



# B.C. Medium- and Heavy-Duty Zero-Emission Vehicles: 2023 Consultation Paper

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## 1. Context

British Columbia's (B.C.) transportation sector accounts for approximately 41%, or 26.8 MtCO<sub>2</sub>e, of provincial greenhouse gas (GHG) emissions. Medium and heavy-duty on-road and off-road vehicles account for approximately half of transportation emissions, light-duty vehicles account for approximately one-third, with railways, domestic marine, and aviation accounting for the remainder.

The Province of British Columbia has set emission reduction targets for the transportation sector of 27-32% below 2007 levels by 2030. In October 2021, the Province released the CleanBC Roadmap to 2030, which committed to a suite of policies to help reach the transportation emission reduction targets. This included a commitment to establish regulated zero-emission vehicle (ZEV) requirements for medium- and heavy-duty (MHD) vehicles in line with California and other leading jurisdictions.

There are a significant and growing number of jurisdictions committing to ZEV sales and stock mandates for MHD vehicles. For example, under the Drive to Zero Memorandum of Understanding (MOU) on Zero-Emission Medium- and Heavy-Duty Vehicles, leading countries, cities and provinces/states have committed to working together to enable 100% zero-emission new truck and bus sales by 2040 with an interim goal of 30% ZEV sales by 2030. The Government of Canada has committed to aim to achieve 35% of total MHD vehicle sales being ZEVs by 2030, and to develop a MHD ZEV regulation requiring 100% of MHD vehicle sales to be ZEVs by 2040 for a subset of vehicle types based on feasibility. In addition, every year, more MHD ZEVs are being produced with companies committing to net-zero carbon and fossil-free vehicles and ZEV sales targets.

The CleanBC Go Electric program has supported MHD ZEV adoption in B.C. since 2018, through post-purchase rebates for MHD ZEVs, and the Go Electric Commercial Vehicle Pilot Program which provides up to one-third funding for significant deployments of MHD ZEVs and infrastructure. In addition, the Ministry of Energy, Mines and Low Carbon Innovation (Ministry) recently announced \$19.5 million in funding for MHD ZEV charging stations, and \$30 million to support made-in-BC MHD ZEV technology development under the Go Electric Commercial Vehicle Innovation Challenge.

MHD vehicle fleets in B.C. often cite challenges in acquiring MHD ZEVs, particularly in a global market where jurisdictions with regulated ZEV requirements, or more stringent vehicle emissions standards, are attracting MHD ZEV supply. Because of this supply challenge, and the significant share that MHD vehicles contribute to B.C.'s emissions, the Ministry has heard from numerous stakeholders requesting regulated MHD ZEV requirements similar to those established for light-duty vehicles.

MHD ZEV legislation will help increase the supply of MHD ZEVs into B.C. to meet fleet demand, provide certainty to the market to spur private investment, and, alongside the suite of Go Electric demand-side programs, will help drive the Province's market transformation approach to transition to cleaner forms of transportation. This consultation paper outlines requirements under consideration by the Ministry for the proposed MHD ZEV legislation, and seeks feedback from stakeholders.

## 2. Discussion

The attached appendices present the proposed elements of the MHD ZEV regulated requirements that are under consideration. To meet the Roadmap targets, the proposed MHD ZEV requirements align with California's, span a variety of vehicle types and classes, and are proposed to apply to both sales and fleet stock.

The appendices provide an overview of the existing or proposed regulation in California, and any B.C.-specific proposals designed based on the California rules, including who would be regulated, what vehicles would be regulated, and when the regulated requirements would begin. Specific proposals for B.C.'s MHD ZEV requirements are highlighted in bold text throughout the appendices. The Ministry is proposing a phased-in approach to align with the California targets, with requirements starting in 2026 rather than 2024. The proposed regulatory requirements within the appendices include:

- Sales Targets for Medium-and Heavy-Duty Vehicles: ZEV sales requirements for all Class 3-8 MHD vehicles sold in B.C. (pages 6-13)
- Fleet Requirements: ZEV purchase and stock requirements for fleets (pages 14-19)
- Public Transit Agency Requirements: ZEV purchase and stock requirements for transit buses (pages 20-22)
- Small Off-Road Engines: ZEV sales requirements for small off-road engines, such as lawn mowers, log splitters, pressure washers and leaf blowers (pages 23-24)
- Other Requirements: ZEV requirements for other MHD vehicles, including transportation refrigeration units, airport shuttles, and forklifts (pages 25-29)

The Ministry is seeking input on:

- General market considerations for regulated MHD ZEV requirements in B.C.;
- Elements from the California system and their application to B.C. (e.g., compliance targets, credit systems and compliance flexibilities, reporting, verification, and enforcement, as well as confidentiality and information-sharing provisions);
- Feasibility of the proposed regulated requirements in the B.C. market, including vehicle class or use exceptions, or regulated date extensions, that could be considered; and
- Any other specific proposals in the appendices.

### **3. Providing Input**

The Ministry of Energy, Mines and Low Carbon Innovation requests your written input by no later than June 27, 2023 to [ZEVRegulation@gov.bc.ca](mailto:ZEVRegulation@gov.bc.ca). Please include the organization's name on behalf of which the input is being given. Submissions will not be posted publicly. Input will be used to inform the development of the MHD ZEV legislation in B.C.

## Appendix 1: ZEV Sales Targets for Medium-and Heavy-Duty Vehicles

The Ministry is proposing to implement MHD ZEV sales requirements aligned with similar rules in California, with slight adjustments for B.C. MHD vehicles encompass a variety of vehicle types that are commonly defined by gross vehicle weight rating (GVWR) within classes, ranging from Class 2b to Class 8.

**Table 1: MHD Vehicle Weight Classes**

Weight Class	Gross Vehicle Weight Rating (GVWR)
Class 2b	GVWR of more than 3,856 kg but less than or equal to 4,536 kg
Class 3	GVWR of more than 4,536 kg but less than or equal to 6,350 kg
Class 4	GVWR of more than 6,350 kg but less than or equal to 7,257 kg
Class 5	GVWR of more than 7,257 kg but less than or equal to 8,845 kg
Class 6	GVWR of more than 8,845 kg but less than or equal to 11,793 kg
Class 7	GVWR of more than 11,793 kg but less than or equal to 14,969 kg
Class 8	GVWR of more than 14,969 kg

California’s MHD ZEV sales requirement, the Advanced Clean Trucks (ACT) regulation, was passed on March 15, 2021, with regulated requirements starting for model year 2024. Many other states have adopted the ACT rule, including New York, New Jersey, as well as, Oregon, and Washington creating alignment along the west coast of the U.S.

### What vehicles are being regulated?

Under many rebate programs and regulations, including California’s ACT, MHD vehicles are commonly understood to be Class 2b-8 vehicles. In California, it is possible for regulated suppliers to choose to generate credits for Class 2b vehicles under either their light-duty ZEV regulation (Advanced Clean Cars II – ACCII) or ACT. In B.C., as part of the light-duty ZEV Act and Regulation proposed amendments, Class 2b vehicles are planned to be included in the definition of “light-duty” vehicles. As such, in B.C., the new regulation for MHD vehicle sales would only apply to Class 3-8 vehicles (GVWRs of over 4,536 kg).

The California ACT excludes certain buses that have a GVWR of 6,350 kg or more and have a load capacity of fifteen or more passengers, i.e., transit buses, as these are covered by their Innovative Clean Transit (ICT) purchase rule. Cutaway buses and school buses are not excluded and fall under the ACT rule. Given B.C.’s smaller market, and therefore transit fleets’ smaller purchasing power, it is proposed that transit buses are included B.C.’s MHD ZEV sales requirement to ensure ZEV supply is available to transit agencies in B.C.

***It is proposed that:***

- ***B.C.’s new MHD ZEV sales requirement define MHD vehicles as on-road motor vehicles with a GVWR greater than 4,536 kg (to include Class 3 to Class 8 vehicles), including tractors and all buses.***
- ***“On-road vehicle” would have the same meaning as in Canada’s On-Road Vehicle and Engine Emission Regulation.***
- ***“Motor vehicle” would have the same meaning as in section 1 of the Motor Vehicle Act Regulations, aligned with the definition in the B.C. ZEV Act.***
- ***“GVWR” would have the same meaning as in section 1 of the Motor Vehicle Act Regulations, aligned with the definition in the B.C. ZEV Act.***
- ***“Tractors” would have the same meaning as in section 1 of the Commercial Transport Act.***

**Who is being regulated?**

California’s ACT rule places a ZEV sales requirement on vehicle suppliers that certify<sup>1</sup> on-road vehicles with GVWRs over 3,856 kg (Class 2b and above), starting in 2024. As part of its light-duty ZEV Act and Regulation proposed amendments, the Ministry is already planning to regulate suppliers of Class 2b (3,856 kg to 4,536 kg) vehicles. As such, this new regulation for MHD vehicle sales would only apply to suppliers<sup>2</sup> of Class 3 and above vehicles.

California’s rule exempts suppliers whose average annual sales in the state are below 500 units for the three prior model years, although these small suppliers are allowed to opt-in under the ACT. Similar exemptions, and options for opting-in, for small volume suppliers are found in the light-duty ZEV regulations in B.C., California, and Quebec.

B.C.’s MHD vehicle market is smaller than California’s, with approximately one fifth of the number of trucks sales per year. To ensure that major vehicle suppliers are included in a B.C. MHD ZEV sales mandate, and that the threshold is scaled proportionally to California’s, the Ministry is proposing a small supplier volume threshold of 100 average annual sales. This proposed threshold captures approximately 98.5% of B.C.’s MHD market.

***Please comment on the following proposed application of who would be regulated under B.C.’s new MHD ZEV sales requirement:***

- ***Apply to motor vehicle suppliers that certify complete or incomplete motor vehicles with a GVWR of more than 4,536 kg (Class 3 and above) and supply those vehicles into B.C.***
- ***Exempt low volume suppliers from the ZEV sales requirement.***

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<sup>1</sup> Manufacturers are required to follow federal safety standards, by which the manufacturers must certify the design and specs of the vehicle, including the GVWR, to meet the standards. A manufacturer that has demonstrated its ability to certify a vehicle and its compliance is able to apply a National Safety Mark that demonstrates the vehicle follows all safety regulations.

<sup>2</sup> Section 2 of the B.C. ZEV Act identifies that a person is a supplier of a vehicle make if that person supplies motor vehicles of the vehicle make for consumer sale or lease in B.C.

- **Define low volume suppliers as those that do not exceed 100 average annual sales for the 3 prior model years (i.e., for 2026 compliance – the average would be taken from 2023, 2024, and 2025). Should a different low volume threshold be established for bus suppliers versus other MHD vehicle suppliers?**
- **Allow low volume suppliers to voluntarily opt-in to generate credits via ZEV sales under the regulation.**

#### What is the first year of vehicle sales that will be subject to the regulation?

California's ACT rule was approved in 2021, and the first model year subject to the regulation is model year 2024. The Ministry is proposing the first compliance year to align with the Roadmap commitments, while providing suppliers with some lead time to adjust to the proposed new regulations.

#### **It is proposed that B.C.'s new MHD ZEV sales requirement:**

- **Set calendar year 2026 as the first compliance year.**
- **This would mean that MHD vehicle sales made starting January 1, 2026 through December 31, 2026, would be subject to the proposed regulated requirements.**

#### How will ZEVs be defined?

California's ACT rule defines ZEVs as vehicles that produce no tailpipe emissions, and defines near-ZEVs as vehicles that produce tailpipe emissions some of the time. PHEVs are permitted to generate credits under the near-ZEV definition. A PHEV sold in California will generate credits based on its all-electric range<sup>3</sup>. A PHEV can generate a maximum credit equal to 75% of a ZEV credit that would be generated for its vehicle class, and PHEV credits can be used to offset a maximum of 50% of total deficits for a compliance period.

The B.C. ZEV Act defines a light-duty ZEV as a vehicle that produces no tailpipe emissions at least some of the time while in operation. This includes Battery Electric Vehicles (BEV), Fuel Cell Electric Vehicles (FCEV), Plug-In Hybrid Electric Vehicles (PHEV) and Extended Range Electric Vehicles (EREV). The Ministry has reviewed existing MHD ZEVs on the market, and manufacturer plans for new MHD ZEV models. The MHD ZEV market appears to be focussing development efforts primarily on BEVs and FCEVs, and not on PHEVs or EREVs.

#### **It is proposed that B.C.'s new MHD ZEV sales requirement:**

- **Define a MHD ZEV as a vehicle that produces no tailpipe emissions while in operation (i.e., exclude MHD PHEVs and EREVs from the definition of MHD ZEV).**
- **Within the definition, include exemptions from the no-PHEV rule for some vehicle types/use cases, e.g. authorized emergency vehicles. Please include in your feedback what exemptions the Ministry should consider.**

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<sup>3</sup> A NZEV credit is equal to the all-electric range multiplied by 0.01 multiplied by the weight class modifier.

## Sales Targets by Vehicle Class

The MHD vehicle sector includes a wide range of different vehicle types with a variety of duty cycles depending on the vehicle's use. At the ZEV sector's current state of technology development, factors such as load, daily mileage, and daily duty cycles affect the timeline to transition to ZEVs.

The California ACT sets three vehicle categories: Class 2b-3, Class 4-8, and Class 7&8 tractor trucks, with annually increasing ZEV percent sales requirements for each class. California's recently approved Advanced Clean Fleets (ACF) requirement includes a sales target of 100% ZEV sales by 2036, across all MHD vehicle classes.

**Table 2 below presents the proposed B.C. MHD ZEV Sales requirements. The proposed sales targets align with California's, but allow for a phase-in period with requirements only starting in 2026. It is proposed that authorized emergency vehicles would be exempt from the 100% targets.**

**Table 2: Proposed B.C. MHD ZEV Annual Sales Targets**

<i>Calendar Year</i>	<i>Class 3</i>	<i>Class 4-8</i>	<i>Class 7&amp;8 tractors</i>
<i>2026</i>	<i>10%</i>	<i>13%</i>	<i>10%</i>
<i>2027</i>	<i>15%</i>	<i>20%</i>	<i>15%</i>
<i>2028</i>	<i>20%</i>	<i>30%</i>	<i>20%</i>
<i>2029</i>	<i>25%</i>	<i>40%</i>	<i>25%</i>
<i>2030</i>	<i>30%</i>	<i>50%</i>	<i>30%</i>
<i>2031</i>	<i>35%</i>	<i>55%</i>	<i>35%</i>
<i>2032</i>	<i>40%</i>	<i>60%</i>	<i>40%</i>
<i>2033</i>	<i>45%</i>	<i>65%</i>	<i>40%</i>
<i>2034</i>	<i>50%</i>	<i>70%</i>	<i>40%</i>
<i>2035</i>	<i>55%</i>	<i>75%</i>	<i>40%</i>
<i>2036 and beyond</i>	<i>100%</i>	<i>100%</i>	<i>100%</i>

## Credit Generation and the Compliance System

B.C.'s current ZEV Act and Regulation operate under a ZEV unit system in which suppliers must obtain ZEV credits (positive ZEV units) in each compliance period, equal to, or greater than the ZEV compliance units that are deducted from their ZEV unit balance each year on the compliance date. To be in compliance, a supplier's ZEV unit balance must be zero or positive on the annual compliance date.

California's ACT rule is also structured as a credit and debit system, whereby a manufacturer accrues debits based on the total volume of sales, and those debits must be offset by ZEV or NZEV credits to be in compliance. In calculating debits and credits, weight class modifiers are

used to recognize that the state of commercialization of MHD ZEVs varies between vehicle type and weight class, and to incentivize the development of ZEVs for the highest emitting MHD vehicles. The debit value for each vehicle sold is calculated as the product of the model year sales target percentage and the weight class modifier for the vehicle. For each ZEV sold, a ZEV credit is generated with the value equal to the weight class modifier.

California has three debit and credit categories: Class 2b-3, Class 4-8, and Class 7&8 tractors. Class 2b-3 credits can be used to offset debits for Class 4-8 compliance, and vice versa. Class 7&8 tractor deficits must be met with Class 7&8 tractor credits, unless the supplier produces less than 25 Class 7&8 tractors total in a compliance period, in which case the Class 7&8 tractor deficits can be met with other credits.

In California, credits are generated when an on-road vehicle is sold to the ultimate purchaser. Under the proposed amendments to the light-duty requirements in the B.C. ZEV Act and Regulation, ZEV credits would be generated if a vehicle is delivered for sale and registered in B.C. for the first time.

B.C.'s proposed MHD ZEV legislation will use a unit system in which suppliers can earn positive ZEV units (credits) for each MHD ZEV delivered for sale and registered in B.C. for the first time. The number of credits that each ZEV sale generates would depend on a weight class modifier assigned to a vehicle group or sub-group (see Table 3 below). The number of debits that a supplier accrues in each year would be based on the total number of vehicles sold, weight class modifier, and percent sales requirement.

***It is proposed that, in B.C.'s new MHD ZEV regulated unit system:***

- ***ZEV credits are earned for each ZEV sold and registered in B.C.***
- ***Credits generated per vehicle = 1 ZEV credit for each ZEV sold multiplied by the weight class modifier according to vehicle class. See Table 3 below for proposed weight class modifiers. In this system, Class 3 ZEVs would earn 0.8 credits per sale, and Class 7&8 tractor ZEVs would earn 2.5 credits per sale.***
- ***Compliance obligations in any year will be calculated as the number of vehicle sold, multiplied by the percent sale requirement, multiplied by the weight class modifier according to vehicle class (see Table 3).***
- ***Compliance obligations arising from Class 3-8 vehicles can be offset by Class 3-8 credits.***
- ***That Class 7&8 Tractor debits can only be offset by Class 7&8 Tractor credits, except where the supplier produces less than 25 Class 7&8 Tractors in a compliance period, in which case Class 3-8 credits can offset their Class 7&8 Tractor debits.***

**Table 3: Weight Class Modified by Vehicle Class**

<i>Vehicle class</i>	<i>Weight Class Modifier</i>
<i>Class 3</i>	<i>0.8</i>
<i>Class 4-5</i>	<i>1.0</i>
<i>Class 6-7</i>	<i>1.5</i>
<i>Class 8</i>	<i>2.0</i>
<i>Class 7&amp;8 tractor</i>	<i>2.5</i>

**Early credits**

ZEV credits may be generated in California starting with the 2021 model year, three model years before the first regulated sales targets come into force in 2024. Suppliers under B.C.’s ZEV Act and Regulation currently have an option to enter into Initiative Agreements to generate credits for the sale of MHD ZEVs, which can be used to meet the light-duty ZEV compliance requirements.

***It is proposed that in B.C.’s new MHD ZEV sales requirement:***

- ***Early ZEV credits can be generated for ZEV sales in calendar years 2024 and 2025, to encourage ZEV sales to occur before the regulated targets begin in 2026.***
- ***Early credits will not be granted to vehicles that have already generated credits through Initiative Agreements under the ZEV Act.***

**Transfer of Credits**

Credits may be traded, sold, or transferred under California’s ACT rule and ACCII. Similarly, transfer of credits between suppliers is permitted under B.C.’s current ZEV Act and Regulation.

***It is proposed that in B.C.’s new MHD ZEV sales requirement credits may be transferred between suppliers upon approval by the Director.***

**Purchase agreements**

Under the current B.C. ZEV Act and Regulation, suppliers may enter an agreement with the Director to purchase credits. The credit purchase agreements are intended as a last resort to address unforeseen circumstances.

***It is proposed that B.C.’s new MHD ZEV sales requirement:***

- ***Provide authority to the Director under the ZEV Act to issue credits to a supplier under a purchase agreement, in extenuating circumstances.***
- ***The price of such credits would be the prescribed penalty rate per credit, plus an additional value.***

## Credit Lifetime

ZEV credits generated under California's ACT rule have limited credit lifetimes. Credits that are generated after model year 2024 expire five years after the model year (MY) in which they are generated (e.g., ZEV credits for 2024MY can be used for 2029MY but not 2030MY). Early credits generated before 2024MY expire at the end of the 2030MY and cannot be used to meet 2031MY compliance. The current BC light-duty ZEV Act and Regulation do not include limits on the lifetime of credits.

***To further encourage early sales of MHD ZEVs into B.C., it is proposed that, in B.C.'s new MHD ZEV sales requirement, credits generated do not have a lifetime limit.***

## Compliance Date and Reporting

Under the B.C. ZEV Act and Regulation, suppliers must ensure that they meet their ZEV sales target for a model year by a prescribed deadline, which is called the compliance date. Twenty days after the compliance date, suppliers must submit a Model Year Report. The B.C. ZEV Act and Regulation's current compliance deadline is September 30<sup>th</sup> in the calendar year following the model year of a vehicle, and a model year report must be submitted within 20 days after the compliance date, on October 20<sup>th</sup>. Under California's ACT rule, model year reports are due within 90 days of the model year end.

***It is proposed that in B.C.'s new MHD ZEV sales regulation:***

- ***Compliance will be assessed each year on the same date, based on a calendar year of sales, not model year.***
- ***The compliance date will be December 31<sup>st</sup> of each year.***
- ***The reporting date will be January 31<sup>st</sup> of each year.***
- ***The compliance reports will include the following information for the calendar year:***
  - ***Total MHD vehicles sold and registered in B.C., by vehicle class, and by vehicle type, including MHD ZEVs;***
  - ***Credits generated, offset, transferred, and those not yet issued;***
  - ***Compliance reduction;***
  - ***Credit bank balance; and***
  - ***MHD vehicle sales for the previous 3 years***

## Non-compliance

California's ACT rule sets a penalty amount at up to \$37,500 USD per vehicle out of compliance. The number of vehicles out of compliance is calculated as equal to one half of the manufacturer's outstanding debits. This is done to account for those vehicles that received increased debits due to the weight class modifiers. B.C.'s ZEV Act and Regulation establish penalty rates for the light-duty vehicle requirements based on the number of credits out of compliance, not the number of vehicles.

***It is proposed that the new MHD ZEV sales requirement set the penalty of \$30,000CAD per credit out of compliance (adjusted for inflation using the Consumer Price Index).***



## Appendix 2: Fleet ZEV Requirements

To meet the Roadmap to 2030 transportation emission reduction targets, due to the slow turn-over of the MHD vehicle stock, fleet purchase and stock requirements are needed in addition to the manufacturer sales requirements proposed in Appendix 1. The Ministry is proposing to implement MHD ZEV purchase and stock requirements for those fleets that have the greatest opportunity for ZEV early-adoption. The proposed requirements are aligned with similar rules in California, with slight adjustments for B.C.

California's recently approved Advanced Clean Fleets (ACF) regulation will require certain fleets to deploy ZEVs starting in 2024. The ACF is guided by state policies including the Executive Order N-79-20, which calls for 100% of drayage trucks to be ZEVs by 2035 and 100% of trucks and buses to be ZEVs by 2045 where feasible. California's ACF regulation consists of four key aspects: 1) High Priority and Federal Fleet Requirements; 2) State and Local Government Agency Fleet Requirements; 3) Drayage Truck Requirements; and 4) 2036 100% MHDV ZEV Sales Requirement (the last of which is summarized in Appendix 1 of this consultation paper).

### 1. High Priority Fleet Requirement

Who is being regulated?

California's ACF High Priority and Federal Fleet Requirement applies to the following fleets:

- An entity that has \$50 million or more in total gross annual revenues, in the calendar year immediately preceding the current year;
- A fleet owner that owns, operates, or directs the operation of 50 or more regulated vehicles in the total fleet, excluding light-duty package delivery vehicles;
- A fleet owner or a controlling party whose fleet, in combination with other fleets operated under common ownership and control, totals 50 or more vehicles in the total fleet, excluding light-duty package delivery vehicles;
- Any federal government agency;
- Any state or local government agency that has elected to comply with the ZEV milestones option in the ACF (all other state and local agencies are exempted); and
- A hiring entity, i.e., any motor carrier, broker, government agency, person, or other entity that hires and operates, or hires and directs the operation of, vehicles in California that are subject to this regulation.

What vehicles are subject to the regulation?

Vehicles that are subject to the California regulation are vehicles that are Class 2b and above, are light-duty package delivery vehicles, or are yard tractors, and that are operated in California. Exemptions to the rule include school buses, military tactical vehicles, vehicles awaiting sale, emergency vehicles, historical vehicles, dedicated snow removal vehicles, two-

engine vehicles, heavy cranes, transit vehicles subject to California’s Innovative Clean Transit (ICT) regulation, and vehicles in a test fleet.

What are the requirements?

In California’s regulation, high priority and federal fleets must choose one of two compliance pathways, and fleet owners may switch between the compliance options until January 1, 2030, if the fleet is currently in compliance with both options. The two options are as follows:

- **Model Year schedule option**, purchase and retirement requirement as follows:
  - As of January 1, 2024, all new MHD vehicle purchases added to the fleet must be ZEV
  - As of January 1, 2025, internal combustion engine (ICE) vehicles must be removed from the fleet by January 1 of the calendar year after the earlier of, (a) the useful life mileage threshold of 800,000 miles has been exceeded, or (b) the vehicle age reaches 18 years.

- **EV Milestones option**, stock requirement as follows:

Percentage of vehicles that must be ZEVs	10%	25%	50%	75%	100%
Milestone Group 1: Box trucks, vans, buses with two axles, yard tractors, light-duty package delivery vehicles	2025	2028	2031	2033	2035+
Milestone Group2: work trucks, day cab tractors, buses with three axles	2027	2030	2033	2036	2039+
Milestone Group 3: sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042+

***The Ministry is seeking general comments on the application in B.C. of high priority fleet requirements similar to those proposed in California, but for Class 3 and above. It is proposed that B.C.’s MHD ZEV requirements include fleet purchase and stock requirements, with phased-in targets starting for January 1, 2026, aligning with California’s targets starting in 2028. Due to jurisdictional authority, federal government fleets are proposed to be exempt from the B.C. rules.***

## 2. State and Local Government Agency Fleet Requirements

Who is being regulated?

California’s ACF State and Local Government Agency Requirements apply to:

- Any state or local government agency<sup>4</sup> with jurisdiction in California that owns, leases, or operates one or more vehicles that fall under the regulation in California on or after January 1, 2024. It does not apply to federal fleets.
- A hiring entity, i.e., any motor carrier, broker, governmental agency, person, or entity that hires and operates or hires and directs the operation of vehicles in California that are subject to this regulation.

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<sup>4</sup> A city, county, public utility, special district, local agency or district, or public agency of the State of California, and any department, division, public corporation, or public agency of the State of California.

What vehicles are subject to the regulation?

In California's regulation, the vehicles subject to the regulation are vehicles that are operated in California and that are Class 2b and above. Exemptions to the rule include school buses, military tactical vehicles, vehicles awaiting sale, emergency vehicles, historical vehicles, dedicated snow removal vehicles, two-engine vehicles, heavy cranes, transit vehicles subject to California's ICT regulation, and vehicles that are subject to California's Zero-Emission Airport Shuttle Regulation.

What are the requirements?

In California's regulation, state and local government agencies must choose one of two compliance pathways:

- **Purchase requirement option:**
  - Require 50% of new vehicle purchases to be ZEV or NZEV starting January 1, 2024, and increasing to 100% of new vehicle purchases to be ZEV starting January 1, 2027. Some exemptions are made for regions with low populations or fleets with low fleet numbers.
  - ZEV purchases made before the deadlines count towards future ZEV purchase requirements as long as the ZEV is still active in the fleet.
- **ZEV Milestones option (stock requirement):**
  - Until January 1, 2030, California fleet owners may choose to comply with the ZEV Milestones option offered under the High Priority Fleet requirements, as outlined above. Once a fleet owner has elected to follow the ZEV milestone option, they are no longer subject to and may not switch back to the purchase requirement option.

***The Ministry is seeking general comments on the application of similar ZEV purchase and stock requirements for provincial and local government agency fleets in B.C., including any exemptions, in the proposed MHD ZEV legislation. It is proposed that B.C.'s MHD ZEV fleet purchase and stock requirements for provincial and local agencies start for January 1, 2026, and phase in to align with California's targets starting in 2029. In providing comments and input, please also consider the following:***

- ***If the requirements should apply to similar public bodies in B.C., such as local governments, public utilities, public agencies of the Province of B.C., and crown corporations; and***
- ***Recognizing the differences in size and capacity of different provincial and local government fleets, how the requirements could be tailored to accommodate the unique needs of smaller, rural, remote, and northern fleets.***

### 3. Additional specifics for both High Priority and Provincial/Local Government Agencies

#### Hiring entity requirement:

In California's regulation, hiring entities that fall under the ACF rule are required to hire a compliant fleet and disclose the regulation applicability in writing to fleets that are hired. Disclosure must be made in the hiring contract or hiring agreement. Hiring entities are further subject to recordkeeping requirements.

#### Near-Zero-Emission-Vehicles (NZEVs):

Under California's ACF rule, NZEVs (also known as plug-in hybrid vehicles, or PHEVs) are counted equally as ZEVs until model year 2035.

#### Additional Exemptions to the fleet requirements:

In California's regulation, exemptions from the regulation, or extensions to the target dates, can be applied for in a number of circumstances. These flexibilities are in addition to the vehicle type exemptions noted in the "what vehicles are subject to the regulation" sections:

- if a ZEV is not yet available in the configuration needed by the fleet;
- if ZEVs are available in a configuration comparable to the ICE vehicles in the fleet, but do not meet the fleet's daily mileage and operational requirements;
- if the installation of infrastructure at the fleet site was delayed for reasons outside of their control and they took steps to start the project one-year ahead of the next compliance date;
- if the fleet ordered the ZEV more than one year ahead of the compliance date, and is experiencing delays in receiving the ZEV for reasons outside of the fleet's control;
- if an ICE vehicle was the subject of a one-time accident or non-repairable damage, prior to when it was planned to be replaced;
- if the vehicle is used for intermittent snow removal; and
- for a once per year five-day pass to operate an ICE vehicle.

#### Joint compliance options:

In California's regulation, individual departments, divisions, districts, subsidiaries, or agencies under the State and Local Government Agency fleet requirement may report as one singular regulated entity under the compliance requirements. Similarly, under the High Priority and Federal Fleet requirement, subsidiaries, parent companies, or joint ventures have the option to report as one singular regulated entity. In both cases, if compliance is not met by the grouping, then compliance will be assessed individually.

***The Ministry is seeking comments on the application of similar provisions to high priority, provincial and local government entities in B.C. It is however proposed that, similar to the MHD ZEV sales requirements, NZEVs also be excluded from the MHD ZEV fleet requirements in B.C.***

### 3. Drayage Truck Requirements

Included in California’s ACF rule is a drayage truck fleet requirement which aims to transition drayage trucks to be ZEV.

Who is regulated?

California’s ACF Drayage Requirement applies to:

- Owners and operators of on-road heavy duty drayage trucks operated at California seaports and intermodal railyards;
- Drayage motor carriers; and
- Marine or seaport terminals, intermodal railyards, and railyard and seaport authorities.

What vehicles are subject to the regulation?

Under California’s ACF drayage truck requirement, drayage trucks are defined as on-road vehicles with a GVWR greater than 11,793 kg (Class 7 & 8) that are used for transporting cargo, and operate:

- Through California seaport or intermodal railyard properties; or
- Off seaport or intermodal railyard property transporting cargo or empty containers or chassis that originated from, or are destined to, a seaport or intermodal railyard property.

The following vehicles are exempt from the drayage requirements: dedicated use vehicles, emergency vehicles, military tactical vehicles, vehicles subject to California’s Mobile Cargo Handling Equipment at Ports and Intermodal Rail Yards regulation, and vehicles operating pursuant to a declared emergency event.

What are the requirements?

The ZEV Drayage requirements are divided into two Phases, with the ultimate requirement that all drayage trucks are ZEV starting January 1, 2035.

Stage	Starting date	Requirements
Phase 1	January 1, 2024	Beginning January 1, 2024, trucks must be registered in the California Air Resources Board (CARB) Online System to conduct drayage activities in California. Drayage trucks that are registering for the first time in the CARB Online System must be ZEV. This means that non-ZEV drayage trucks that wish to be in the CARB Online System must be registered before this date. Non-ZEV drayage trucks must visit a regulated seaport or intermodal railyard at least once a year to maintain their status in the CARB Online System.

	January 1, 2025	Non-ZEV drayage trucks will be subject to removal from the CARB online registry system when they reach their end of useful life, which is prescribed by the regulation as the later of: <ol style="list-style-type: none"> <li>1. 13 years from the model year that the engine and emissions control system was first certified.</li> <li>2. Whichever of the following dates that comes first: The date that the drayage truck exceeds 800,000 vehicle miles travelled, or a maximum of 18 years from the model year that the engine and emissions control system was first certified.</li> </ol>
Phase 2	January 1, 2035	All drayage trucks registered in the CARB Online System must be ZEV.

Also included in this regulation are sales disclosure requirements that a vehicle may be subject to under ACF and reporting requirements on owners and operators. In addition, drayage truck owners and operators may apply for an exemption from the regulation in certain circumstances where it is impossible to comply for reasons that fall outside of the regulated party’s power, including a delay in ZEV delivery, or a delay in ZEV infrastructure construction or infrastructure site electrification.

California seaports and railyards

Beginning January 1, 2024, in California, seaport terminals and intermodal railyards will be required to collect information for each drayage truck that enters their respective facility or property. Drayage truck identifiers and general operating information must be reported to CARB annually, and non-compliant drayage truck information must be reported to CARB quarterly.

***The Ministry is seeking general comments on how similar ZEV drayage provisions could be applied in B.C., and what modifications could be made to reflect the B.C. market. The B.C. MHD ZEV requirements for drayage trucks are proposed to start slightly later than California’s, on January 1, 2026, and include the 2035 requirement to be fully ZEV.***



## Appendix 3: Public Transit Agency ZEV Requirements

To meet the Roadmap to 2030 transportation emission reduction targets, ZEV purchase and stock requirements in public transit fleets are needed in addition to the manufacturer sales requirements proposed in Appendix 1. As such, like California, the Ministry is proposing to implement MHD ZEV purchase and stock requirements for public transit agencies. The goal is to achieve a 100% ZEV purchase rate by 2029, with transit agencies in B.C. transitioning to 100% zero-emission by 2040.

### Who is being regulated?

The California Innovative Clean Transit (ICT) Regulation applies to transit authorities<sup>5</sup> in California that own, operate, lease, rent, or contract buses with a GVWR 6,350 kg. In B.C., TransLink and BC Transit are the main transit authorities that would be subject to the proposed MHD ZEV requirements.

***It is proposed that B.C.'s MHD ZEV legislation include public transit agency ZEV requirements that apply to all transit authorities that own, operate, lease, rent, or contract with another entity to operate buses over 6,350 kg.***

### What is being regulated?

California's ICT Regulation defines a zero-emission bus (ZEB) as a bus with zero tailpipe emissions<sup>6</sup>, that is either a battery electric bus or a fuel cell electric bus. The ICT regulation mandates ZEB purchases for transit buses with a GVWR greater than 6,350 kg, covering class 4-8 medium and heavy-duty buses including standard, articulated, over-the-road, double-decker, and cutaway buses. The proposed regulation applies to all buses ready for revenue service, including spare buses and those undergoing maintenance or minor repairs. It excludes vehicles operating on rails, trolleybuses, and school buses.

The ICT regulation does not cover electric trolleybuses, as they are already ZEV, nor minibuses or shuttles (class 3) commonly used as handyDARTs and flexible transit services in B.C. This exclusion allows transit authorities flexibility to use ICE vehicles where the operational requirements might not be suitable for ZEVs.

***It is proposed that B.C.'s new public transit agency ZEB requirement:***

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<sup>5</sup> ICT does not apply to Caltrans, Caltrain, Amtrak, or any local school district, correctional facility, airport, college or university, national park, tour bus service providers, or an entity that provide shuttle services solely for patrons of its organization

<sup>6</sup> In ICT, a BEB or FCEB equipped with a fuel-fired heater is not considered as a ZEB.

- **Apply to all buses with a GVWR greater than 6,350 kg (to include Class 4 to Class 8 buses), used for transit services including articulated, over-the-road, double-decker, and cutaway buses.**
- **Exclude trolleybuses or school buses, even if operated by a transit authority.**
- **Require the ZEB to emit zero tailpipe emissions (be either a battery electric bus or a fuel cell electric bus).**

### What are the ZEB purchase and stock requirements?

The ICT Regulation in California sets purchase requirements for both small and large transit authorities. In this context, BC Transit and TransLink are considered large transit authorities, as they serve populations exceeding 200,000 and operate over 100 buses during peak hours. The ICT rule mandates that large transit authorities purchase 25% zero-emission buses in 2023, 50% in 2026, and 100% by 2029, facilitating a gradual transition to a fully zero-emission fleet.

ZEB purchase requirements are applicable only to new bus purchases, and excludes:

- Used buses;
- Conversion of conventional internal combustion engine buses to ZEBs; and
- Purchase of specific bus types (e.g., cutaway, over-the-road, double-decker, or articulated) until January 1, 2026, or until they pass the Altoona testing (voluntary early ZEB purchases of these types will count towards compliance).

Starting January 1, 2023, transit agencies must keep new ZEBs for at least five years to meet ZEB purchase requirements. Compliance is assessed annually on December 31.

The California rules allow for compliance flexibilities, including:

- Zero-emission mobility credits awarded for:
  - Providing zero-emission mobility services through zero-emission car sharing, vanpool, micro-transit, and active transportation (such as bicycles, and scooters)
- Bonus credits: awarded for early acquisition of ZEBs by December 31, 2022; and
- Requests for exemptions in extenuating circumstances, such as a delay in the ZEB infrastructure beyond the transit agency's control, delay in the ZEB supply beyond the transit agency's control, and unavailability of ZEBs suitable for the weight class or operating characteristics of the bus being replaced.

The ICT regulation mandates each transit agency to develop a non-binding rollout plan to achieve a complete ZEB transition by 2040. The plan must be approved by the transit agency's governing body and submitted to the California Air Resources Board. The plan must address technology deployment, infrastructure upgrades, purchase, and lease options, prioritizing disadvantaged communities, staff training, and potential funding sources.

California transit agencies must submit annual fleet reports by March 31st, containing information on buses, engines, propulsion systems, and zero-emission passenger miles, if applicable. Reports are considered complete when all required information is included.

Transit agencies must maintain records of conventional, zero-emission, and converted buses, documentation related to bus transactions and conversions, and fuel contracts. Records must be available for CARB audit within 10 days of request and maintained for three years after bus retirement, ownership transfer, or fuel contract expiration.

***It is proposed that B.C.'s new public transit agency ZEB requirement:***

- ***Require that 50% of new bus purchases be ZEBs in 2026, 2027 and 2028, and 100% be ZEBs starting in 2029 and beyond.***
- ***Require the transit agencies have 41% ZEV fleets by 2030 and 100% ZEV fleets by 2040.***
- ***Allow for exemptions to the above rules, in extenuating circumstances, on application to, and approval by, the Director designated under the ZEV Act.***
- ***Include similar reporting and record-keeping provisions as are in the California rules.***

## Appendix 4: Small Off-Road Engines

Small Off-Road Engines (SORE) are off-road engines that produce 19 kW gross power or less, and typically run on diesel or gasoline fuel, natural gas, or propane gas. The Canadian Federal Government regulates emissions from SORE through its Off-Road Small Spark-Ignition Engine Emission Regulations. Manufacturers, importers, and distributors of off-road small spark-ignition engines and associated equipment and/or machines are subject to this regulation.

California introduced zero-emission requirements for SORE. As part of the B.C. MHD ZEV requirements, the Ministry is also proposing to implement ZEV requirements specifically for SORE.

### Who is being regulated?

California's SORE regulation applies to manufacturers of SORE and SORE-powered equipment and machines.

***The Ministry is proposing that the ZEV SORE requirements apply to manufacturers of SORE and SORE-powered equipment and machines.***

### What is being regulated?

California's zero-emission SORE regulation sets standards for manufacture of new engines to zero<sup>7</sup> for smog-forming emissions<sup>8</sup> for most new gas-powered SORE produced on or after January 1, 2024. Pressure washers with engine displacement greater than or equal to 225 cc and portable generators, including those in recreational vehicles, must meet zero-emission standards starting in model year 2028. California's regulation applies to all new SORE manufactured for sale in California, with compliance required for emissions, certification, and testing. The regulation applies only to sales and does not affect equipment already in use and equipment certified for model year 2023 or earlier may still be sold, depending on availability.

The regulation is phased as follows:

- Phase 1 - as of January 1, 2024, emission standards are set to zero (but manufacturers may have credits to produce some engines), and the net balance of emissions needs to be zero for:
  - Off-road spark-ignition engines that produce 19 kW gross power or less including, chainsaws with engines smaller than 45 cubic centimeters (cc), edgers, hedge trimmers, lawn mowers, leaf blowers, log splitters, portable generators, pressure washers <225cc, riding mowers, and string trimmers.
  - The following engines/machines are either exempt or not considered SORE (and so the new emission standards do not apply):

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<sup>7</sup> There is a credit program that allows for manufacture of some additional certified engines

<sup>8</sup> ROG (reactive organic gases) and NOx

- air compressors, blade-capable brush, cutters/clearing saws ≥ 40 cc, chainsaws ≥ 45 cc, chippers, light towers, pumps ≥ 40 cc, certain saws, shredders/grinders, stationary generators, stump grinders, and welders;
  - equipment with engines that use diesel fuel (generators, pressure washers, riding mowers, pumps);
  - stationary equipment;
  - equipment with large spark engines of volume greater than 1 liter<sup>9</sup> for model year 2024 or later; and
  - equipment or vehicles used primarily for farming or construction, under 175 horsepower
- Phase 2 - as of January 1, 2028, manufacture of new SORE for sale in California must meet a zero-emission standard for the following:
    - Portable pressure washers with a displacement of 225cc or more and portable generator engines

***The Ministry is seeking general comments on the application of similar zero-emission SORE requirements in B.C. The Ministry is proposing that, starting January 1, 2026, sales of most SOREs will be required to be zero-emission (battery electric), and as of January 1, 2030, sales of pressure washers and portable generator engines will be required to be zero-emission. In providing comments and input, please also consider the following:***

- ***Who should the requirement be placed on (suppliers, importers, distributors)?***
- ***What SORE should be captured within a ZEV requirement?***
- ***What exclusions or phase-in periods for certain SORE should be considered?***

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<sup>9</sup> Large spark ignition engines with displacement less than or equal to 1 liter continue to be subject to the SORE emission standards that have been in place

## Appendix 5: Other Transportation Regulations

This section outlines the key components of several other California ZEV regulations:

1. Transportation refrigeration units
2. Airport shuttles
3. Forklifts

***The Ministry is seeking input on similar requirements in B.C's MHD ZEV legislation, as detailed below, and any exemptions that should be considered.***

### 1. Transportation Refrigeration Units

California regulates emissions stemming from transport refrigeration units (TRUs) under the *Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets, and Facilities Where TRUs Operate* (hereafter referred as the "TRU emissions regulation"). TRUs can be found on trucks, rail, and ships when in transit, but can also be stored and operated at warehouses or distribution centers.

***While California's TRU emission regulation covers broad emissions standards in addition to zero-emission truck TRU<sup>10</sup> requirements, the Ministry is proposing to include only zero-emission truck TRU requirements in its forthcoming MHD ZEV requirements.***

Who is being regulated?

The following entities are subject to California's TRU zero-emission truck stock or sales requirements:

- Owners and Operators of diesel-fueled TRUs and TRU generator sets that operate in California; and
- TRU original equipment manufacturers (OEM)

California's TRU emissions regulation exempts the following truck TRUs from the regulation:

- Military tactical support equipment
- Non-operational TRU and TRU gen sets
- TRUs that are used during an emergency

***The Ministry is proposing that the MHD ZEV requirements for truck TRUs apply to similar entities as in the California rule.***

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<sup>10</sup> A truck refrigeration system whose operation results in zero exhaust emissions of any criteria pollutant (or precursor pollutant) or GHG under any possible operational modes or conditions.

What are the Zero-Emission TRU requirements?

Owner and operator requirements:

**Zero-Emission truck TRU stock requirement:** The California stock requirements start in 2023, and ramp up to 100% stock requirement starting in 2029. Compliance is measured as of the compliance date in the calendar year, which is December 31<sup>st</sup> of every year.

***The Ministry is proposing to start stock requirements in 2026, such that TRU owners replace their diesel-powered truck TRUs<sup>11</sup> with zero-emission truck TRUs in accordance with the fleet percentages and phase-in schedule as follows:***

Compliance date as of December 31	Required ZE truck TRU fleet percentage
2026	45%
2027	60%
2028	75%
2029	90%
2030 and beyond	100%

TRU OEM Requirements:

**ZE truck TRU Sales Requirement:** In the California rules, beginning December 31, 2023, TRU OEMs shall not manufacture for sale or use in California, a truck TRU, unless it is a zero-emission truck TRU. Furthermore, TRU OEMS shall comply with the following requirements:

- TRU OEMs shall provide warranties to the ultimate purchaser and each subsequent purchaser that the zero-emission truck TRU is free from defects in materials and workmanship which cause the failure of any warranted part. The warranty period shall cover a period of 3 years from the date of purchase or 5,000 hours of compressor run time, whichever occurs first.
- TRU OEMs shall have an authorized service-and-repair facility located in California to perform warranty repairs on ZE truck TRUs.

***The Ministry is proposing similar requirements for manufacturers or suppliers of truck TRUs in B.C., but starting December 31, 2026.***

## 2. Airport Shuttles

California's Zero Emission Airport Shuttle Regulation requires airport shuttle operators to incorporate zero-emission shuttles<sup>12</sup> into their fleets starting in 2027, and to have 100% zero-emission fleets by 2035.

***The Ministry is proposing that the forthcoming MHD ZEV requirements include similar requirements for airport shuttle operators in B.C.***

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<sup>11</sup> TRU that is mounted on or in a truck cargo box that is permanently attached to a truck, in contrast to a detachable trailer.

<sup>12</sup> Zero-emission shuttles refer to a battery electric vehicle or fuel cell electric vehicle certified or approved for sale in California, and do not include plug-in hybrid shuttles.

Who is being regulated?

**The Ministry is proposing that the requirements would apply to the following entities:**

- Fleet owners or operators who manage airport shuttles at airports in B.C.;
- Fleet owners or operators with an airport shuttle depot location within a 25 kilometre (km) radius of a regulated airport; and
- Fleet owners or operators operating an airport shuttle on a fixed destination route equal to or less than 50 km, including stops at a regulated airport.

What vehicles are being regulated?

**The Ministry is proposing that airport shuttles that meet any of the following criteria be subject to the ZEV requirements:**

- Shuttles operating at airports in B.C.;
- Shuttles with a GVWR of 3,856 kg or greater, that transport passengers to, from, or around an airport;
- Shuttles with fixed routes, including various stops at locations such as rental car facilities, on- and off-airport parking, hotels, or other tourist destinations; and
- Shuttles based or housed within 25 km of an airport and have round trip routes of 50 km or less.

What are the Zero-Emission Airport Shuttle Regulation requirements?

In-use Fleet Composition Requirement:

**The Ministry is proposing similar zero-emission airport shuttle (ZEAS) stock requirements as those in California, as follows:**

<i>Compliance Schedule for Airport Shuttles</i>	
<i>Compliance Deadline</i>	<i>Percent of total fleet that must be ZEAS</i>
December 31, 2027	33%
December 31, 2031	66%
December 31, 2035	100%

Purchase Replacement Requirements

In California, from January 1, 2023, airport shuttle fleet owners replacing a ZEV in their existing fleet must replace it with another ZEV. **In B.C., it is proposed that this purchase requirement start from January 1, 2026.**

Similar to California, the B.C. ZEV requirements for airport shuttles would enable regulated parties to apply for compliance exemptions or extensions in extenuating circumstances.

**The Ministry is seeking general comments on the proposed ZEV Airport Shuttle requirements, and what exemptions should be considered.**

### 3. Zero-Emission Forklifts

CARB is in the process of developing a regulation to increase zero-emission forklift<sup>13</sup> deployment throughout the State. The Ministry is considering similar rules<sup>14</sup> (which are still under development) as part of the B.C. MHD ZEV requirements.

Who would be regulated?

The B.C. ZEV forklift requirements would apply to fleet operators, forklift dealers, forklift rental agencies, and forklift and engine manufacturers.

What forklifts would the regulation apply to?

The B.C. ZEV forklift requirements would apply to Class IV and Class V forklifts equipped with large spark-ignited engines (e.g., propane or gasoline-fueled engines) and with a rated capacity of up to 5,443 kgs. Exclusions would include:

- Rough Terrain Forklifts;
- Combat and Tactical Support Equipment;
- Pallet Jacks;
- Forklifts with telescoping booms; and
- Forklifts owned or operated by ports

What are the requirements?

Requirements by regulated party that B.C. is considering is as follows:

<b>Entity</b>	<b>Requirements</b>
<b><i>Fleet Operators</i></b>	From 2026, fleet operators would not be allowed to purchase new, non-ZEV forklifts, and would be required to phase out 2025 model year and older non-ZEV forklifts starting in 2028 according to the Phase-Out Schedule below. Used forklifts of non-phased-out model years could be purchased. Exceptions would apply to rentals and qualifying exemptions or extensions.
<b><i>Forklift Rental Agencies</i></b>	Rental agencies would follow the same phase-out schedule as fleet operators, and could purchase new Class V non-ZEV forklifts until 2029.
<b><i>Dealers</i></b>	Dealers would be subject to sales restrictions on non-ZEV forklifts, reporting, and recordkeeping requirements. Starting in 2026, dealers would not be allowed to sell, lease, offer for sale, or offer for lease non-ZEV forklifts of 2026 or subsequent model years to fleet operators in B.C.
<b><i>Forklift Manufacturers</i></b>	Manufacturers would only be able to produce or offer for sale Class IV ZEV forklifts in B.C. starting January 1, 2026, and Class V ZEV forklifts starting January 1, 2029.

The B.C. rules would include annual reporting and record-keeping requirements.

<sup>13</sup> Zero-Emission Forklift" (ZEF) refers to a forklift powered exclusively by fuel-cell-electric, battery-electric, or other zero-emission technology for operational propulsion and work. Pallet jacks are not included in this definition for the purposes of the regulation.

<sup>14</sup> <https://ww2.arb.ca.gov/our-work/programs/zero-emission-forklifts>

In addition, B.C. is considering a model where fleet operators and rental agencies would be prohibited from owning or operating non-ZEV forklifts of a model year that has been phased out in B.C. according to the phase-hour schedule below. As per the table below, there would be different rules for small fleets with 25 or fewer forklifts, and large fleets with 26 or greater forklifts.

Phase-Out Schedule:

Phase Out Schedule	Class IV Forklifts		Class V Forklifts
	Large fleets	Small and Agricultural Fleets	All Fleets
<b>2028</b>	MY2018 and older	-	-
<b>2029</b>	-	MY2016 and older	-
<b>2030</b>	-	-	MY2017 and older
<b>2031</b>	MY2019 – MY2021	-	-
<b>2032</b>	-	MY2017 – MY2019	-
<b>2033</b>	MY2022; MY2023	-	MY2018 – MY2020
<b>2034</b>	-	MY2020; MY2021	-
<b>2035</b>	MY2024 MY2025	-	MY2020; MY2021
<b>2036</b>	-	MY2022; MY2023	-
<b>2037</b>	-	-	-
<b>2038</b>	-	MY2024; MY2025	MY2023 – MY2028 MY (Includes MY2026-MY2028 maintained by Rental Agencies as affected Revenue Forklifts)

Exemptions in B.C. could be made for:

- low-use forklifts;
- dedicated emergency forklifts;
- temporary storage of non-compliant forklifts; and
- forklifts transported for delivery out-of-province.

In B.C.’s regulations under consideration, regulated parties could be eligible for compliance deadline extensions, upon application, in the following circumstances:

- zero-emission forklift delivery delays, outside of the control of regulated parties;
- infrastructure construction delays, outside of the control of regulated parties; and
- site electrification delays, outside of the control of regulated parties.

***The Ministry is seeking general comments on the proposed zero-emission forklift requirements for B.C., and what exemptions should be considered.***