

Ivy Charging Network





Ivy is on pace to become
Ontario's largest, most-
connected electric vehicle
fast charger network.



Our mission is to provide reliable, easy and seamless EV charging and increase EV adoption to Reduce carbon emissions from transportation.

Hydro One & OPG, utilities that have powered Ontario for over 110 years



Launched in 2019

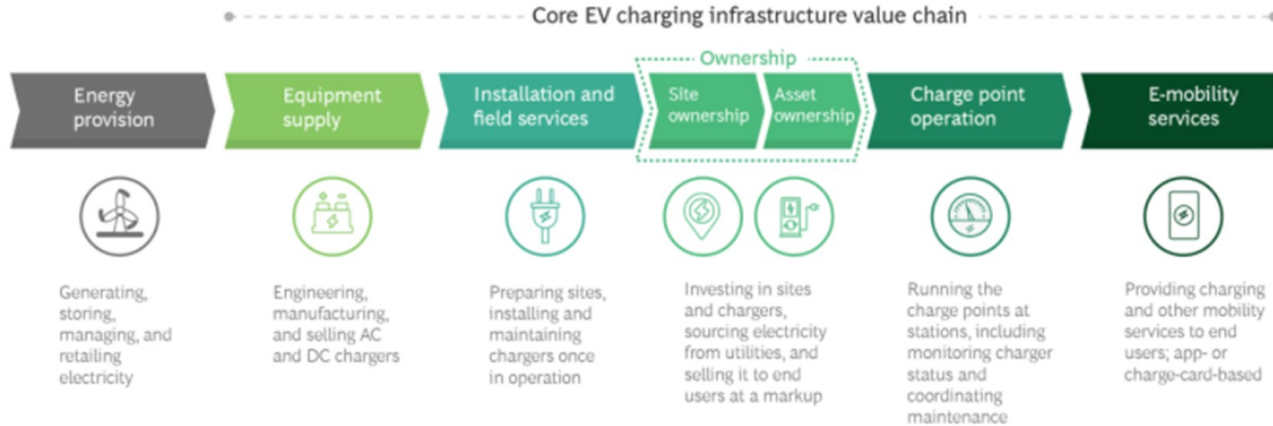
Today, the Ivy platform includes:

- 110+ “Charge & Go” fast chargers live across Ontario, including an expanding list of ONroute locations
- 60+ “Park and Charge” destination chargers across Ontario
- Charging as a Service for all charger types



EV Charging Overview: Value Chain

Exhibit 3 - The EV Charging Value Chain



Source: BCG analysis.

EV Charging Overview: Charging Types

Exhibit 1

Public charging, the focus of charge point operators, is taking off.

Use cases for electric-vehicle charging, charging time,¹ and infrastructure required



Wall box
AC <22 kW
8–10 hours



Public slow
AC/DC <22–50 kW
2–3 hours



Public fast
50–350 kW
<1 hour

Charge point operators' primary focus

Location	Single-family home	Multifamily home	Workplace	Destination	On the go	Fleet depot
	Single-family home Simple hardware offering for individuals; energy wholesale price but no markup	Multifamily home Simple offering with large volume potential; no or small markup	Workplace Midsize volumes with small B2B services markup, leading to stable cash flows	Destination Midsize to large volumes with medium energy-resale markup and dependent on utilization	On the go Midsize to large volumes with high resale markup but high required capital expenditure for DC chargers	Fleet depot Large volumes with stable cash flows; focus on services offered
Parking setup	Private	Private or shared	Shared	Public	Public	Private
Charging need	Multiple hours per day	Multiple hours per day	2–10 hours during work	<4 hours during visit	<1 hour on the go	Dependent on fleet management
Contractual party	End user	Real estate owner	Business owner	Business owner or municipality	Investor	Fleet owner
Technology required						

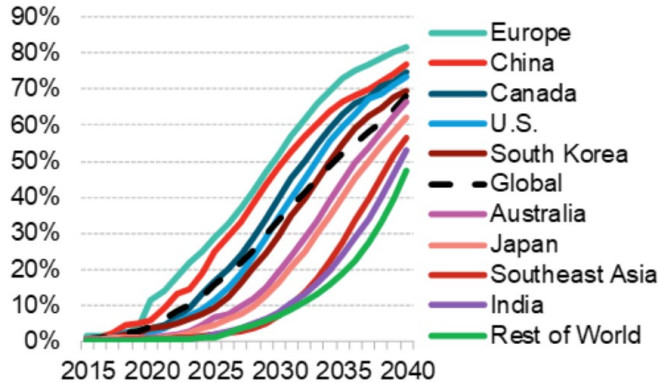
¹To charge 80% of full battery capacity, in this example, 75 kilowatt-hours (kWh).



EV Adoption

Spurred by strong tailwinds from both the Federal and Provincial governments and increasing investment from the private sector, EV adoption is expected to continue to grow rapidly in the coming decades.

EV share of new passenger vehicle sales outlook by market - Economic Transition Scenario

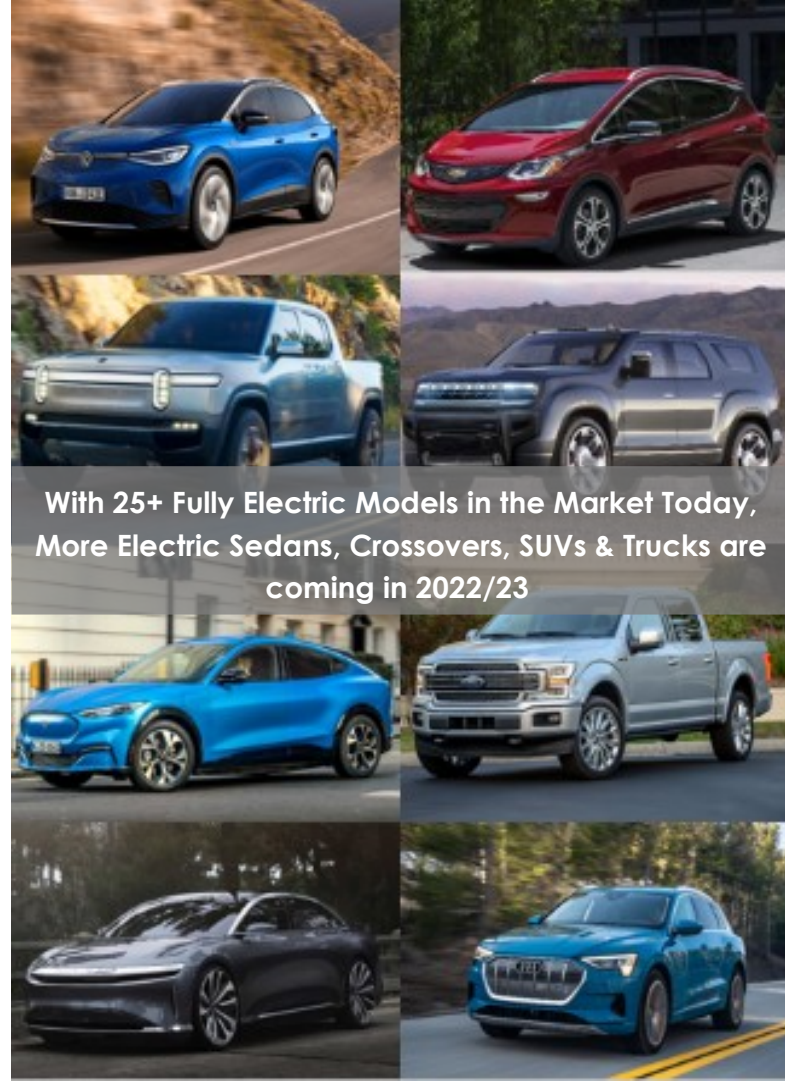


Source: BNEF. Note: EVs include battery-electric and plug-in hybrid electric vehicles. Battery-electric vehicles represent 88% of total electric vehicle sales in 2030. Europe includes the EU, the U.K. and EFTA countries.

EV adoption forecasted continue to grow rapidly both globally and within Canada. Creating strong opportunity for EV service providers

Barriers to Participating in the EV Boom

- Providing fast charging is **expensive**. It is capital intensive and involves high fixed costs of operations.
- Installing fast chargers is **complex**; requires technical expertise and a high appetite for risk.
- Drivers prefer **expansive networks** of chargers, accessible through a single software platform; stand-alone chargers have lesser utilization.



Why Did We Found Ivy?

In 2019, Ontario suffered from a fragmented and unreliable EV charging experience, Ivy strives to solve this by providing reliable, easy and seamless EV charging across the province

Problem worth solving in Ontario

RANGE ANXIETY

Major barrier to EV adoption

LOW RELIABILITY

Cause of charging anxiety among EV drivers

Ivy's solution for EV drivers

FARTHEST REACHING

Large network of L3/2-chargers across all of Ontario

RELIABLE

Built and operated to offer maximum uptime



Ivy's Operations



App



Call Center



Network
Operations



Level 3 Chargers



Level 2 Charger



Ivy's First Site: Huntsville (2019)



PlugShare

10 Harvey's / Swiss Chalet
Restaurant, CHAdeMO, CCS/SAE
Drive: 217.677 km, 2hrs 26min

✓ Check In

150 Hanes Rd, Huntsville, ON P1H 1M4, Canada
+1 888-550-5155

Apple Maps



Ivy at ONroute

- ONroute owns 20 locations (3 to be added in 2023-2025) with on and off-ramps directly to the 400 and 401 series highways
- In November of 2021, Ivy announced a deal to place Ivy at all 23 sites, with 18 live by summer, and the remainder coming online over the course of 2022-2025

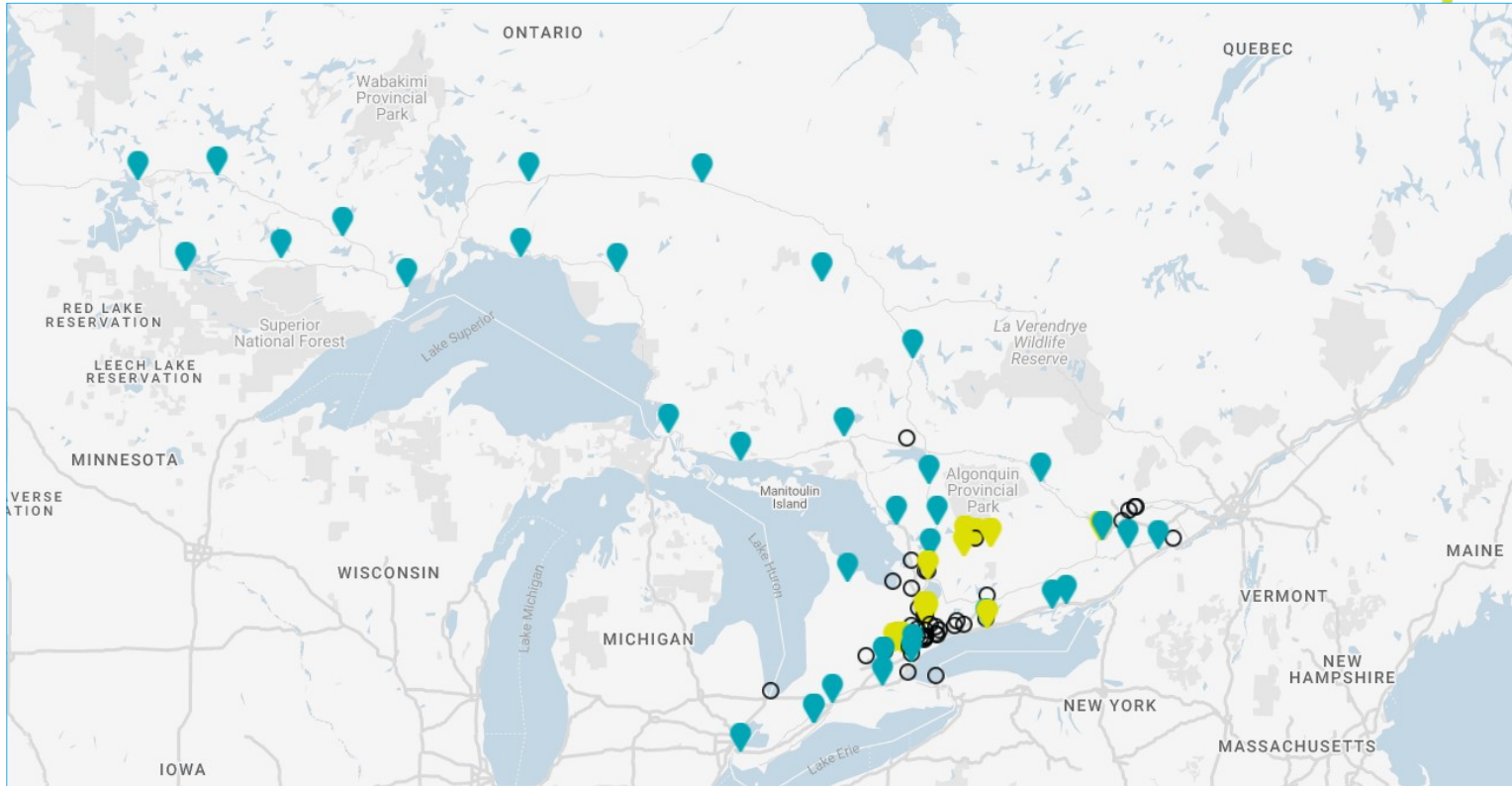


Ivy's Level 2 Network

- Ivy signed agreements with municipalities across Ontario (including GTA locations in Aurora, Newmarket, and Halton Hills) to build out a Level 2 Charging Network
- All 60+ chargers on the network are now live and open to the public
- Ivy provides these chargers to municipalities under its "Charging-as-a-Service" model

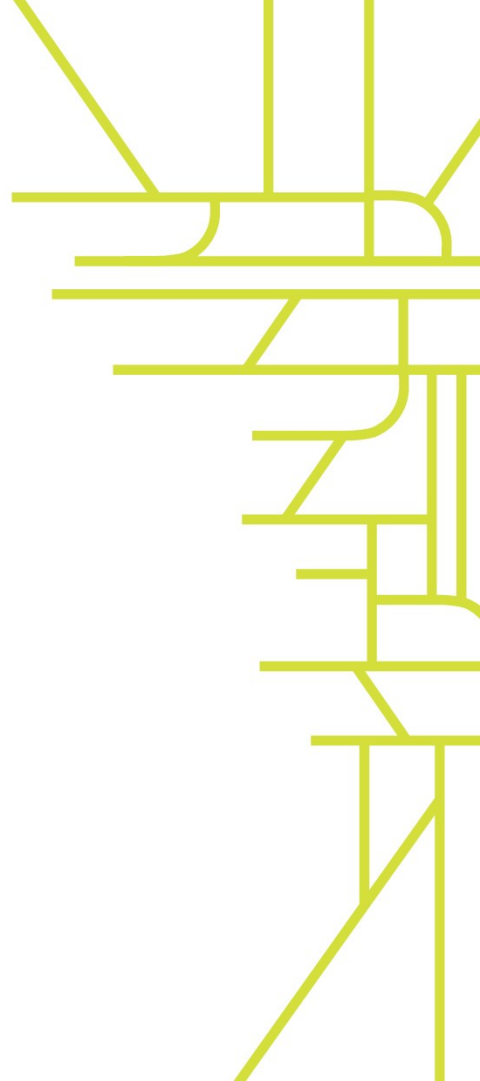


Map of Ivy Charging Network



Key Challenges in Ontario

- Cold weather causes slower chargers
- Poorly understood technology
- Large geography to cover from a maintenance perspective
- Electricity constraints





Who We Are

- Joint venture between **Hydro One** and **Ontario Power Generation (OPG)** providing electric vehicle (EV) charging services
- Mission is to enable the electric revolution by providing **simple, intuitive, and reliable electric vehicle charging** infrastructure solutions
- Unique partner for **efficiently installing and seamlessly operating** EV charging solutions

What We've Built

- **Ontario's largest, most connected EV fast-charging network** by end of 2022
- Official fast-charging network of **ONroute** along the 400 & 401 highways
- **Growing Level 2 network** with municipalities across Ontario

What Sets Us Apart

- **Relationships with every LDC** (Local Distribution Company) in Ontario
- Only Ontario charging network **powered by 100% renewable electricity**, helping partners get closer to reaching their ESG & climate goals
- Can **serve all EV drivers**, including Tesla
- **Flexible partner** that can tailor offering to your preferences



Feedback and Q&A