



The Benefits of EV Charging Systems for Condominiums

Contributed by: Metro EV



EV CHARGING FOR YOUR PROPERTY

With growing concerns over climate change and living more sustainable lives, electric cars (often referred to as electric vehicles or EVs) are gaining momentum in terms of car sales and demand for infrastructure. 64% of Canadians say they are considering an electric vehicle for their next car purchase.

As EVs become increasingly popular among Ontarians, charging stations are being installed in residential, commercial and industrial locations across the province.

EV chargers are proven to increase property value, attract customers to retail locations, and improve goodwill between any building and its tenants/visitors.

There is a significant opportunity for condominiums to increase the value of the facility by installing Electrical Vehicle Charging Stations (EVCS) thereby increasing the amenities for existing unit holders, visitors and future owners.



ENERGY COSTS AND SAVINGS OVER 20,000 KILOMETRES

By comparing with a vehicle consuming 8 L/100 km, an EV driver will have saved \$1,600 after 20,000 kilometres.



PLANNING FOR YOUR EV CHARGING STATIONS

When planning an EV charging stations installation, there are some important questions to address:

1. What type of chargers should you choose?
2. How do you monitor and charge for electricity?
3. Is there a need for an additional infrastructure?

EV drivers' desire for reasonable range makes Level 2 chargers preferable to Level 1 chargers. Level 2 charging adds approximately 32 km of Range Per Hour (RPH), while Level 1 charging only adds about 6 km of Range Per Hour. As it takes nearly a full day to charge an EV, Level 1 is just too slow. Level 2 charger also allows an organization to serve many more drivers in a day. Level 3 is exceptionally expensive and is not the preferred option for condominium installations.

Beyond offering faster Level 2 charger to drivers, your facility should look into [networked EV charging stations](#), which have many advantages. EV drivers can find networked stations through a mobile app. Being connected to a network allows the condominium owners to manage who can access stations and how much to charge for use of the EV station.

Level 1 Charging

Up to 6 km/hour



Level 2 Charging

Up to 32 km/hour



Level 3 Charging

Up to 290 km/hour



WHEN ASSESSING AN EV CHARGER INSTALLATION AT YOUR CONDO:

- Conduct an on-site evaluation to determine whether the existing electrical infrastructure can accommodate EVCS
- Determine the best location for your charger
- Decide on a communal EVCS versus. private EVCS- pros and cons of both options
- Determine the applicable software that will aid the RCM to operate EVCS
- Determine the various maintenance and warranty programs available for the installed hardware and software

BENEFITS OF HOSTING EV CHARGING STATIONS



Increase Your Property Value



Create Happy Owners and Tenants



Create New Streams of Revenue



Become a Sustainability Leader

EV CHARGING NETWORK

The electric vehicle charging experience for both property managers and EV drivers is defined by network management. “Network Management” simply means the software and services bundled with EV chargers that are tailored to the needs of property managers and drivers. For property managers, network management lets you bill users for the electricity they use, control who has access to your chargers, monitor charging stations for maintenance, and manage energy usage.

OPEN VS CLOSED NETWORKS

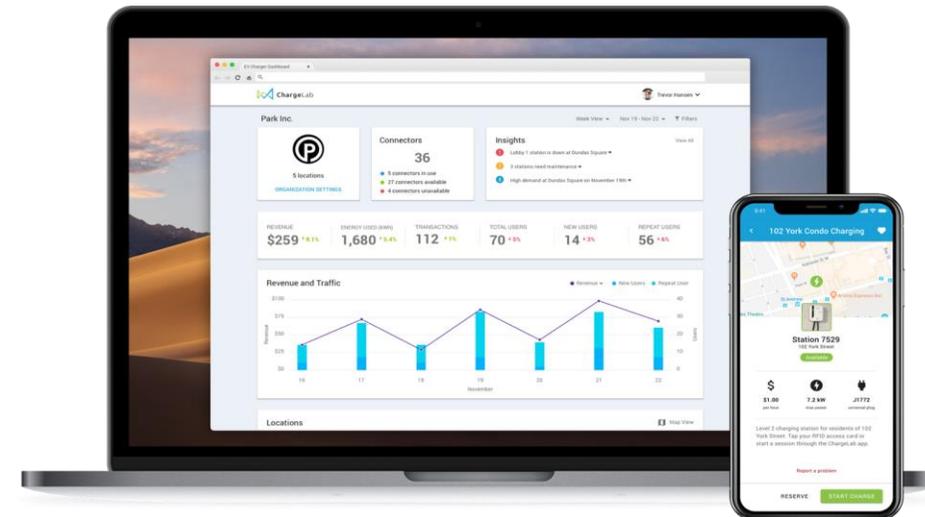
There are two types of network management services for EV charging: open and closed. Open networks use international protocols like OCPP and empower customers to install a range of charging stations regardless of station manufacturer. Closed networks use proprietary protocols and typically only service stations manufactured by the closed network provider.



KEEPING YOU IN-THE-KNOW

Whatever software admin dashboard is chosen, the following information should be included:

- Automatic Billing and Payments
- Energy usage Reporting and Analytics
- Number of users
- Repeat users
- Revenue
- Charger Access Control
- Waitlist Notification



ROI Assumptions

- Daily commute on average is 60 km
- Range per Hour on Level 2 charging system is 30-40 km
- Hourly electricity consumption cost: \$0.80 (based on \$0.14/kWh)
- Hourly recommended charging fee: \$2.50
- Monthly amenity fee for EVCS users: \$30 (recommended to help corporation recoup infrastructure cost)

# Users	2	4	6	12
<u>Usage assumptions</u>				
Avg. daily usage per user	2.0 hrs	2.0 hrs	2.0 hrs	2.0 hrs
Usage hours (all chargers)	1,460 hrs	2,920 hrs	4,380 hrs	8,760 hrs
Electricity usage (all chargers)	8,746 kWh	17,492 kWh	26,238 kWh	52,476 kWh
<u>Annual Usage costs & revenues</u>				
Revenue from charging fees	\$ 3,650.00	\$ 7,300.00	\$10,950.00	\$ 21,900.00
Revenue from monthly fees	\$ 720.00	\$ 1,440.00	\$ 2,160.00	\$ 4,320.00
Energy costs	\$(1,168.00)	\$(2,336.00)	\$(3,504.00)	\$(7,008.00)
Gross profit	\$ 3,202.00	\$ 6,404.00	\$ 9,606.00	\$ 19,212.00
<u>Average install cost for 2 chargers</u>				
Average install cost for 2 chargers	\$ 9,500.00	\$ 9,500.00	\$ 9,500.00	\$ 9,500.00
R.O.I (months)	36	18	12	6



DISCLAIMER

The information contained in this ACMO Tech presentation has been prepared by a content contributor and is for general guidance only. While we have made every attempt to ensure the information contained in this presentation is from a reliable source, ACMO is not responsible for any errors or omissions, or for the results obtained from the use of this information.

All information in this presentation is provided “as is”, with no guarantee of completeness, accuracy, timeliness or of the results obtained from the use of this information, and without warranty of any kind, express or implied, including, but not limited to warranties of performance, merchantability and fitness for a particular purpose.

In no event will ACMO, its related partners, agents or employees thereof be liable for any decision made or action taken in reliance on the information in this presentation or any consequential, special or similar damages, even if advised of the possibility of such damages.



The logo for metroEV, featuring the word "metro" in a lowercase, sans-serif font and "EV" in a larger, bold, uppercase, sans-serif font, both in a bright green color. A thin green arc is positioned above the text, curving from the left side of "metro" over "EV".

metroEV

MetroEV is a leader in energy saving solutions for property managers. We conduct full facility assessments, free of charge, and offer custom installation solutions for EV chargers.

A division of Metrosphere
7-80 Citizen Court
Markham, Ontario
L6G 1A7

Telephone: 905-946-1713
Email: info@metrosphere.ca

www.metroev.ca

A DIVISION OF

The logo for Metrosphere, featuring the word "METROSPHERE" in a bold, uppercase, sans-serif font in a bright green color. A thin green arc is positioned above the text, curving from the left side of "METRO" over "SPHERE".

METROSPHERE