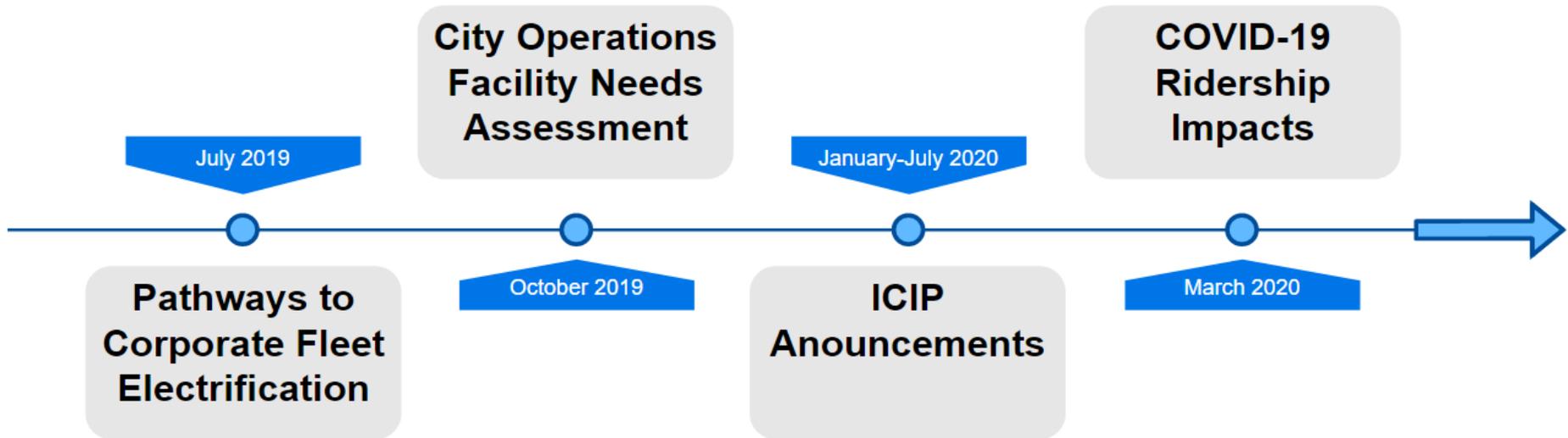


# **City Operations Campus – Part 1: Transit Electrification**

September 8, 2020  
Committee of the Whole

Bryan Ho-Yan, M.A.Sc., P.Eng., CEM,  
Manager, Corporate Energy and Climate Change

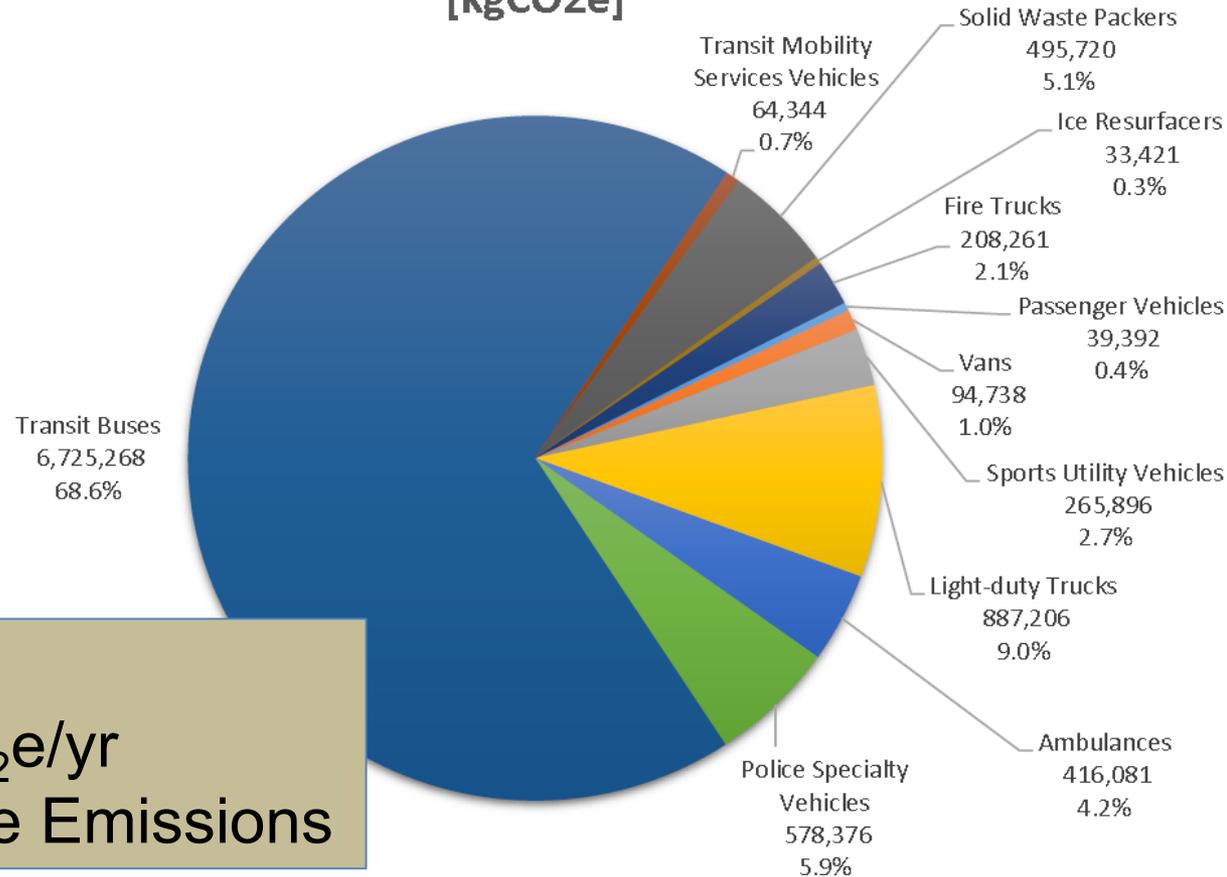
# Background



# Background

## Pathways to Electrify Fleet

Estimated Total GHG Emissions by Vehicle Group  
[kgCO<sub>2</sub>e]



### Transit Diesel Buses:

- 6,700 tonnes CO<sub>2</sub>e/yr
- 69% of Corporate Emissions

# Background

## City Operations Facilities Needs Assessment

**October 21, 2019** – That staff be directed to proceed with planning and design for a consolidated City Operations Campus consisting of operations facilities for Transit, Operations, Fleet Maintenance, and Corporate Building Maintenance located on the City owned Dunlop Drive property and that the final decision on a new city operations campus be determined following the presentation of a detailed business case and staging plan being provided to Council.



# Background

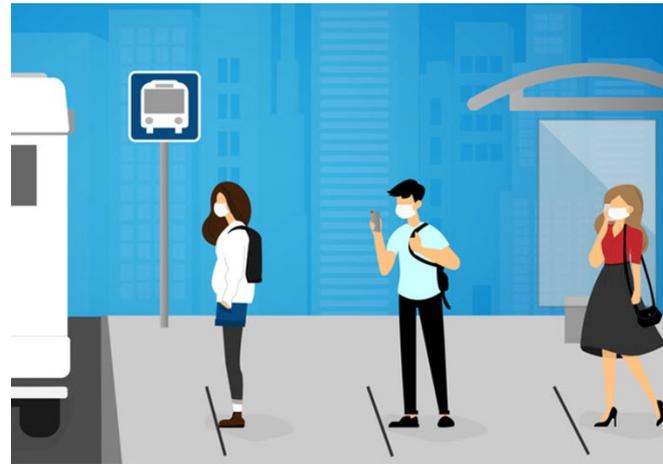
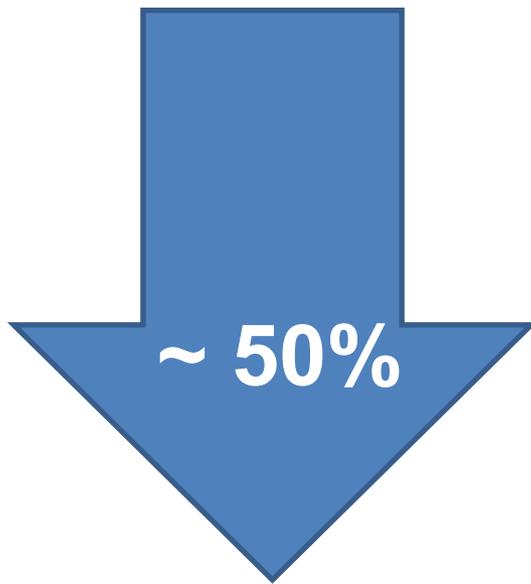
## Related ICIP Funding Breakdown

FUNDING APPLICATION	FEDERAL CONTRIBUTION	PROVINCIAL CONTRIBUTION	MUNICIPAL CONTRIBUTION	TOTAL ESTIMATED PROJECT BUDGET
ICIP-GUE-01 BUS FLEET EXPANSION	\$9,828,000	\$8,190,000	\$22,932,000	\$40,950,000
ICIP-GUE-03 NEW GUELPH TRANSIT STORAGE FACILITY	\$18,914,280	\$15,756,418	\$52,115,302	\$86,786,000
ICIP-GUE-04 BUS FLEET ELECTRIFICATION	\$12,012,000	\$10,008,999	\$29,009,001	\$51,030,000
<b>TOTAL</b>	<b>\$40,754,280</b>	<b>\$33,955,417</b>	<b>\$104,056,303</b>	<b>\$178,766,000</b>

- Federal and Provincial Government contribution:
  - Total estimated cost – 42%
  - New electric transit facility – 40%

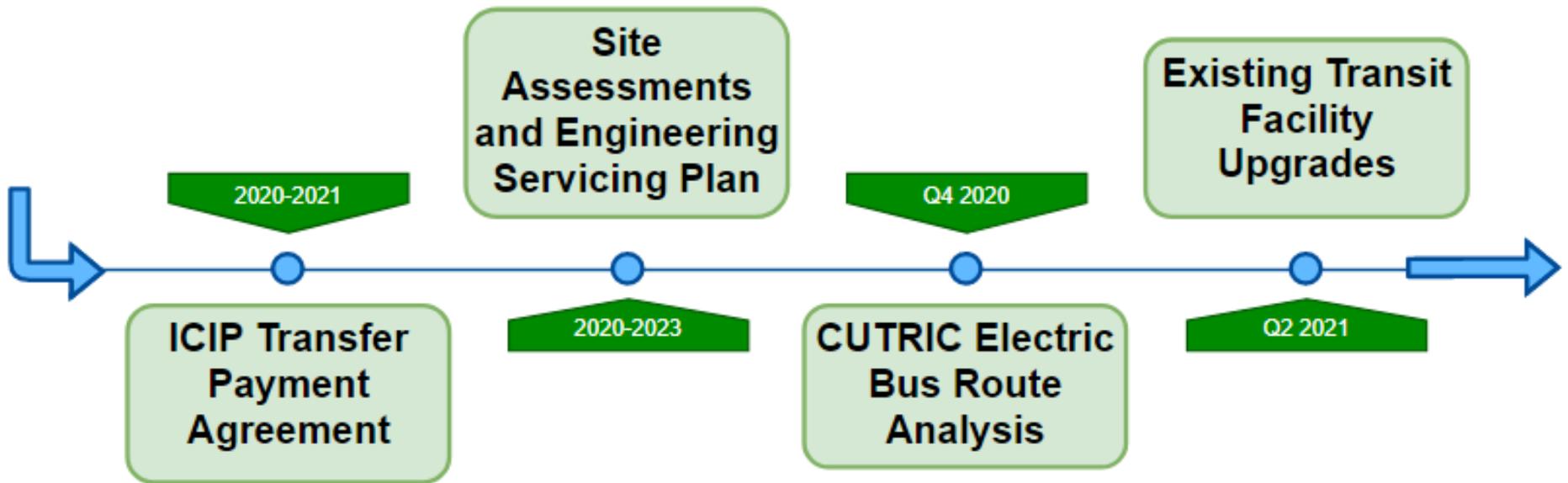
# Background

## COVID-19 Ridership Impacts



# Next steps

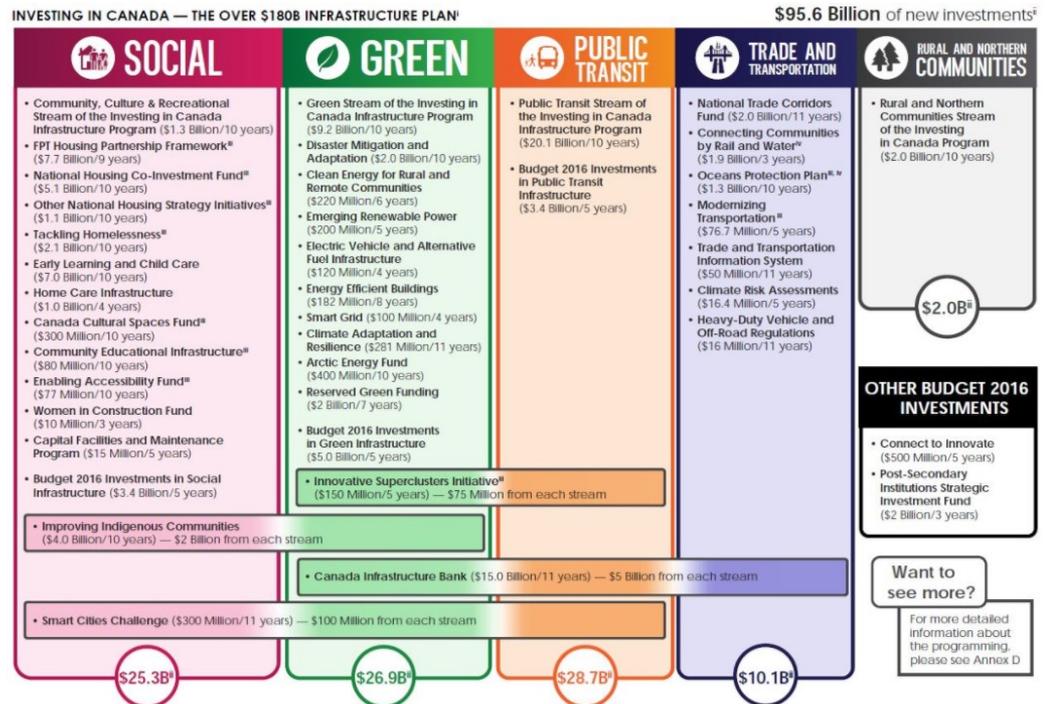
## Short-Medium Term



# Next steps

## Investing in Canada Infrastructure Program-ICIP

- Transfer payment agreement
  - Receive draft
  - Review and negotiation



# Next steps

## Existing Transit Facility Upgrades

- Moderate electrical upgrades
- Install up to 4x electric bus chargers (temporary)
- Preparation for lifecycle replacement with electric bus



# Next steps

## New Electric Transit Facility

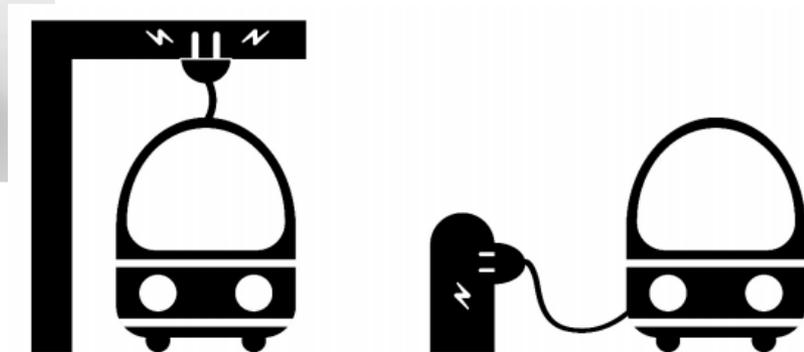
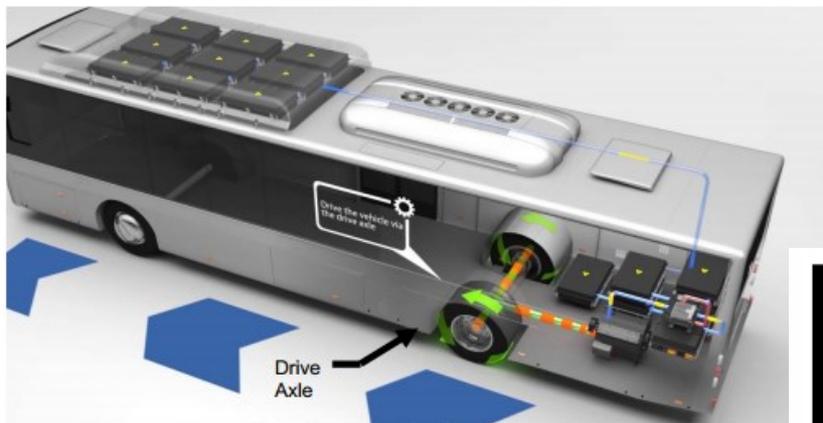
- Environmental planning
- Engineering services
- Site layout (City Operations Campus)
- Concept facility design (Electric Transit Facility focus)



# Next steps

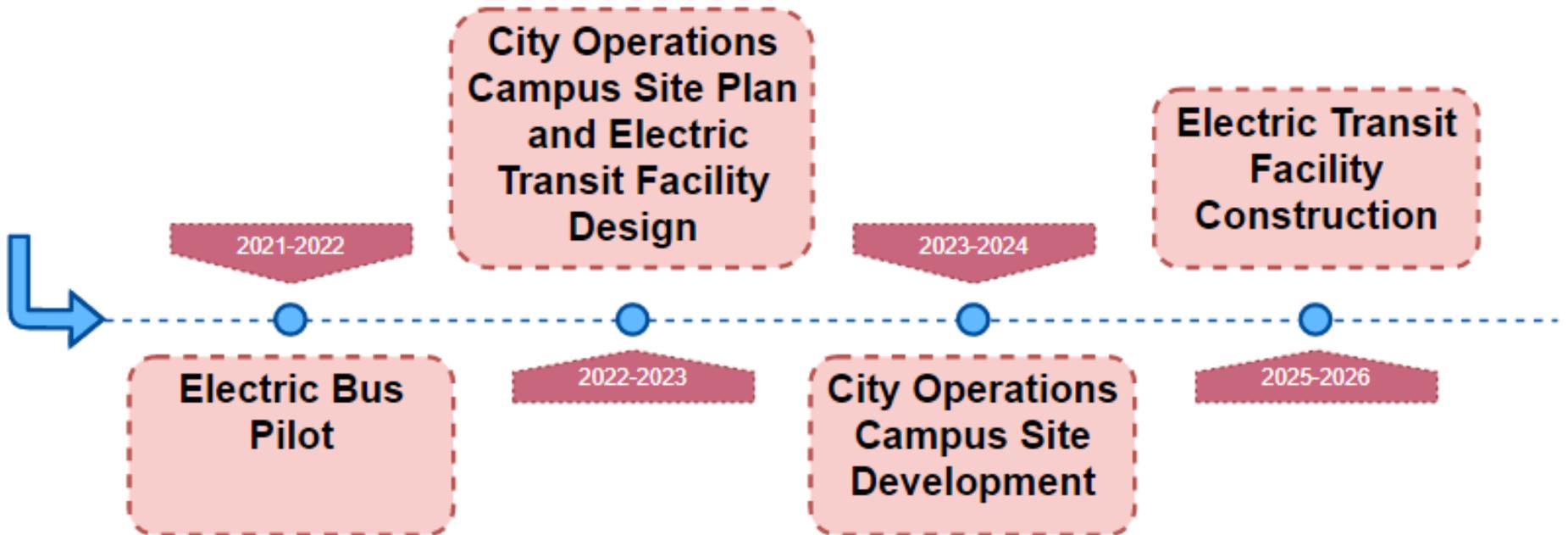
## Electric Transit Bus Fleet

- Detailed route analysis
  - Bus battery sizing
  - Electrical charging infrastructure requirements



# Next steps

## Long Term



**Thank you**