



Terrafactory Proposal

Edison Motors Ltd.
PO Box 444
Merritt, BC



April 8th, 2024

Zoning Proposal

Edison Motors Ltd. (Edison) is requesting a site-specific zoning amendment to allow primary uses allowed in the M1 zone, specifically, the assembly of EV conversion kits for light duty pickup trucks and the research and development of EV truck systems. A Temporary Use Permit (TUP) allowing M2 would allow the manufacturing from raw materials, heavy trucks on the premises, until which time Edison will invest in a larger facility in Terrace, BC to increase our semi truck manufacturing capacity.

Company Profile

Edison is North America's sole manufacturer of Electric Hybrid Class 8 Vehicles and conversion kits for Class 5-8 vehicles. Our product line includes the sale of Edison Make Class 8 vocational trucks & sale of pickup truck conversion kits. Each offering is a variation of the same advanced electronics package, catering to different market segments with nearly identical software and systems.





Background

Edison Motors began in a backyard tent shop in Merritt, BC. Co-founders Chace Barber and Eric Little recognized the need for an electric semi-truck drivetrain with exceptional towing capabilities and fuel economy. In the first 7 months, Edison raised enough capital to construct its first retrofit prototype truck. Since then, Edison has raised additional capital, expanded its team, and designed and built a second production prototype truck from the ground up. In late 2023, this second prototype was unveiled to the market.

Chace and Eric bring a wealth of experience to the table as seasoned entrepreneurs invested in the energy transition. Before establishing Edison Motors, they successfully introduced two clean technology products to market through a venture with Caterpillar. Drawing on this experience, they embarked on the development of a hybrid electric class 8 platform in 2021, laying the foundation for Edison Motors.

Edison has entered into a purchase for 5130 Hwy 16, and intend to upfit the former Hayes Truck plant. Our first focus will be the construction of five prototype trucks: Vac Truck, Snow Plow, Service Rig, and 2x Pickup Truck Conversions. We intend to complete these in 2024-2025 using this facility. To facilitate the production of these prototypes, which serve as pivotal models for future production goals, Edison is committed to investing \$4.5M into the property at 5130 Hwy 16. This strategic investment will ensure operational success and provide capacity for future expansion.

Unique Value Proposition

As of 2023, North America has 166.1 million actively registered Pickups and Commercial trucks (Class 5-8 commercial vehicles). Among these, there are 32 million **Class 5**, 13 million **Class 6**, 10 million **Class 7** and 3 million **Class 8 vehicles**. Edison is the only company in North America which offers a plug-in hybrid solution for each vehicle class above.

By focusing on an emission reduction platform over a solely zero-emission one, we deliver a more cost-effective solution to our customers, resulting in enhanced fuel efficiency and performance. Leveraging diesel generators, our customers can capitalize on existing fuel infrastructure. without the need for additional investments in charging infrastructure.

Edison is well-positioned for success, owing in part to its growing social media presence, which reaches millions of followers. Through a common-sense approach and deep understanding of work truck electrification, we are poised to lead the industry forward.

A Former truck assembly plant

5130 Hwy 16 was originally built in 1961 for the **Hayes Manufacturing Company Ltd. (Hayes)**, for fitting chassis and cabs to serve the local logging industry. To this day Hayes holds a legacy of the highest quality work trucks in BC, with many still in active service in 2024. Hayes was purchased by Paccar Inc. in 1975, who chose to discontinue the brand and cease production in Terrace.



Assembly Plant

The existing building consists of a 250ft x 50ft production floor with adjacent rooms for inventory, shipping/receiving, and two administrative wings.

Phase 1 - Truck Assembly Plant

The plant possesses sufficient floor space to concurrently manufacture Class 8 vehicles and pickup truck conversion kits. Incoming parts will be received via a dedicated shipping/receiving department and promptly distributed to the production floors for assembly via fastening, wiring or plumbing. No manufacturing of parts will occur on the site. However, corrective processes such as welding, grinding and touch up painting will need to occur from time to time. To mitigate storage constraints, we plan to maintain stock for only 3x class 8 vehicles and 5x pickup truck conversion kits at any given time on the site.

We anticipate a maximum production of 40x semi trucks and assembly of 200x pickup truck kits annually during the **first 6 years of assembly plant operation**.

This production approach leverages the strategic advantages of Terrace, notably the NSD Inland Port and the Fairview Container Terminal. This facilitates the seamless import of essential supplies from key locations such as Vermont USA, Luoyang, Shanghai, and Changsha, China, at a highly competitive cost. Additionally, critical inputs like steel cross members, engine mounts, and support structures will be sourced from Terrace Steel Works, ensuring reliable and efficient supply chains while supporting local businesses.





Phase 2 - Conversion Kit Assembly Plant

The success and increased demand for Hybrid Class 8 vehicles will necessitate the construction of a larger dedicated class 8 truck plant to increase production. This will allow the existing facility to be fully dedicated towards the assembly and packaging of EV truck conversion kits and experimental prototyping. Pickup truck conversion kits require a fraction of the floor space required to test & package kits when compared to full semi trucks.

Following the expiry of the TUP, the Terrafactory will be dedicated to pickup truck conversion kit assembly and act as a **service center, part sales and R&D facility**. While a majority of the production floor will be dedicated to kit assembly, bays will be dedicated towards vehicle service & experimental development. Our service center will cater to customers inquiring into conversion kits. We may provide demo rides to prospective customers and assembly line tours. Our shipping & receiving department will sell automotive parts to customers via courier services. A retail space will host sales & customer support representatives & allow for direct merch sales.

We anticipate a maximum assembly of 1,000x pickup truck kits annually by 2040 and beyond, with a portion of the facility dedicated towards drivetrain R&D & experimental drivetrain research.

There are currently 166 Million Pickup trucks in North America, of which a large percentage make great candidates for electrification due to their utility application. By packaging a conversion kit (ei: ambulance or service truck kit), Edison Motors can leverage the CN rail system and deliver these throughout North America at a reasonable cost using box cars.

Thanks to our growing network of pickup kit installers, the company has already secured 2,000+ pickup truck kit pre-orders. Based on these factors, our pickup truck conversion kits are poised to be our largest product line by volume as early as 2025 and beyond.





Labour Force Requirements

When selecting a location for the Edison manufacturing facility, the availability of skilled labour was a crucial factor. Terrace is not only a strategic location due to proximity to global logistics, it also has a local workforce that has been impacted by the recent closure of Skeena Sawmill and its proximity to large regional resource and energy projects. We are confident in our ability to offer high-quality employment opportunities to residents, contributing positively to the community and fostering economic growth in the region. Based on the breakdown below, we anticipate the business will ultimately support hiring approximately **50 FTE's** on a permanent basis.

Executive Team: The proposed truck plant will require a large workforce and strong leadership to facilitate production. The executive team will play a pivotal role in closely monitoring production activities, collaborating directly with production staff to identify and address productivity bottlenecks, optimize inventory management, and plan logistics to enhance efficiency.

Purchasing & Accounts: [5 approx. FTE's]. Their primary responsibility will be to procure all essential components for both the pickup truck and semi-truck projects. These individuals will seek out alternative products to secure competitive pricing, devising a multi-supplier purchasing system to encourage healthy competition amongst potential suppliers.

Packaging/Shipping/Handling: [5 approx. FTE's] Their responsibilities will include efficiently packing orders and loading workstations upon delivery truck arrivals. They will be tasked with diligently tracking outgoing orders and incoming shipments, ensuring seamless coordination between the manufacturing floor and the shipping area.

Production Technician: [25 approx. FTE's] This skilled team comprises mechanics and technicians adept in automotive part assembly, automotive wiring, plumbing, and quality assurance processes. Organized into multiple crews, they will operate on a rotational schedule of 7 days on and 7 days off.

Inventory: [5 approx. FTE's] Key personnel to manage the restocking of our inventory and accounting of our assets. There will be an estimated 800-1400 SKUs per vehicle and a variety of tools to maintain and replace.

Technical Support: [5 approx. FTE's] A team of seasoned production technicians capable of assisting our network of installers and hundreds of customers by addressing technical inquiries. These interactions serve as valuable opportunities to monitor major points of failure and identify common issues for continual process improvement. Accessible through our website, these support calls are available to customers on a paid basis, ensuring prompt and expert assistance while also generating revenue for the company.

Engineering: [5 approx. FTE's] Continual improvements to product design and the manufacturing process will be managed by a talented team of electrical EITs, mechanical EITs, software EITs and graphic designers.



Insurance

Building Insurance will be obtained through Hub International of Victoria BC and will be paid in monthly installments.

Edison Motors Ltd. has director & General insurance through Primerica Insurance and will continue to be paid in monthly installments.

Edison Motors Ltd. (Acct number 200863322) will continue to operate under WorkSafe BC guidelines and maintain good standing.

Supporting Local Business

Below are local businesses identified as critical to Edison Motor's success in operating a truck plant in Terrace. These businesses will ensure we can access critical supplies and services with convenience and peace of mind.

All West Glass	Windshield Supply
Terrace Steel Works	Crossmember fabrication, steel structures, support members
Kal Tire	Tire and rim supplier for all Class 8 Vehicles
Napa Auto	Common Truck Parts, Automotive lubricants, Paint
Rudon Hydraulics	Hydraulic/air hoses and fitting
Finning Terrace	CAT engines sold within all our vehicle platforms
NSD Inland Port	Steel unloading & box car loading services
Azorcan Collision	Cab Painting & sandblasting services



Handling of Dangerous Goods

Edison Motors upholds strict adherence to the Transportation of Dangerous Goods (TDG) regulations mandated by the Canadian government. As part of our operations, we use and store certain hazardous materials for our manufacturing processes and vehicle components. These hazardous goods are handled with the utmost care and stored in compliance with all relevant legislation to ensure the safety of our employees, the community, and the environment.

Rigorous training programs and safety protocols are in place to educate our staff on the proper handling, labelling, and storage procedures for these materials. By prioritizing safety and regulatory compliance, Edison Motors remains committed to operating responsibly, safely, and sustainably, in accordance with TDG regulations.

Regulated Substances Used by Edison Include:

- Spray paint handling
- Lubricants handling
- Li-Ion battery handling
- Welding equipment handling
- Diesel tank sized 2000 Gal or less



Plant Purchase & Upfitting Costs

2024 Capital Expenditures

Item	Initial CAPEX (\$CAD)
Administration, Legal	\$100,000.00
Shop Purchase	\$1,500,000.00
2024-2025 Labour budget	\$1,000,000
Motor testing station	\$120,000.00
Electrical Panels Upgrades	\$100,000.00
Heating System renovations	\$100,000.00
Cab controls simulator	\$20,000.00
Renovations of Offices	\$200,000.00
Renovations of Bathrooms	\$20,000.00
Lunch room renovations	\$1,000.00
Locker room renovation	\$10,000.00
Lockers & benches	\$3,000.00
Mig Welder	\$5,000.00
Shop Compressor	\$3,000.00
Rolling 7 Ton Gantry Crane & Existing Crane Re-certification	\$200,000.00
Tool boxes w/ tools	\$50,000.00
Battery Powered Tools	\$50,000.00
Glass Garage doors (8 doors)	\$80,000.00
Exterior Paint	\$40,000.00
Electric Forklift	\$20,000.00
Skid Steer	\$30,000.00
Inventory Shelves & totes	\$10,000.00
Sandblasting equipment	\$3,000.00
Portable Paint Booth	\$100,000.00
Security Fence & gates	\$20,000.00
Sign on building	\$8,000.00
Metal Jigs	\$15,000.00
Metal Work Tables	\$3,000.00
Office Desks	\$3,000.00
Office Chairs	\$3,000.00
LED Lights for shop	\$10,000.00
LED lights for offices	\$3,000.00
Trailer forklift Ramp	\$7,000.00
Low Bed Trailer	\$100,000
W900 Truck	\$200,000
Contingency funding (10%)	<u>\$413,700.00</u>

TOTAL:

CAD \$4,550,700



Thank you

The proposed site-specific zoning amendment & TUP for 5130 Hwy 16 represents a unique and exciting opportunity for the City of Terrace to enhance its urban landscape and address a highly visible derelict property that has been vacant for many years. We believe our application and plans to do business in Terrace aligns with the evolving needs of the community, and Terrace's overall importance as a strategic logistics hub. We'd like to express our gratitude to the City for their guidance and support on our application. We are confident that our proposal, if successful, will contribute positively to the vibrant and prosperous future of Terrace.

We remain committed to working collaboratively with the City and its residents to address any further questions or concerns that may arise. Together, we can continue to shape a community that fosters growth, innovation, and inclusivity for generations to come.

Thank you for your consideration.

