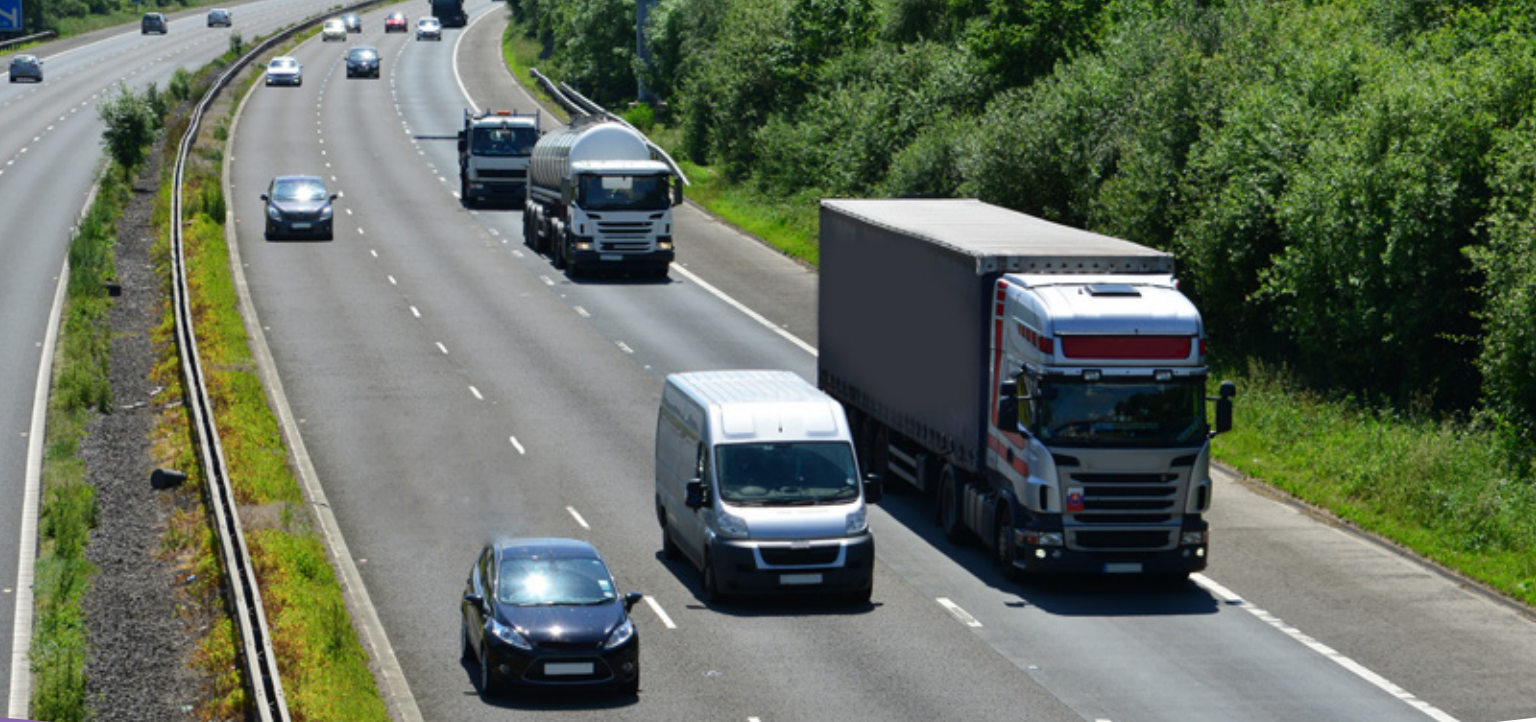
Zero-Emission Medium- and Heavy-Duty Vehicle

CANADIAN MODEL AVAILABILITY CATALOGUE



Zero-Emission Medium- and Heavy-Duty Vehicle (ZEMHDV)

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May 2024 |

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Executive Summary

Clean Energy Canada has partnered with zero-emission bus and truck expert CALSTART to develop a Canadian zero-emission medium- and heavy-duty vehicle (ZEMHDV) model availability catalogue.

This first-of-its-kind catalogue presents key specifications for more than 150 zero-emission van, bus and truck models being offered for sale in Canada by 34 different OEMs. It demonstrates that there are zero-emission options across all vehicle and weight classes in pre-production, production or available for retrofit in the Canadian market today. Available vehicle types include: cargo vans and shuttle buses, school and transit buses, yard tractors, straight and box trucks, cabs and chassis that accommodate a multitude of upfits or bodies for different use cases, and tractor-trailers.

Where available, estimated purchase prices, wait times, charging times and available charging speeds are included as well. While we endeavored to standardize specifications across models, we could only include information that was provided to us by the vehicle manufacturer.

For charging speed and time, responses were specific to how the manufacturer characterized charging speed/time and may include specific or generalized lengths of time where available. Further details on charging and other specifications are available on manufacturer websites, which can be accessed by the QR codes provided under each model.

Across vehicle classes and segments, purchase prices varied greatly. Purchase prices are also highly dependent on customization, trims and other factors. As such, purchase prices included in this catalogue should be treated as a high-level guide for fleet owners and operators. Purchase prices do not include vehicle rebates. For further information on applicable federal and provincial incentives, see the section titled “Government Incentive Programs”.

Wait times also varied considerably, ranging from as few as 60 days to as long as 36 months from placing the purchase order to vehicle delivery.

CLEAN ENERGY CANADA

CALSTART

Funded by Government of Canada

Financé par Gouvernement du Canada

Canada

To support the mandate of Canada's Net-Zero Advisory Body related to research, this project was undertaken with the financial support of the Government of Canada. Funding was provided through the Environmental Damages Fund's Climate Action and Awareness Fund, administered by Environment and Climate Change Canada.

CONTENTS

GOVERNMENT INCENTIVE PROGRAMS

Various incentive programs for vehicles and infrastructure are available. These can be quite substantial depending on the province within which a fleet operates. For example, a battery-electric Class 8 terminal tractor purchased in B.C. with a Minimum Suggested Retail Price (MSRP) of about $400,000 could remove 50% of the upfront purchase price of the vehicle when stacking provincial and federal incentives.

FEDERAL

Incentives for Medium- and Heavy-Duty Zero-Emission Vehicles (iMHZEV): is a vehicle incentive program that offers between $10,000–$200,000 for commercial MHDVs. The incentive will be applied at the point-of-sale by dealerships, manufacturers, vehicle finishers, vehicle distributors or other authorized sellers once they have confirmed your eligibility.

❯ For further information and to apply, go to the program page at: tinyurl.com/mryjdc8w

Vehicle Type	GVWR (lb)	Vehicle Examples	Maximum Amount
CLASS 7/8 COACH BUS, CLASS 8 FCEVS	26,001+ (11,794+ kg)	Coach bus, Fuel cell semi-truck	$200,000
CLASS 8 (350 KWH AND UP)	33,000+ (14,970+ kg)	Dump, cement, heavy conventional, sleeper	$150,000
CLASS 8 (UNDER 350 KWH)	33,000+ (14,970+ kg)	Dump, cement, heavy conventional, sleeper	$100,000
CLASS 7	26,001–33,000 (11,795–14,969 kg)	Furniture, medium conventional	$100,000
CLASS 6	19,501–26,000 (8,846–11,793 kg)	Beverage, single-axle vans, rack	$100,000
CLASS 5	16,001–19,500 (7,258–8,845 kg)	Large walk-in, conventional vans, city delivery, bucket	$75,000
CLASS 4	14,001–16,000 (6,351–7,257 kg)	Large walk-in, conventional vans, city delivery	$75,000
CLASS 3	10,0001–14,000 (4,537–6,350 kg)	Walk-in, conventional vans, city delivery	$40,000
CLASS 2B	8,501–10,000 (3,856–4,536 kg)	Utility vans, full-size pick-ups, step vans	$10,000

The capital cost allowance (CCA) system: determines the deductions that a business may claim each year for income tax purposes in respect of the capital cost of its depreciable property. The Government of Canada introduced a temporary enhanced first-year CCA rate for eligible ZEVs which expands tax support for business investment. Small business owners can write off 55%–100% (depending on the year) of the purchase price of the eligible ZEV, including freight trucks that are rated higher than 11,788 kilograms.

❯ For more information and to learn about the application process, visit: tinyurl.com/ypej42ra

Zero-Emission Vehicle Infrastructure Program (ZEVIP): provides grants to offset some of the capital costs associated with charging infrastructure installation for fleets.

› For further information and to apply, visit the program page at: tinyurl.com/3hxmp8av

Type of Infrastructure	Output	Maximum funding	Maximum funding for Indigenous businesses and communities
Level 2 (108/240 V) connector	3.3 kW to 19.2 kW	Up to 50% of total project costs, to a maximum of $5,000 per connector	Up to 75% of total project costs, to a maximum of $7,500 per connector
Fast charger	20 kW to 49 kW	Up to 50% of total project costs, to maximum of $15,000 per charger	Up to 75% of total project costs, to a maximum of $22,500 per charger
Fast charger	50 kW to 99 kW	Up to 50% of total project costs, to a maximum of $50,000 per charger	Up to 75% of total project costs, to a maximum of $75,000 per charger
Fast charger	100 kW to 199 kW	Up to 50% of total project costs, to a maximum of $75,000 per charger	Up to 75% of total project costs, to a maximum of $112,500 per charger
Fast charger	200 kW and above	Up to 50% of total project costs, to a maximum of $100,000 per charger	Up to 75% of total project costs, to a maximum of $150,000 per charger
Hydrogen refuelling station	Dispensing at 350 bar minimum for medium- and heavy-duty vehicles	Up to 50% of total project costs, to a maximum of $1,000,000 per site	Up to 75% of total project costs, to a maximum of $1,500,000 per site

Zero-Emission Transit Fund: provides contribution payments to support the planning of public transit and school bus fleet electrification, up to a maximum of $350 million for a project (unless otherwise agreed to by the Government of Canada). The fund provides support for electrification planning projects (e.g. studies, modelling and feasibility analysis that will support the development of future larger scale capital projects) or capital projects (including buses, charging and refuelling infrastructure and other ancillary infrastructure needs).

› For further information and to apply, visit: tinyurl.com/4cjavbf3

PROVINCIAL

B.C.

Vehicle Incentives:

CleanBC Go Electric Rebates Program: provides a post-purchase rebate for class 2b and higher that offsets 1/3 of eligible vehicle cost or a maximum of $10,000–$150,000, depending on the vehicle class.

› For further information and to apply, visit: www.goelectricotherrebates.ca

Vehicle Type	Maximum Amount
ON-ROAD MEDIUM- AND HEAVY-DUTY VEHICLES	**Class 2B:** $10,000 **Class 3:** $55,000 **Class 4–5:** $75,000 **Class 6–7:** $100,000 **Class 8:** $150,000
AIRPORT AND PORT SPECIALTY VEHICLES	**45 kWh and below:** $5,000 **MSRP below $300,000:** $20,000 **MSRP above $300,000:** $50,000 **Class 8 Yard Tractors:** $150,000

Go Electric Commercial Vehicle Pilot Program: offsets up to 1/3 of eligible vehicle capital costs for class 3–8 vehicles. Minimum vehicle requirements apply.

› For further information and to apply, visit: cvpbc.ca

Vehicle Class	Minimum Number of ZEVs
CLASS 3 AND 4	6
CLASS 5 AND 6	3
CLASS 7 AND 8 OR OFF-ROAD VEHICLES	No minimum

Go Electric Hydrogen Fleet Program: offsets 35% to a maximum of $8,000 of the selling price of a fuel cell electric vehicle.

› If you are interested in receiving a rebate for your fleet, please contact the Canadian Hydrogen and Fuel Cell Association at Nhilario@CHFCA.ca.

Infrastructure Incentives:

Go Electric Commercial Vehicle Pilot Program: provides grants that offset 1/3 of eligible energy infrastructure costs for capital expenses related to energy infrastructure, the site and electrical design, installation and utility connection fee.

› For further information and to apply, visit: cvpbc.ca

Go Electric Fleet Charging Program: offers up to $20,000 in rebates for electrical infrastructure upgrades to support fleet EV charging between $2,000–$115,000 per charger/station (depending on the rated power output); up to 40 hours of ZEV fleet advisory services; up to $50,000 in rebates for telematics and a ZEV fleet assessment; and up to $5,000 in rebates for facility planning assessments and training sessions/webinars.

› For further information and to apply, visit: tinyurl.com/3en99659

Rebate Tier	Rebate Amount	Other Rebate Amounts
LEVEL 2	50% of total costs, up to a maximum of $2,000 per station. Rebates are capped at $25,000 per applicant per year	Public Sector Organizations (local governments, health authorities, school districts and universities/colleges) & Indigenous Communities: 75% of total costs up to a maximum of $4,000 per station. Rebates are capped at $50,000 per applicant per year.
20 kW–49 kW	50% of project costs up to a maximum of $20,000 per charger. Maximum rebate per project is 50% of total project costs or $60,000, whichever amount is lower.	75% of project costs up to a maximum of $35,000 per charger. Maximum rebate per project is 75% of total project costs or $60,000, whichever amount is lower.
50 kW–99 kW	50% of project costs up to a maximum of $50,000 per charger. Maximum rebate per project is 50% of total project costs or $150,000, whichever amount is lower.	75% of project costs up to a maximum of $65,000 per charger. Maximum rebate per project is 75% of total project costs or $150,000, whichever amount is lower.
100 kW–199 kW	50% of project costs up to a maximum of $75,000 per charger. Maximum rebate per project is 50% of total project costs or $225,000, whichever amount is lower.	75% of project costs up to a maximum of $90,000 per charger. Maximum rebate per project is 75% of total project costs or $225,000, whichever amount is lower.
200 kW OR GREATER	50% of project costs up to a maximum of $100,000 per charger). Maximum rebate per project is 50% of total project costs or $300,000, whichever amount is lower.	75% of project costs up to a maximum of $115,000 per charger. Maximum rebate per project is 75% of total project costs or $300,000, whichever amount is lower.

BC Hydro's EV Fleet Incentives: offers the EV Ready Fleet Plan rebate that offsets 50% of planning costs up to a maximum of $10,000–$15,000 (depending on fleet size) to perform fleet and electrical infrastructure needs assessments. BC Hydro also has an Electrical Infrastructure Incentive to offset some of the cost of installing electrical infrastructure up to 50% of infrastructure costs (not including charging equipment). The EV Fleet Pilot Project Initiative funds short-term trials of commercial BEVs. BC Hydro also offers fleet electrification rates to reduce demand charges and allow for cheaper rates by incentivizing overnight charging.

› For more information on BC Hydro's fleet programs and to apply, visit: tinyurl.com/yz8ffcub

› To learn more about BC Hydro's fleet electrification rates visit: tinyurl.com/293n8xhk

QUEBEC

Vehicle Incentives:

Eco-cammionnage (except buses): new vehicle point-of-sale rebates range from a lump sum of $5,000–$175,000 with an additional 5%–15% if the technology is installed, assembled or manufactured in Quebec. Fuel cell vehicles are eligible for 50% of eligible expenses up to a maximum of $175,000.

❯ For more information and to apply, visit: tinyurl.com/msz9rt2d

Vehicle Category	Technology Category	Battery Size (kWh)	Incentive Amount
LIGHT TRUCK CLASS 1–2 GVWR less than 4,500 kg	**Fully electric**	15 and over	$10,000
	Plug-in hybrid	7–14.9 15 and over	$5,000 $10,000
MEDIUM TRUCK CLASS 3–6 GVWR 4,500 kg –11,793 kg	**Fully electric**	Less than 100 101–1170 171–1250 250 and over	$60,000 $85,000 $105,000 $125,000
	Plug-in hybrid	Less than 100 100 and over	$30,000 $40,000
HEAVY TRUCK CLASS 7–8	**Fully electric**	101–170 171–250 251–330 330 and over	$90,000 $110,000 $150,000 $175,000
	Plug-in hybrid	Less than 100 100 and more	$35,000 $45,000

School Transport Electrification program: is a point-of-sale rebate between $150,000–$175,00 per electric school bus.

❯ For further information and to apply, visit: tinyurl.com/4cxturh7

Infrastructure Incentives:

Transportez Vert Program: provides up to 50% of the eligible expenses to a maximum of $15,000–$60,000.

❯ For further information and to apply, visit: tinyurl.com/br92bnee

Output current power	Proportion of eligible expenses %	Maximum amount of financial assistance
BETWEEN 20 AND 49.9 kW	50%	$15,000
50 kW OR MORE	50%	$60,000

School transport electrification program: provides financial assistance up to 75% of eligible expenses for a charger up to $10,000–$50,000.

❯ For further information and to apply, visit: tinyurl.com/mr426fue

NOVA SCOTIA

Vehicle Incentives:

Electrify Rebates for Medium- and Heavy-Duty Zero-emission Vehicles: is a point-of-sale rebate applied at the dealership on the purchase of the vehicle. The rebate ranges from $10,000–$50,000 off the purchase price of a vehicle.

❯ For further information and to apply, visit: evassist.ca/rebates/mhzev

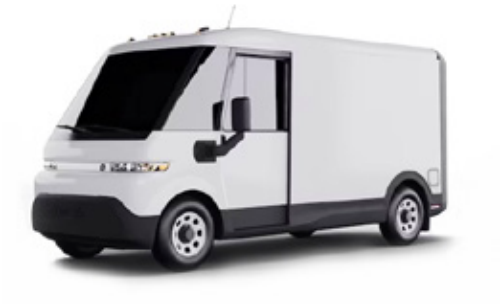
Vehicle Class	Vehicle Weight	Maximum Rebate Amount
2B	8,501 lbs–10,000 lbs	$10,000
3	10,001 lbs–14,000 lbs	$10,000
4	14,001 lbs–16,000 lbs	$18,750
5	16,001 lbs–19,500 lbs	$18,750
6	19,501 lbs–26,000 lbs	$25,000
7	26,001 lbs–33,000 lbs	$25,000
8	33,001 lbs–80,000 lbs and above	$25,000–$50,000
ICE RESURFACERS	8,501 lbs and above	$20,000

CARGO VANS

Cargo vans are one of the most readily electrifiable vehicle segments when it comes to medium- and heavy-duty vehicles. Generally cargo vans travel shorter daily distances in urban and suburban settings. According to the U.S. Vehicle In-Use Survey, roughly 80% of class 2b/3 vehicles travel less than 80 km every day.[1]

It is therefore no coincidence that cargo vans received more than 88% of the incentives awarded through Transport Canada's Incentives for Medium- and Heavy- ZEV Program.[2]

Models available in Canada are all electric, with ranges between 241 km to more than 400 km. Purchase prices (where available) range from $68,000 to $137,000. Payloads range from just over 1,030 kg to over 4,300 kg.

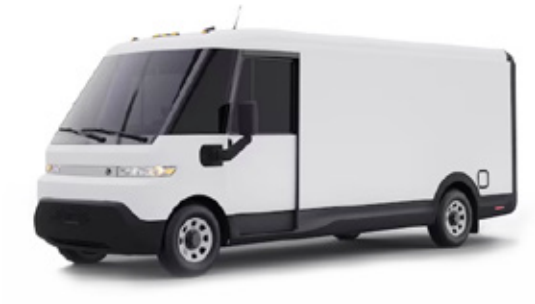


Zevo 400

Brightdrop

MODEL	Zevo 400
VEHICLE CLASS	Class 2b Class 3
USE	Urban Delivery
WEIGHT	4,531 kg 4,990 kg
RANGE	402 km
BATTERY	173 kWh
PAYLOAD	1,225 kg 1,202 kg
ESTIMATED PURCHASE PRICE	$136,615 or $137,955 depending on class

LEARN MORE

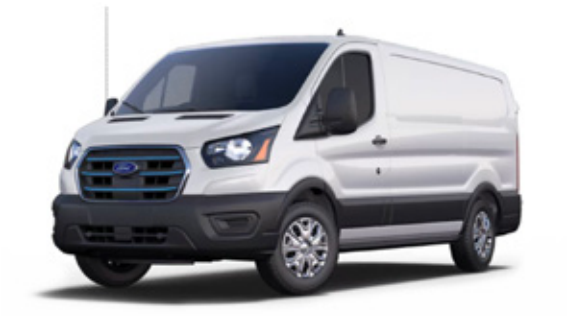


Zevo 600

Brightdrop

MODEL	Zevo 400
VEHICLE CLASS	Class 2b Class 3
USE	Urban Delivery
WEIGHT	4,531 kg 4,990 kg
RANGE	402 km
BATTERY	173 kWh
PAYLOAD	1,038 kg 1,465 kg
ESTIMATED PURCHASE PRICE	$136,615 or $137,955 depending on class

LEARN MORE



E-Transit (Cargo Van)

Ford

MODEL	E-Transit
VEHICLE CLASS	Class 2b
USE	Urban Delivery
WEIGHT	4,309 kg
RANGE	202 km
BATTERY	68 kWh
PAYLOAD	4,309 kg
ESTIMATED PURCHASE PRICE	$71,450

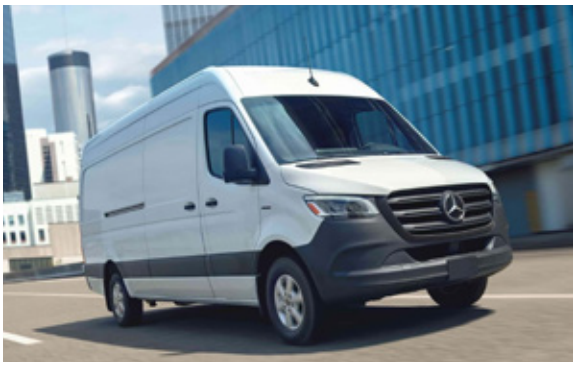
LEARN MORE

E-Transit (Chassis Cab/Cutaway)

Ford

MODEL	E-Transit
VEHICLE CLASS	Class 2b
USE	Urban Delivery
WEIGHT	4,309 kg
RANGE	202 km
BATTERY	68 kWh
PAYLOAD	4,309 kg
ESTIMATED PURCHASE PRICE	$71,450

LEARN MORE



eSprinter

Mercedes-Benz

MODEL	eSprinter
VEHICLE CLASS	Class 2b
USE	Urban Delivery
WEIGHT	4,250 kg
RANGE	400 km
BATTERY	113 kWh
PAYLOAD	4,250 kg
CHARGING TIME	12–13 hours at 9.6 kW 1.5 hours at 50 kW 45 minutes at 115 kW
ESTIMATED PURCHASE PRICE	$99,500

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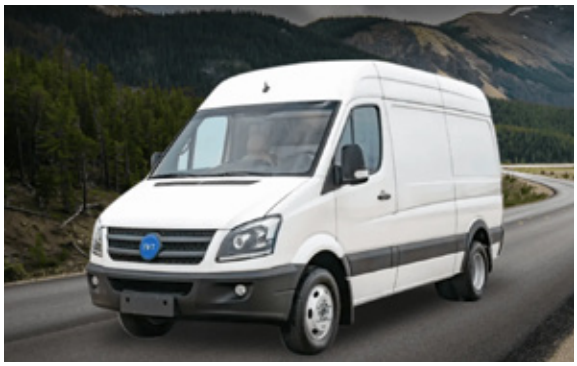

Logistics Van

Envirotech (EVTV)

MODEL	Logistics Van
VEHICLE CLASS	Class 4
USE	Urban Delivery
WEIGHT	6,400 kg
RANGE	274 km
BATTERY	106 kWh
PAYLOAD	3,540 kg
CHARGING SPEED	Level 2 at 22 kW DCFC at 50 kW
ESTIMATED PURCHASE PRICE	$182,995

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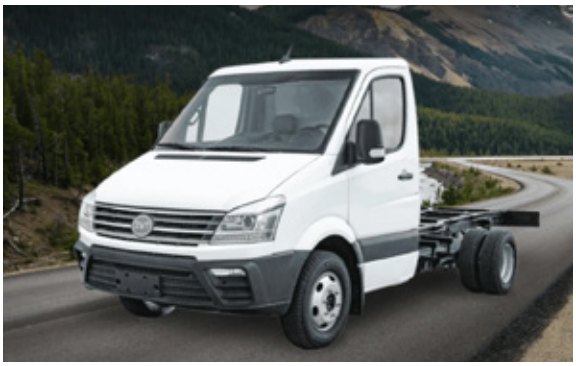

Electric Cutaway Van

Envirotech (EVTV)

MODEL	Electric Cutaway Van
VEHICLE CLASS	Class 4
USE	Urban Delivery
WEIGHT	6,400 kg
RANGE	274 km
BATTERY	106 kWh
PAYLOAD	3,850 kg
CHARGING SPEED	Level 2 at 22 kW DCFC at 55 kW

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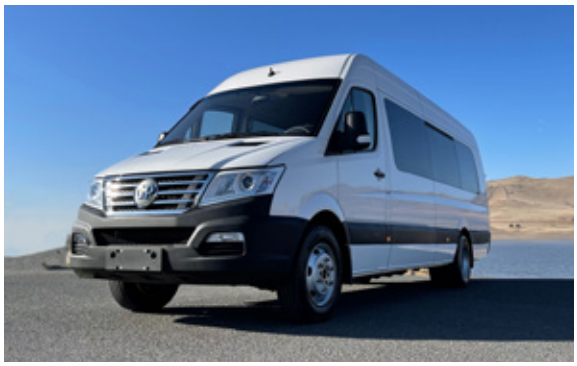

EV Star Cargo Van

GreenPower Motor Company

MODEL	EV Star Cargo
VEHICLE CLASS	Class 4
USE	Urban Delivery
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	2,857 kg
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	3–6 months

LEARN MORE

EV Star Cargo Van (Refrigerated)

GreenPower Motor Company

MODEL	EV Star Cargo
VEHICLE CLASS	Class 4
USE	Urban Delivery
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	3–6 months

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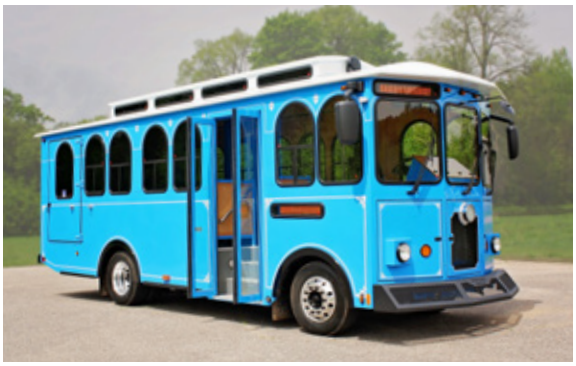
SHUTTLE BUSES

Shuttle buses are another early adopter technology for zero-emission vehicles. While some shuttle buses can travel longer distances, many also travel within urban and suburban environments with stop-and-go routes.

Shuttle bus models available in Canada are all battery electric and come in a variety of vehicle classes ranging from class 4 all the way to class 7. Electric ranges fall between 160 km to 370 km and prices (where available) range from $198,000 to $305,000. Passenger capacities range anywhere from 18 to 33 depending on the size. Finally, wait times (where available) vary substantially depending on the model, production cycle and other factors, ranging from as short as 3–6 months to as long as 18–36 months.



Ford F-53 Trolley

Motiv

MODEL	F-53
VEHICLE CLASS	Class 6
USE	Shuttle bus, Paratransit
WEIGHT	11,793 kg
RANGE	168 km
BATTERY	127 kWh
PAYLOAD	24 passenger
CHARGING TIME	6.5 hours at 80 amps, 19.2 kW
WAIT TIME	18 to 36 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

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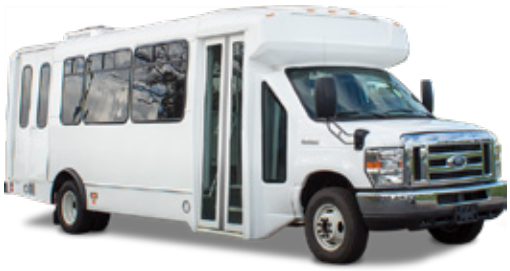

E-450 Shuttle Bus

Motiv

MODEL	E-450
VEHICLE CLASS	Class 4
USE	Shuttle bus, Paratransit
WEIGHT	6,577 kg
RANGE	168 km
BATTERY	127 kWh
PAYLOAD	20 passenger
CHARGING TIME	6.5 hours at 80 amps, 19.2 kW
WAIT TIME	12 to 18 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

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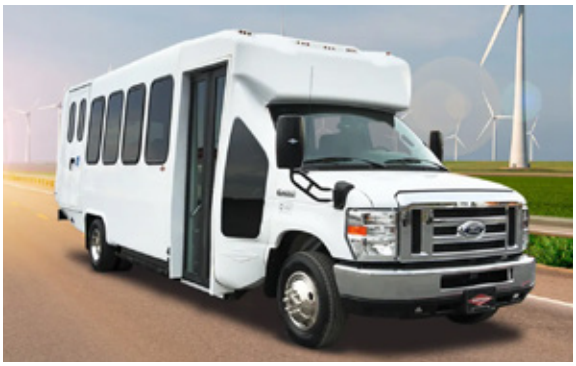

Ford E-450 Shuttle Bus

Unique Electric Solutions

MODEL	E-450
VEHICLE CLASS	Class 4
USE	Shuttle bus, Paratransit
WEIGHT	6,577 kg
RANGE	180 km
BATTERY	120 kWh
PAYLOAD	20 passenger
ESTIMATED PURCHASE PRICE	$198,450

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

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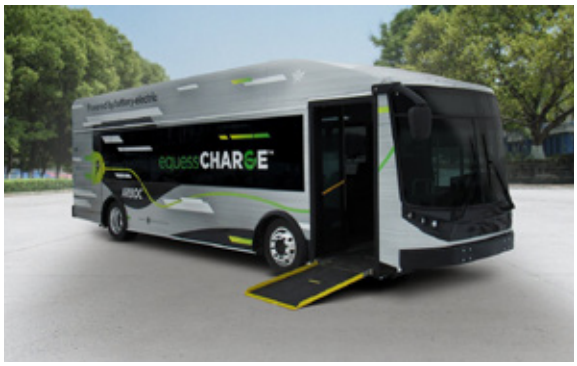

Equess CHARGE (30’)

ARBOC Specialty Vehicles

MODEL	Equess CHARGE 30’
VEHICLE CLASS	Class 7
USE	Shuttle bus, Paratransit
WEIGHT	14,969 kg
RANGE	338 km
BATTERY	350 kWh
PAYLOAD	25 passenger
CHARGING SPEED	SAE J1772, DC CCS Type 1 plug-in charger

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Equess CHARGE (35’)

ARBOC Specialty Vehicles

MODEL	Equess CHARGE 35’
VEHICLE CLASS	Class 7
USE	Shuttle bus, Paratransit
WEIGHT	14,969 kg
RANGE	370 km
BATTERY	437 kWh
PAYLOAD	33 passenger
CHARGING SPEED	SAE J1772, DC CCS Type 1 plug-in charger

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G5 Shuttle bus

Micro Bird

MODEL	G5 Shuttle bus
VEHICLE CLASS	Class 4
USE	Shuttle bus, Paratransit
WEIGHT	6,577 kg
RANGE	160 km
BATTERY	88 kWh
PAYLOAD	18–30
CHARGING TIME	7 hours at Level 2 2 hours at Level 3
ESTIMATED PURCHASE PRICE	$390,000

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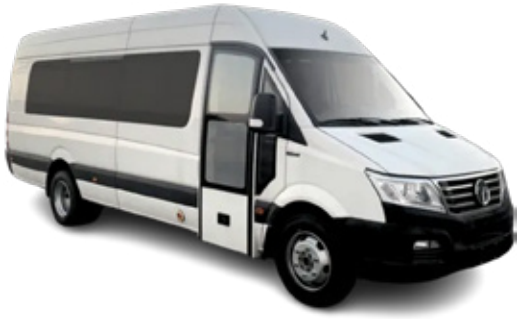

EV Star

GreenPower Motor Company

MODEL	Passenger Van with ADA Configurations Available
VEHICLE CLASS	Class 4
USE	Shuttle bus, Paratransit
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	19 passenger
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	3–6 months
ESTIMATED PURCHASE PRICE	$205,500

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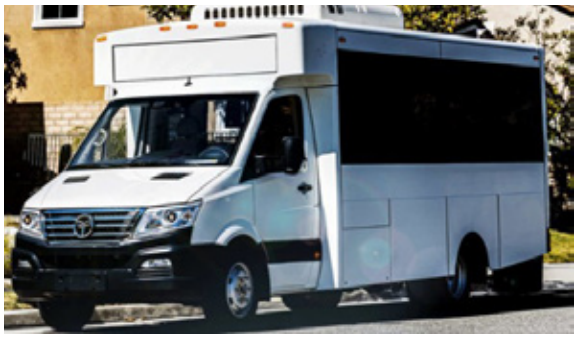


EV Star Mobility Plus

GreenPower Motor Company

MODEL	Cutaway Passenger Shuttle with ADA Configuraitons Available
VEHICLE CLASS	Class 4
USE	Shuttle bus, Paratransit
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	24 passenger
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	3–6 months

LEARN MORE

MEDIUM-DUTY STEP VANS

Many medium-duty step vans are prime for electrification. The vast majority of these vehicles are used in urban and suburban settings, travel short daily distances and are largely used for last-mile deliveries. For example, demonstration trials done by Purolator using a step van in Richmond, B.C. over an 18-day period showed a maximum daily mileage of only 51 km.[3] This is well within current battery ranges, even when accounting for cold weather conditions.

Medium-duty step van models available in Canada are mostly battery electric with a few fuel cell vehicle options. Many options are available, including custom chassis to suit a fleet's specific needs. Vehicles range from class 4–6 with ranges of 95 km to 352 km. Payload also ranges substantially, from 1,814 kg all the way up to 8,981 kg. Prices (where available) came in at around $211,000 for a class 6 vehicle. Wait times (where available) are estimated to be 9–12 months, but could be longer depending on the model.

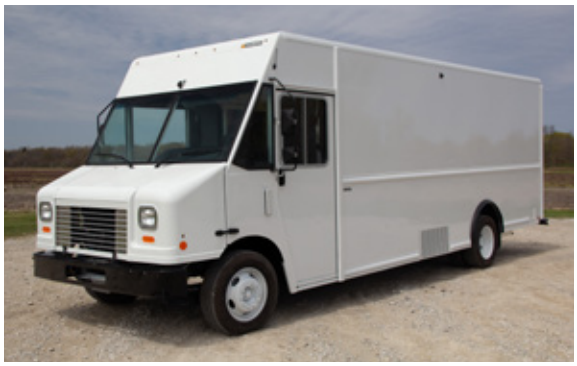
E-450

Motiv

MODEL	E-450
VEHICLE CLASS	Class 4
USE	Urban delivery
WEIGHT	6,577 kg
RANGE	168 km
BATTERY	127 kWh
PAYLOAD	2,268 kg
CHARGING TIME	6.5 hours at 80 amps, 19.2 kW
WAIT TIME	9 to 12 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE



F-59

Motiv

MODEL	F-59
VEHICLE CLASS	Class 5 Class 6
USE	Urban delivery
WEIGHT	8,845 kg 9,979 kg
RANGE	169 km
BATTERY	127 kWh
PAYLOAD	4,536 kg 4,082 kg
CHARGING TIME	6.5 hours at 80 amps, 19.2 kW
WAIT TIME	9 to 12 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

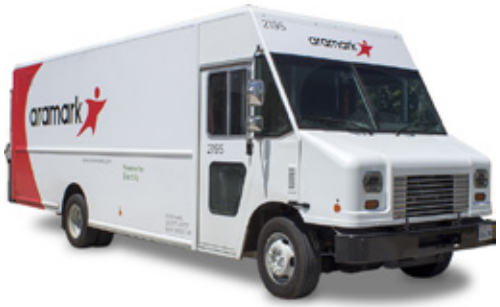
EPIC S

Motiv

MODEL	EPIC S
VEHICLE CLASS	Class 5 Class 6
USE	Urban delivery
WEIGHT	8,845 kg 9,979 kg
RANGE	241 km
BATTERY	158 kWh
PAYLOAD	4,536 kg 4,082 kg
CHARGING TIME	8 hours at 80 amps, 19.2 kW
WAIT TIME	9 to 12 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE



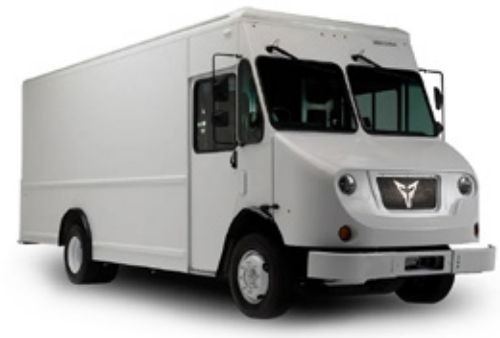
EPIC SL

Motiv

MODEL	EPIC SL
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	9,979 kg
RANGE	322 km
BATTERY	237 kWh
PAYLOAD	4,082 kg
CHARGING TIME	9 hours at 80 amps, 19.2 kW
WAIT TIME	9 to 12 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

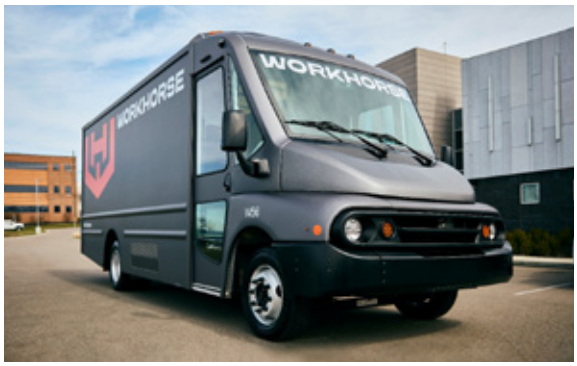


SV05 Step Van

XOS

MODEL	SV05 Step Van
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	10,433 kg
RANGE	241 km
BATTERY	150 kWh
PAYLOAD	4,763 kg

LEARN MORE



W56

Workhorse

MODEL	W56
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	10,432 kg
RANGE	241 km
BATTERY	210 kWh
PAYLOAD	4,535 kg
CHARGING TIME	12 hours at 20 kW 3-4 hours at 100 kW

LEARN MORE

International 1652 EV

Unique Electric Solutions

MODEL	International 1652 EV
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	9,752 kg
RANGE	180 km
BATTERY	120 kWh
PAYLOAD	2,722 kg
ESTIMATED PURCHASE PRICE	$211,950

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

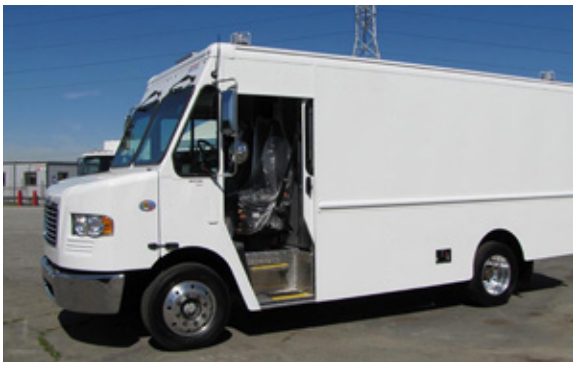
Ford F-59 EV

Unique Electric Solutions

MODEL	Ford F-59 EV
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	9,979 kg
RANGE	180 km
BATTERY	120 kWh
PAYLOAD	2,722 kg
ESTIMATED PURCHASE PRICE	$211,950

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE



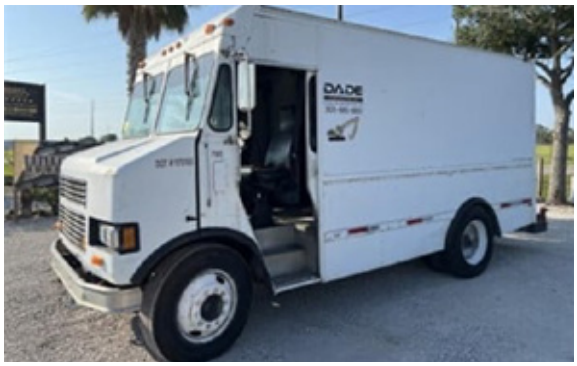
FCCC MT-55 EV

Unique Electric Solutions

MODEL	FCCC MT-55 EV
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	10,433 kg
RANGE	180 km
BATTERY	120 kWh
PAYLOAD	2,722 kg
ESTIMATED PURCHASE PRICE	$211,950

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE



International 1652 FC

Unique Electric Solutions

MODEL	International 1652 FC
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	9,752 kg
RANGE	180 km
BATTERY	60 kWh
PAYLOAD	1,814 kg
ESTIMATED PURCHASE PRICE	$211,950

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

Ford F-59 FC

Unique Electric Solutions

MODEL	Ford F-59 FC
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	9,979 kg
RANGE	180 km
BATTERY	60 kWh
PAYLOAD	1,814 kg
ESTIMATED PURCHASE PRICE	$211,950

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

FCCC MT-55 FC

Unique Electric Solutions

MODEL	FCCC MT-55 FC
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	10,433 kg
RANGE	180 km
BATTERY	60 kWh
PAYLOAD	1,814 kg
ESTIMATED PURCHASE PRICE	$211,950

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

UES RS100EV

Unique Electric Solutions

MODEL	UES RS100EV
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	11,113 kg
RANGE	95 km 192 km 288 km
BATTERY	60 kWh 120 kWh 180 kWh

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

UES e1000 FC

Unique Electric Solutions

MODEL	W56
VEHICLE CLASS	Class 6
USE	Urban delivery
WEIGHT	11,113 kg
RANGE	352 km
BATTERY/ H_2 STORAGE CAPACITY	60 kWh/10 kg H_2

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

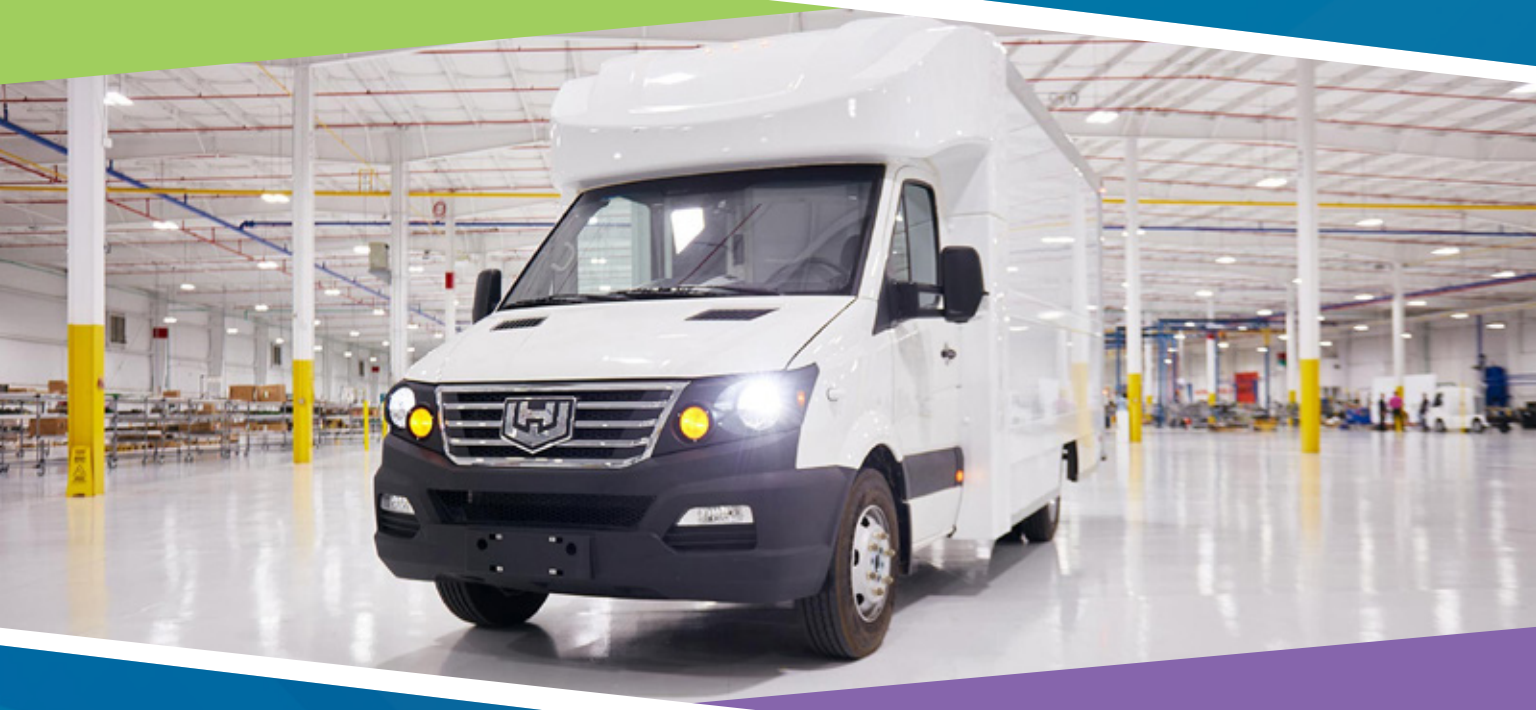
LEARN MORE

MT50e

Freightliner

MODEL	MT50e
VEHICLE CLASS	Class 5 Class 6
USE	Urban delivery
WEIGHT	7,257 kg 10,433 kg
RANGE	274 km
BATTERY	226 kWh
PAYLOAD	8,981 kg

LEARN MORE

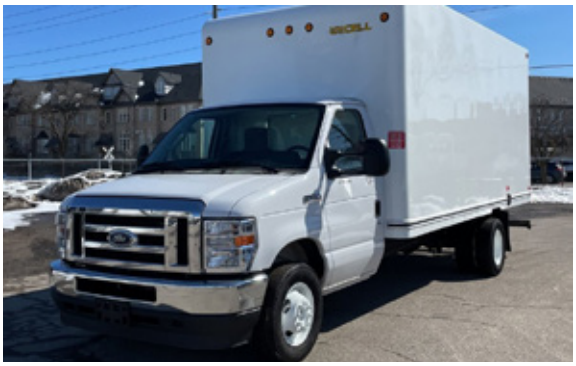


MEDIUM-DUTY TRUCKS

Medium-duty trucks come in a variety of sizes, classes and configurations. Potential applications include everything from urban delivery to work trucks, stake beds to refuse trucks, and specialty vehicles that can be upfitted from custom chassis to meet the needs of businesses. According to the California Air Resources Board's zero-emission truck market assessment, about 70% of trucks in the class 4–7 category are electrifiable today.[4]

Typically, vehicles in this segment are sold as incomplete vehicles (for example, cutaway van chassis) that are used by second stage manufacturers to customize the vehicles' utility to the individual needs of the customer. According to the California Air Resources Board's vehicle in-use surveys, about 90% of vehicles in this weight category in the U.S. travel less than 160 km a day.[5]

Many of these vehicles have centralized deployment, short, predictable routes, and have the flexibility to accommodate the weight and size of zero-emission powertrains, this segment stands out. Currently, there are 27 different types of zero-emission medium-duty trucks available in Canada, most battery electric with some fuel cell electric options. Ranges vary from 95 km to 425 km. Prices (where available) range from $159,000 to $427,000 and wait times (where available) range from 3 months to 12 months. Payload capacity also varies widely, from just under 1,000 kg up to almost 15,000 kg.



E-450 Work Truck

Motiv

MODEL	E-450 Work Truck
VEHICLE CLASS	Class 4
USE	Specialty vehicle
WEIGHT	6,577 kg
RANGE	169 km
BATTERY	127 kWh
PAYLOAD	2,722 kg
CHARGING TIME	6.5 hours at 80 amps, 19.2 kW
WAIT TIME	9 to 12 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

E-450 Box Truck

Motiv

MODEL	E-450 Box Truck
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,577 kg
RANGE	169 km
BATTERY	127 kWh
PAYLOAD	2,722 kg
CHARGING TIME	6.5 hours at 80 amps, 19.2 kW
WAIT TIME	6 to 12 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

Argo

Motiv

MODEL	Argo
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,793 kg
RANGE	241 km
BATTERY	158 kWh
PAYLOAD	7,031 kg
CHARGING TIME	5.3 hours at 80 amps, 19.2 kW 1.5 hours at 200 amps, CCS1 DCFC
WAIT TIME	9 to 12 months

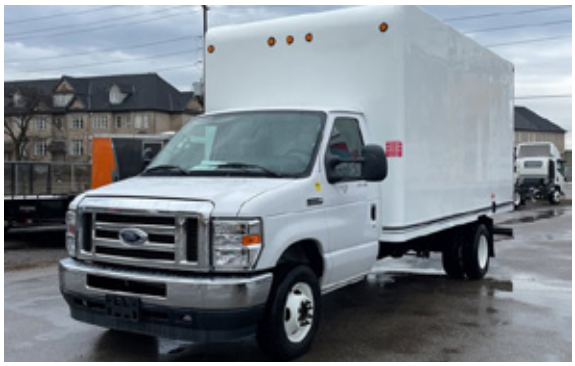
LEARN MORE

Argo L

Motiv

MODEL	Argo L
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,794 kg
RANGE	322 km
BATTERY	237 kWh
PAYLOAD	6,486 kg
CHARGING TIME	8 hours at 80 amps, 19.2 kW 2 hours at 200 amps, CCS1 DCFC
WAIT TIME	9 to 12 months

LEARN MORE



Ford E-450 MD Truck

Unique Electric Solutions

MODEL	Ford E-450 MD Truck
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,577 kg
RANGE	180 km
BATTERY	120 kWh
PAYLOAD	907 kg
ESTIMATED PURCHASE PRICE	$198,450

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

Isuzu FTR MT6 G2

Unique Electric Solutions

MODEL	Isuzu FTR MT6 G2
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,770 kg
RANGE	350 km
BATTERY/ H_2 STORAGE CAPACITY	60 kWh/10 kg H_2
PAYLOAD	6,580 kg

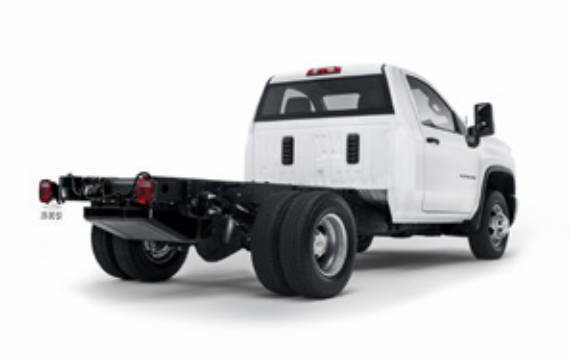
Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

Isuzu FTR MT6 G2

Unique Electric Solutions

MODEL	Isuzu FTR MT6 G2
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,770 kg
RANGE	350 km
BATTERY	180 kWh
PAYLOAD	6,580 kg

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.



CS6-HD

Unique Electric Solutions

MODEL	CS6-HD
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,113 kg
RANGE	95 km 192 km 288 km
BATTERY	60 kWh 120 kWh 180 kWh

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

6F

BYD

MODEL	6F
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,793 kg
RANGE	241 km 321 km 402 km
BATTERY	211 kWh 281 kWh 343 kWh
PAYLOAD	6,693 kg 7,094 kg
ESTIMATED PURCHASE PRICE	$262,000 $300,000 $337,000

LEARN MORE

220EV

Peterbilt

MODEL	220EV
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,793 kg
RANGE	161 km 241 km 322 km
BATTERY	141 kWh 209 kWh 282 kWh
CHARGING TIME	1–2 hours
ESTIMATED PURCHASE PRICE	$427,000

LEARN MORE

MDXT

XOS

MODEL	MDXT
VEHICLE CLASS	Class 7
USE	Urban Delivery, Specialty Vehicle
WEIGHT	14,969 kg
RANGE	435 km
PAYLOAD	9,072 kg

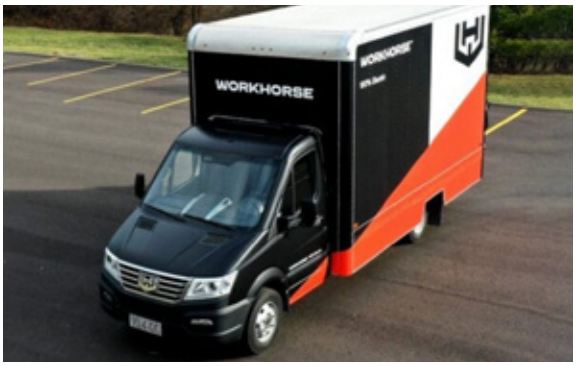
LEARN MORE

SV Stepvan

XOS

MODEL	SV Stepvan
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	10,433 kg
RANGE	322 km
BATTERY	280 kWh
PAYLOAD	28.3 m^3

LEARN MORE

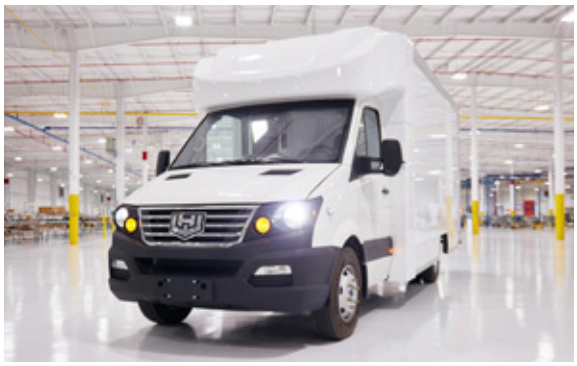


W4 CC

Workhorse

MODEL	W4 CC
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,486 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	3,175 kg
CHARGING TIME	11 hours at 11 kW 3–4 hours at 61 kW

LEARN MORE

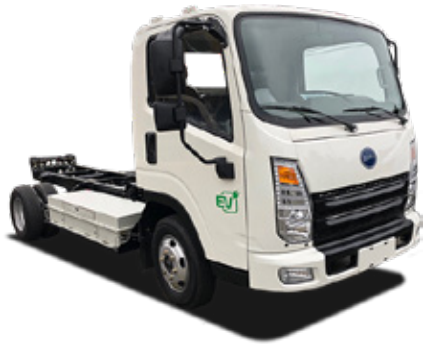


W750

Workhorse

MODEL	W750
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,486 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	2,267 kg
CHARGING TIME	11 hours at 11 kW 3–4 hours at 61 kW

LEARN MORE



Urban Electric Truck

Envirotech (EVTV)

MODEL	Urban Electric Truck
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,400 kg
RANGE	274 km
BATTERY	106 kWh
PAYLOAD	3,850 kg
CHARGING SPEED	Level 2 at 22 kW DCFC at 50 kW
ESTIMATED PURCHASE PRICE	$187,995

LEARN MORE

K270E

Kenworth

MODEL	Urban Electric Truck
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
RANGE	160 km
BATTERY	141 kWh
PAYLOAD	6,123 kg
CHARGING SPEED	Level 2 at 22.5 kW DCFC at 180 kW
ESTIMATED PURCHASE PRICE	$315,088

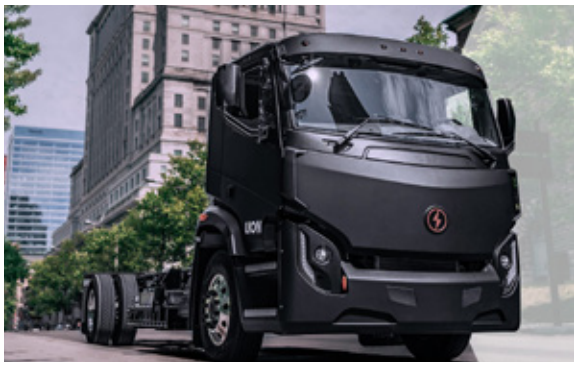
LEARN MORE

K370E

Kenworth

MODEL	K370E
VEHICLE CLASS	Class 7
USE	Urban Delivery, Specialty Vehicle
WEIGHT	14,969 kg
RANGE	160 km
BATTERY	141 kWh
PAYLOAD	7,938 kg
CHARGING SPEED	Level 2 at 22.5 kW DCFC at 180 kW
ESTIMATED PURCHASE PRICE	$315,088

LEARN MORE



Lion6

Lion

MODEL	Lion6
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,793 kg
RANGE	348.8 km
BATTERY	252 kWh
PAYLOAD	14,969 kg
CHARGING SPEED	Level 2 at 19.2 kW DCFC at 50 kW
ESTIMATED PURCHASE PRICE	Contact manufacturer

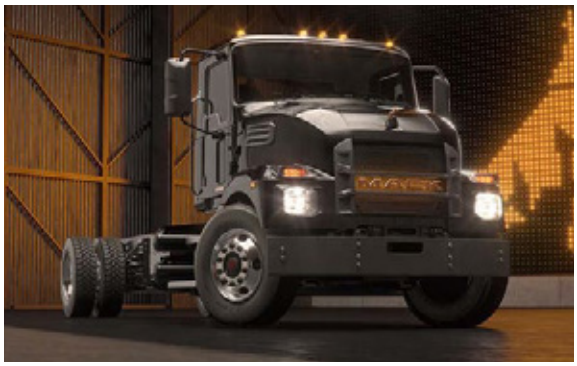
LEARN MORE

Lion5

Lion

MODEL	Lion5
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,793 kg
RANGE	322 km
BATTERY	210 kWh
PAYLOAD	5,670 kg
CHARGING TIME	Level 2 at 19.2 kW DCFC at 50 kW
ESTIMATED PURCHASE PRICE	Contact manufacturer

LEARN MORE



MD Electric

Mack

MODEL	MD Electric
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,791 kg
RANGE	370 km
BATTERY	240 kWh
PAYLOAD	8,800 kg
ESTIMATED PURCHASE PRICE	$420,000

LEARN MORE

eMV

International

MODEL	eMV
VEHICLE CLASS	Class 6
USE	Urban Delivery, Specialty Vehicle
WEIGHT	11,793 kg
RANGE	217 km
BATTERY	210 kWh
PAYLOAD	4,990 kg (body + payload)
CHARGING TIME	From a state of charge of 20%–100%: 5.5 hours at 30 kW 2 hours at 120 kW
WAIT TIME	3–4 months
ESTIMATED PURCHASE PRICE	$351,000

LEARN MORE

EV Star Cargo Plus (Box Truck)

GreenPower Motor Company

MODEL	EV Star Cargo Plus Box Truck
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	2,268 kg
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	3–6 months

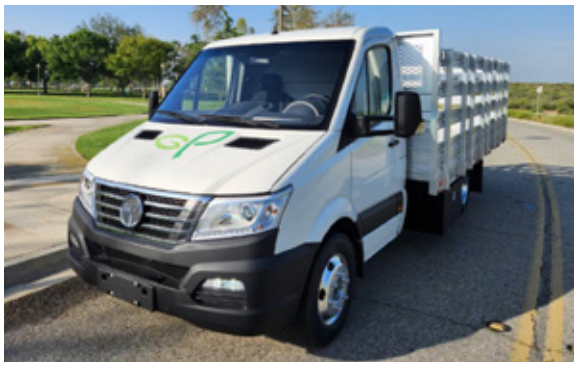
LEARN MORE

EV Star Cargo Plus (Refrigerated)

GreenPower Motor Company

MODEL	EV Star Cargo Plus Refrigerated
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	3–6 months

LEARN MORE

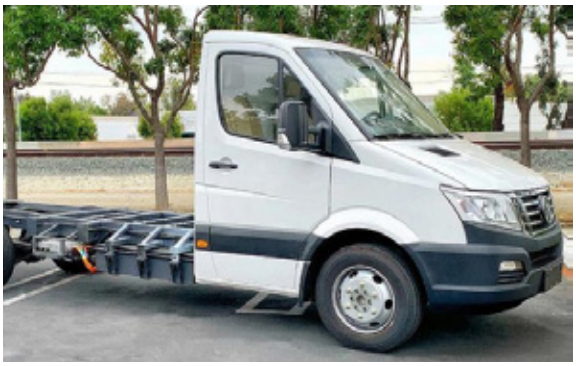


EV Star Cargo Plus (Stakebed)

GreenPower Motor Company

MODEL	EV Star Stakebed
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	2,721 kg
ESTIMATED PURCHASE PRICE	8 hours at level 2 2 hours at level 3
WAIT TIME	3–6 months

LEARN MORE



EV Star CC

GreenPower Motor Company

MODEL	EV Star CC
VEHICLE CLASS	Class 4
USE	Urban Delivery, Specialty Vehicle
WEIGHT	6,500 kg
RANGE	241 km
BATTERY	118 kWh
PAYLOAD	3,175 kg
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	2–6 months
ESTIMATED PURCHASE PRICE	$174,900

LEARN MORE

LNT

Battle Motors

MODEL	LNT
VEHICLE CLASS	Class 6
USE	Regional haul, Drayage, Urban Delivery, Specialty vehicle, Refuse truck
WEIGHT	11,793 kg
RANGE	193 km
BATTERY	240 kWh
PAYLOAD	1,814 kg

E-Truck

Vicinity Motors

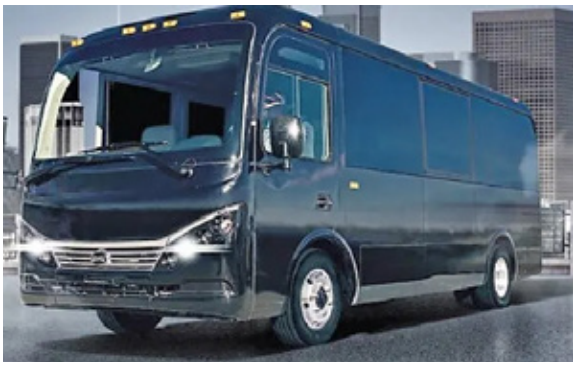
MODEL	E-Truck
VEHICLE CLASS	Class 3
USE	Urban Delivery, Specialty Vehicle
WEIGHT	5,000 kg
RANGE	240 km
BATTERY	103 kWh
PAYLOAD	2,495 kg
CHARGING TIME	5 - 7 hours at level 2 2.5 hours at CCS level 3
ESTIMATED PURCHASE PRICE	$159,900

LEARN MORE

TRANSIT BUSES

Zero-emission transit buses are prime for mass adoption due to their predictable routes and centralized deployment. It is no coincidence that Canada has almost 1,000 zero-emission buses on the road already.[6] Almost all of them are battery electric, with a handful of fuel cell transit buses.

Current ranges for zero-emission transit buses available in Canada are from 241 km to 595 km. Passenger seating capacity also ranges from 19 up to 68, depending on the vehicle's size. Prices (where available) are upwards of $1,000,000 per bus, with wait times (where available) ranging from 9 months to 12 months.

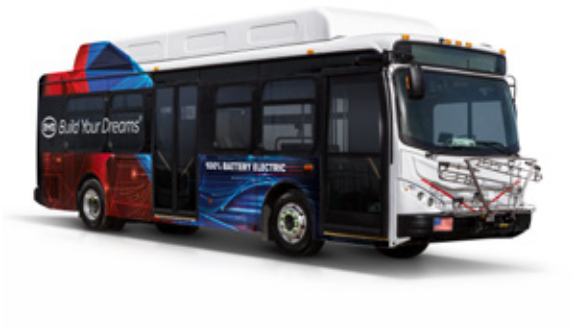


C6M

BYD

MODEL	C6M
USE	Transit Bus
WEIGHT	9,400 kg
LENGTH	7 metres
RANGE	226 km
BATTERY	141 kWh
PAYLOAD	19 passenger
CHARGING TIME	1–1.5 hours at 150 kW

LEARN MORE



K7M

BYD

MODEL	K7M
USE	Transit Bus
WEIGHT	14,499 kg
LENGTH	9.1 metres
RANGE	253 km
BATTERY	215 kWh
PAYLOAD	22 passenger
CHARGING TIME	1.5–2 hours at 150 kW

LEARN MORE

K8M

BYD

MODEL	K8M
USE	Transit Bus
WEIGHT	19,699 kg
LENGTH	10.7 metres
RANGE	272 km
BATTERY	391 kWh
PAYLOAD	32 passenger
CHARGING TIME	3–3.5 hours at 150 kW

LEARN MORE

K9M

BYD

MODEL	K9M
USE	Transit Bus
WEIGHT	19,699 kg
LENGTH	12.2 metres
RANGE	253 km
BATTERY	313 kWh
PAYLOAD	37 passenger
CHARGING TIME	2–2.5 hours at 150 kW

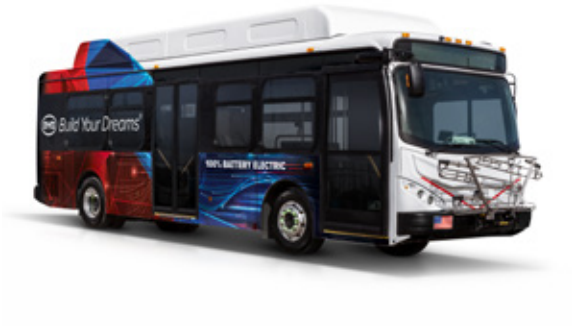
LEARN MORE

K11M

BYD

MODEL	K11M
USE	Transit Bus
WEIGHT	30,594 kg
LENGTH	18.3 metres
RANGE	309 km
BATTERY	578 kWh
PAYLOAD	52 passenger
CHARGING TIME	4–4.5 hours at 200 kW

LEARN MORE



K7M-ER

BYD

MODEL	K7M-ER
USE	Transit Bus
WEIGHT	17,000 kg
LENGTH	9.1 metres
RANGE	315 km
BATTERY	313 kWh
PAYLOAD	20 passenger
CHARGING TIME	2–2.5 hours at 150 kW

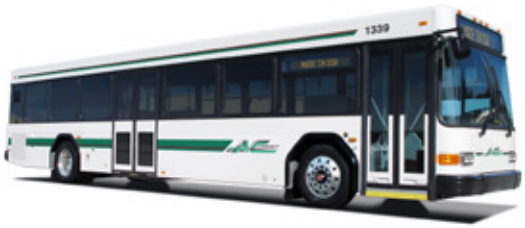
LEARN MORE

K9M

BYD

MODEL	K9M
USE	Transit Bus
WEIGHT	20,300 kg
LENGTH	12.5 metres
RANGE	327 km
BATTERY	446 kWh
PAYLOAD	42 passenger
CHARGING TIME	3–3.5 hours at 150 kW

LEARN MORE

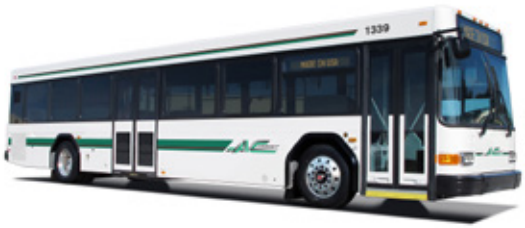


Low Floor Bus (29 ft)

Gillig

MODEL	Low Floor Bus 29 ft
USE	Transit Bus
LENGTH	8.8 metres
RANGE	241 km
BATTERY	444 kWh
PAYLOAD	28 passenger

LEARN MORE

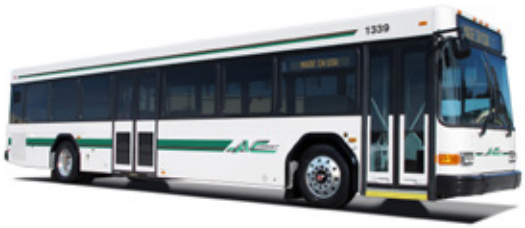


Low Floor Bus (35 ft)

Gillig

MODEL	Low Floor Bus 35 ft
USE	Transit Bus
LENGTH	10.7 metres
RANGE	241 km
BATTERY	444 kWh
PAYLOAD	32 passenger
CHARGING SPEED	DCFC at 262.5 kW

LEARN MORE



Low Floor Bus (40 ft)

Gillig

MODEL	Low Floor Bus 40 ft
USE	Transit Bus
LENGTH	12.2 metres
RANGE	241 km
BATTERY	444 kWh
PAYLOAD	40 passenger
CHARGING SPEED	DCFC at 262.5 kW

LEARN MORE

Xcelsior CHARGE (35 ft)

New Flyer

MODEL	Xcelsior CHARGE 35 ft
USE	Transit Bus
LENGTH	10.7 metres
RANGE	293 km 360 km
BATTERY	345 kWh 435 kWh
PAYLOAD	32 passenger

LEARN MORE

Xcelsior CHARGE (40 ft)

New Flyer

MODEL	Xcelsior CHARGE 40 ft
USE	Transit Bus
LENGTH	12.2 metres
RANGE	286 km 356 km 415 km
BATTERY	345 kWh 435 kWh 520 kWh
PAYLOAD	40 passenger

LEARN MORE

Xcelsior CHARGE (60 ft)

New Flyer

MODEL	Xcelsior CHARGE 60 ft
USE	Transit Bus
LENGTH	18.3 metres
RANGE	245 km 282 km 319 km
BATTERY	520 kWh 606 kWh 693 kWh
PAYLOAD	61 passenger

LEARN MORE

Xcelsior CHARGE H_2 (40 ft)

New Flyer

MODEL	Xcelsior CHARGE H_2 40 ft
USE	Transit Bus
LENGTH	12.2 metres
RANGE	595 km
H_2 STORAGE CAPACITY	37.5 kg
PAYLOAD	40 passenger
CHARGING TIME	DCFC at 262.5 kW

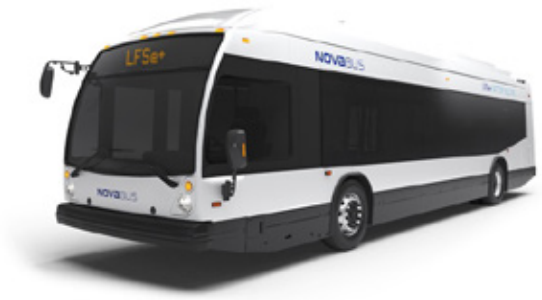
LEARN MORE

Xcelsior CHARGE H_2 (60 ft)

New Flyer

MODEL	Xcelsior CHARGE H_2 60 ft
USE	Transit Bus
LENGTH	18.3 metres
RANGE	595 km
H_2 STORAGE CAPACITY	56 kg
PAYLOAD	52 passenger

LEARN MORE

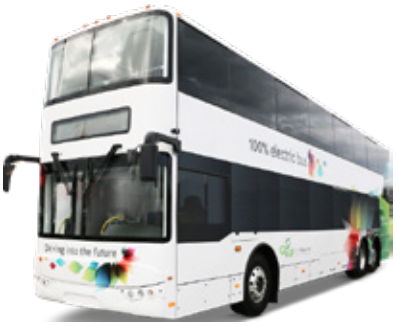


LFSe+

Nova Bus

MODEL	LFSe+
USE	Transit Bus
LENGTH	12.2 metres
RANGE	360 km
BATTERY	594 kWh
PAYLOAD	68 passenger
ESTIMATED PURCHASE PRICE	$1,050,000

LEARN MORE



EV550 Double Decker

GreenPower Motor Company

MODEL	EV550 Low-Floor Double Decker
VEHICLE CLASS	Class 8
USE	Specialty vehicle
WEIGHT	30,200 kg
RANGE	282 km
BATTERY	478 kWh
PAYLOAD	99 passenger
CHARGING TIME	4 hours at level 3
WAIT TIME	Up to 12 months

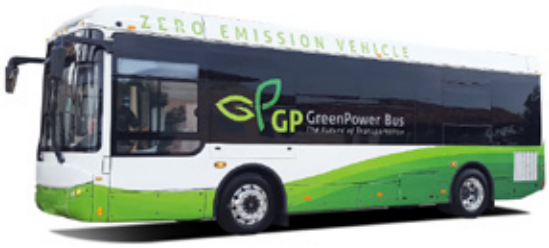
LEARN MORE

EV350

GreenPower Motor Company

MODEL	EV350 40’ Low-Floor Transit Bus
VEHICLE CLASS	Class 8
USE	Transit Bus
WEIGHT	21,500 kg
RANGE	321 km
BATTERY	400 kWh
PAYLOAD	40 passenger
CHARGING TIME	2 hours at level 3
WAIT TIME	Up to 9 months

LEARN MORE

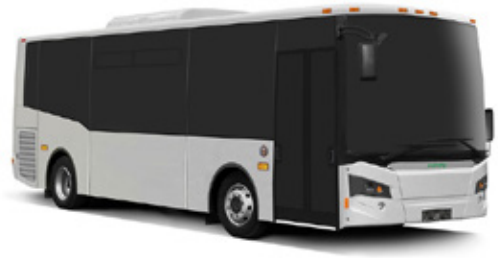


EV250

GreenPower Motor Company

MODEL	EV250 30’ Low-Floor Transit Bus
VEHICLE CLASS	Class 8
USE	Specialty vehicle
WEIGHT	16,496 kg
RANGE	241 km
BATTERY	260 kWh
PAYLOAD	21 passenger
CHARGING TIME	2 hours at level 3
WAIT TIME	Up to 9 months

LEARN MORE



E-Bus

Vicinity Motors

MODEL	E-Bus
VEHICLE CLASS	Class 8
USE	Transit Bus
LENGTH	8.6 m
RANGE	300 km
BATTERY	168 kWh 252 kWh
PAYLOAD	34 passenger
CHARGING TIME	1.5 hours with DCFC

LEARN MORE

SCHOOL BUSES

Similar to transit buses, zero-emission school buses have been successfully deployed across the country due to their predictable routes and stop-and-go motion. Currently, Canada has over 900 zero-emission school buses on the road.[7] This number will continue to grow with recent policy changes.[7] For instance, Quebec now requires all new school buses to be zero-emission. P.E.I. aims to fully electrify its public schools branch fleet by 2030. And B.C. is developing a draft ZEMHDV regulation to require 100% zero-emission bus and truck sales by 2036.

In Canada, there are several zero-emission school bus models available for sale, mostly battery electric with some fuel cell vehicle options. Ranges vary from 160 km up to 482 km. Passenger capacity ranges from 18 to 90 passengers. Current prices (where available) range from $198,000 to $539,000. Finally, wait times (where available) are between 3 months to 9 months.

E-450

Motiv

MODEL	E-450 School Bus
CLASS	Class 4
USE	School Bus
WEIGHT	6,577 kg
RANGE	168 km
BATTERY	127 kWh
PAYLOAD	20 passenger
CHARGING TIME	6.5 hours at 80 amps, 19.2 kW
WAIT TIME	12 to 18 months

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

E-450

Unique Electric Solutions

MODEL	Ford E-450 School Bus
CLASS	Class 4
USE	School Bus
WEIGHT	6,577 kg
RANGE	180 km
BATTERY	120 kWh
PAYLOAD	20 passenger
ESTIMATED PURCHASE PRICE	$198,450

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

G5

Micro Bird

MODEL	G5
CLASS	Type A
USE	School Bus
WEIGHT	6,577 kg
RANGE	160 km
BATTERY	88 kWh
PAYLOAD	30 passenger
CHARGING TIME	7 hours at level 2 2 hours at level 3
ESTIMATED PURCHASE PRICE	$346,097

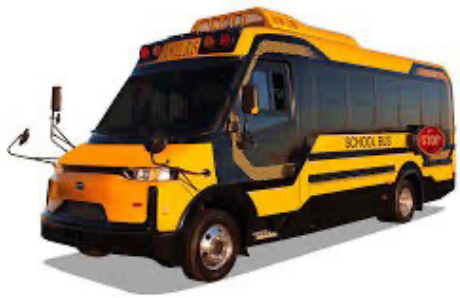
LEARN MORE

Type D Bus

BYD

MODEL	Type D Bus
CLASS	Type D
USE	School Bus
WEIGHT	17,759 kg
RANGE	249 km
BATTERY	255 kWh
PAYLOAD	84 passenger
CHARGING TIME	2.1–2.6 hours at 110 kW

LEARN MORE



BYD Type A School Bus

BYD

MODEL	BYD Type A School Bus
CLASS	Type A
USE	School Bus
RANGE	169 km
BATTERY	156 kWh
PAYLOAD	30 passenger

LEARN MORE

Saf-T-Liner C2Jouley

Thomas Built

MODEL	Saf-T-Liner C2Jouley
CLASS	Type C
USE	School Bus
RANGE	241 km
BATTERY	226 kWh
PAYLOAD	81 passenger
CHARGING SPEED	DCFC at 90 kW
ESTIMATED PURCHASE PRICE	$473,500

LEARN MORE

LionD

Lion

MODEL	LionD
CLASS	Type D
USE	School Bus
RANGE	201 km
BATTERY	168 kWh
PAYLOAD	83 passenger
CHARGING TIME	Level 2 at 19.2 kW DCFC at 50 kW
ESTIMATED PURCHASE PRICE	Contact manufacturer

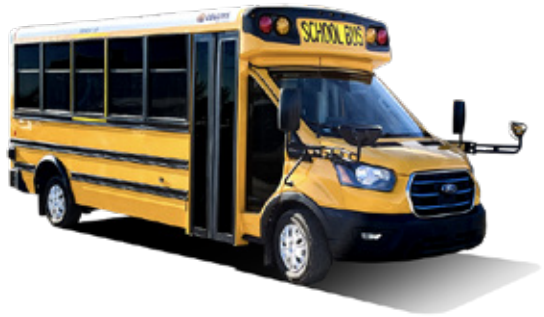
LEARN MORE

LionC

Lion

MODEL	LionC
CLASS	Type C
USE	School Bus
RANGE	200 km
BATTERY	168 kWh
PAYLOAD	77 passenger
CHARGING SPEED	Level 2 at 19.2 kW DCFC at 50 kW
ESTIMATED PURCHASE PRICE	Contact manufacturer

LEARN MORE



Collins Type A School Bus

Collins Bus

MODEL	Collins Type A School Bus
CLASS	Type A
USE	School Bus
WEIGHT	6,577 kg
RANGE	169 km
BATTERY	127 kWh
PAYLOAD	24 passenger
CHARGING TIME	Level 2 at 13.2 kW DCFC at 60 kW

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

International PC105

Unique Electric Solutions

MODEL	International PC105
CLASS	Class 7
USE	School Bus
WEIGHT	14,969 kg
RANGE	200 km
BATTERY	180 kWh
PAYLOAD	60 passenger
ESTIMATED PURCHASE PRICE	$255,150

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

Blue Bird Vision

Unique Electric Solutions

MODEL	Blue Bird Vision
CLASS	Class 7
USE	School Bus
WEIGHT	14,969 kg
RANGE	200 km
BATTERY	180 kWh
PAYLOAD	60 passenger
ESTIMATED PURCHASE PRICE	$255,150

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

Thomas C2

Unique Electric Solutions

MODEL	Thomas C2
CLASS	Class 7
USE	School Bus
WEIGHT	14,969 kg
RANGE	200 km
BATTERY	180 kWh
PAYLOAD	60 passenger
ESTIMATED PURCHASE PRICE	$255,150

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

International PC105

Unique Electric Solutions

H_2

MODEL	International PC105
CLASS	Class 7
USE	School Bus
WEIGHT	14,969 kg
RANGE	380 km
BATTERY/ H_2 STORAGE CAPACITY	60 kWh/10 kg H_2
PAYLOAD	60 passenger
ESTIMATED PURCHASE PRICE	$492,750

Note: These are custom upfit vehicles. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

Blue Bird Vision

Unique Electric Solutions

H_2

MODEL	Blue Bird Vision
CLASS	Class 7
USE	School Bus
WEIGHT	14,969 kg
RANGE	380 km
BATTERY/ H_2 STORAGE CAPACITY	60 kWh/10 kg H_2
PAYLOAD	60 passenger
ESTIMATED PURCHASE PRICE	$492,750

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

Thomas C2

Unique Electric Solutions

MODEL	Thomas C2
CLASS	Class 7
USE	School Bus
WEIGHT	14,969 kg
RANGE	380 km
BATTERY/ H_2 STORAGE CAPACITY	60 kWh/10 kg H_2
PAYLOAD	60 passenger
ESTIMATED PURCHASE PRICE	$492,750

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE

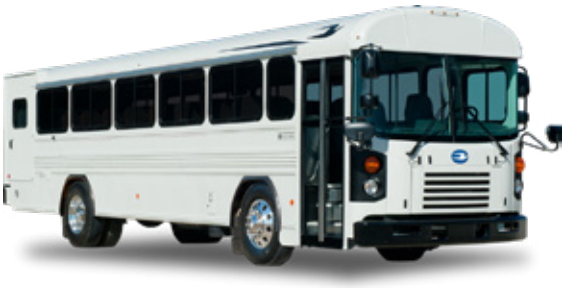
Blue Bird Micro Bird G5

Unique Electric Solutions

MODEL	Blue Bird Micro Bird G5
CLASS	Class 4
USE	School Bus
WEIGHT	6,577 kg
RANGE	200 km
BATTERY	120 kWh
PAYLOAD	30 passenger
ESTIMATED PURCHASE PRICE	$198,450

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

LEARN MORE



Thomas Minotour E450

Unique Electric Solutions

MODEL	Thomas Minotour E450 WB158" EV
CLASS	Class 4
USE	School Bus
WEIGHT	6,577 kg
RANGE	200 km
BATTERY	120 kWh
PAYLOAD	30 passenger
ESTIMATED PURCHASE PRICE	$198,450

Note: These are custom upfit vehicles, therefore the photo is an example of a possible upfit. Actual models might vary slightly in appearance based on business preferences.

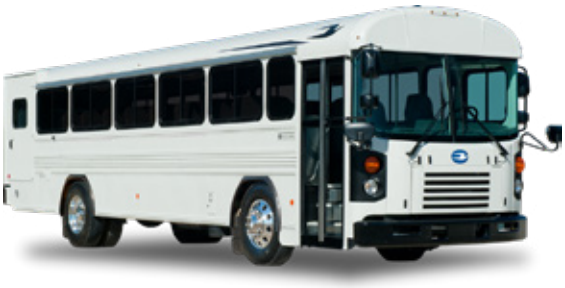
LEARN MORE

Vision Electric

Blue Bird

MODEL	Vision Electric
CLASS	Class 7
USE	School Bus
WEIGHT	14,969 kg
RANGE	160 km 210 km
BATTERY	155 kWh 196 kWh
PAYLOAD	77 passenger
CHARGING TIME	8 hours at level 2 (155 kWh) 3 hours with DCFC (155 kWh/196 kWh)
WAIT TIME	6 months

LEARN MORE



TX4 RE Electric

Blue Bird

MODEL	TX4 RE Electric
CLASS	Class 7 Class 8
USE	School Bus
WEIGHT	16,420 kg
RANGE	160 km
BATTERY	155 kWh
PAYLOAD	84 passenger
CHARGING TIME	8 hours at level 2 3 hours with DCFC
WAIT TIME	8 months

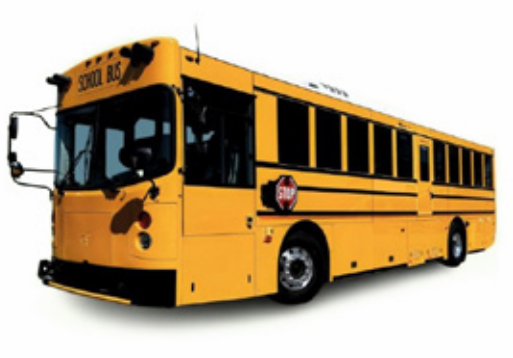
LEARN MORE

eCE

IC Bus

MODEL	eCE
CLASS	Class 7 Class 8
USE	School Bus
RANGE	217 km 322 km
BATTERY	210 kWh 315 kWh
PAYLOAD	78 passenger
CHARGING TIME	From a state of charge of 20%–100%: 5.5 hours at 30 kW (210 kWh) 2 hours at 120 kW (210 kWh) 8 hours at 30 kW (310 kWh) 2.5 hours at 120 kW (315 kWh)
WAIT TIME	3–4 months

LEARN MORE

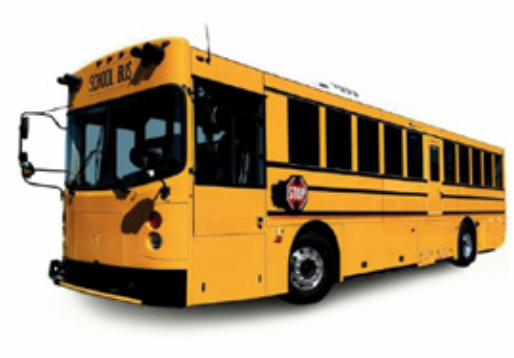


BEAST

GreenPower Motor Company

MODEL	Type D School Bus
CLASS	Class 8
USE	School Bus
WEIGHT	19,500 kg
RANGE	241 km
BATTERY	194 kWh
PAYLOAD	90 passenger
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	Up to 9 months
ESTIMATED PURCHASE PRICE	$539,865

LEARN MORE



BEAST

GreenPower Motor Company

MODEL	Type D Mega BEAST
CLASS	Class 8
USE	School Bus
WEIGHT	19,500 kg
RANGE	482 km
BATTERY	387 kWh
PAYLOAD	90 passenger
CHARGING TIME	3–13 hours at level 3
WAIT TIME	Up to 9 months

LEARN MORE

Nano BEAST

GreenPower Motor Company

MODEL	Type A School Bus
CLASS	Class 4
USE	School Bus
WEIGHT	6,500 kg
RANGE	193 km
BATTERY	118 kWh
PAYLOAD	24 passenger
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	4–6 months
ESTIMATED PURCHASE PRICE	$384,750

LEARN MORE

Nano BEAST

GreenPower Motor Company

MODEL	Type A Nano BEAST Access
CLASS	Class 4
USE	School Bus
WEIGHT	6,500 kg
RANGE	193 km
BATTERY	118 kWh
PAYLOAD	18 passenger
CHARGING TIME	8 hours at level 2 2 hours at level 3
WAIT TIME	4–6 months

LEARN MORE

YARD TRACTORS

Yard tractors are class 8 vehicles that are prime examples of heavy-duty vehicles that can be electrified today, according to market assessments done by the California Air Resources Board.[8] These short-haul, on-road tractors are used for local delivery and drayage applications with many opportunities throughout their daily use for intermittent charging. According to real-world data collected from the North American Council for Freight Efficiency, yard/terminal tractors travel an average of 22 km to 47 km per day.[9]

In Canada, all available yard tractor models are battery electric vehicles with ranges between 12 to 28 hours of operation and payload between 22,680 kg to 81,647 kg. Prices (where available) range between $406,000 and $467,000. This segment currently has some of the shortest wait times (where available), which range from 60 to 90 days depending on the manufacturer.

8Y

BYD

MODEL	8Y
CLASS	Class 8
USE	Terminal tractor
WEIGHT	49,999 kg
RANGE	18 hours 26 hours
BATTERY	150 kWh 216 kWh
PAYLOAD	37,285 kg
ESTIMATED PURCHASE PRICE	$297,000 $334,000

LEARN MORE

YT203-EV

Terberg Tractors Americas

MODEL	YT203-EV
CLASS	Class 8
USE	Terminal tractor
WEIGHT	95,254 kg
RANGE	12 hr
BATTERY	222 kWh
PAYLOAD	58,967 kg

LEARN MORE

e-TRIEVER

Orange EV

MODEL	New, Standard Duty/New, Extended Duty Reman, Standard Duty/Reman, Extended Duty
CLASS	Class 8
USE	Terminal tractor
WEIGHT	18,552 kg
RANGE	16 hours 28 hours
BATTERY	100 kWh 180 kWh
PAYLOAD	36,741 kg
CHARGING TIME	4 hours at 22 kW 2.3 hours at 70 kW
WAIT TIME	90 days

LEARN MORE

HUSK-e (Port)

Orange EV

MODEL	HUSK-e
CLASS	Class 8
USE	Terminal tractor
WEIGHT	39,054 kg
RANGE	16 hours
BATTERY	243 kWh
PAYLOAD	81,647 kg
CHARGING TIME	2 hours at 105 kW
WAIT TIME	90 days

LEARN MORE

HUSK-e (Rail)

Orange EV

MODEL	HUSK-e
CLASS	Class 8
USE	Terminal tractor
WEIGHT	19,504 kg
RANGE	24 hours
BATTERY	243 kWh
PAYLOAD	36,741 kg
CHARGING TIME	2 hours at 105 kW
WAIT TIME	90 days

LEARN MORE

TX12 Terminal Tractor

Kalmar

MODEL	TX12 Terminal Tractor
CLASS	Class 8
USE	Terminal tractor
WEIGHT	36,741 kg
RANGE	12 hours
BATTERY	112 kWh
PAYLOAD	22,680 kg
CHARGING TIME	45 minutes at 150 kW
WAIT TIME	60–90 days
ESTIMATED PURCHASE PRICE	$406,749

LEARN MORE

TX22 Terminal Tractor

Kalmar

MODEL	TX22 Terminal Tractor
CLASS	Class 8
USE	Terminal tractor
WEIGHT	36,741 kg
RANGE	22 hours
BATTERY	100 kWh
PAYLOAD	22,680 kg
CHARGING TIME	1.5 hours at 150 kW
WAIT TIME	60–90 days
ESTIMATED PURCHASE PRICE	$467,761

LEARN MORE

HEAVY-DUTY TRUCKS

The heavy-duty truck category includes class 6 to class 8 vehicles and largely consist of tractors and some vocational vehicles. They have a variety of different use cases and travel a variety of distances, from long-haul freight, to regional and urban deliveries, to drayage and specialty use vehicles like refuse trucks.

According to the California Air Resources Board's market assessment, about 30% of these vehicles have the potential to be electrified today.[24] The U.S. vehicle-in-use survey also shows that about 80% of these vehicles travel less than 160 km in a day. Many, though not all, use cases are ready to be electrified today based on the daily distance they travel and the weight of the loads carried. For example, real-world data collected from the North American Council on Freight Efficiency shows regional haul operations for heavy-duty trucks are 50% electrifiable today.[10]

In Canada, both battery electric and fuel cell vehicle heavy-duty truck options are available. Ranges range from 193 km all the way up to 803 km, depending on the battery size and powertrain. Payload also varies substantially, from 5,906 kg to more than 49,000 kg. Prices (where available) range from $427,000 to $834,000 and wait times (where available), range from 6 weeks to 4 months or more, depending on the manufacturer.

8TT

BYD

MODEL	8TT
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	37,194 kg
RANGE	241 km 322 km
BATTERY	422 kWh 563 kWh
ESTIMATED PURCHASE PRICE	$463,000 $550,000

LEARN MORE

220EV

Peterbilt

MODEL	220EV
CLASS	Class 7
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	14,969 kg
RANGE	161 km 2421 km 322 km
BATTERY	141 kWh 209 kWh 282 kWh
ESTIMATED PURCHASE PRICE	$427,000

LEARN MORE

579EV

Peterbilt

MODEL	579EV
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	37,195 kg
RANGE	241 km
BATTERY	400 kWh
CHARGING TIME	3 hours at 150 kW
ESTIMATED PURCHASE PRICE	$834,135

LEARN MORE

VNR Electric

Volvo

MODEL	VNR Electric
CLASS	Class 7 Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	14,968 kg (Class 7) 24,494 kg–37,195 kg (Class 8)
RANGE	370 km (Class 7) 282–443 km (Class 8)
BATTERY	375 kWh 565 kWh
PAYLOAD	29,937 kg
CHARGING TIME	60 - 90 minutes at 250 kW, CCS1 (to 80%)
ESTIMATED PURCHASE PRICE	$564,390 (Class 7) $604,163 - $677,327 (Class 8)

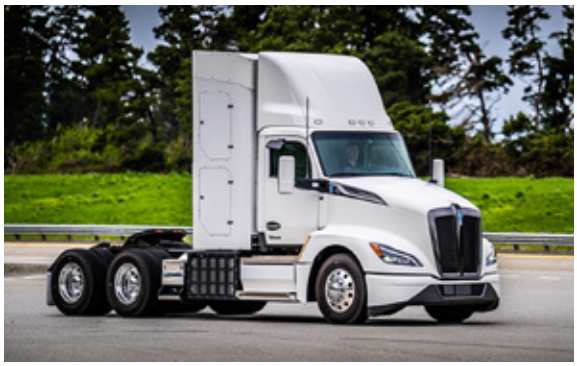
LEARN MORE

HDXT

XOS

MODEL	HDXT
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	24,131 kg
RANGE	370 km
PAYLOAD	25,401 kg

LEARN MORE



T680

Kenworth

MODEL	T680
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	37,195 kg
RANGE	644 km
H_2 STORAGE CAPACITY	58.8 kg
PAYLOAD	49,895 kg

LEARN MORE

T680E

Kenworth

MODEL	T680E
USE	Regional haul, Drayage, Urban Delivery
RANGE	241 km
BATTERY	396 kWh
PAYLOAD	26,081 kg
CHARGING SPEED	Level 2 at 22.5 kW DCFC at 120 kW
ESTIMATED PURCHASE PRICE	Contact manufacturer

LEARN MORE

Lion8

Lion

MODEL	Lion8
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	27,216 kg
RANGE	274 km
BATTERY	252 kWh
PAYLOAD	13,608 kg
ESTIMATED PURCHASE PRICE	Contact manufacturer

LEARN MORE

Lion8 (Tractor Truck)

Lion

MODEL	Lion8
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	27,216 kg
RANGE	418 km
BATTERY	653 kWh
PAYLOAD	9,072 kg
CHARGING SPEED	Level 2 at 19.2 kW DCFC at 50 kW
ESTIMATED PURCHASE PRICE	Contact manufacturer

LEARN MORE

Tre FCEV

Nikola

MODEL	Tre FCEV
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	23,589 kg
RANGE	805 km
H_2 STORAGE CAPACITY	70 kg
PAYLOAD	13,607 kg
REFUEL TIME	20 minutes or less
WAIT TIME	6 weeks

LEARN MORE

Tre BEV

Nikola

MODEL	Tre BEV
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	22,453 kg
RANGE	531 km
BATTERY	733 kWh
PAYLOAD	14,742 kg
CHARGING TIME	1 hour at 350 kW (20% to 80%) 90 minutes at 350 kW (to 100%)
WAIT TIME	2 weeks

LEARN MORE

eMV

International

MODEL	eMV
CLASS	Class 7
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	14,969 kg
RANGE	217 km
BATTERY	210 kWh
PAYLOAD	8,165 kg (body + payload)
CHARGING TIME	From 20% to 100% state of charge: 5.5 hours at 30 kW 2 hours at 120 kW
WAIT TIME	3–4 months
ESTIMATED PURCHASE PRICE	$351,000

LEARN MORE

LNT

Battle Motors

MODEL	LNT
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	24,494 kg
RANGE	193 km 362 km
BATTERY	240 kWh 400 kWh
PAYLOAD	8,165 kg
CHARGING TIME	400 kWh: 6.7 hours at 60 kW 3.2 hours at 125 kW

LEARN MORE

LNT

Battle Motors

MODEL	LNT
CLASS	Class 7
USE	Regional haul, Drayage, Urban Delivery
RANGE	193 km
BATTERY	240 kWh

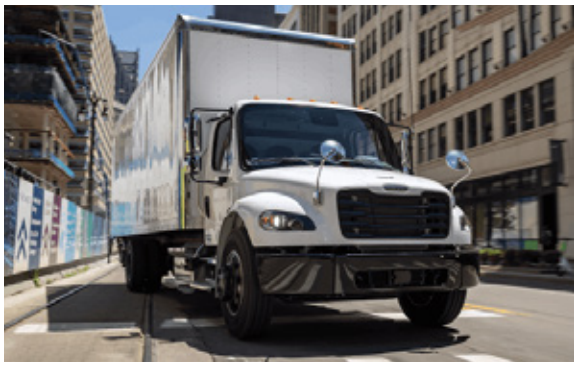
LEARN MORE

LET2

Battle Motors

MODEL	LET2
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	32,659 kg
RANGE	338 km
BATTERY	400 kWh
PAYLOAD	9,979 kg

LEARN MORE



eM2 106

Freightliner

MODEL	eM2 106
CLASS	Class 6 Class 7
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	11,793 kg 14,969 kg
RANGE	290 km 402 km
BATTERY	194 kWh 291 kWh
PAYLOAD	5,906 kg 7,607 kg

LEARN MORE

eCascadia

Freightliner

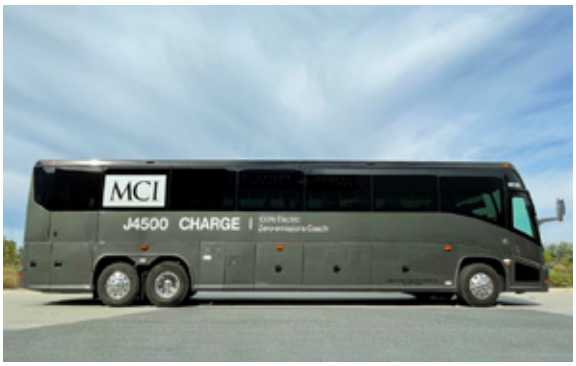
MODEL	eCascadia
CLASS	Class 8
USE	Regional haul, Drayage, Urban Delivery
WEIGHT	37,195 kg
RANGE	249 km 370 km
BATTERY	194 kWh 291 kWh
PAYLOAD	27,216 kg

LEARN MORE

COACH BUSES

Coach buses tend to travel longer distances, for example, for tours, charters and intercity travel. Therefore, this vehicle segment is harder to electrify than other bus types, such as transit and school buses.

Even still, eight zero-emission coach bus models are available in Canada today from a variety of manufacturers. All options available are battery electric vehicles. Current ranges fall between 251 km to 402 km, with passenger capacities ranging from 41 to 77 seats. Sizes also range from 10.7 to 13.7 metres. Prices (where available) range from $675,000 to $1,400,000.



J4500 CHARGE

Motor Coach Industries

MODEL	J4500 CHARGE
USE	Coach Bus
LENGTH	13.8 metres
RANGE	370 km
BATTERY	520 kWh
PAYLOAD	60 passenger
CHARGING TIME	>4 hours at 150 kW+ (7% to 96% state of charge)

LEARN MORE

C8M/C8MS

BYD

MODEL	C8M/C8MS
USE	Coach Bus
WEIGHT	19,799 kg
LENGTH	10.7 metres
RANGE	238 km
BATTERY	313 kWh
PAYLOAD	41 passenger
CHARGING TIME	2–2.5 hours at 150 kW

LEARN MORE

C9M

BYD

MODEL	C8M
USE	Coach Bus
WEIGHT	21,999 kg
LENGTH	12.2 metres
RANGE	250 km
BATTERY	352 kWh
PAYLOAD	49 passenger
ESTIMATED PURCHASE PRICE	$675,000

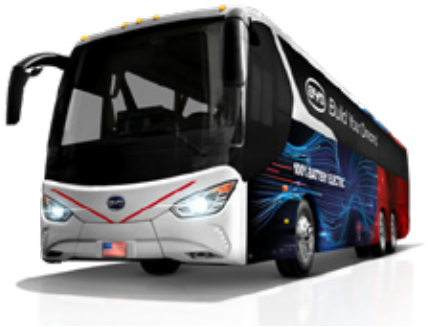
LEARN MORE

C8M/C8MS

BYD

MODEL	C8M/C8MS
USE	Coach Bus
WEIGHT	19,799 kg
LENGTH	10.7 metres
RANGE	238 km
BATTERY	313 kWh
PAYLOAD	51 passenger
CHARGING TIME	4–4.5 hours at 150 kW

LEARN MORE



C10M

BYD

MODEL	C10M
USE	Coach Bus
WEIGHT	24,499 kg
LENGTH	13.7 metres
RANGE	275 km
BATTERY	446 kWh
PAYLOAD	57 passenger

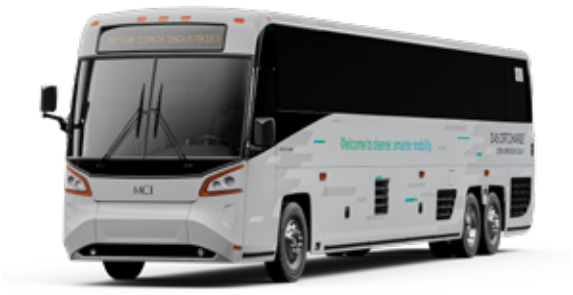
LEARN MORE

C10MS

BYD

MODEL	C10MS
USE	Coach Bus
WEIGHT	26,807 kg
LENGTH	13.7 metres
RANGE	254 km
BATTERY	446 kWh
PAYLOAD	77 passenger

LEARN MORE

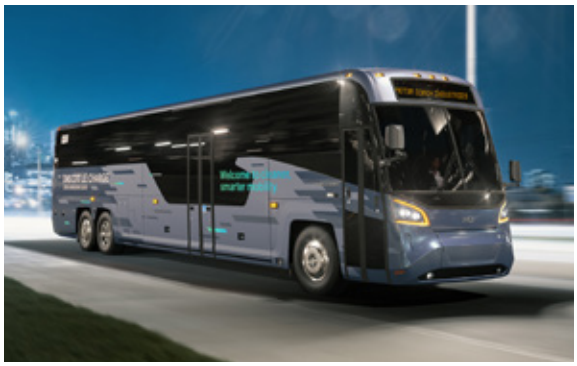


D45 CRT CHARGE

Motor Coach Industries

MODEL	D45 CRT CHARGE
USE	Coach Bus
LENGTH	13.72 metres
RANGE	251–402 km
BATTERY	520 kWh
PAYLOAD	57 passenger
CHARGING TIME	>4 hours at 150 kW+ (from 7% to 96% state of charge)

LEARN MORE



D45 CRT CHARGE LE

Motor Coach Industries

MODEL	D45 CRT CHARGE LE
USE	Coach Bus
LENGTH	13.72 metres
RANGE	251–402 km
BATTERY	520 kWh
PAYLOAD	54 passenger
CHARGING TIME	>4 hours at 150 kW+ (from 7% to 96% state of charge)
ESTIMATED PURCHASE PRICE	$1,400,000

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OTHER

Other vehicles not captured in the categories above include trolley shuttle buses and prefabricated refuse trucks. Trolley buses receive electrical power from overhead lines. They are confined to specific geographic areas, where the electric lines are installed, unlike transit buses that can drive on different routes.

The only information on these vehicles we were able to collect were related to refuse trucks, which offered electric ranges from 161 km to 129 km. Prices (where available) range from $844,000 to $935,000.

520EV

Peterbilt

MODEL	520EV
CLASS	Class 8
USE	Refuse truck
WEIGHT	29,937 kg
RANGE	129 km
BATTERY	396 kWh
CHARGING TIME	3.2 hours at 150 kW
ESTIMATED PURCHASE PRICE	$844,487

LEARN MORE

electric LR

Mack

MODEL	electric LR
CLASS	Class 8
USE	Refuse truck
WEIGHT	29,937 kg
RANGE	161 km
BATTERY	264 kWh
PAYLOAD	11,567 kg
CHARGING SPEED	DCFC at 150 kW
ESTIMATED PURCHASE PRICE	$935,000

LEARN MORE

Xcelsior Trolley

New Flyer

MODEL	Xcelsior Trolley - 40 ft/60 ft
USE	Trolley bus
LENGTH	12.2 m 18.3m
RANGE	35 km 25 km
BATTERY	71 kWh
PAYLOAD	40 passenger 60 passenger

LEARN MORE

References

1. US Census Bureau. Vehicle Inventory and Use Survey (VIUS) Data Tables. https://www.reginfo.gov/public/do/eoDownloadDocument?pubId=&eodoc=true&documentID=315742 (2024).
2. Statistics on the Incentives for Zero-Emission Vehicles (iZEV) Program - Open Government Portal. https://open.canada.ca/data/en/dataset/42986a95-be23-436e-af15-7c6bf292a2e1.
3. Run On Less Results. https://results-2023.runonless.com/truck/?day=16&depot=purolator&truck=pur_motiv3&units=metric.
4. Advanced Clean Trucks Regulation. https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks.
5. Advanced Clean Trucks Regulation. https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks.
6. Middlebrooks, G. Zeroing in on Zero-Emission Buses. CALSTART https://calstart.org/zeroing-in-on-zebs-2024 (2024).
7. Chevalier, H. Canadian Electric School Bus Alliance. Canadian Electric School Bus Alliance https://eschoolbusalliance.ca/recommendations-report (2023).
8. Advanced Clean Trucks Regulation. https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks.
9. Roeth, M. Roeth: Why is there so much focus on what can't be electrified? FleetOwner https://www.fleetowner.com/perspectives/ideaxchange/article/21278291/trucking-segments-ripe-for-electrification-include-yard-tractors-vans-box-trucks-regional-semis (2023).
10. Advanced Clean Trucks Regulation. https://ww2.arb.ca.gov/rulemaking/2019/advancedcleantrucks.

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