

# CVP PROGRAM CARD

## PROJECT

# Class 4 Delivery Van

### Project Information

**Make:** Motiv  
**Model / Year:** Epic 4s / 2023  
**Use Case:** Package Delivery  
**Vehicles:** 13

### Vehicle Information

**Powertrain:** Battery-Electric Van (BEV)  
**Vehicle Range:** 240 km  
**Battery Capacity:** 158 kWh  
**Weight Rating:** 22,000 lbs  
**Capacity rating:** 10,200 lbs

### Tracking Information

**Project Dates:** April 2024–April 2025  
**Location:** BC Mainland / Southwest

Scan the QR code  
to learn more about  
**CleanBC Go Electric**



## BEV Fleet



**13**  
Number of BEV Vehicles

**186**  
Avg. Service Days/Vehicle

**53 km**  
Avg. Daily Distance

**10 g/km**  
CO<sub>2</sub> Emissions

**.09 \$/km**  
Electricity Cost

## ICE Fleet



**2**  
Number of ICE Vehicles

**177**  
Avg. Service Days/Vehicle

**65 km**  
Avg. Daily Distance

**697 g/km**  
CO<sub>2</sub> Emissions

**.56 \$/km**  
Fuel Cost

vs.

## BEV Charging & Energy

**57.5 kWh/100 km**  
Energy Consumption  
While Driving

**71 %**  
Average End of  
Day SoC

**94 %**  
Average Start of  
Day SoC

**66.7 kWh/100 km**  
Energy Consumption  
While Driving + Idling

**4.3 h**  
Average Daily  
Charge Time

**11.7 kWh/100 km**  
Energy Regen  
While Driving

**31 kWh**  
Average Daily  
Charged Energy

### Operations & Reliability

- Downtime was an issue but is improving with time and experience. Contributing to the problem were:
  - Software updates interrupting charging
  - High voltage issues requiring repairs at the dealership
- BEVs met duty-cycle needs. Route planning was a continuous process to ensure maximum operational efficiency.

### People & Training

- Drivers often preferred BEVs after getting used to them. Some reasons why:
  - Improved air quality at depots
  - Quiet operations
  - Pride in sustainability efforts
  - Personal enjoyment
- Every driver got around 2 hours of training. This was to ensure a smooth transition from gas vehicles to BEVs.
- Sample size: 125,363 km driven across all BEVs

### Purolator Recommendations

- Develop and maintain relationships with manufacturers of vehicles and chargers. This helps to cut downtime and improve organizational thinking.
- Use multiple suppliers. This mitigates the risk of unsupported equipment if a supplier leaves the market.

“My ‘office’ is quiet now - I used to go home and speak loudly because the [gas] truck was so loud!”

— Driver



Transport  
Canada

Transports  
Canada

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Transport  
Canada

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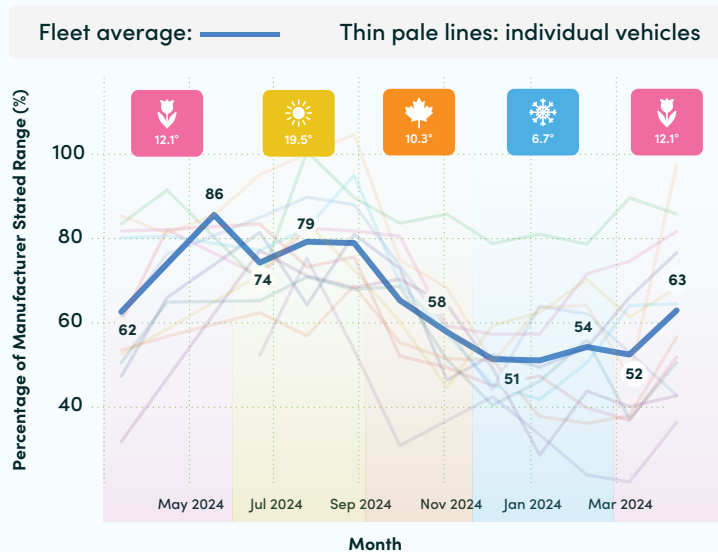
Scan the QR code to access  
CVP Program Data Analysis  
Dashboard



### What is Implied Range?

Implied Range is an estimate of the maximum potential distance a vehicle could travel on a full charge. We calculate this by dividing the kilometres travelled on a day by the percentage of the actual charge used.

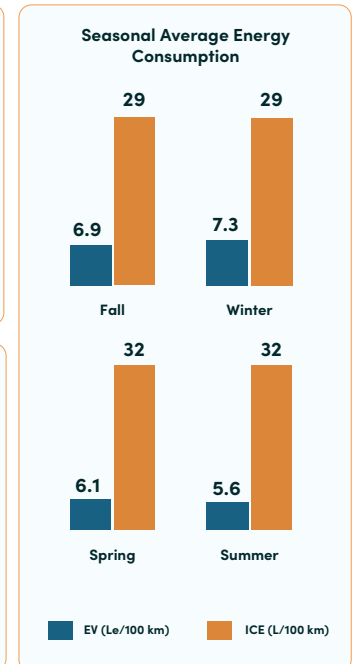
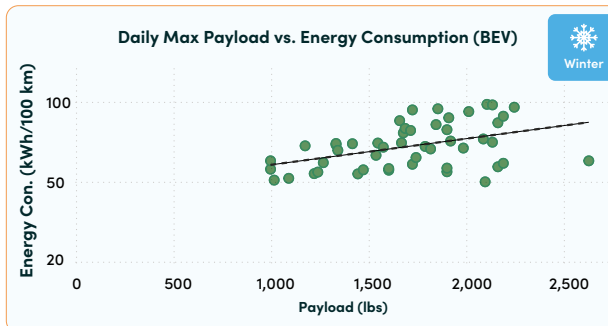
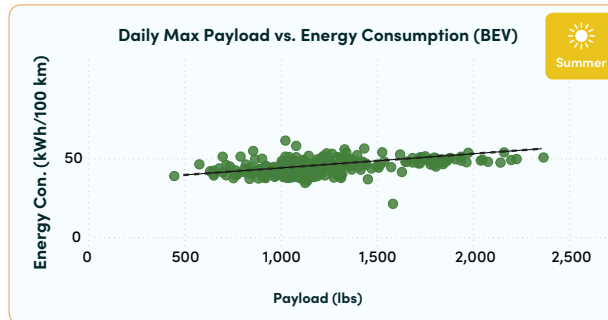
Implied Range Relative To Manufacturer Stated Range\*



\*In addition to temperature, range depends on terrain, payload, traffic and driving style  
Individual and select groups of vehicles can be viewed on the interactive dashboard.

**Cold weather increased energy consumption by 30 percent on average.** This reduced the distance the electric truck could travel on a single charge in winter.

**Increased payload was associated with increased energy consumption.** Adding more weight increased the energy consumption for both electric and gas vehicles in the summer and in the winter. As seen below, the effect was more pronounced for the electric vehicles in the winter. This may indicate that cold weather can amplify the energy consumption effects of other draws on the battery. This observation may also be influenced by a smaller winter sample size.



**The BEVs were more energy efficient but were impacted more by temperature compared to the internal combustion (ICE) vans.** The BEVs consumed 30 percent more energy in the winter compared to the summer, while the ICE vehicles had 10 percent higher fuel consumption in the summer compared to the winter.