Battery-Electric Locomotive (BEL) Projects

May 14, 2025



TACOMA PUBLIC UTILITIES

Overview

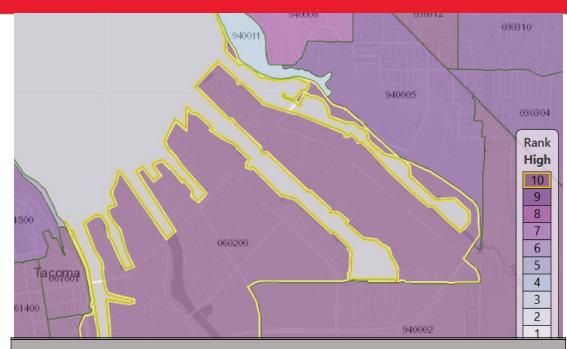


- Purpose
- Two projects and funding
 - Project A: 2 locomotives and 2 charging stations
 - Project B: 1 locomotive
- Onsite improvements
- Historical timeline
- Current & future timeline

Purpose



- Reduce Tacoma Rail's reliance on fossil fuels
 - Up to 100,000 gallons per year saved
- Tacoma Rail operations occur within the highest (10/10) index for diesel pollution and disproportionate health impacts
 - WA Dept. of Health Environmental Health Disparities Map
- Supports
 - City of Tacoma Climate Action Plan
 - Northwest Ports Clean Air Strategy
 - Puget Sound Regional Council Vision 2050
- FRA Locomotive Emissions Comparative Tool calculations



Estimated Reductions in Air Pollutants (short tons/year)

Carbon Monoxide (CO)	3.066		
Nitrogen Oxides (NO _x)	21.111		
Particulate Matter ≤2.5 μm (PM _{2.5})	0.715		
Particulate Matter ≤10 μm (PM₁₀)	0.737		
Volatile Organic Compounds (VOC)	1.782		
Estimated Reductions in Greenhouse Gases (metric tons/year)			
Carbon Dioxide (CO ₂)	320.000		
Carbon Dioxide Equivalents (CO ₂ e)	329.748		

Project A vs Project B



• Total Project cost estimate is \$19M - \$20M

- 2,000 hp locomotives
- Total funding \$16M, Tacoma Rail obligated for the difference
 - Funding contingency discussion across scenarios

Project A

Two Locomotives

• Two chargers

Funding Agencies	Amount	
CCA	\$4,950,000	State
CRISI	\$4,095,000	Federal
PSCAA CMAQ/FHWA	\$3,645,000	Federal

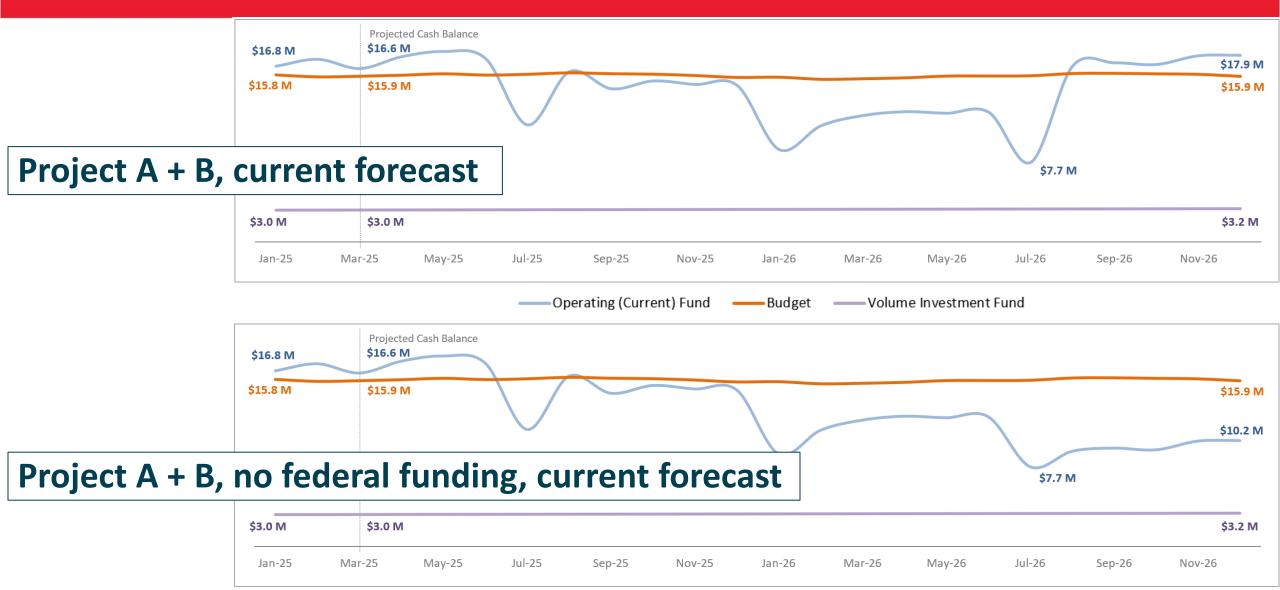
Project B

One locomotive

Funding Agency	Amount	
VW Settlement	\$3,300,000	State

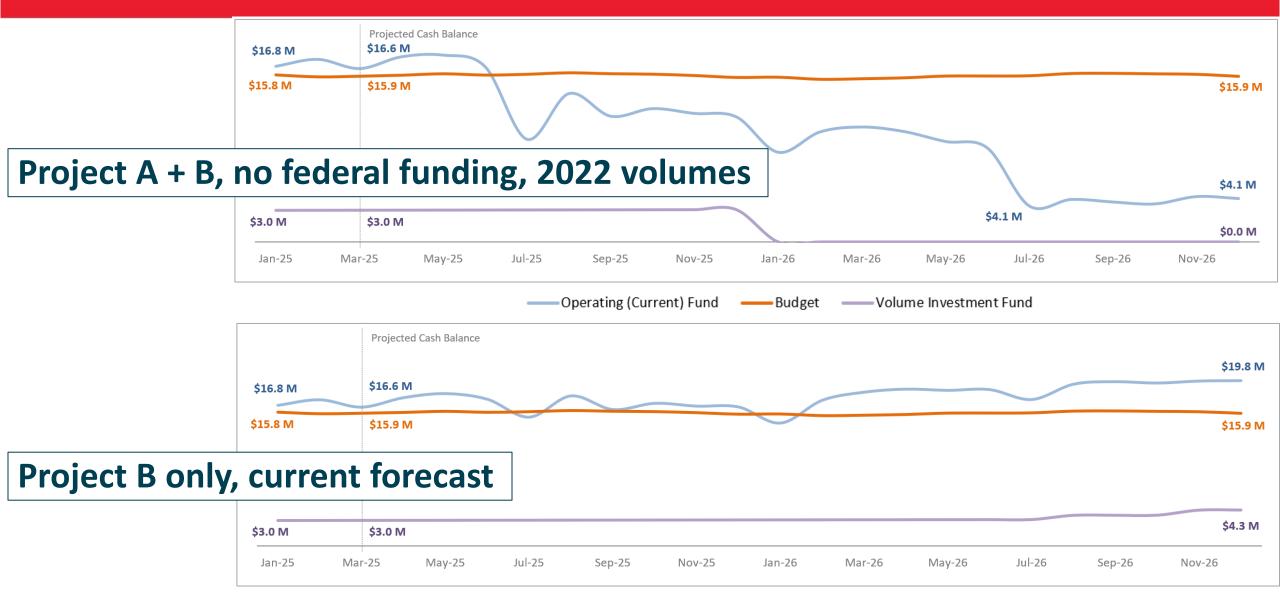






Scenarios, continued

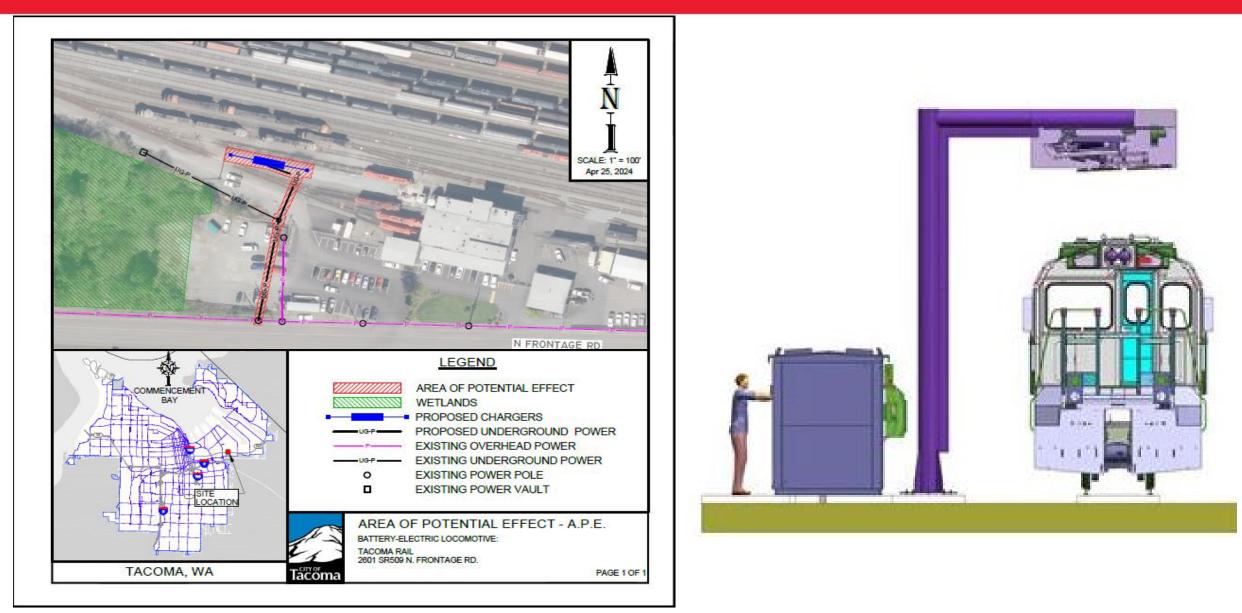




On-site Improvements

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Historical Timeline



Sept '23 – Notice of 2022 Consolidated Rail Infrastructure and Safety Improvements (CRISI) Award

Oct '23 – FRA kick off meeting – Pre obligation 6-15 months – Post obligation 2-5 years

Jan '24 – Internal approvals for grants

Feb '24 – Begin creation of grant agreement 🥣

- Statement of work
- Budget
- Schedule
- Performance measures
- NEPA
- FRA Grant Agreements

Feb '24 – Submit request for Categorical Exclusion (CE) & National Environmental Policy Act (NEPA)

Mar '24 – Pre-Award Authorization drafted National Historic Preservation Act – Section 106

- Tribal outreach/public comment period (9 tribes)
- Puyallup Tribal request for archaeological monitoring

June '24 – Archeological Monitoring Plan (AMP)/Unanticipated Discovery Plan (UDP) development 🥄

Sept '24 – AMP/UDP approved

FRA request for preliminary engineering for on-site activities

Current & Future Timeline



Oct '24 – FRA letter to State Historic Preservation officer: No adverse effects - Rail submits request for concurrence letter to FRA Chief Safety Officer Nov '24 – FRA approved CE; and determined NEPA & Section 106 activities completed Dec '24 – Request for Proposals (RFP) advertised **Study Session Presentation** May '25 – TPU Board & RFP You are here Drafting Safety/Risk Matrix to FRA **RFP closing / Vendor Selection** June '25 – Board action on contract award & FRA funding obligation Final design package to FRA Q3 '25 – Onsite construction RFP & Board action on contract Award Q1 '26 – Onsite construction completion '26 – Battery Electric Locomotive Delivery FRA Letter of Concurrence to Operate Locomotives

Locomotives into revenue service!

Battery-Electric Locomotive Projects



Questions?