
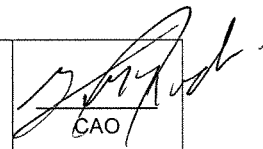


COUNCIL AGENDA/INFORMATION

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DISTRICT OF WEST VANCOUVER
750 – 17TH STREET, WEST VANCOUVER, BC V7V 3T3

COUNCIL REPORT

Date: July 27, 2009 File: 1800.00
From: Brent A. Dozzi, P. Eng., PTOE
Manager, Roads and Transportation
Subject: **Neighbourhood Zero Emission Vehicles**

RECOMMENDED THAT:

1. Staff be directed to amend the Traffic and Parking Bylaw 4370, 2004 to allow Neighbourhood Zero Emission Vehicles on District roads with speed limits of 50 kph or less; and
2. Staff be directed to identify exceptions as required to ensure safe operation of Neighbourhood Zero Emission Vehicles and the safety of others.

Purpose

To advise Mayor and Council of the operating characteristics of Neighbourhood Zero Emission Vehicles (NZEVs) such that their integration to the District municipal road network is permitted, with full understanding of their limitations and consideration for their safe operation and the safety of others.

1.0 Background

An NZEV is defined in the *Motor Vehicle Act* as “a lightweight vehicle (less than 1,361 kg) that travels on four wheels and is powered by an electric motor that is designed to allow the vehicle to attain a speed of 32 kph but not more than 40 kph in a distance of 1.6 km on a paved level surface.” Safety requirements for NZEVs are regulated by Transport Canada as Low Speed Vehicles” (LSVs). They are not permitted to travel faster than 40 kph because of its crash test performance. These small electric vehicles do not use fossil fuel as a source of onboard energy and are typically capable of reaching an approximate range of 60 km when the battery is fully charged. Therefore, NZEVs are particularly attractive for replacing conventional gasoline powered vehicles for short local trips.

On June 6, 2008, the Province of British Columbia amended the *Act* to define a class of slow-moving vehicles called “Neighbourhood Zero Emission Vehicles”. Prior to this, NZEVs were restricted to streets with speed limits of 40 kph or less. As part of the amendment, the Province has given municipalities the authority to

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amend their bylaws to allow NZEVs on streets with speed limits greater than 40 kph but not exceeding 50 kph.

Municipalities in Metro Vancouver that have amended their bylaws to allow NZEVs to operate on roads with speed limits of 50 kph or less include: Vancouver, Burnaby, Port Coquitlam, and most recently, the City of North Vancouver.

NZEVs are a promising solution towards achieving a more sustainable transportation network in the District as all roads have posted speed limits of less than 50 kph, with the exception of Highway 1, Highway 99 and Cypress Bowl Road (all of which are under the jurisdiction of the Ministry of Transportation and Infrastructure). Replacing conventional gasoline powered vehicles with small electric vehicles, such as NZEVs, can reduce transportation related greenhouse gas emissions, thereby assist in the municipality's efforts to address climate change.

2.0 Policy

2.1 Policy

The Official Community Plan (OCP) (2004), Policy Section 7, specifically speaks to transportation and mobility. Objectives include:

- Reduce resident's dependency on private automobiles thereby reducing traffic congestion.
- Promote alternatives to private vehicles including the enhancement of both public transportation and walking and cycling networks.

Building on the OCP, the Environmental Strategy objectives include:

- Objective 8 – Promote and Provide Sustainable Transportation Options.
- Objective 9 – Reduce Greenhouse Gas Emissions and Improve Air Quality.

2.2 Bylaw

An amendment to the Traffic and Parking Bylaw No. 4370, 2004 is required.

3.0 Analysis

3.1 Discussion

The transportation mix in the District is dominated by gasoline-powered passenger vehicles, which are responsible for a large proportion of greenhouse gas emissions. The District's Strategic Transportation Plan and Climate Action Plan aim to develop transportation systems that move people, goods and services efficiently, respond to pressing environmental concerns, and contribute

to quality-of-life in the District. Allowing the use of alternative forms of environmentally sustainable transportation, such as NZEVs, helps reduce greenhouse gas emissions and demonstrates the municipal leadership in this regard.

At the same time, concerns have been raised about the safe integration of NZEVs with other vehicles on public roads. The safety standards for NZEVs are concurrent to the requirements outlined by Transport Canada for LSVs. LSVs are not subject to the safety standards of conventional larger, heavier motor vehicle classes that use public roads (i.e. air bags, roll-cage, intrusion protection, impact absorbing bumpers, etc.). Furthermore, a study conducted by the Transportation Research Board found that regardless of posted speeds, the greater a vehicle's deviation from the average speed, the greater the chance of being involved in an accident. Since NZEVs are likely to travel below the average speed on most roads, these vehicles may be associated with a greater collision risk. Therefore, while ICBC licenses these vehicles under the same category as regular passenger vehicles, the corporation does not consider NZEVs safe for our roadways. Similarly, the RCMP/CRD Integrated Road Safety Unit does not support these vehicles, as they perceive a conflict with the BC Chiefs Traffic Safety Committee's mandate to increase road safety.

It should be noted there are other vehicles that are allowed on public roads, such as motorcycles, bicycles, motor-assisted bicycles, and scooters that share similar safety and speed characteristics as NZEVs. Also, NZEVs will be required to display the slow moving vehicle emblem which would inform other road users to take additional safety measures when manoeuvring around these vehicles.

In the jurisdictions where NZEVs have been allowed, legal opinion has indicated no significant legal issues in permitting these vehicles on municipal roads. In order to safely integrate NZEVs with other vehicles on District roads, clear signage will be required to ensure that NZEVs do not inadvertently end up in areas where they are not permitted to operate. For example a sign indicating no access to Ministry roads such as Highway 1 would be required at each access point.

There are many inter-municipal trips generated between North Shore communities and motorists often do not recognize municipal boundaries. As such, a harmonized approach to the adoption of NZEVs in the City of North Vancouver and District of North Vancouver would be beneficial. On April 6, 2009, the City of North Vancouver's Council recommended the necessary bylaw changes to permit NZEVs on all roads with posted speeds of 50kph with exceptions. On May 5, 2009, the District of North Vancouver's Council recommended that staff amend the Street and Traffic Bylaw to permit NZEVs on all roads with posted speeds of 50kph with exceptions.

If directed by Council, staff will prepare an Amendment Bylaw for consideration at a future meeting. Staff would also identify additional restrictions to allowing NZEVs on municipal roads to ensure their safe operation and the safety of others, including signage requirements and other exceptions.

3.2 Environmental Implications and Sustainability

Despite the noted drawbacks, these vehicles when compared to conventional gasoline powered vehicles are a step in the right direction towards achieving a more sustainable transportation system that will reduce toxic emissions and accelerate developments in electric vehicle technology. Allowing NZEVs on our roads will encourage vehicle manufacturers to design and build electric vehicles that meet all of the safety standards for mainstream cars and trucks in a more economically efficient manner. The reduction in production costs could then be passed onto consumers, making NZEVs a more attractive and affordable transportation option.

Permission of NZEVs on District roads is consistent with those OCP Policies and Environmental Strategy Objectives mentioned earlier in the report.

3.3 Financial Implications

Producing and installing the recommended signage indicating those areas where NZEVs are not permitted to operate will be required. The total cost could be between \$10,000 and \$20,000, and there is currently no budget for this activity this year. In conjunction with development an Amendment Bylaw for Council's consideration, a detailed cost estimate for implementation will also be brought forward.



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