

From: "Johnston, Sadhu" <Sadhu.Johnston@vancouver.ca>

To: "Direct to Mayor and Council - DL"

CC: "City Manager's Correspondence Group - DL"
"Dobrovolny, Jerry" <jerry.dobrovolny@vancouver.ca>

Date: 7/31/2019 4:14:26 PM

Subject: Memo: Shared Dockless Electric Stand-Up Scooters

Attachments: Memo - Shared Dockless Electric Stand-Up Scooters.pdf

Dear Mayor and Council,

Please see the attached memo from Jerry Dobrovolny. A short summary of the memo is as follows:

- Since late 2017, cities have seen an influx of publicly shared two-wheeled, electric stand-up scooters that typically go up to 32 km/h and can be parked anywhere, from companies like Spin, Lime, Bird, JUMP, and Lyft.
- Rapid adoption of shared electric scooters highlights the potential for these to facilitate low-carbon trips in cities.
- As the City continues to monitor the shared electric scooter industry a number of opportunities and challenges were identified from our peer cities and City staff discussions with various operators:
 - Other cities have reported high injury rates on scooters, about 10x higher than bicycles
 - Operators in other jurisdictions do not yet align with City goals around equity and inclusion
 - Cities have struggled with clutter and competing needs for use of public space
 - Lifecycle of devices and trip replacement
- At this time, both Provincial and City regulations prohibit the use of low-powered vehicles such as electric scooters on all public rights-of-way.

If you have any questions, please feel free to contact Jerry Dobrovolny at 604-873-7331 or jerry.dobrovolny@vancouver.ca.

Best,
Sadhu

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Pronouns: he, him, his



The City of Vancouver acknowledges that it is situated on the unceded traditional territories of the Musqueam, Squamish, and Tsleil-Waututh peoples.

MEMORANDUM

July 31, 2019

TO: Mayor and Council

CC: Sadhu Johnston, City Manager
Paul Mochrie, Deputy City Manager
Lynda Graves, Administration Services Manager, City Manager's Office
Rena Kendall-Craden, Civic Engagement and Communications Director
Katrina Leckovic, City Clerk
Neil Monckton, Chief of Staff, Mayor's Office
Alvin Singh, Communications Director, Mayor's Office
Anita Zaenker, Chief of Staff, Mayor's Office
Margaret Wittgens, Director, Public Space and Street Use

FROM: Jerry Dobrovoly
General Manager, Engineering Services

SUBJECT: Shared Dockless Electric Stand-Up Scooters

The purpose of this memo is to provide information to Mayor and Council on the growing industry interest to deploy shared dockless electric stand-up scooters on City streets and sidewalks and some of the legal, safety, equity, public realm, and sustainability considerations for the City.



Picture 1 shows shared electric scooters available for rent



Picture 2 shows a typical app and controls of a shared electric scooter

Background

Since late 2017, cities all over the world have seen an influx of publicly shared two-wheeled, electric stand-up scooters that typically go up to 32 km/h and can be parked anywhere. In the United States (US), shared scooters from operators like Lime, Spin, Bird, Uber's JUMP, Lyft, and others have in some cases flooded city streets and sidewalks seemingly overnight. To use a shared scooter, users have to download the operator's app which shows the location (tracked by GPS) of all available scooters nearby. The user then uses a smartphone to scan a QR code on the scooter, unlocking the scooter and beginning a trip. To end the trip, the user parks the scooter, often on the sidewalk, and ends the ride through the app. The cost of the trip is immediately withdrawn from the user's credit card. In 2018, 38.5 million trips were taken in the US on shared electric scooters, reflecting the wide proliferation of these vehicles in many cities.

Opportunities and Challenges

The rapid adoption of shared electric scooters highlights the potential for these to facilitate low-carbon trips in cities. In accordance with the City's Transportation 2040 plan the City continues to support early deployment of low-carbon and electric vehicles, and scooters could play a role in the future transportation mix. As the City continues to monitor the shared electric scooter industry a number of opportunities and challenges were identified from our peer cities and City staff discussions with various operators.

1. Safety

Research by the US Centers for Disease Control (CDC) found a high injury rate exceeding that of bicycles (1.4) and motorcycles (10.3) at 14.3 injuries per 100,000 trips; 45% of incidents resulted in head injuries. Possibly because of the ease and low initial cost of a first trip about 33% of incidents occurred during the first ride of a person on a shared electric scooter. There have been reports of conflicts and injuries between people walking and people riding shared scooters often illegally on sidewalks as well as incidents caused by improperly parked scooters blocking sidewalks and roads. A high proportion of injuries involved potentially preventable risk factors, such as lack of helmet use, or motor vehicle interaction and improved infrastructure may improve safety for all road users. The industry is looking to improve upon their current operations through redesign of their equipment, education and training programs and improvements to infrastructure. Staff are continuously monitoring these developments and communicating with operators.

2. Equity

Staff have identified requirements for shared mobility systems to ensure that people have equitable access to mobility and to align with City goals around equity and inclusion. These requirements include: discounted monthly or annual plans, a continuous service area, including vulnerable neighborhoods, engagement by the operators with local communities to ensure access to the system for all, including the unbanked, and people without access to a smartphone. Currently scooter operators in other jurisdictions do not meet most of these requirements.

3. Public realm

Shared scooters in other cities have highlighted a number of challenges in the public realm. These challenges include

- improperly parked scooters which can block safe egress from buildings, create a tripping hazard or limit accessibility to people walking particularly those with accessibility needs,
- the visual clutter of improperly parked scooters, and
- the challenge of balancing competing needs for use of public space.

Staff have shared concerns regarding the many demands for mobility and activation within our public realm with industry representatives.



Picture 3 shows a parked electric scooter tipped over on a sidewalk



Picture 4 shows parked electric scooters creating a tripping hazard

4. Sustainability

With the declaration of a climate emergency it has become even more important to ensure that a potential new transportation mode will support sustainability goals, not counteract them. There have been reports of scooters only lasting a few weeks before they reach the end of their lifecycle with no clear recycling process in place. It has been reported that 42% of shared electric scooter trips are replacing walking and personal bicycling trips. A better understanding of electric scooter-related emissions is needed to help evaluate the climate impact of electric scooter trips.

Current regulations

The Province regulates the use of all motor vehicles, including low-powered vehicles like electric scooters, on the roadway and the sidewalk adjacent to the roadway through the Motor Vehicle Act (MVA) which governs most city streets. The City's regulation is limited to the use of park paths and the seawall through the Street and Traffic Bylaw and Parks Control Bylaw.

At this time, both Provincial and City regulations prohibit the use of low-powered vehicles such as electric scooters, motorized hover boards, unicycles, electric skateboards and Segways on all public rights of way. The only exceptions are motorized wheelchairs and electric-assisted bicycles.

The City continues to monitor the electric scooter industry through its commitment to support sustainable (micro)mobility, and connect with sharing companies as well as with municipalities where electric scooters have been introduced. Other micromobility modes such as shared electric bikes (e-bikes) are also being explored by staff which have shown to support active transportation, have a greater gender balance and age range amongst users, and greater likelihood to displace longer motorized (internal combustion) modes and transit. The City is committed to balancing safety and transportation needs with land use, and concerns exist around safety, equity, public realm, and sustainability.

Staff look forward to continued discussions with industry representatives reflecting the considerations outlined in this memo and will report back if regulations are changed or the local industry changes.

If you have any questions, please do not hesitate to contact me directly.



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General Manager, Engineering Services

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