

East Hants Transit Plan 2024 Update

*Municipality of East Hants
Executive Committee*

December 10, 2024



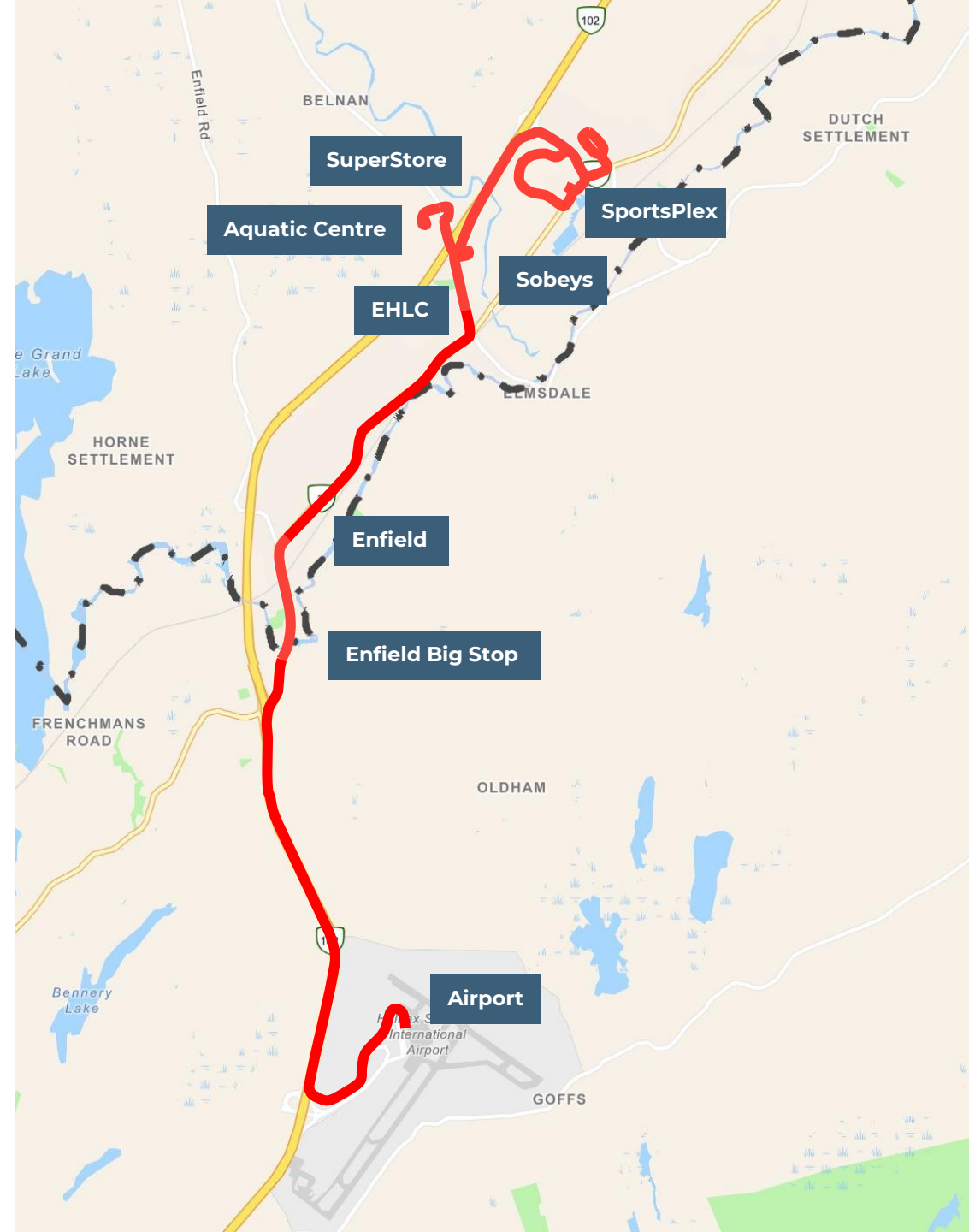
Project Overview

- o Business Plan completed by WSP in 2020
 - transit included in 2021-2024 Strategic Plan
- o 2020 Business Plan required update:
 - new interchange
 - new growth
 - new technology
- o WSP retained to conduct 2024 Business Plan Update



Proposed Route

- o 2020 Study examined several routing options
- o 2024 Study only considered minor deviations



Why Transit?



- o **Social Equity:** Providing more employment and social opportunities for low income and mobility challenged residents. **Putting money back in residents pockets by reducing the need for a vehicle.**
- o **Economic:** Opening up a larger potential worker pool for employers.
- o **Transportation Demand Management:** Improved land use management **Reducing parking space** requirements and congestion impacts of vehicle travel.
- o **Environmental:** Reducing emissions and noise impacts of vehicles and creating greater energy efficiency by attracting trips away from private vehicle travel and by creating opportunity to employ electric vehicle technology.

Nova Scotia Comparisons

Service will be more comparable to Kings Transit than to other single-route systems

	Kings Transit	Yarmouth Bridgewater Pictou County Antigonish
Route Characteristics	Corridor (out & back)	Loop
Service Frequency	20-120 minutes	60 minutes
Governance	Municipal Authority	Municipality or Community NFP
Vehicle Fleet	40-foot transit buses	25/30-foot shuttle buses
Cost Recovery from Fares	22%	10%-33%

Analysis Process

- Assessed 4 scenarios for operating service with BEB
 35-foot transit buses / 25-foot shuttle buses
 With and without on-route charging
 All day hourly service / Increasing to 30 minute
 service in peaks



Scenario #	Scenario Description	Result
1	One 35ft BEB with on-route charger and depot charger	Fail
2	Two 35ft BEBs with only depot charger	Pass
3	Two 25ft BEBs with only depot charger	Fail
4	Three 25ft BEBs with only depot charger	Pass

Analysis Process

2. Fixed certain aspects to narrow down strategies for financial assessment

Terminal/charging will be at SportsPlex

Buses will be 35-foot transit buses

No on-route charging

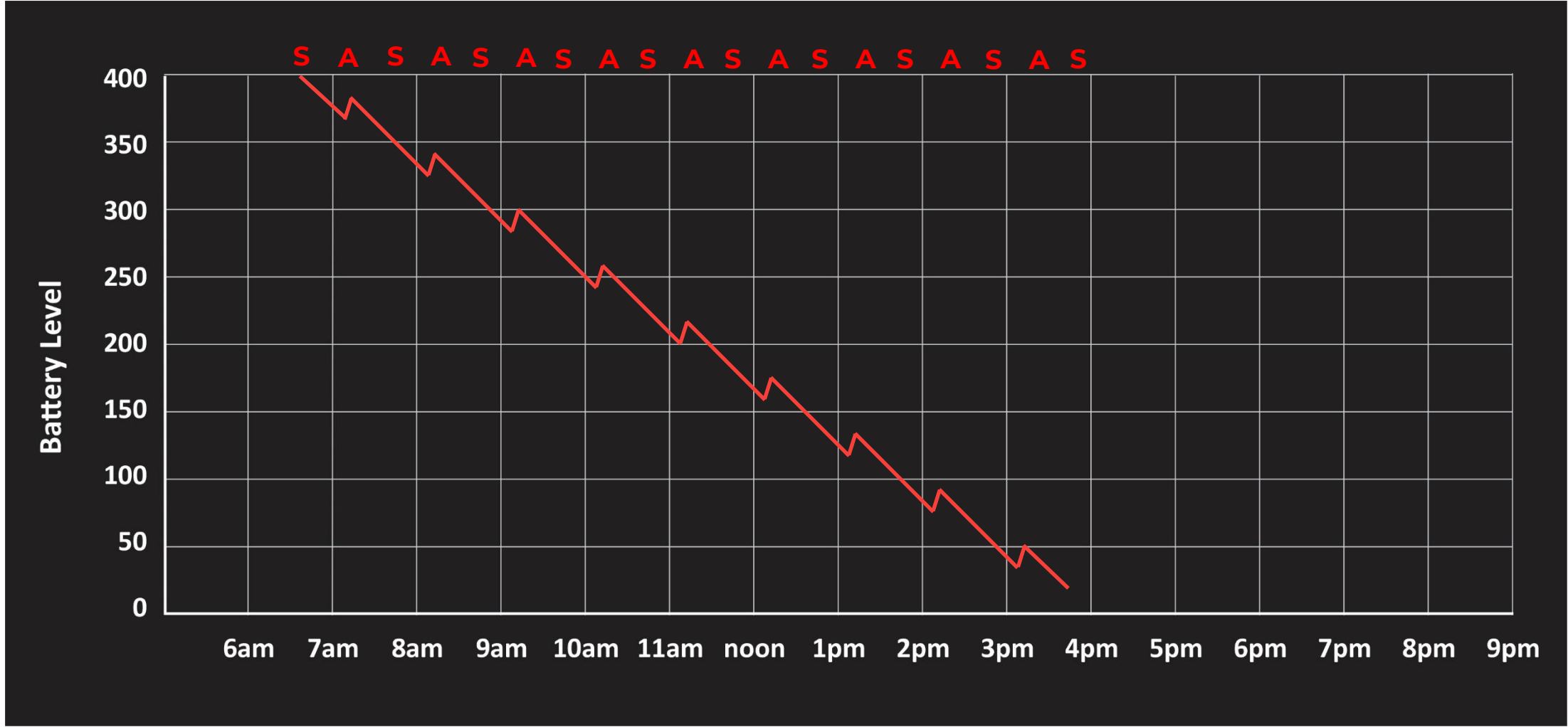
3. Created four operating scenarios:

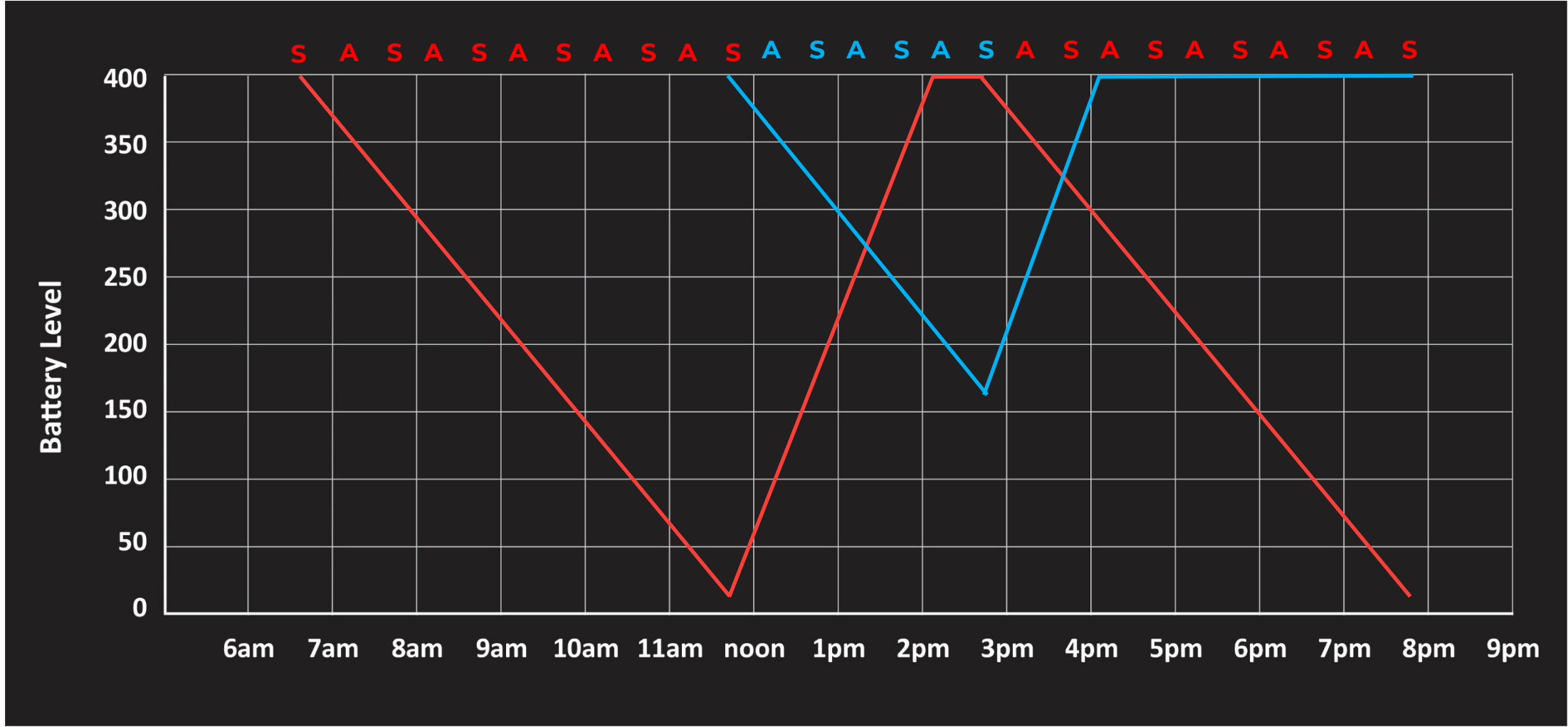
BEB Phase One

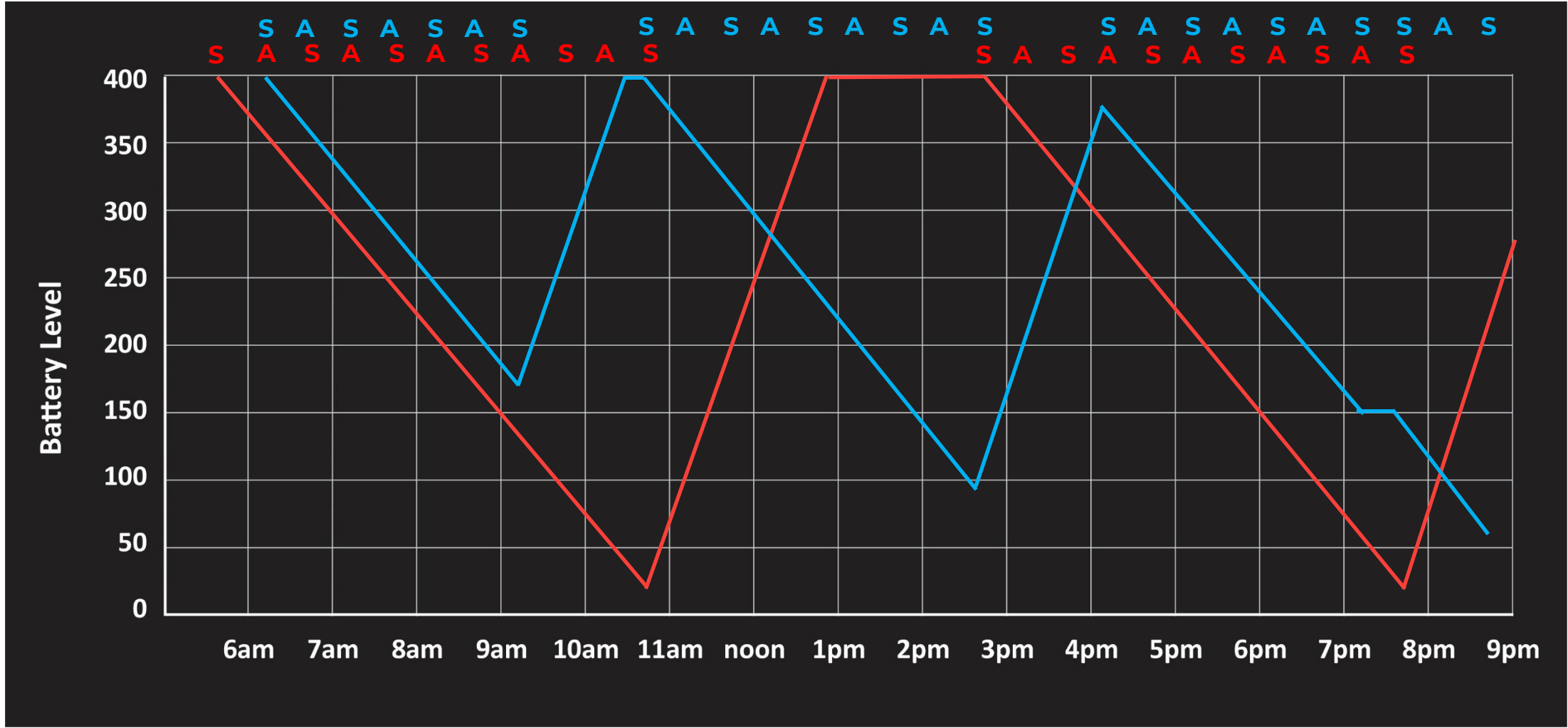
Diesel Phase One

BEB Phase Two

Diesel Phase Two







Two Phases

- o **Phase One:**
 - 60 min. frequency from the 2020 Plan
- o **Phase Two:**
 - Add 30 min. frequency in the commuter peaks
 - Extended early and late hours

PHASE ONE			
EAST HANTS TRANSIT		HALIFAX TRANSIT	
Depart Sportsplex	Depart Airport	Depart Airport	Arrive Scotia Sq
		5:45	6:40
		6:15	7:10
		6:45	7:40
6:40	7:15	7:15	8:10
		7:45	8:40
7:40	8:15	8:15	9:10
		8:45	9:40
8:40	9:15	9:15	10:10
9:40	10:15	10:15	11:10
10:40	11:15	11:15	12:10
11:40	12:15	12:15	13:10
12:40	13:15	13:15	14:10
13:40	14:15	14:15	15:10
14:40	15:15	15:15	16:10
15:40	16:15	16:15	17:10
		16:45	17:40
16:40	17:15	17:15	18:10
		17:45	18:40
17:40	18:15	18:15	19:10
		18:45	19:40
18:40	19:15	19:15	20:10
		20:15	21:10
		21:15	22:10
		22:15	23:10
		23:15	0:10
		0:15	1:10

PHASE TWO			
EAST HANTS TRANSIT		HALIFAX TRANSIT	
Depart Sportsplex	Depart Airport	Depart Airport	Arrive Scotia Sq
		5:45	6:40
5:40	6:15	6:15	7:10
6:10	6:45	6:45	7:40
6:40	7:15	7:15	8:10
7:10	7:45	7:45	8:40
7:40	8:15	8:15	9:10
8:10	8:45	8:45	9:40
8:40	9:15	9:15	10:10
9:40	10:15	10:15	11:10
10:40	11:15	11:15	12:10
11:40	12:15	12:15	13:10
12:40	13:15	13:15	14:10
13:40	14:15	14:15	15:10
14:40	15:15	15:15	16:10
15:40	16:15	16:15	17:10
16:10	16:45	16:45	17:40
16:40	17:15	17:15	18:10
17:10	17:45	17:45	18:40
17:40	18:15	18:15	19:10
18:10	18:45	18:45	19:40
18:40	19:15	19:15	20:10
19:40	20:15	20:15	21:10
		21:15	22:10
		22:15	23:10
		23:15	0:10
		0:15	1:10

35-foot Transit Bus



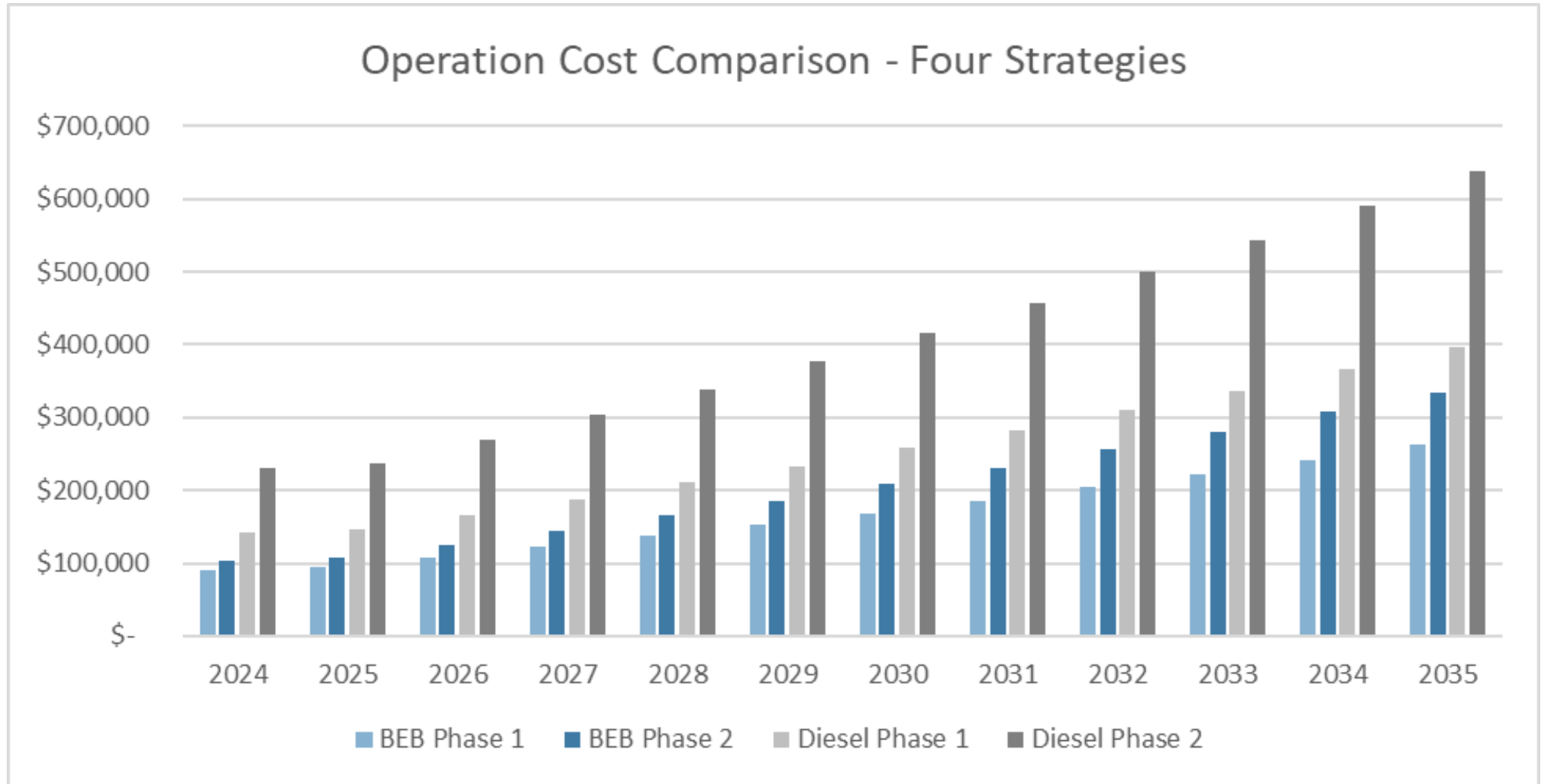
- ❑ Longer service life (12-16 years)
- ❑ More seating capacity (32)
- ❑ Longer battery range
- ❑ Can be charged in-route
- ❑ Can not be serviced locally

25-foot Shuttle Bus

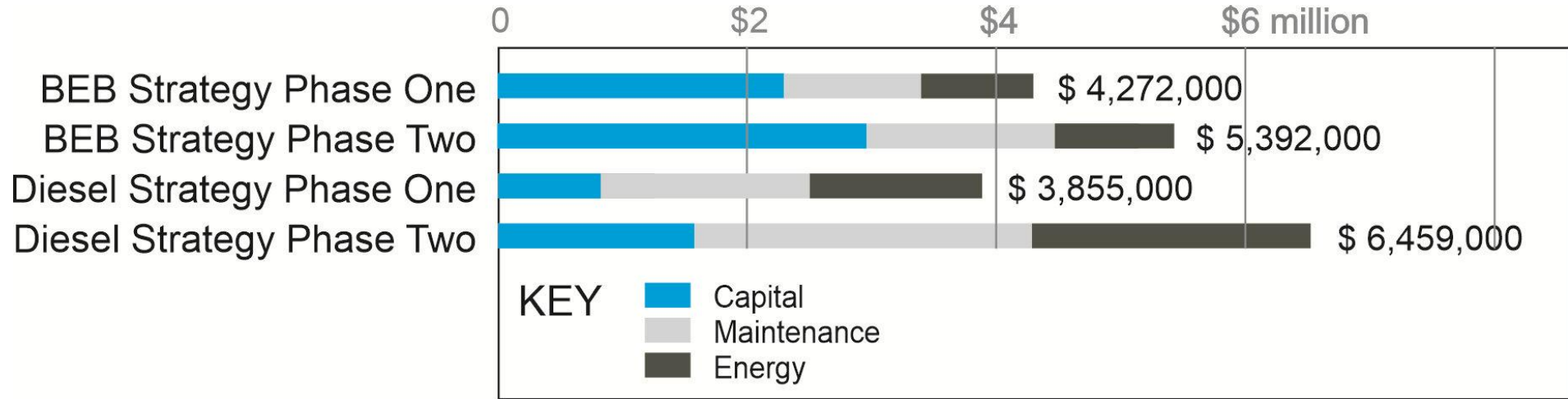


- ❑ Shorter service life (7-9 years)
- ❑ Less seating capacity (19)
- ❑ Shorter battery range
- ❑ Can not be charged in-route
- ❑ Can be serviced locally

Operating Cost Analysis



Life Cycle Fleet Cost (12 years)



All costs in 2024\$

Capital costs include vehicles and charging infrastructure (if applicable)

New or Adjusted Recommendations

- o Battery-electric buses instead of diesel buses
- o Transit-style buses instead of shuttle-style buses



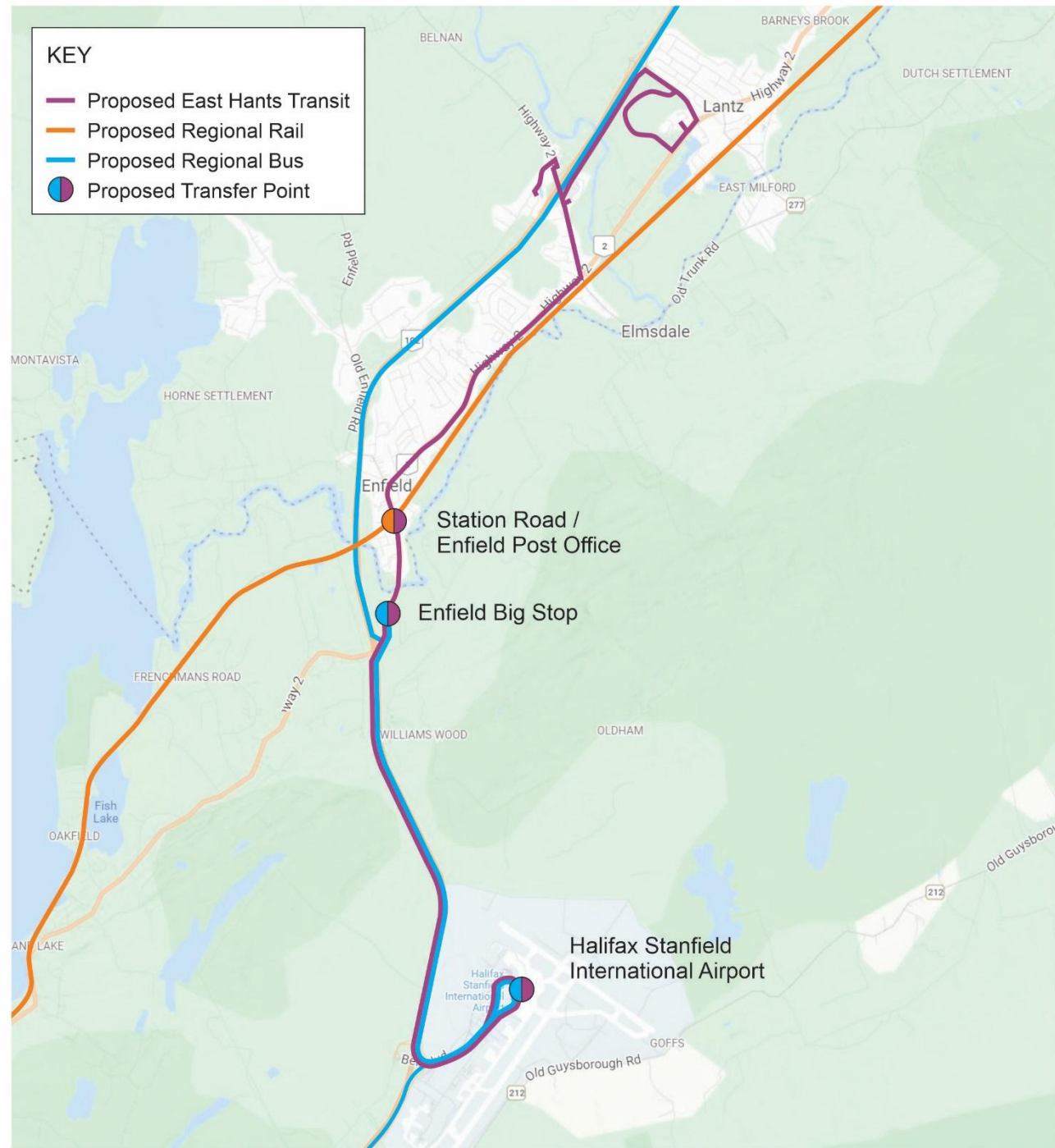
New or Adjusted Recommendations

- o Minor route adjustments
 - Loop through new Clayton Lands instead of Logan Drive
 - Loop through Sobeys's Plaza
- o Negotiate with Halifax Transit for shared fare collection



New or Adjusted Recommendations

- o Work with JRTA to connect to regional bus/rail



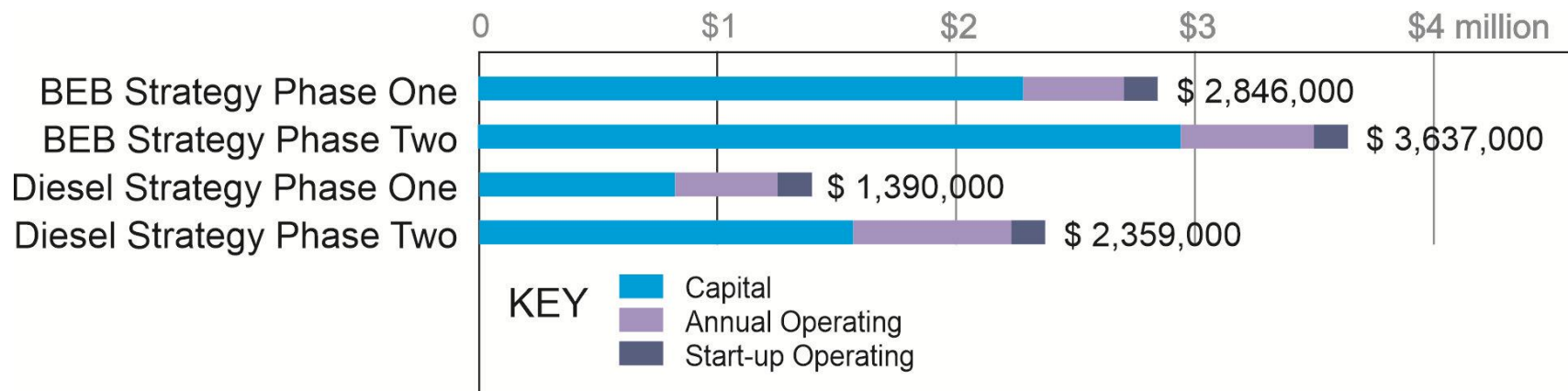
New or Adjusted Recommendations

- o Work with SportsPlex to lay out storage and charging for buses



General Recommendation

- o Implement plan for Phase One operation (hourly service) using one BEB and one diesel bus
- o Approach EHCR to discuss operation of the service beginning with a grant for purchase of the bus(es)



Municipal Operation or EHCR Agreement?

- o All costs will be similar regardless of operator
- o EHCR may have an advantage with fleet and driver flexibility
- o East Hants may have an advantage with funding programs
- o Both fixed route and on-demand service will be integrated regardless of who operates
- o Administrative staffing proposed:
 - 0.6 FTE General administration
 - 0.1 FTE High-level management and oversight

Operating Costs – Year One

Item	Annual Cost BEB		Assumptions/Notes
	Phase One	Phase Two	
Energy	\$62,800	\$64,600	See Table 6-4
Maintenance	\$28,600	\$39,000	See Table 6-6
Vehicle Replacement Reserve	\$87,000	\$112,000	Approximately half the cost of full fleet replacement is included, to be supplemented by grants or debt
Drivers	\$125,400	\$215,000	\$35/hr (incl. benefits); 256 operating days
Administration Salaries	\$94,100	\$94,100	\$70/hr (incl. benefits) for 0.6 and 0.1 FTE
Administration Costs	\$8,000	\$8,000	Marketing, printing, etc.
Insurance	\$12,000	\$16,000	
Bus Stop Maintenance	\$6,000	\$6,000	Primary cost is snow clearing
Vehicle Tracking	\$2,000	\$2,000	
TOTAL	\$425,900	\$556,700	

Capital Start-up

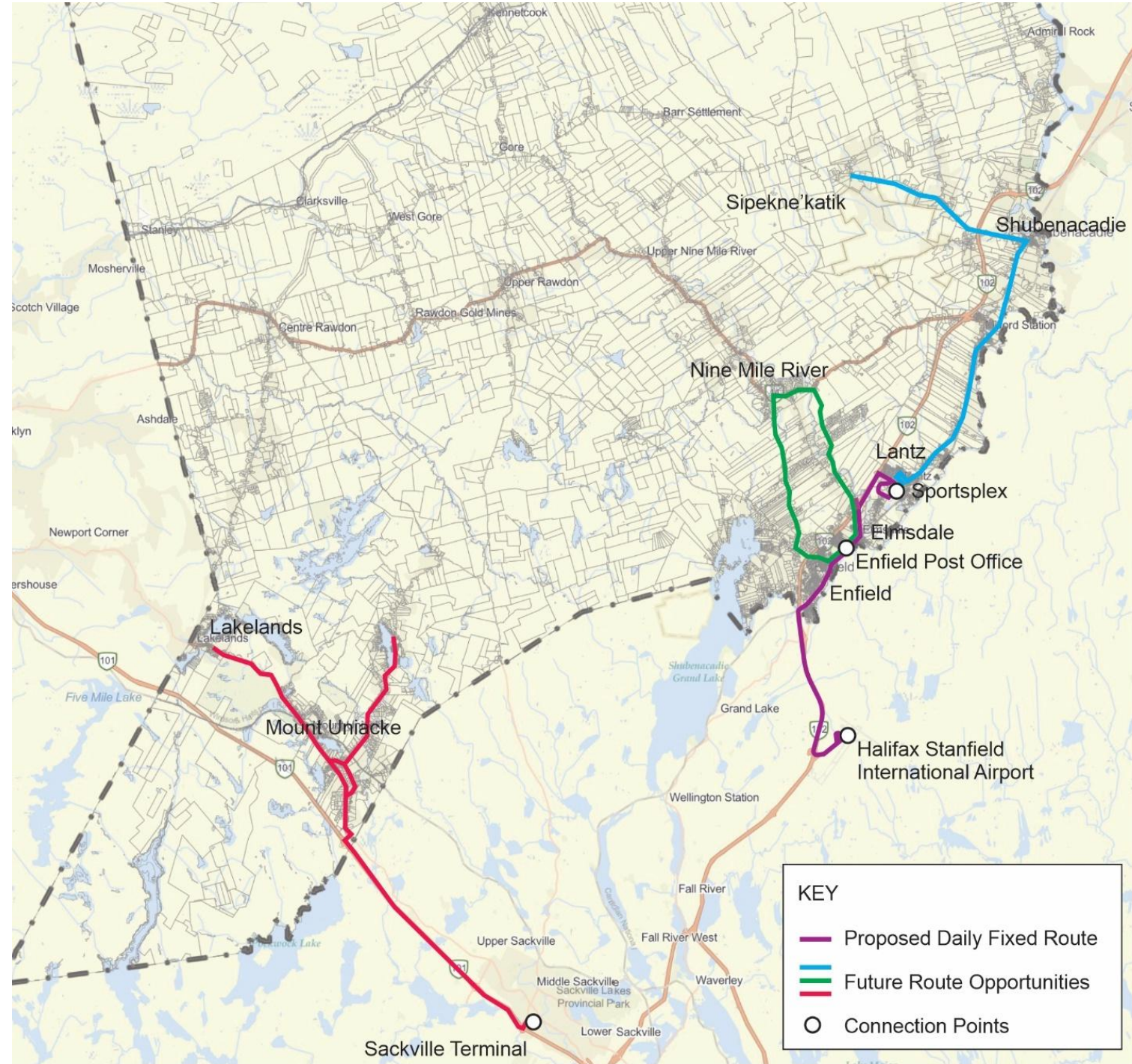
	BEB Strategy Phase One	BEB Strategy Phase Two
Diesel vehicle cost	\$ 740,000	\$ -
BEB vehicle cost	\$ 1,350,000	\$ 2,690,000
Used Spare Bus	\$20,000	\$80,000
Charger cost	\$ 170,000	\$ 170,000
Sum	\$ 2,280,000	\$ 2,940,000

Operating Start-up

Item	Cost	Assumptions/Notes
Start-up Engineering	\$35,000	Vehicle specification, bus stop design, etc.
Bus Stops and Signs	\$90,000	
Marketing/Branding	\$8,000	
Vehicle Tracking App Setup	\$7,000	
TOTAL	\$140,000	

Expanding Coverage

- o Following success of the first route
- o Opportunity for week/ biweekly/ or monthly routes to further areas.
- o Community Rider trips to connect to routes.





Thank you



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