the owner is responsible for all costs to carry out the installation. Once the condominium corporation and the owner have a written agreement, the condominium corporation must register the agreement on the title of the owner's unit. The agreement will not take effect until this happens.

### Disputes

- Any disagreement between an owner and the condominium corporation regarding the installation of a EVCS must be submitted to private mediation and arbitration within six months. If the dispute is not raised within six months, the owner's application is considered to have been abandoned

### What if the Board Accepts an Application?

- If the board accepts an application and does not require that the proposed installation be carried out in an alternative manner or location, then the board's response must include a statement of that fact.

### What if the Board Rejects an Application?

- The board can only reject an application if it has obtained a report that clearly states that the proposed installation:
  - Will be contrary to any general or special Act, including the [Electrical Safety Code](#);
  - Will adversely affect the structural integrity of the property of the corporation; or,
  - Will pose a serious risk to the health and safety of an individual or damage the property of the corporation.
- If the board rejects an application, they are required to include a copy of the report that was the basis for their rejection.
- For more information on what to do if you disagree with a board's refusal of an application, please refer to the **Disagreements: Mediation and Arbitration** section below.

### What if the Board Accepts an Application

but requires that the installation be carried out in an alternative manner or location?

- If the board accepts an application, they may require that the proposed installation be carried out in an alternative manner or location. The corporation can do this only if the alternative manner or location is necessary to ensure that:
- The owners of the corporation would not consider the installation of the EVCS to cause a material reduction or elimination of their use or enjoyment of their units or the common elements;
- The installation of the EVCS would not contravene anything in the corporation's declaration, by-laws, or rules; and/or,
- The installation is not contrary to any provisions in any agreement to which the corporation is a party.
- The condominium corporation can propose an alternative manner or location for the EVCS installation only if the alternative would not cause the owner to incur any unreasonable costs.
- If the board decides that the installation of an EVCS must be carried out in an alternative manner or location, the response to the owner must include a statement of that fact.
- The response must also include:
- A statement that the proposed installation must be carried out in an alternative manner or location;
- The reasons why it is necessary for the installation to be carried out in an alternative manner or location; and,
- The drawings, specifications, and information that clearly how the installation will be carried out in an alternative manner or location.
- For more information on what to do if you disagree with the board's alternative installation, please refer to the **Disagreements: Mediation and Arbitration** section below.

### What if the board does not Respond?

- If the board does not respond to the owner within the 60 days (or any other time period that the board and the owner agree to in writing), then the board is considered to have neither rejected nor required that the installation be carried out in an alternative manner or location.
- If you have submitted an application and the corporation has not responded in 60 days, you may wish to contact your condominium corporation. Alternatively, you may wish to consider pursuing mediation or arbitration. For more information, please refer to the information under the **Disagreements: Mediation and Arbitration** heading below.

#### Step 4: The Agreement for Installation of an EVCS

- If the board accepts an application of the installation for an EVCS, then the condominium corporation and the owner must now enter into an agreement. This agreement must be entered into **within 90 days** of the board accepting the application (or another time period that the corporation and the owner agree to in writing).
- The agreement must be in writing and its terms and conditions must be reasonable and necessary to facilitate the installation, use, and operation of the EVCS. The terms and conditions must:
  - Relate to the manner of the installation;
  - Outline how the cost of the installation will be distributed between the owner and the corporation;
  - Establish the responsibilities of the corporation and the owner in relation to the cost of the use, operation, repair, maintenance, and insurance of the EVCS, as well as the cost of preparing the agreement and registering it against the title to the owner's unit;
  - Specify who will have ownership of the EVCS (and/or its components); and,
  - Relate to the termination of use of the EVCS or the agreement.
- After the owner and the corporation enter into an agreement, the condominium corporation must register the agreement against the title to the owner's unit, as soon as reasonably possible (or within a time period that the owner and the corporation agree to in writing). The agreement will not take effect until it is registered against the owner's unit. Once registered, the agreement binds the owner's unit and is enforceable against any future owners of the unit.

#### Who Pays for the Installation?

- Unless otherwise agreed upon, the owner is responsible for the costs of the installation of the EVCS regardless of whether the installation is carried out by the owner or the condominium corporation.

#### Disagreements: Mediation and Arbitration

- Any disagreement between an owner and a condominium corporation related to the installation of a EVCS must be submitted to private mediation and arbitration. This includes disagreements about the agreement signed by the owner and condominium corporation.
- An owner or the condominium corporation must submit a disagreement private mediation and arbitration within:
  - 6 months of receiving the board's response to an application, if the disagreement relates to the board's rejection or proposed alternative installation manner or location; or,
  - 6 months after the conclusion of the 90-day period elapsing, if the corporation and the owner have not yet entered into an agreement for installation.
- If the owner or corporation do not submit the disagreement to mediation or arbitration within this timeframe, the application shall be deemed to be abandoned.
- If you have not received a response to your application, there is no deadline for submitting your dispute to mediation and arbitration.

## Routes to EVCS install

There are basically 3 routes to the EVCS install. The Corporation can decide to install the EVCS or the owner requests for the EVCS to be installed in their parking unit. There could be a hybrid approach where both the Corporation has open and shared spaces for owners and guests to use and owners at the same time have dedicated EVCS in their parking units.

### Single Run Install

- This option allows each condo owner to tap into an existing electrical panel and install an EVCS in their spot. All costs should be covered by the owner, this includes installing a manual check meter which the condo corporation will use to bill for power usage. Average cost per complete install and all applicable permits \$4,000.00 – \$7,000.00
- This option removes any responsibility from the condo and all costs and energy usage is covered by the owner. This option is not recommended, as it is a short-term solution that sets a precedent for allowing others to tap into existing electrical panels without proper load assessments. This also drastically reduces the number of EVCS that the condominium can accommodate in the future.

### Pay-As-You-Go Charging

- This option is for the Condominium to install Pay-as-you-go EVCS in visitor parking. This system is accessible to everyone and the Condominium can recoup the cost of electricity used.
- There is a cost to install this system, typically \$4,000.00 – \$6,000.00 per station and there are monthly service fees associated with this approach. This solution is limited to the amount of available parking space and total amount of users. Once there are more EV drivers than available stations, potential problems can arise between EV owners, thus necessitating management to get involved by managing charging times etc.. This approach does not necessarily satisfy Ontario Regulation 48/01 of the Condominium Act 1998. There is no real ROI on these stations as it will take the corporation years to recoup the cost.

### Networked Personal Charging

- This option is a Smart Networked Charging Station that communicates over Wi-Fi. These Networked EVCS have load sharing, data management and is a scalable solution. This option requires the installation of a dedicated panel for the EVCS system. Each user will pay to have conduit run from the panel to their parking spot. Each user will have the same brand EVCS that will monitor usage and load share, allowing more cars to charge at the same time. There are contracts and monthly fees to the end user and the EVCS Company will retain 15-20% of the revenue collected. While this may seem as a viable option, it does not allow individual owners to select their own station and because it is Wi-Fi dependent, load sharing will not work in case the Wi-Fi is down.



## Types of Charging explained

### EV Charger Types

There are **3 basic types of EV chargers:**

#### 1. Slow Charge (Level 1) 115v single-phase AC power 15A max 1.8KW

- This is the simplest method of charging, from a 115v wall receptacle. All EVs sold in Canada today are capable of charging this way with an accessory cable that comes with the EV.

#### 2. Fast Charge (Level 2) 208-230v multi-phase AC power 32A -80A max 7.7 – 22KW

- This is the most practical/economical charging solution, but requires installation by certified electricians. The SAE J1772 Connector is universal to all EVs, so you can charge any vehicle with this type of charger.

#### 3. Rapid Charge (level 3) 400-850V DC Power 25-350KW

- This is the fastest type of charger available. The Charger provides the EV with DC power, unlike the Level 1 and Level 2 chargers, and is considerably more expensive. There are (2) different styles of connector, and they are not compatible.
- 3a) Tesla Rapid Charge – this DC power charger is only compatible with Tesla EVs by design, although the Tesla EVs can also use the Level 1 and Level 2 chargers with an adaptor.

### Multi-Residential

- Whether the application is for communal use, or individual parking spots, the fast charger (Level 2) makes the most sense. A communal EV charger has to be universal in order for all residents to be able to access it, regardless of the make of EV, and Level 2 is universal. It also requires the ability to charge the user for the use of the charger, in order to pay for the electricity used, and the cost of providing the charger, therefore the built-in software can communicate with the user through a phone app or an RFID card.
- The condo corporation, through the property manager, maintains control over all aspects of the communal charger, from who has access, and when, to the length of charging time, and how much is charged. All this information is provided to the property manager on a monthly basis, along with payment of the money collected for the service.
- In the event that the residents request that chargers be available for private parking spots, infrastructure will be required to supply the power required for the individual chargers. Again, the Level 2 is best suited to provide a reasonable charging time for any make of vehicle, and the software allows the payment for usage to be collected, and the power to be managed when multiple units are in use. This eliminates the need/cost for sub-metering to be installed, and through the power management system increases the overall number of chargers that can be installed.

## ELECTRIC VEHICLE ENERGY MANAGEMENT SYSTEMS (EVEMS)

- Electric Vehicle Energy Management Systems (EVEMS) are mechanisms by which to control EVSE loads through connecting, disconnecting, increasing, or reducing electric power to the loads and can include, among other applicable devices: • monitor(s) • communications equipment • controller(s), and • timer(s)<sup>13</sup> EVEMS have the ability to significantly increase the number of vehicles that can charge in a MURB by making efficient use of available electrical installations and reducing the need for additional infrastructure and electrical supply to power multiple EVSE. These systems can be organized according to two broad categories: load sharing or circuit sharing and load management.
- There is a need to ensure that EV charging in MURBs is approached in a manner that accounts for the interests of all building residents and which anticipates future needs. Many of the common challenges encountered with the installation of EV charging infrastructure in existing MURBs can be avoided by addressing them during the planning phase for a new building. An increasing number of jurisdictions have begun to acknowledge that it is much easier and more cost effective to enable EV charging at the point when a building is being constructed. Given that new buildings have a lifespan of several decades or more, it is prudent to put in place electrical infrastructure that will enable increased EV use over time. It is worth noting that each building is unique and will require a tailored EV charging solution. While general information is provided in this section, there may be differences in the order that steps are followed and requirements for each building. It is recommended that a qualified professional is involved in the design and installation of any EV charging infrastructure

## HELP

- There are companies that will provide a full facility assessment – free of charge and offer custom installation solutions for EV charges.
- Natural Resources Canada will soon deploy the next round of funding under its [Zero Emission Vehicle Infrastructure Program](#).

### Programs that assist with installation costs

#### [Zero Emission Vehicle Infrastructure Program](#).

- The program will support electric vehicle charging infrastructure deployment in multi-unit residential buildings (MURBs). MURB charging is defined as infrastructure in parking spaces where people live. For the purpose of the program, to be designated as a MURB the building must include a minimum of three (3) dwelling units.

Geared towards supporting the **establishment of a coast-to-coast network of level 2 and DC fast chargers for electric vehicles**, the program will fund fifty percent (50%) of total project costs up to a maximum of five million dollars (\$5,000,000) per project.

- The program plans to launch another RFP targeting all streams in **spring 2022**:
  - Public
  - On-Street
  - Workplaces
  - Multi-Unit Residential Buildings (MURBs)
  - Fleets

#### How much can the Condo receive?

- NRCan's contribution through this Program will be limited to fifty percent (50%) of Total Project Costs up to a **maximum of five million dollars (\$5,000,000) per project and up to a maximum of two million dollars (\$2,000,000) per project for Delivery Organizations**. Applications from Ultimate Recipient to Delivery Organizations will be limited to less than \$100,000.

The maximum funding per type of infrastructure:

Type of Infrastructure	Output	Maximum Funding
<b>Level 2 (208 / 240 V) connectors</b>	3.3kW to 19.2kW	Up to 50% of total project costs, to a maximum of \$5,000 per connector
<b>Fast charger</b>	20kW to 49kW	Up to 50% of total project costs, to a maximum of \$15,000 per charger
<b>Fast charger</b>	50kW to 99Kw	Up to 50% of total project costs, to a maximum of \$50,000 per charger
<b>Fast charger</b>	100 kW and above	Up to 50% of total project costs, to a maximum of \$75,000 per charger
<b>Hydrogen refuelling station</b>	Dispensing at 700 bar or 350 bar minimum	Up to 50% of total project costs, to a maximum of \$1,000,000 per site