



2023 Green Fleet Strategy Update

Roads, Parks and Forestry

Manager of Fleet: Paul Swioklo, P.Eng.



Agenda



1. Background



2. Fleet Transition Plan



3. Emissions and Targets



4. Budget



5. Infrastructure & Support



Background & Objectives



Objective: Revise and update Burlington's Green Fleet Strategy (2008) by completing the following:

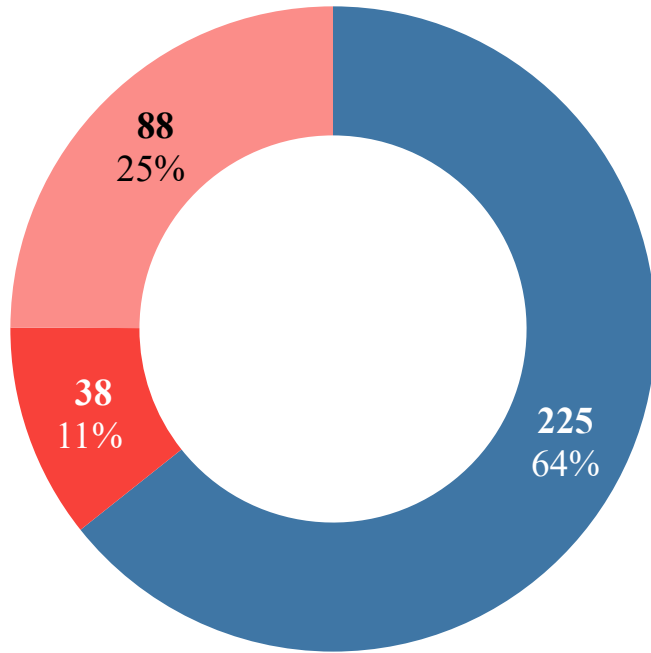
1. Comprehensive analysis of the existing fleet
2. Benchmark green fleet strategies and industry best practices with emerging/existing technology via market scan
3. Develop a transition roadmap for the fleet and budget in alignment to the City's goal of achieving net carbon neutrality by 2040
4. Assess existing EV charging infrastructure, future goals, and review pilot program(s) for green fleet initiatives



Existing Fleet Group & Vehicle Distribution



Fleet Size by Fleet Groups



■ Corporate ■ Fire ■ Transit



Corporate

Asset Value

\$28.8 million



Fire

Asset Value

\$24.4 million



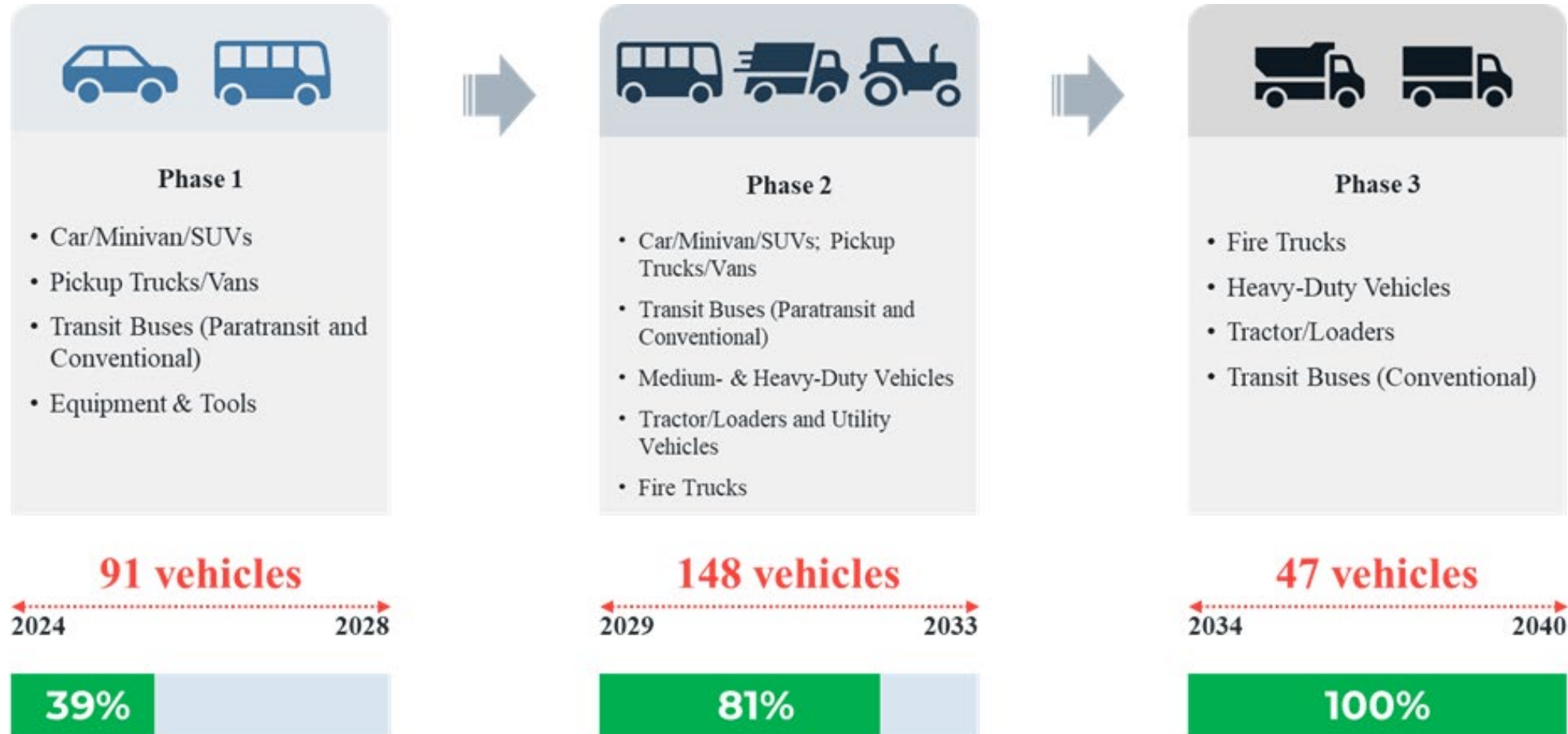
Transit

Asset Value

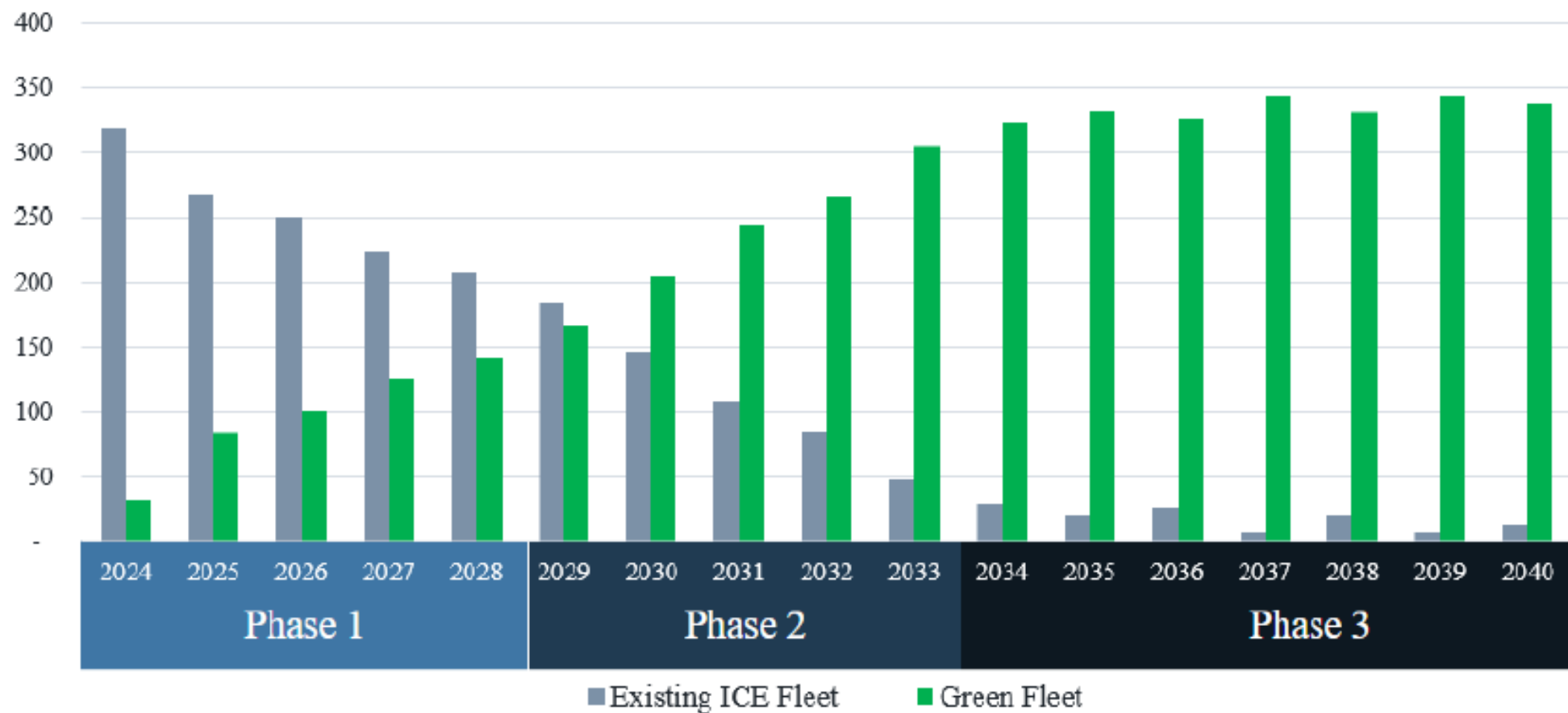
\$45.1 million



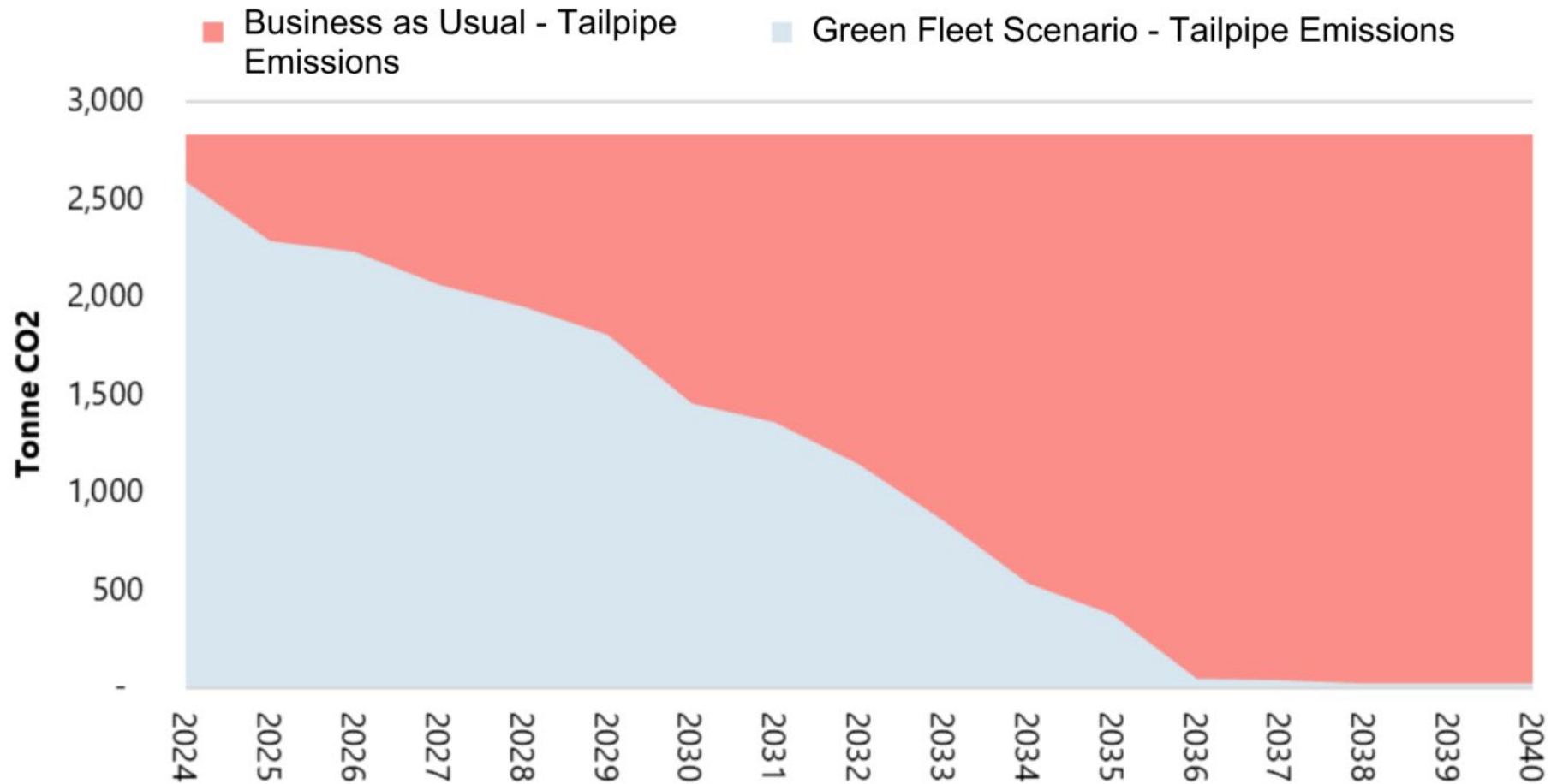
Fleet Transition Plan



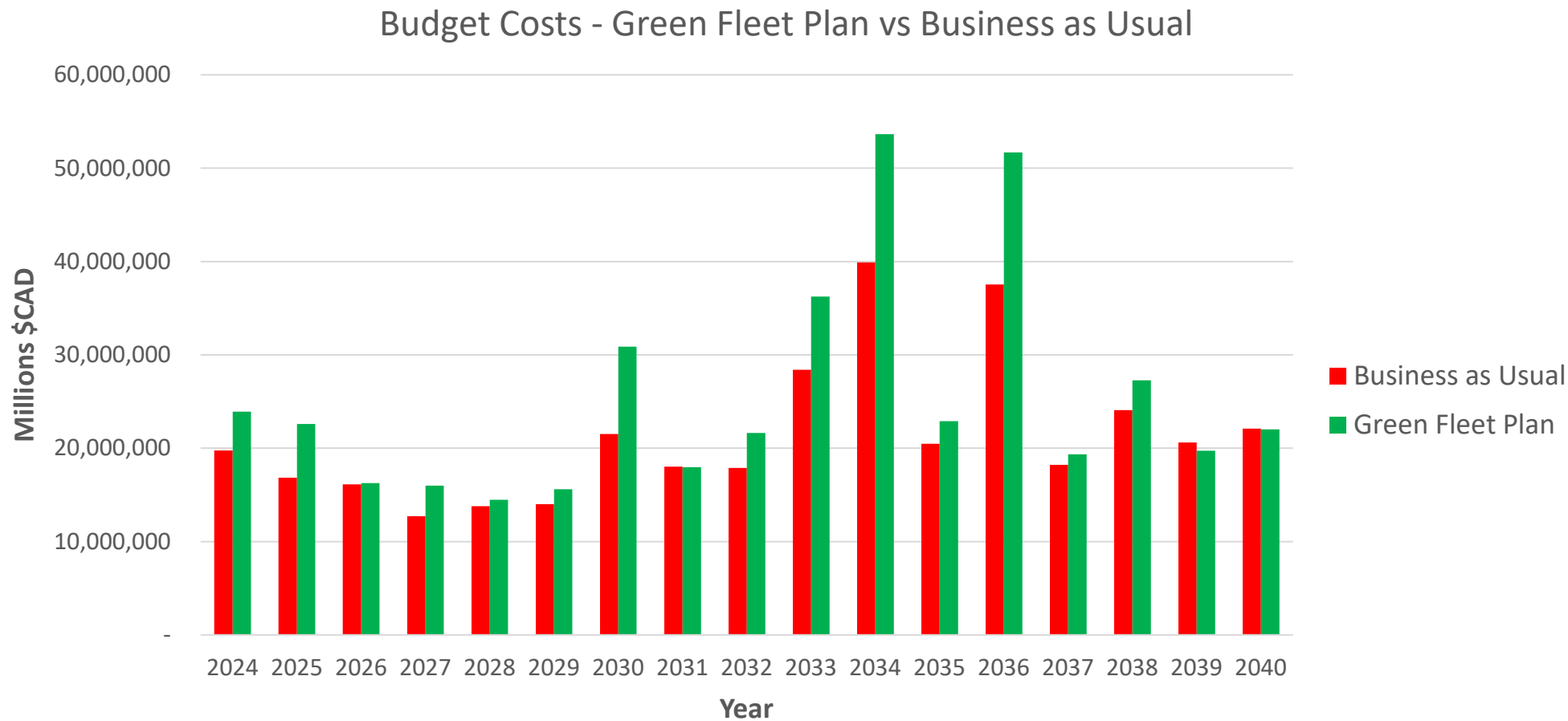
Fleet Transition Plan Continued



CO2 Emission Reduction to 2040



Budget Cost Comparison to 2040



Budget Costs to 2040

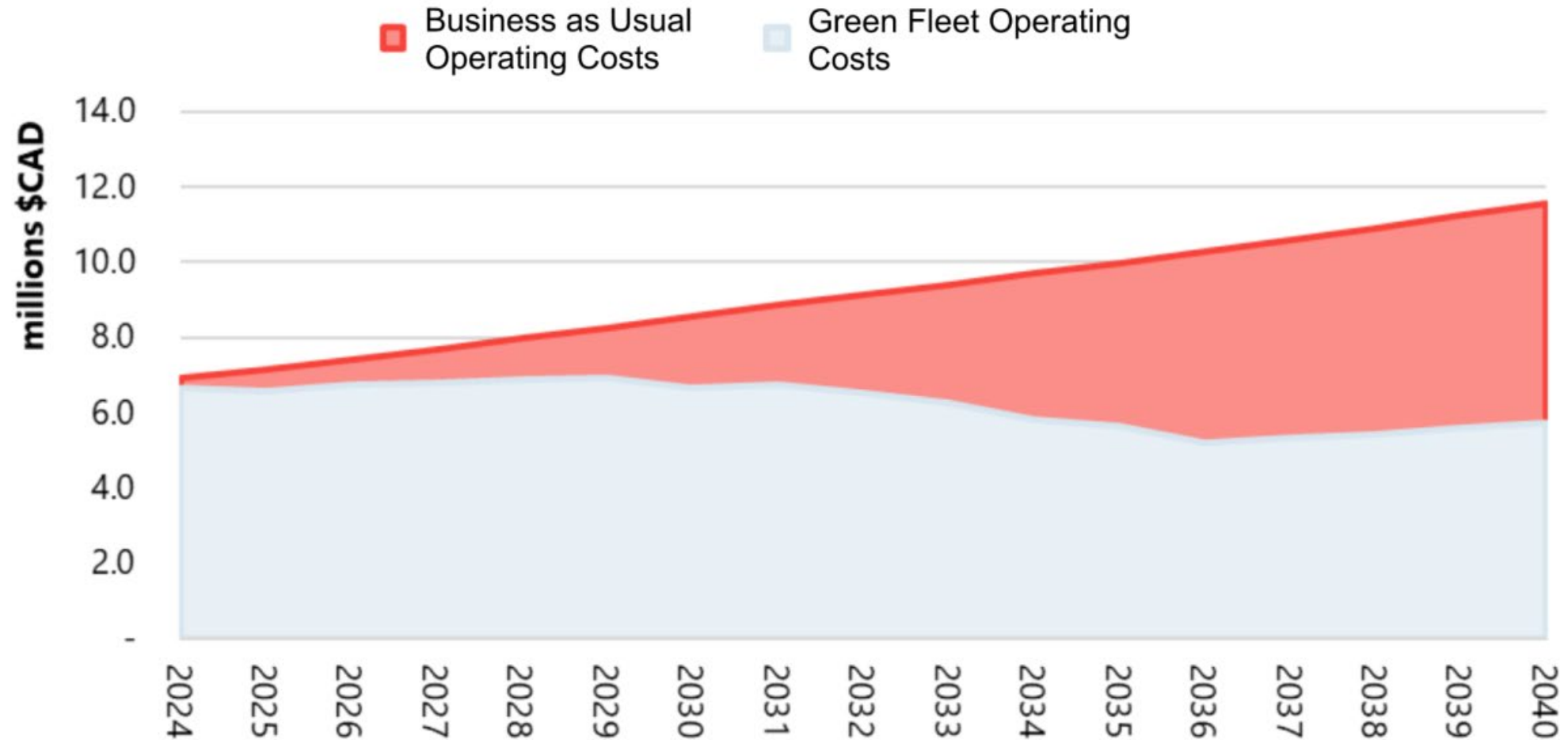


Capital and Operating Cost Summary		
Cost Summary	Business as Usual Scenario	Green Fleet Scenario
CAPITAL COSTS		
Gross Fleet Renewal Cost	206,155,015	317,332,762
Gross Infrastructure Cost	-	9,187,602
Sub-total	206,155,015	326,520,364
OPERATING COSTS		
Gross Fleet Maintenance Cost	84,475,611	68,725,464
Gross Fleet Fuel Cost	61,667,434	31,990,064
Gross Fleet Charging Utility Cost (Demand Charges)	-	90,939
Gross Fleet Infrastructure and Staff Operations Costs	425,983	2,226,527
Gross Fleet Carbon Tax	9,219,124	2,632,130
Sub-total	155,788,152	105,665,124
Total - Without External Funding (2023 Dollars)	361,943,167	432,185,488
Gross Cost Difference –Green Scenario versus Business as Usual		+19.4%
Total - With External Funding (2023 Dollars)	361,943,167	423,197,974
Gross Cost Difference – Green Scenario versus Business as Usual		+16.9%

Phase	Business as Usual	Green Fleet
1	\$79M	\$93M
2	\$99.8M	\$122M
3	\$182M	\$216M



Operating Costs to 2040



Infrastructure & Facility Planning



	Phase 1: 2024 – 2028	Phase 2: 2029 - 2033	Phase 3: 2034 - 2040
Facilities and Infrastructure	<ul style="list-style-type: none">• Upgrade on-site utility infrastructure to accommodate Battery & Hybrid EV passenger electric vehicles, light duty vehicles and zero emission buses.• Expand on-site charging infrastructure to accommodate capacity for expected Phase 2 zero emission electrical charging requirements	<ul style="list-style-type: none">• Continue to upgrade utility infrastructure to accommodate incoming Phase 2 electric vehicle procurements.• Expand charging infrastructure to accommodate capacity for Phase 2 and Phase 3 expected charging requirements	<ul style="list-style-type: none">• Continue to upgrade utility infrastructure to accommodate incoming Phase 3 electric vehicle procurements.• Assess infrastructure upgrades to accommodate fleet growth beyond the year 2040.• Review & update infrastructure & facility plans



Thank you – Questions?



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