### **Canadian Urban Transit Research & Innovation Consortium**

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#### About CUTRIC

- The Canadian Urban Transit Research & Innovation Consortium (CUTRIC) is a non-profit organization that is focused on launching technology and commercialization projects that advance zero-carbon mobility and transportation solutions across Canada
- CUTRIC has developed simulation tools which help transit agencies gauge the performance of Battery Electric, Hydrogen Fuel Cell & Autonomous Smart Vehicles, based on parameters defined by the associated transit networks

## Roles & Responsibilities

- Assist with the planning and coordination of CUTRIC's Zero Emission Transit & Mobility Conference
- Responsible for quality check of transit agency technical deliverables
- Synchronize data collection for a Canadian Zero Emissions Bus database
- Assist, plan, and organize R&D Innovation Series focused on themes of Electrification & Energy Storage, Hydrogen Fuel Cell and Autonomous Shuttles
- Research market segments and gather competitive information to support business development

## Industry Insights

- Transit agencies are exploring a multitude of options when it comes to reducing fleet emissions, with Battery Electric, Hydrogen Fuel Cell and Renewable Natural Gas technologies all playing a role
- Battery Electric is the most promising candidate, exhibiting a potential 80-98% GHG Emission reductions (contingent upon provincial grid carbon intensity)
- Hydrogen Fuel Cell Pilot Studies are underway in Canada (Edmonton + Strathcona) to gauge real world performance, but the technology faces challenges stemming from Green Hydrogen availability, infrastructure & pricing
- Some transit routes are challenging from an electrification lens and agencies need to strategically evaluate charging infrastructure (type and deployment)
- Getting transit to net-zero requires collaboration between agencies, industry partners, utilities, academia and government

#### Innovation Pillars



Zero- and low-emissions propulsion



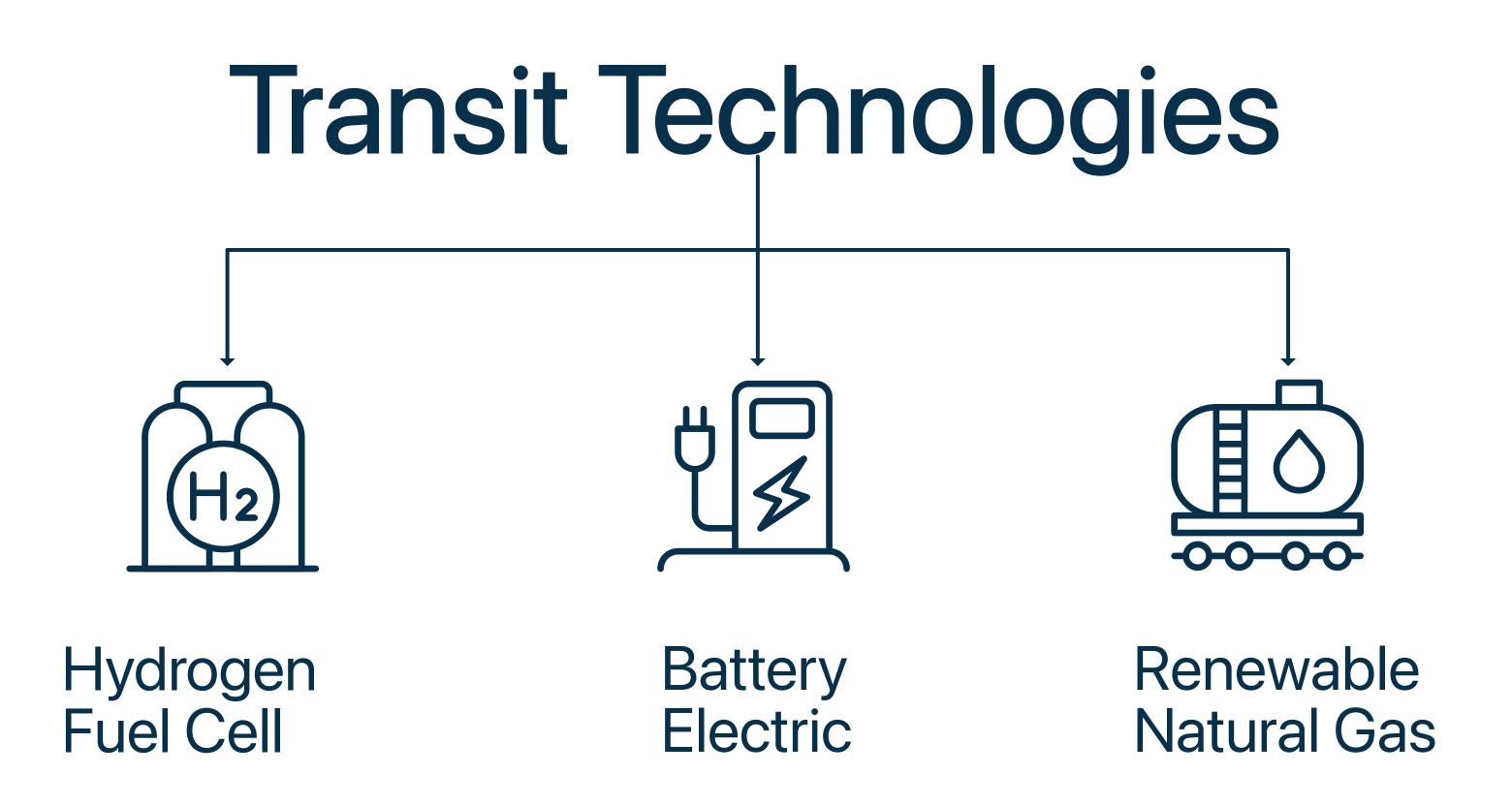
Smart vehicles and smart infrastructure



Big Data for mobility analytics



Cybersecurity in mobility applications



# \$2.75 Billion 5,000 Buses

The \$2.75 Billion Zero Emission Transit Fund launched by the Government of Canada in 2021, offers funding to transit agencies electrifying their fleet

#### The plan covers:

- Planning Projects Studies, Modelling & Feasibility Analysis of capital projects
- Capital Projects Buses, Charging & Refueling Infrastructure