

Additional Background on Cargo E-bikes and Proposed By-Law Amendments

Date: June 7, 2021

To: City Council

From: General Manager, Transportation Services

Wards: All

SUMMARY

Online shopping and economic recovery post-COVID-19 will continue to increase demand for deliveries. Cargo e-bikes are bicycles with additional storage and carrying capacity, and an electric motor to assist cyclists pedalling with the additional weight. They are an effective alternative to driving for residents and businesses transporting shopping and deliveries. Benefits include reducing traffic congestion, pollution and greenhouse gas emissions in the city. Piloting cargo e-bikes is a strategic action in the City's Freight and Goods Movement Strategy to reduce impacts of urban goods delivery on city streets. City Council adopted by-laws in July 2020 to allow the use of pedal-assisted cargo e-bikes, weighing not more than 120kg unladen, on cycle tracks. They were already allowed on streets and bike lanes.

On March 1, 2021 the Province released *O.Reg 141/21 Pilot Project – Cargo Power-Assisted Bicycles* and recently changed the weight threshold for cargo e-bikes to 55kg unladen. Municipalities need to opt-in to pilot the use of any cargo e-bikes greater than 55kg unladen. Recommendations to City Council in *Item IE22.15 Regulatory Clarity for Cargo E-bikes*, adopted by the Infrastructure and Environment Committee on May 25, 2021, will opt-in to the province's pilot project. This will allow residents and businesses to continue using cargo e-bikes, weighing not more than 120kg unladen, on streets, bike lanes and cycle tracks as envisioned by Council in July 2020. In addition, City staff are requested to develop a pilot project for larger cargo e-bikes (greater than 120kg unladen) for commercial deliveries for report back in the fourth quarter of 2021.

City staff are currently consulting with key stakeholders to prepare a micromobility report encompassing all different types of e-bikes, including a proposed pilot for larger cargo e-bikes (over 120kg unladen) by the fourth quarter of 2021. This timing allows City staff to review provincial regulatory updates expected this summer on e-bike types, as well as to consult with key stakeholders from the delivery industry, business improvement areas, cycling and road safety groups, and other relevant stakeholders.

FINANCIAL IMPACT

There are no direct financial implications resulting from the adoption of this report.

The Chief Financial Officer and Treasurer has reviewed this report and agrees with the financial impact information

DECISION HISTORY

On May 25, 2021, the Infrastructure and Environment Committee adopted recommendations to City Council in Item IE22.15 Regulatory Clarity for Cargo E-bikes that opt-in to the Province's pilot project for cargo e-bikes. This would allow cargo e-bikes, weighing not more than 120kg unladen, on streets, bike lanes and cycle tracks – in alignment with City Council's July 28, 2020 directions on cargo e-bikes and the City's Freight and Goods Movement Strategy. City staff in Transportation Services are to report back on a micromobility strategy on all e-bike types and a pilot project for larger cargo e-bikes (over 120kg unladen) for the fourth quarter of 2021.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.IE22.15>

At its meeting on October 27, 28 and 30, 2020, City Council adopted Item IE16.1 Freight and Goods Movement Strategy that included a strategic action to implement a cargo e-bike pilot with partners such as courier companies and to promote cargo e-bike usage to reduce impacts of urban goods movement on the City's streets.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.IE16.1>

At its meeting on July 28 to 29, 2020, City Council adopted by-law amendments arising from Item IE14.11 Regulatory Clarity for E-Cargo Cycles that allow pedal-assisted cargo e-bikes weighing not more than 120 kilograms on bike lanes and cycle tracks; and requested that City staff work with key stakeholders including the Province on regulatory clarity for different types of e-bikes and cargo e-bikes.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.IE14.11>

On June 29 to 30, 2020, City Council through Member Motion 22.41, directed the General Manager, Transportation Services, among other things, to consult "...with relevant Divisions, to report to the Infrastructure and Environment Committee on July 9, 2020 with proposed by-law amendments to support cargo cycles weighing over 40 kg to be used on bicycle lanes and cycle tracks under Chapter 886 of the Toronto Municipal Code."

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.MM22.41>

On April 25, 2019, the Infrastructure and Environment Committee requested a report back on a proposed regulatory framework, safe road design and intersection requirements for low-speed wheeled modes under 25 km/hr, including cargo cycles, and e-assist cycles in Toronto.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.IE4.5>

COMMENTS

Background

Online shopping and economic recovery post-COVID-19 will continue to increase demand for deliveries in the long-term. Pedal-assisted cargo e-bikes are bicycles with additional storage and carrying capacity, and an electric motor to assist cyclists pedalling with the additional weight (see Figures 1, 2 and 3). They are an effective alternative to cars, vans and trucks for residents and businesses transporting shopping and deliveries. Piloting cargo e-bikes is a strategic action in the City's Freight and Goods Movement Strategy to reduce impacts of urban goods delivery on city streets.

Benefits of cargo e-bikes include reducing traffic congestion, pollution and greenhouse gas (GHG) emissions in the city. Given these benefits, Toronto City Council adopted *Item IE14.11 Regulatory Clarity for E-Cargo Cycles* at its July 28, 2020 meeting to allow the use of pedal-assisted cargo e-bikes, weighing not more than 120kg unladen, on cycle tracks. They were already allowed on streets and bike lanes.

Provincial Regulatory Updates

In December 2020 Transportation Services staff participated in a municipal stakeholder consultation conducted by the Ministry of Transportation in Ontario (MTO) on proposed cargo e-bike and e-bike policy changes. A brief update was shared by MTO in January 2021 as part of a broader set of transportation safety proposals. MTO did not share, however, any draft language on the proposed regulatory changes for cargo e-bikes and e-bikes with City staff prior to recent regulatory updates; and City staff were not given information on the timing of the regulatory changes below.

In response to the province's updates outlined below, City staff are aware of ongoing concerns from various stakeholders, including delivery companies, local retailers and cycling groups, regarding:

- Lack of regulatory coordination and consistency across jurisdictions that affect manufacturers, distributors/retailers and customers, limitations on innovation, and lack of adequate standards for cargo e-bikes and e-bikes in Ontario and in Canada.
- Issues include gaps in addressing cargo e-cycles with more than three wheels for stability, the prohibition on cargo cycles being allowed to tow containers, and the lack of safety standards, testing and labelling for cargo e-bike products.

On March 1, 2021, the Province released *O.Reg 141/21 Pilot Project – Cargo Power-Assisted Bicycles* and more recently, on April 29, 2021, changed the weight threshold for cargo e-bikes to 55kg. This means that any cargo e-bikes weighing 55kg and under are allowed to be operated in Ontario without requiring municipalities to opt-in to pilot them.

Please see *Figure 1 - Example of cargo e-bikes 55kg unladen and under.*

Figure 1 - Example of cargo e-bikes weighing 55kg unladen and under. Allowed in Ontario without opting-in to pilot.

(Photo credit: Cycling Magazine)



Municipalities need to opt-in to the Province's pilot project to allow residents and businesses to use cargo e-bikes that weigh greater than 55kg unladen.

Updating Toronto's By-Laws to Pilot Cargo E-bikes

Under new provincial regulations, municipalities can opt-in to pilot larger types of cargo e-bikes by changing their by-laws to specify where these vehicles are allowed. The policy intent of specifying weight thresholds in the provincial regulations is to enable flexibility and control through local by-laws on where different cargo e-bikes are allowed, e.g., roads, bike lanes, cycle tracks, or trails/paths.

As of July 28, 2020 Toronto had already allowed cargo e-bikes on streets, bike lanes and cycle tracks if weighing not more than 120kg unladen, with a continuous rated output power not exceeding 500 watts. Toronto by-laws were linked to definitions of power-assisted bicycles in federal and provincial regulations that were recently repealed or changed. The City's by-laws need amending to align with these new definitions, and to restore what City Council had approved on July 28, 2020 in *Item IE14.11*. Please see *Figure 2 - Examples of cargo e-bikes weighing not more than 120kg unladen.*



Figure 2 – Examples of cargo e-bikes weighing not more than 120kg unladen. Their use was supported by Council's adoption of IE14.11 in July 2020. Existing by-laws need amending to pilot such cargo e-bikes according to recently updated provincial regulations.

(Photo credits: Centaur and Babboe)

The cargo e-bike recommendations adopted by the Infrastructure and Environment Committee on May 25, 2021 will achieve the following:

- Allow pedal-assisted cargo e-bikes on the City's streets, bike lanes and cycle tracks as long as they do not weigh more than 120kg unladen and do not have a continuous rated output power that exceeds 500 watts, which reflects Council's direction from July 2020;
- Not allow pedal-assisted cargo e-bikes to be left in a manner that blocks pedestrian or vehicular traffic;
- Not allow pedal-assisted cargo e-bikes to be ridden on sidewalks;
- Not allow pedal-assisted cargo e-bikes to be ridden on certain highways such as expressways;
- Allow the City Solicitor to update the wording for set fines to reflect the new terms and definitions in the City's by-laws; and
- Request that City staff report back on a micromobility strategy addressing all different types of e-bikes, including a pilot project for larger cargo e-bikes weighing greater than 120kg for commercial deliveries, for the fourth quarter of 2021. This is pending expected regulatory updates by the Province on e-bike types, as well as further stakeholder consultation outlined below.

In developing the recommendations for cargo e-bikes in July 2020 and more recently on the regulatory clarity for cargo e-bikes in Toronto, City staff consulted with key stakeholders including delivery companies such as DHL, FedEx and Purolator; local retailers; cycling groups and other active transportation and road safety stakeholders; as well as internally with relevant units and Divisions. No changes are proposed at this time regarding use of pedal-assisted e-bikes over 40kg unladen on parks, trails and paths, given Parks, Forestry and Recreation's concerns with mixing people including pedestrians, joggers, and families with children in public spaces such as multi-use paths and trails with e-bikes and cargo e-bikes of greater weights.

Opportunity for Larger Cargo E-bike Pilot

As part of the Province's pilot project for cargo e-bikes, the City has an opportunity to pilot larger cargo e-bikes weighing greater than 120kg unladen for commercial deliveries, which was identified as a strategic action in the City's Freight and Goods Movement Strategy to reduce impacts of urban goods delivery on the City's streets. Please see *Figure 3 - Example of cargo e-bikes weighing more than 120kg unladen*.



Figure 3 – Example of cargo e-bikes weighing more than 120kg unladen
Recommended for report back in fourth quarter of 2021 after further
consultation with key stakeholders.

(Photo credit: Bike Portland)

City staff are currently consulting with key stakeholders and preparing a report back on a micromobility strategy encompassing all different types of e-bikes, including proposed regulations for larger cargo e-bikes (over 120kg unladen), by the fourth quarter of 2021. This timing will allow City staff to review all provincial regulatory updates that are anticipated sometime this summer on different types of e-bikes, as well as to consult with key stakeholders from the delivery industry, business improvement areas, cycling and road safety groups, and other relevant stakeholders.

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