



Green Fleet Strategy

October, 2021

Background

February 2021 Council Update

- ▶ Fleet GHG initiatives
- ▶ Target: 10% Light Duty ZEVs by 2023
- ▶ Applications for funding - Clean BC Go Electric Fleets



Clean BC funding

- ▶ Fleet Assessment
(Green Fleet Strategy)
- ▶ Electrical Infrastructure
Assessment



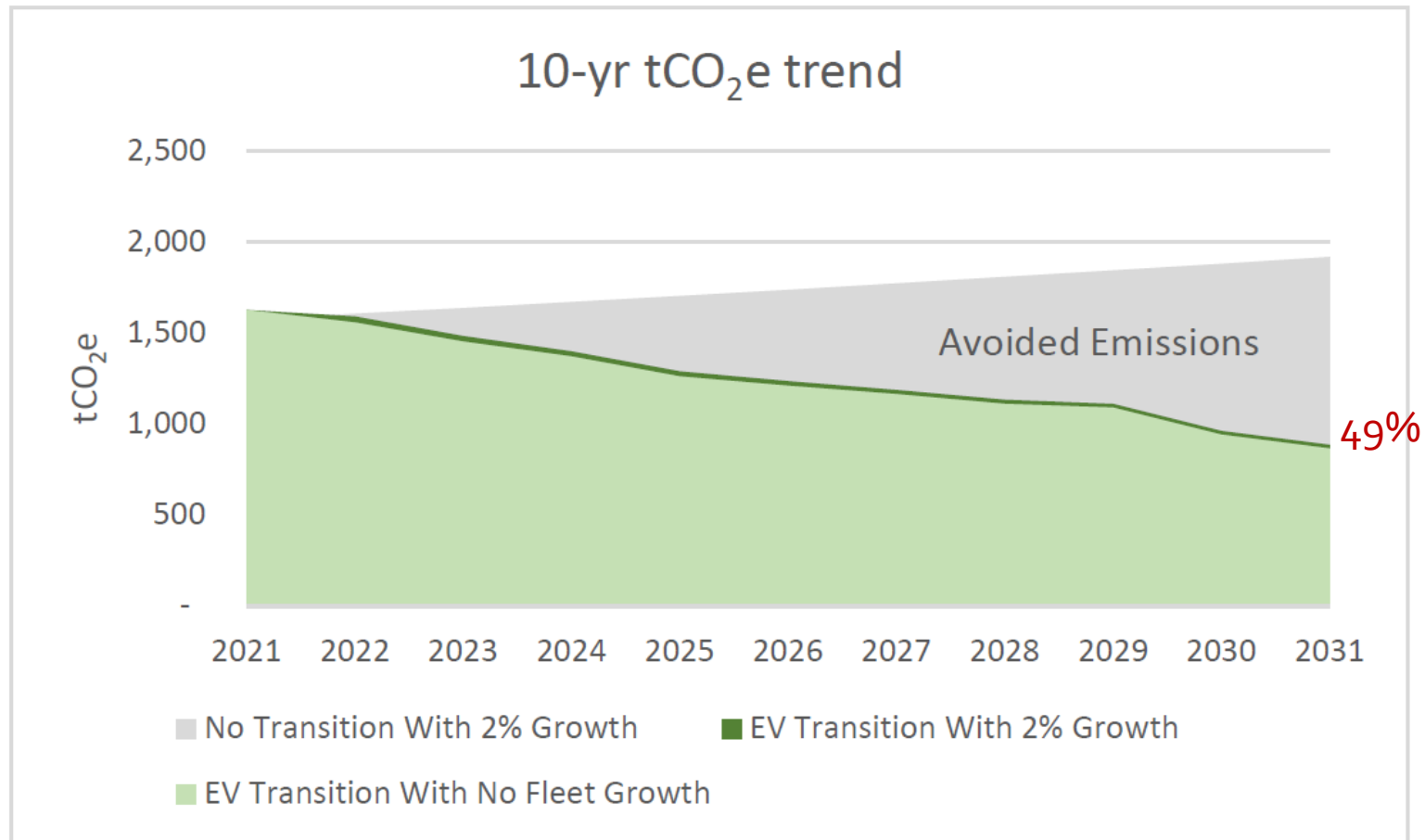
Key Findings

Current Fleet

- ▶ 267 on-road vehicles
- ▶ 1,648 tonnes GHG/yr
- ▶ Out of scope:
 - ▶ YLW
 - ▶ RCMP
 - ▶ Off-road equipment



Projected GHGs / Growth



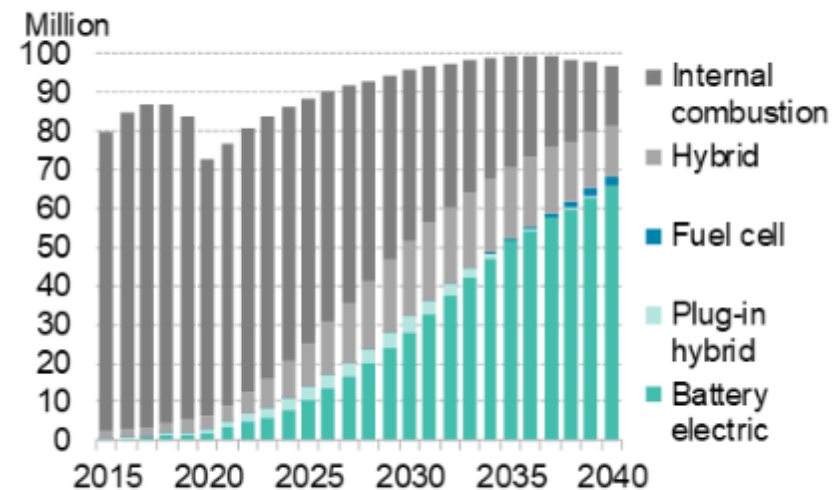
Prism Engineering, 2021

Limited ZEV availability

- ▶ Very limited availability in 2022
- ▶ 200+ models expected by 2023

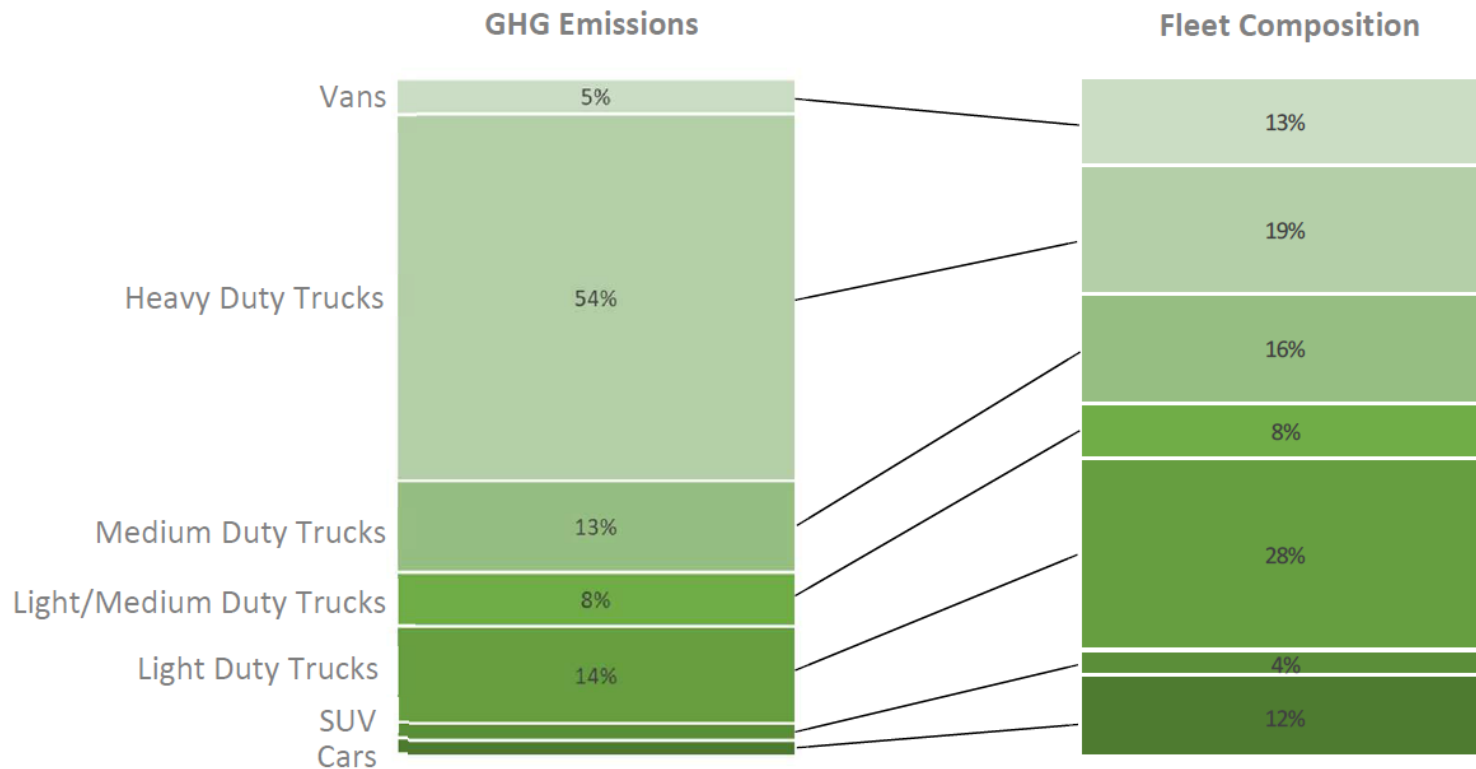


Global passenger vehicle sales outlook by drivetrain - Economic Transition Scenario



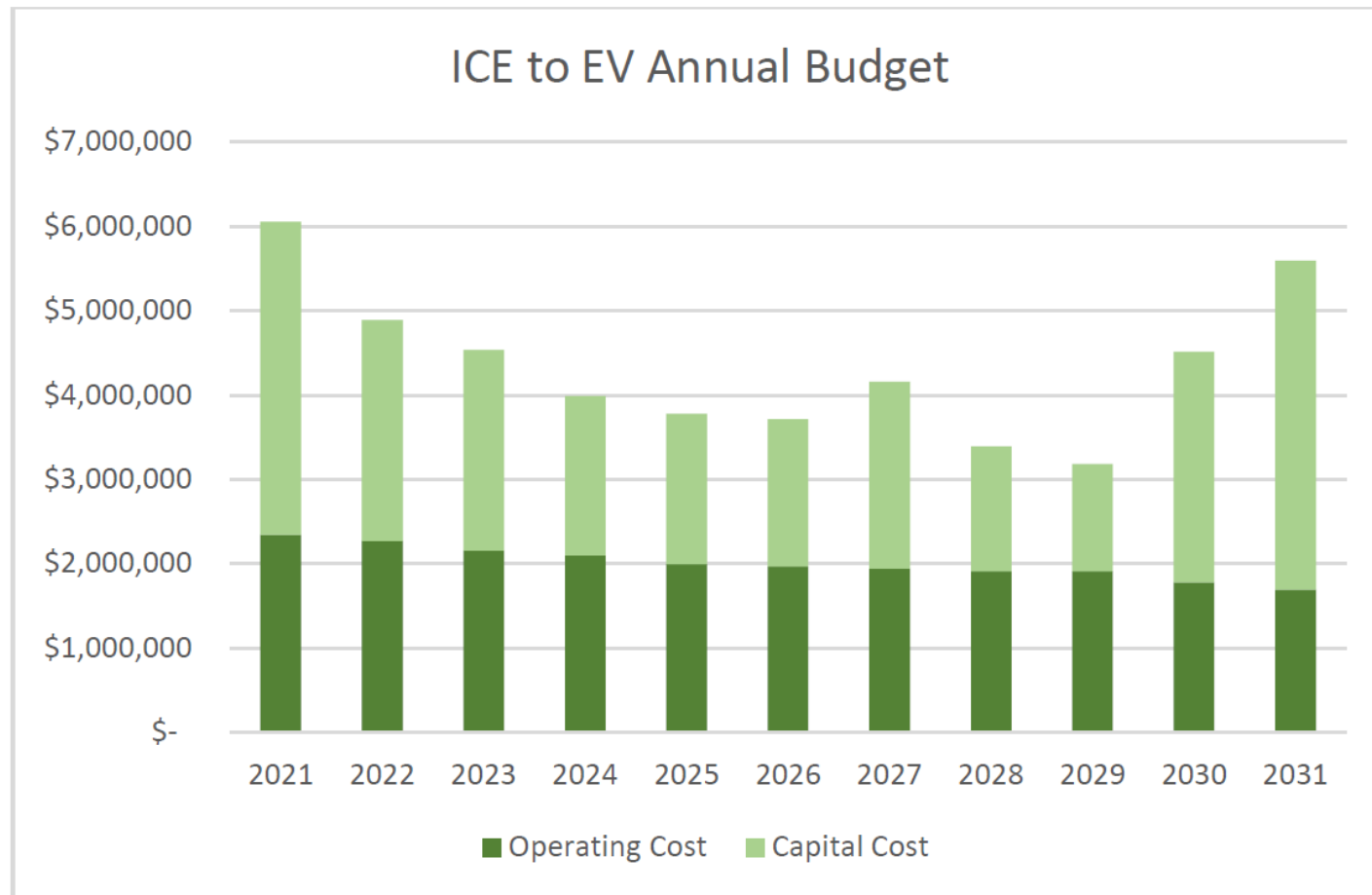
Source: BNEF.

GHG vs. Vehicle Types



Prism Engineering, 2021

Total Life Cycle costs



Prism Engineering, 2021

Electrical/Charging Upgrades

- Up to 137 Level 2 charging ports required

Facility	Max. EV chargers	Estimated capital cost
Public Works Yard	28	\$274,000 to \$299,000
Parks Yard	34	\$517,000
Landfill	5	\$90,000
Wastewater Treatment Facility	12	\$157,000
Library Parkade	15	\$89,000
Compost Facility	1	\$16,000
Field Office	6	\$89,000
Fire Hall No. 1	5	\$97,000
Windsor Road	19	\$351,000
City Hall	6	\$125,000

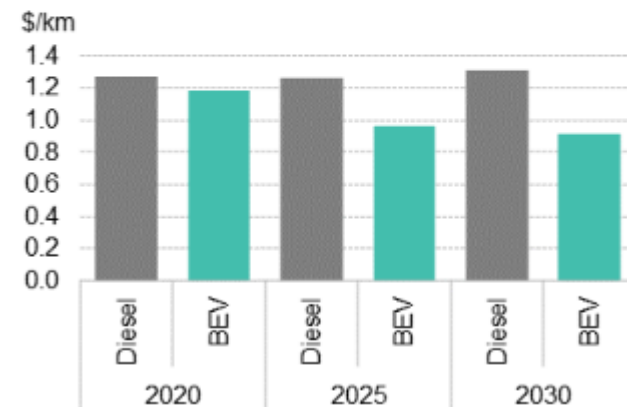
Struthers Technical, 2021

\$1.8 - \$1.83 million

Estimates Should Improve:

- ▶ Reduced ZEV capital costs
- ▶ Increased fuel/carbon tax costs
- ▶ Additional ZEV options (e.g. larger vehicles)

Total cost of ownership of a light commercial vehicle in urban duty cycles in Germany



Bloomberg NEF, 2021

Recommendations

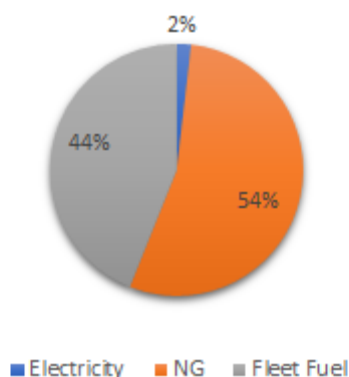
Recommendations

- ▶ All new fleet/replacement will be ZEVs as much as practical
- ▶ Annual ZEV target / capital plan adjustments
- ▶ Expand plan to off-road equipment
- ▶ Review/update/rename the Fleet Sustainability Policy



Recommendations

- ▶ Fleet-wide GHG reduction target of 27-32% below 2007 levels
 - ▶ Matches Provincial target
 - ▶ 2019 fleet GHGs 1% lower than 2007 (in spite of growth)



2019 Corporate GHG Emissions



Recommendations

- ▶ Apply for grants
- ▶ Continue other GHG reduction initiatives
- ▶ Report progress annually



Recommendations

- ▶ Include ZEV infrastructure in all future City facility construction
- ▶ Explore options for employee usage of chargers (during the day)





Questions?