



# Whiskey Jack Transport

Zero-Emission Medium and Heavy Duty  
Vehicle Adoption Case Study

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 CLEAN ENERGY CANADA



### Tell us a little bit about the company's current fleet.

Whiskey Jack Transport ("Whiskey Jack") rents work vehicles and equipment to the film industry. The company is headquartered in Port Coquitlam and operates in Metro Vancouver.

Whiskey Jack has three fleets totalling 47 gasoline and diesel-powered, light, medium and heavy-duty vehicles and equipment. The vehicles range from tractors to box trucks, cable trucks to flat decks. **Whiskey Jack has three class 6 electric trucks, two of which have an approximate range of 320 km, and the third at 200 km.**

Whiskey Jack rents out these vehicles for the entire show when there is a production filming. Usually, the filming days take from three to several weeks. The trucks work under the supervision of a transport coordinator and captain who are part of the production team. When production is finished using the vehicles, the trucks are returned to the yard or go directly to the next show.

### When did the company start their fleet electrification journey, and why did they electrify their fleet?

Whiskey Jack was Canada's first film-specific transport company to deploy EV work trucks to make movies.

Much filming happens within B.C., and productions have a "no idling" policy. However, this is not always followed. The no idling policy is not observed when a vehicle is loaded or unloaded with equipment. Sometimes, this can take hours. The trucks must idle to access their

tailgates and to run air conditioning or heat for driver and crew safety and comfort. Whiskey Jack saw this as an opportunity to provide EVs to clients to help reduce their GHG emissions.

The founders of Whiskey Jack are movie producers and started the process of purchasing three electric trucks in 2020. Whiskey Jack took possession of the trucks in October 2022, and deployed the e-trucks in March 2023.

### What have been the best things about going electric?

Whiskey Jack found that even some old-school and long-time fossil fuel vehicle drivers wanted to or were curious to drive electric trucks. There is no difference inside the trucks. The cab warms up and cools down like any other truck, and the seats are comfortable. **The main difference is no noise, vibrations, or fumes when driving or idling. The drivers found the vehicles' torque and turn radius better than the diesel equivalents.**

### What have been the challenges?

**1) Access to public charging infrastructure for heavy-duty trucks.** There is a lack of public charging infrastructure for heavy-duty trucks. While Whiskey Jack has used some public chargers, these are built for cars, SUVs, and light-duty trucks. The stalls are small, crowded, and not long enough for heavy-duty, large trucks to park and charge. In addition, Whiskey Jack does not have a depot or a yard, so the e-trucks can't return to charge overnight or in between shifts.

Finally, charging for film work needs to be on demand. Drivers can not spend time looking for public charges that can be busy or not in working order.

While Whiskey Jack had plans to expand its EV offering, due to economic uncertainty, the Motion Picture Industry's hesitancy to rent electric heavy-duty trucks, and competition in the limited space, Whiskey Jack's future purchases of electric vehicles have been impacted.

**2) Flexibility in charging infrastructure incentive programs.** With the Motion Picture Sector and Whiskey Jack's requirements for dedicated chargers, mobile chargers were a reasonable solution. Therefore, Whiskey Jack innovated, designed, and manufactured proprietary mobile chargers. However, at that time, provincial and federal programming was not aware of the charging needs of film work trucks. After presenting the film industry and Whiskey Jack's case to the province, B.C. agreed to provide their part of the rebate. The federal government, however, rejected the company's claim.

**3) Upfront vehicle cost.** The initial upfront cost of electric heavy-duty trucks is up to three times more expensive than their diesel equivalents. B.C. provides \$100,000 rebates, and the federal government also provides \$100,000 for class 6 vehicles. **When combining the federal and provincial incentives, Whiskey Jack subtracted \$200,000 from the suggested retail price of the pre-tax vehicle. This reduced roughly 44% of the purchase price and brought the electric truck within a couple thousand dollars difference from a diesel equivalent.** Without these rebates and the ability to stack these incentives, the business case to procure the electric trucks would have been much less affordable or lucrative.

### How did you understand the proper infrastructure for your project?

Whiskey Jack started from scratch looking at charging infrastructure, and the company did not know what was needed with The Motion Picture Sector having unique charging requirements compared to other transportation businesses. Whiskey Jack has no depot to charge vehicles between shifts or overnight. In addition, when the film trucks are working, they stay at the production's designated circus (base camp) close to the filming locations (which can be anywhere in Metro Vancouver), so returning an e-truck working in Abbotsford back to Port Coquitlam just for charging would be unproductive and an inappropriate use of time and money.

To better understand potential solutions, Whiskey Jack's Sustainability and Innovation Officer created a case analysis that included project timeframe, pros, cons, and consequence forecasts, as well as costs and rebates. The comparative study revealed that installing a 60kW charger at the Whiskey Jack office in Port Coquitlam would require over a year to upgrade the power of the building at the business park, and this was due to the need for a new transformer, cabling, and wiring. The research also highlighted the lack of parking space at the business park to accommodate 24- or 26-foot-long trucks.

The cost difference between the mobile and permanently installed options including labour and materials was \$6,021 more economical for the mobile charging unit. Whiskey Jack erroneously anticipated a \$75,000 provincial and federal stacked rebate for either solution. Based on those findings, the company assessed the need to deploy the charger sooner rather than waiting for a permanently installed charger option.

Therefore, Whiskey Jack designed and crafted a 60kW charger and a transformer on an enclosed towable trailer as a solution. The mobile charging unit, Firefly, was built to charge two trucks simultaneously. It was designed to plug into the grid at studios with the proper power and electricity connections. The unit can also plug into the City of Vancouver's ever-expanding film production clean energy network of "grid tie-ins." The City of Vancouver's goal is that within five years, there will be a power kiosk (grid tie-in) within 10 minutes of any film location in the city. These sites will primarily be areas commonly used for staging, such as circus parking, although some top-rated locations are also likely to be in the mix. It is estimated that when built, these power kiosk sites:

- Could reduce 1/3 of the number of generators used.
- Could be the catalyst for the broader adoption of other clean energy technology that will drive down the remaining 2/3 of generator use in random and less frequently used areas.

Alternatively, Firefly can plug into diesel generators. While this is not the cleanest solution, it allows the diesel generator to run more efficiently than when running underloaded. In the interim, when plugged into diesel generators, Firefly provides a halfway solution to enable customers to become used to EV technology as other options and the heavy-duty public charging network continue developing.

### Did you hire any new staff, or did current staff change their day-to-day operations during this transition?

Whiskey Jack's CEO and COO hired a Chief Sustainability and Innovation Officer (CSIO) before finalizing the purchase of the electric trucks. The truck Original Equipment Manufacturer (OEM) made driver training a part of its service to Whiskey Jack. The CSIO took the OEM's training at their maintenance centre. For every film production renting Whiskey Jack electric trucks, the CSIO trains the transport captain and drivers, who then go on to train other drivers.

### What programs and incentives did you use?

Whiskey Jack used the Specialty Use Vehicle Incentive for the trucks' rebates and the provincial rebate for Firefly. As Whiskey Jack learned after expecting provincial and federal rebates for the charger, NRCan's ZEVIP did not provide federal support for Firefly.

### What insights would you pass on to other fleets looking to electrify?

**1) Even if there is no depot to charge overnight, there are other solutions available.** Whiskey Jack was compelled to tailor their charging infrastructure to meet the unique nomadic needs of the Motion Picture Industry by creating and deploying mobile charging. While permanent charging installed at depots is a solution for most delivery fleets, it can complement the film and TV production use case.

**2) Access to vehicle (and charging) incentives is crucial.** One of the objectives of Whiskey Jack is to provide electric trucks at the same rental rate as fossil fuel alternatives. Shifting to electric heavy-duty trucks will be much faster by providing a business case that underlines a price point equal to the old-energy vehicles, and replaces the high cost of fossil fuel with clean, affordable, electricity.

**3) BC Hydro offers reduced rates for fleets.** As of the writing of this report, the fleet rates do not apply to mobile charging, nor do they apply to commercial fleets that need to use the public charging infrastructure. If they were, they would significantly improve the business case.

**4) Electric heavy-duty trucks can have demonstrable and impactful noise, air pollution, and health benefits in local communities.** Film trucks travel to and park in locations that are at or near schools, parks, playgrounds, and other places frequented by pregnant women, children, and seniors. Electric trucks reduce or eliminate the fumes and noise pollution from fossil fuel vehicles that affect the health of crew and talent, and residents of the municipalities in which the Motion Picture sector operates.

