

City Operations  
Urban Planning and Economy

Edmonton

## **Overview of City Hydrogen Activities**

Item 7.5  
May 2, 2023  
Urban Planning Committee

# WHAT'S NEXT

## Edmonton Position in H2 Sector



## Evolved Technology in Transit Sector

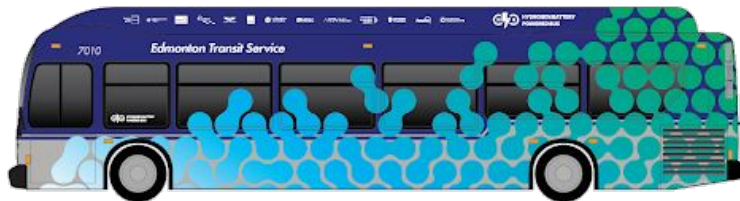


- Fuel Cell Technology
- Potential to meet program outcomes

## Emissions Reduction Alberta (ERA) Opportunity



- Alberta Zero Emissions Hydrogen Transit Project (AZEHT)



## HOW: THE APPROACH

- 1** **FUELLING STATION**
- 2** **FLEET CONVERSION**
- 3** **TRANSIT GARAGE**



# 1

## FUELLING STATION



Volume  
dictates fleet  
transition



Location for  
future piped H<sub>2</sub>  
transition



RFI to RFP



Public vs.  
Private access

- Drive demand
- Build H<sub>2</sub> economy



Partner for over  
billion \$  
program



Edmonton

## FUELLING STATION RFP

Vendors/respondents are to provide:



1

**End-to-end  
Fuelling Station  
Solution**

(e.g. build,  
operations and  
maintenance)

2

**A Reliable  
Source  
of H<sub>2</sub>**

3

**Fuelling station  
Maintenance for  
contract duration**

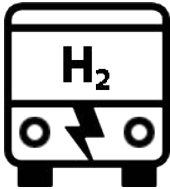
4

**Demonstrate  
station expansion  
and evolution**

Meet changing  
needs of fleet and  
private sector

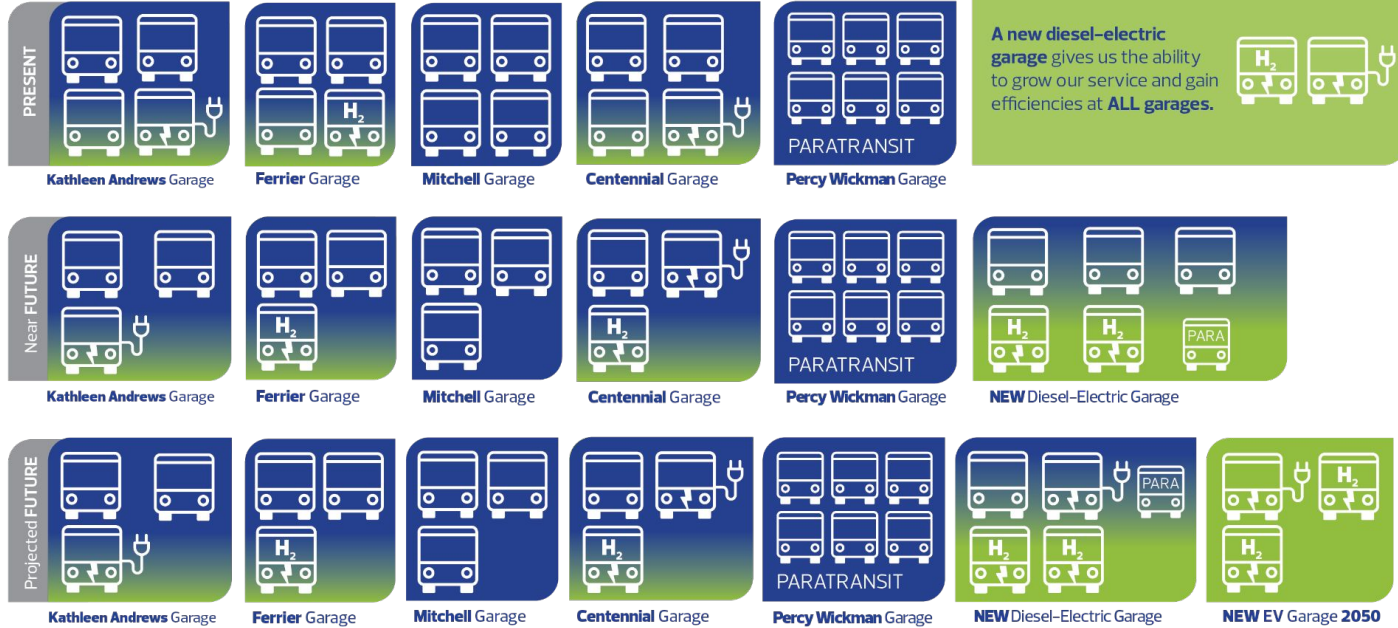
## 2

## FLEET CONVERSION



- Over 40% reaching retirement age
  - Up to 440 vehicles in next 4-6 yrs
- Centennial Garage
  - Up to 250 Vehicles
- New Transit Garage
  - Up to 350 - 400 Vehicles
- Represents opportunity of over 20 tons H<sub>2</sub>/day

## TRANSIT GARAGE



## SEIZING THE OPPORTUNITY

- 10 year window to capitalize on the use of hydrogen
  - Being dubbed as “hydrogen gold rush”
- Expand to municipal fleet and facilities



World-leading hydrogen energy provider

- Fueling station is the catalyst
- Leading distributor of H2
- Transform and secure economy



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# Thank You

City Operations  
Urban Planning and Economy  
[edmonton.ca/changeforclimate](https://edmonton.ca/changeforclimate)

The logo for the City of Edmonton, featuring the word "Edmonton" in white text on a dark blue square background.