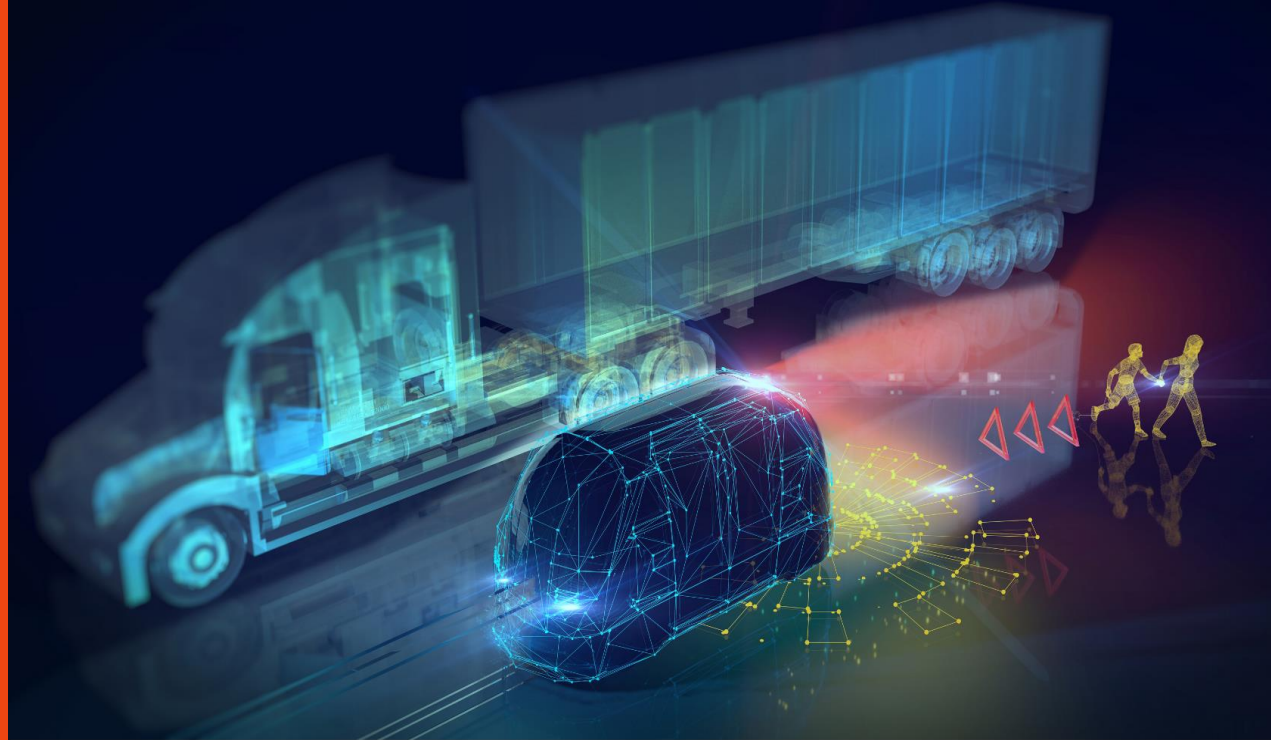


# AMTA Compliance and Regulatory Affairs



**Strategy - Additional Weights on Low Emission Vehicles**

# Federal Emission Targets – Canada

## Commercial Transportation Statistics

- In 2019, transportation was the second largest source of greenhouse gas (GHG) emissions at 25% of Canada's GHG emissions
- Between 1990 and 2019, GHG emission from the transportation sector grew by 54%

## Current Commercial Emission Targets

- 35% of all medium-and heavy-duty vehicles (MHDVs) sales being Zero Emission Vehicles (ZEVs) by 2030

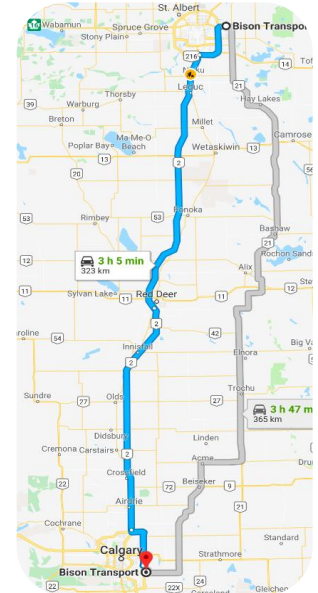


# Alberta Zero Emissions Truck Electrification Collaboration (AZETEC)

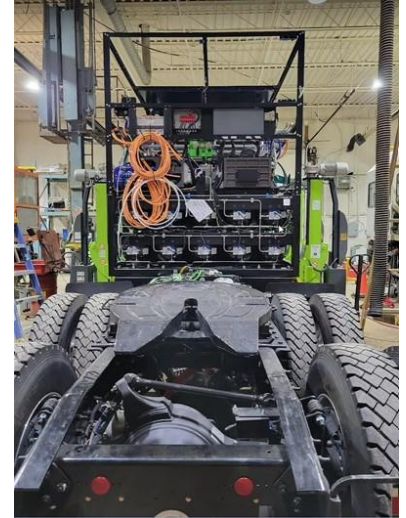


## Commercial Transportation

- Industry led
- Two heavy-duty hydrogen fuel cell electric vehicles (FCEV)
  - Canadian weights
  - Long-haul ranges
  - Canadian climate
- Hydrogen fueling infrastructure
  - 350 bar
  - 99.9997% pure
  - 50kg hydrogen in 20 minutes
- Edmonton to Calgary



# Heavy-Duty Fuel Cell Electric Vehicle (FCEV)



# Hydrogen Fueling – Terminal (Site 2)

**HTEC** Hydrogen trailer & gas transfer module



Hydrogen  
Storage  
Transfer  
Dispensing





# Hydrogen Vehicle Demonstrations

**Hydra** Hydrogen Diesel Dual Fuel  
May 2022  
February 2023 – December 2024



**Nikola** Fuel Cell Electric Vehicle  
May 2022  
June 2023 – June 2024



**Hyzon** Fuel Cell Electric Vehicle  
June 2022  
January 2023 – July 2023



# Hydrogen Vehicle Demonstrations

- Introduce Carriers to hydrogen (H<sub>2</sub>) Technology
- Create Opportunities for Carriers to Experience H<sub>2</sub> Technology
  - Vehicle Operations
  - Fueling
- Advance Regulatory processes through Government Collaborations
- Educate Industry & Support Road Safety
  - Driver Training Programs
  - Emergency Services Awareness
- Data collection and analysis



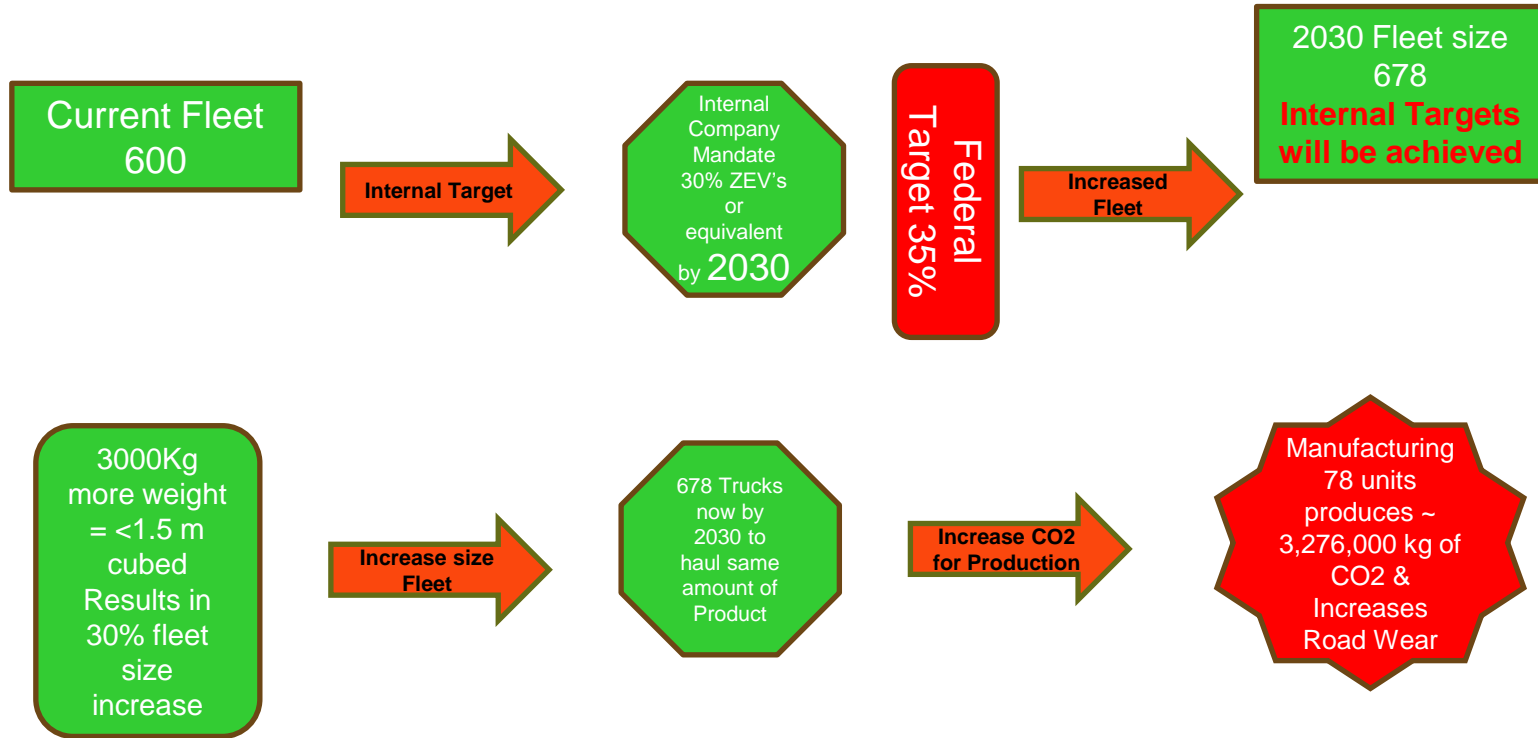
# Low Emission Vehicles and Additional Weights



Manufacturer	Model	Tare	Freightliner Daycab	Additional Weight
<b>Battery Electric</b>				
Lion	Straight Truck	9,997	8,675	1,322
Lion	EV 5 Battery	10,727	8,700	2,027
Lion	EV 6 Battery	11,339	8,700	2,639
Lion	EV 7 Battery	11,952	8,700	3,252
Lion	EV 8 Battery	12,564	8,700	3,864
Lion	EV 9 Battery	13,179	8,700	4,479
Volvo	EV VNR	11,113	8,700	2,413
Peterbilt	579 BEV Day Cab	11,375	8,700	2,675
Navistar	BEV (eMV607)	14,682	8,700	5,982
Nikola	EV	13,800	8,700	5,100
		Average		<b>3,375</b>
<b>Hydrogen Fuel Cell</b>				
Hyzon	Fcell	9,933	8,700	1,233
Nikola	Fcell	10,800	8,700	2,100
Future Fcell development Estimate				3,000
		Average		<b>2,111</b>
<b>Hydrogen Fuel Injection</b>			Weight of system only	
Hydra	H2/Hydrogen		8,700	970
DTI	Hydrogen Fuel Injection		8,700	680
		Average		<b>825</b>



# Real World Study – Concrete



What can we do to help create a plan....

# Recommendation

AMTA is recommending the following considerations be reviewed by both Alberta Transportation and Economic Corridors and consideration by the Canadian Weights and Dimensions Task Force.

1. The AMTA recommends that the Task force on weight and Dimensions consider that follow facts and develop a strategy to allow the Transportation industry to adopt this new low emissions technology for Commercial vehicles.
  - a. Currently all of the low emission technologies weigh from 825kgs to 3375kgs above the current tare weight of a day cab Freightliner Cascadia.
  - b. One example of meeting only 30% of low emission vehicles by 2030 would mean an additional \$ 30,030,000.00 dollars for one of our members which means it is not feasible even with the current grants. This federal target does not support any financial responsibility of a company thus it will not happen the company would need to increase Co2 by ~ 3,276,000 kg a year to meet the internal and Federal Canadian targets.
  - c. Ministry Mandate letters conflict with the current weight policies both Federally and Provincially in Alberta weight policies and regulations.
2. The AMTA recommends that the Task Force also please develop an ad hoc working group with industry to review, finalize and develop a practicable approach to adoption of these strategies.



A photograph of a white semi-truck driving on a highway, viewed from a front-quarter perspective. The truck is moving towards the viewer, and the background shows a blurred landscape under a clear sky.

Strategy - Additional Weight  
on Low Emission Vehicles

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TRANSPORTATION**  
Driving Lower Emissions in Alberta

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