

TO: MAYOR & EACH COUNCILLOR  
FROM: CITY CLERK'S OFFICE



# City of Richmond

## Memorandum Engineering and Public Works Sustainability

**To:** Mayor and Councillors  
**From:** Nicholas Heap  
Sustainability Project Manager  
**Date:** January 22, 2020  
**File:** 10-6125-07-02/2019-Vol 01  
**Re:** **Staff Response to Questions Regarding the BC Zero Emission Vehicles (ZEV) Act Regulations Intentions Paper**

This memo responds to questions asked of staff at the General Purposes Meeting held on Monday, January 20, 2020, regarding the report titled "Comments on the BC Zero Emission Vehicles (ZEV) Act Regulations Intentions Paper," dated January 10, 2020.

***Question 1: Does staff recommend support of the proposal in the ZEV Act Regulations Intentions Paper to issue credits to automobile suppliers for the sale of used ZEVs within BC?***

***Staff recommend supporting the issuance of credits for used ZEVs (up to the 5% limit noted in the Intentions Paper) only during the 2020-2025 time period, and only if issues of double-counting are fully addressed.***

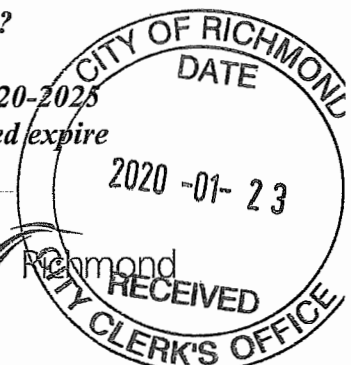
The Intentions Paper proposes that automobile suppliers be able to enter into agreements with the Province to receive credits for specified types of "used ZEVs being sold or leased in BC for the first time," or the sale of medium and heavy-duty ZEVs that are not otherwise covered by the ZEV Act. The total amount of credits received through these activities would not exceed "5% of that manufacturer's total ZEV units' requirement for the previous model year." Earning credits for the sale of used vehicles does not increase the overall number of ZEVs manufactured, and opens up risks of double counting (i.e. if credits are issued for used ZEVs that also generated credits when they were sold as new vehicles).

Staff consider, however, that a local supply of lower-cost used ZEVs could increase the ability of lower-income British Columbians to afford a ZEV, thereby advancing social equity objectives. Given the ramp up in sales of ZEVs within BC over the past several years (as of November 2019, there were 30,000 EVs in BC), staff expect a growing number of used EVs to come from BC itself by the latter half of the 2020's, reducing the need for additional imports of used ZEVs. As such, staff recommend supporting the issuance of credits for used ZEVs (up to the 5% limit noted in the Intentions Paper) only during the 2020-2025 time period, and only if issues of double-counting are fully addressed.

***Question 2: What does staff recommend with regard to the expiry of ZEV credits?***

***Staff recommend aligning the amount and worth of ZEV credits issued in the 2020-2025 period relative to those issued during the 2026-2040 period, and that credits issued expire within two or three years.***

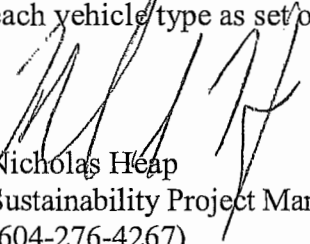
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ZEV credits issued by the government do not appear to expire. As a result, credits issued during the 2020-2025 period, when a single ZEV can generate up to four credits may be used as late as 2040, at which point they could offset the sale of up to four ICE automobiles. This undermines the Province's stated goal of having 100% of sales in 2040 being ZEVs. In addition to aligning the amount and worth of ZEV credits issued in the 2020-2025 period, relative to those issued during the 2026-2040 period, the credits issued should expire within two or three years. This should provide sufficient time to allow manufacturers and suppliers to compensate for short-term supply and sales fluctuations when meeting annual ZEV sales targets, while protecting against long-term sales dampening effects.

**Question 3: Vehicle classifications and credits in the ZEV Act Regulations Intentions Paper**

Staff were also asked to revise "Attachment 1: Table showing vehicle classifications from the Regulations Intentions Paper" in order to assist evaluation of the information presented. A revised table is attached, which now includes an explicit link between the minimum zero-carbon range of the vehicle, and the (often range-dependent) value of the ZEV credits associated with each vehicle type as set out in the ZEV Act Regulations Intentions Paper.



Nicholas Heap  
Sustainability Project Manager  
(604-276-4267)

NH:nh

pc: SMT

Attachment 1: Vehicle classifications in the ZEV Act Regulations Intentions Paper

[REVISED FORMAT]

Zero Emission Vehicle (ZEV) type	2020 - 2025				2025 - 2040			
	Class A		Class B		Class A		Class B	
	ZEV Range (km)	Credits per ZEV sold	ZEV Range (km)	Credits per ZEV sold	ZEV Range (km)	Credits per ZEV sold	ZEV Range (km)	Credits per ZEV sold
<b>BEV</b>								
Battery Electric Vehicle <sup>1</sup>	> 80	= 1 - 4			> 80	= 1		
<b>FCEV</b>								
Fuel Cell Electric Vehicle <sup>2</sup>	> 80	= 1 - 4			> 80	= 1		
<b>EREV</b>								
Extended Range Electric Vehicle <sup>3</sup>	> 121	= 1.05 - 4	16 - 121	= 0.4 - 1.05	> 80	= 1		
<b>HICE</b>								
Hydrogen Internal Combustion Engine			> 16	= 0.3 - 1.1			> 80	= 1
<b>NZEV</b>								
Neighbourhood Zero Emission Vehicle <sup>4</sup>			[> 1]	= 0.15			[> 1]	= 0.15
<b>PHEV</b>								
Plug-in hybrid electric vehicle <sup>5</sup>			> 16	= 0.4 - 1.1			> 80	= 1

**NOTES:** No credits are issued for "Class C" vehicles.

"Class C" EREVs, PHEVs, NZEVs, and HICE vehicles have ranges below the minimum threshold for "Class B" vehicles.

"Class C" BEVs and FCEVs all have ranges of less than 80 km.

<sup>1</sup> Cannot be fuelled with gas or diesel

<sup>2</sup> Cannot be fuelled with gas or diesel

<sup>3</sup> With gas-fuelled electric generator

<sup>4</sup> Street legal only in designated areas

<sup>5</sup> With gasoline engine