

***Amend LRV Fleet Expansion Project
Baseline Budget, Project Completion
Milestone, and Name***

R2023-35

Board of Directors

11/16/23



Why we are here

Seek approval to **amend** the Light Rail Vehicle (LRV) Fleet Expansion Project's:

- 1) **Baseline budget,**
- 2) **Project completion milestone,** and
- 3) **Project name.**

If this resolution is approved by the Board of Directors:

- It will **send a signal** to Siemens that Sound Transit is ready to enter negotiations for the potential purchase of 10 additional Series 2 LRVs.
- In the big picture, we'll be **accelerating the purchase of 10 LRVs from the Series 3 plan** (already funded) by taking advantage of a small window of opportunity (~3 months) available under the Series 2 LRV project.
- The 10 cars will allow Link Light Rail system to carry more passengers for 4-5 years before Series 3 cars enter revenue service.

Background – Series 2 LRV Project Status

- Project baselined in 2016. Budget: \$740.4M.
- Original Project Completion Date for 152 LRVs: Q1 2024.
- Final acceptance milestone for 152 LRVs delayed by 2+ years to Q4 2026. Current Status: 96th Series 2 LRVs entered revenue service by end of Oct 2023.
- Series 2 LRV fleet performance improved steadily in 2023 and is expected to meet the mature fleet performance target (85%) by mid-2024 before LLE opens.
- Strategy envisioned for managing long-term availability and obsolescence issues include increasing the hardware spares, and software services for technology items.

Background – ST2 Service Planning

- Actual service levels with all 214 LRVs deployed (152 Siemens and 62 KI) will be lower than service levels modeled in 2016 due to:
 - 1) Longer run times, and**
 - 2) the need for higher LRV spare ratio.**
- Series 3 LRVs are projected to start entering revenue service in 2032.
- Potential Mitigation: Accelerate the purchase of 10 LRVs from Series 3 (already planned and funded) to Series 2 contract with Siemens.
- Key constraint for the accelerated purchase of 10 additional LRVs is storage space.

Total Planned LRV Fleet: Series 1 + Series 2 + Series 3

LRV Series	Status	Current Plan	Accelerated Approach
1 - Kinkisharyo	In service	62	62
2 - Siemens	In service / In delivery thru 2025	152	162
Subtotal (fleet available until Series 3 cars are available)		214	224
3 - TBD	To be procured 2030+	246	236
Total (planned fleet to support ST3 buildout)		460	460

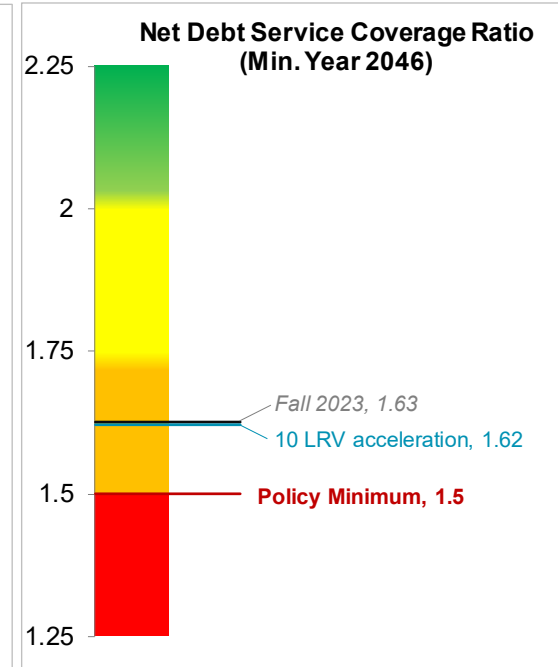
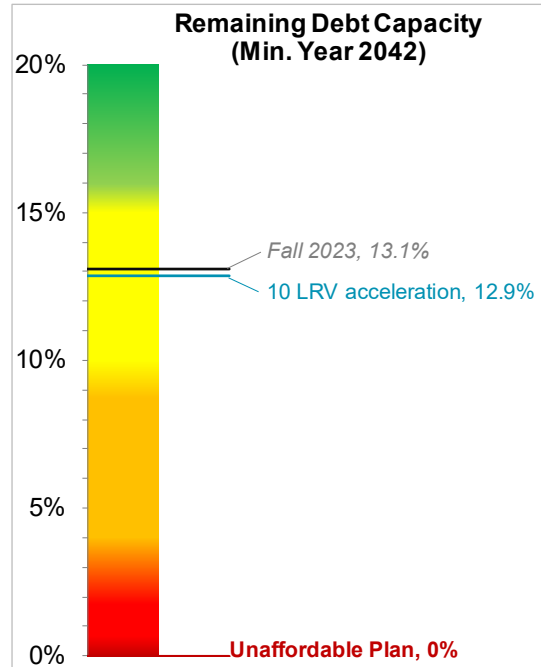
This resolution:

- ACCELERATES** the purchase of 10 LRVs from Series 3 to Series 2 project and makes them available to carry passengers 4-5 years ahead of Series 3 LRVs.
- DOES NOT** increase the overall size of already funded long-term fleet.

Impact on affordability metrics

Cost of 10 LRVs accelerated from Series 3 LRV Project:

- **0.2% decrease** in debt capacity (from 13.1%)
- **0.01 decrease** in net debt coverage ratio (from 1.63X)



Accelerated purchase of 10 LRVs: Summary

- 10 Series 2 LRVs will be cheaper than 10 Series 3 LRVs of same length.
- Supports more 4-car trains
 - Does not improve frequency. However, each 2 Line train would be able to carry more passengers.
- Storage options for the 10 additional cars are being assessed
 - Temporary storage possibilities for the additional cars: Federal Way siding, OMFE stub tracks, OMFC runaround tracks are some examples.
- Small window of opportunity in Siemens production line for 2027 delivery
 - Approximately 3-month window to negotiate and implement a change order.

Today's Action

#1: Increase the allocated project baseline budget by \$96,156,000 from \$740,718,000 to \$836,874,000.

- Will fund the purchase of 10 additional Series 2 LRVs.
- Will replenish contingency for the remainder of commissioning 152 LRVs.

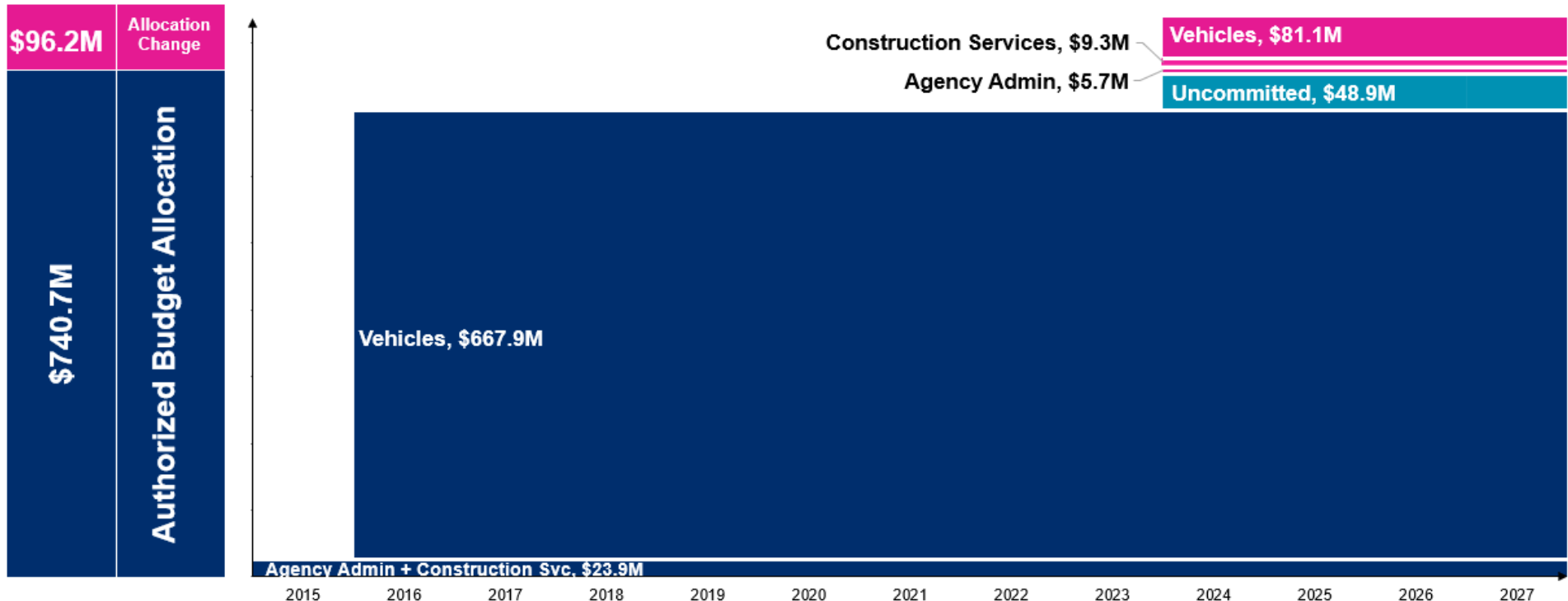
#2: Revise Project Completion Milestone from Q1 2024 to:

- Q4 2025 for Conditional Acceptance of all 152 LRVs, and
- Q1 2028 for Conditional Acceptance of all 10 additional LRVs.

#3: Revise the Project name from “LRV Fleet Expansion” to “Series 2 LRV Fleet Expansion”.

LRV Fleet Expansion: Budget Amendment

ALLOCATION \$ COMMITMENTS



Approved



Today's Action



Future Action

Next Steps, if Board Approves Resolution

1. Enter negotiations with the Series 2 LRV car-builder, Siemens Industry, Inc.
2. If **negotiations are successful and the price of the cars is reasonable**, staff will bring a separate action for Board approval in Q1 2024 to exercise a sole source change order with Siemens Industry, Inc. for the additional 10 LRVs.
3. Bring a separate action for Board approval in Q1 2024 to amend Sound Transit's contract with Hatch Associates Consultants Inc. for LRV Engineering and Inspection services due to
 - ❖ The longer than planned duration of the project for the 152 LRVs, and
 - ❖ For delivery of additional 10 LRVs.

Thank you.



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