



Updated EMU and DMU Technology Analysis



July 19, 2007



Goldman Sachs/JPMorgan analyzed the differential costs of EMU and DMU assuming capital costs are financed over time



- Infrastructure cost and operating cost data used in our analysis was provided by LTK
- In our cost analysis we made the following assumptions:
 - 30-year borrowing of upfront and future infrastructure and vehicle costs
 - Level payment debt structure
 - Debt interest rate of 7%
 - Federal New Starts funds 55% of the initial capital costs for East and Gold Line Corridors
 - O&M costs as provided and inflated by LTK
 - Present value savings discount rate of 5%
 - No P3-related benefits included in analysis
- We compare the sum of annual O&M and debt service payments under various alternatives
- Savings presented in terms of total cash flow savings and the present value of annual cash flow savings



Upfront Capital Payment vs. Borrowing

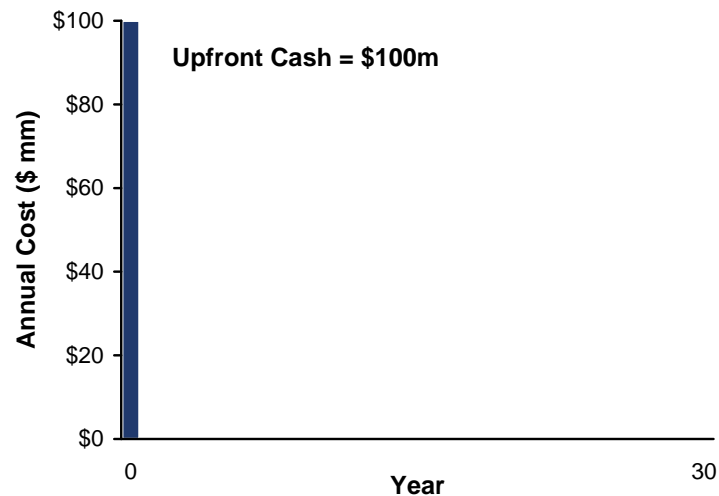


RTD can fund the initial capital costs in two ways:

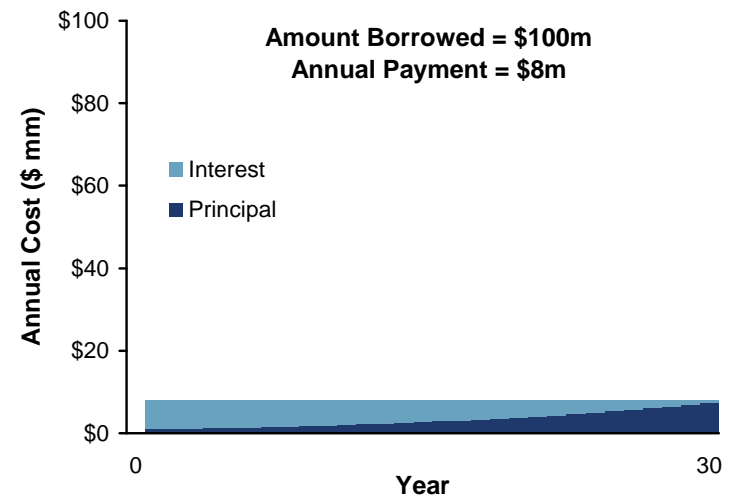
- Making an upfront payment
 - Requires RTD to incur costs immediately when cash is limited
- Borrowing funds and repaying over time
 - Allows RTD to spread out large upfront costs and preserve cash in early years

Theoretical Example

Upfront Cash Funding



Borrowing^(a)



(a) Assumes 7% debt interest rate



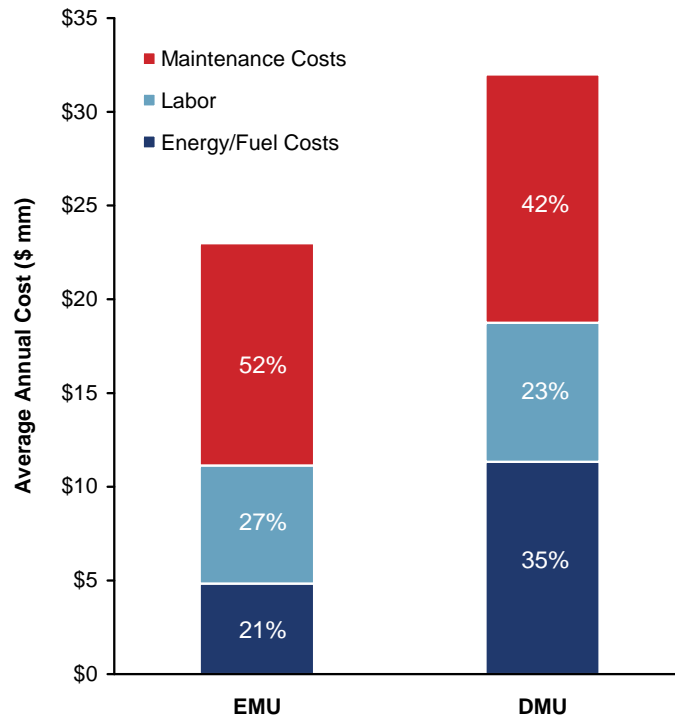


O&M Cost Comparison

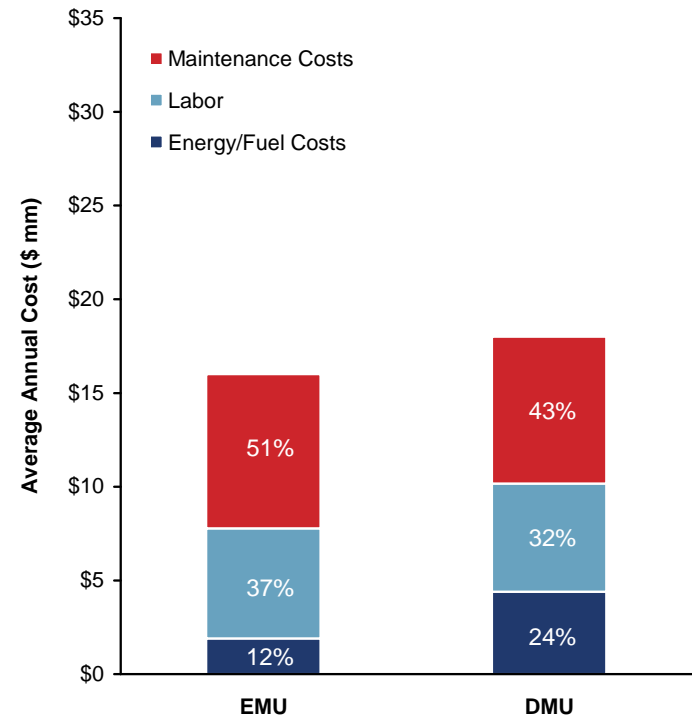


O&M costs are significantly greater for DMU than EMU on the East and Gold Line Corridors due to higher energy/fuel costs.

East Corridor



Gold Line Corridor



Source: LTK, May 19, 2007. Individual percentages may not add to 100% due to rounding.

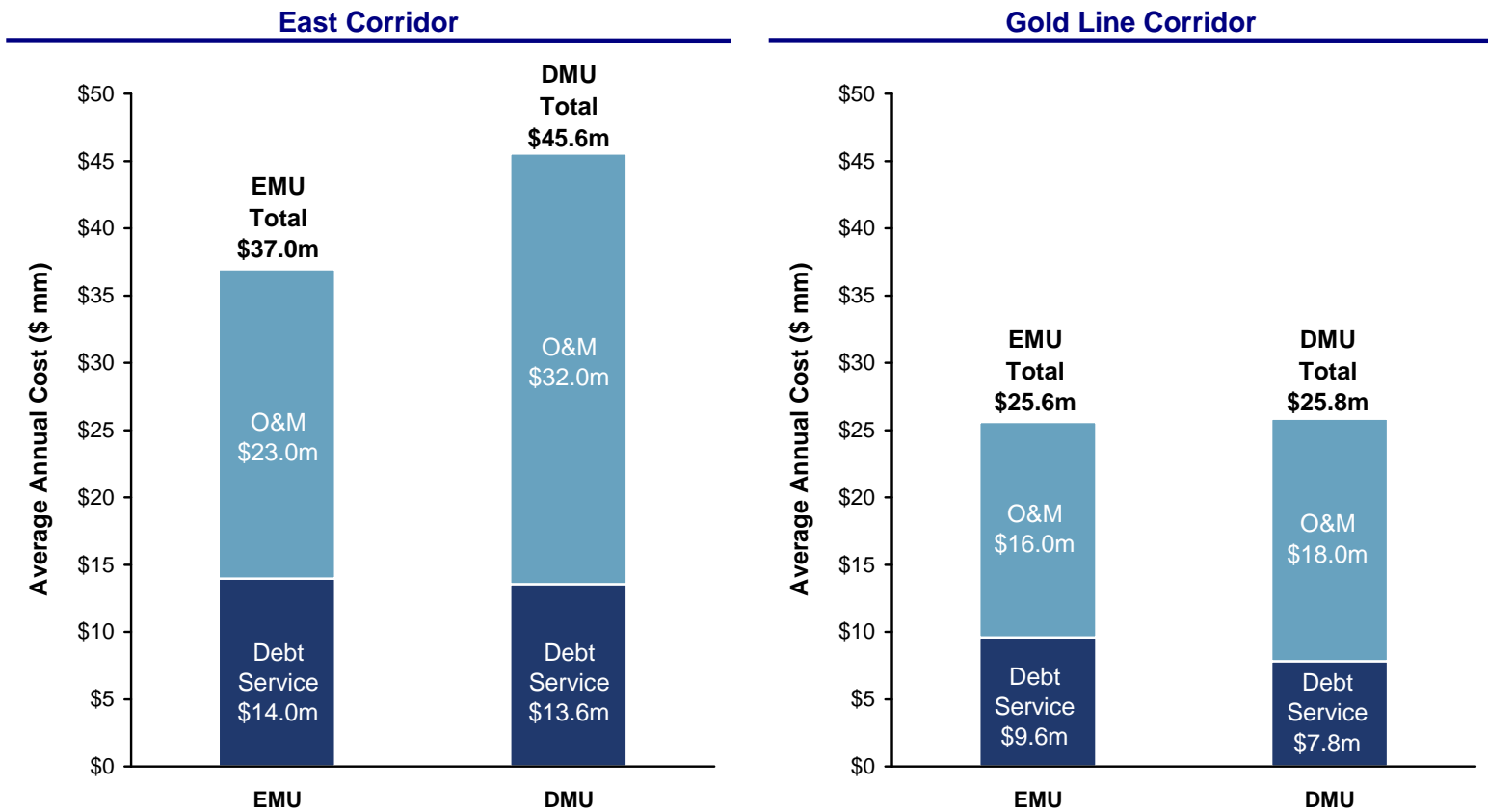




Comparison of Total Annual Costs: O&M + Debt Service



Total annual EMU O&M and debt service costs are lower than DMU on East and Gold Line Corridors.

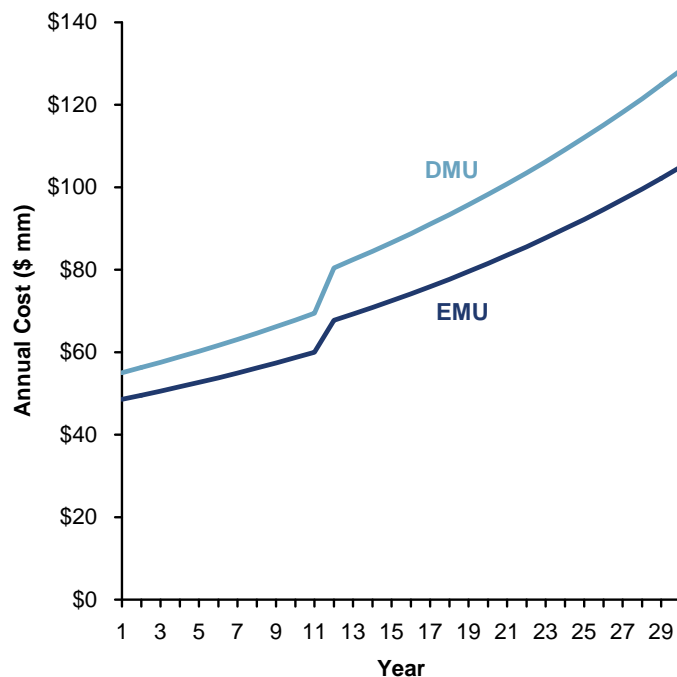




Summary of Savings: Combined East and Gold Line Corridors



Combined East and Gold Line Corridors



Savings from EMU (\$ mm)

Gross Savings	\$421.3
PV Savings	\$182.8

Findings

- Savings from EMU realized immediately in first year
- O&M savings from EMU more than offset additional debt service cost
- P3 approach would not require RTD to issue debt
- Lower annual cost offers benefits:
 - Frees up cash flow for other FasTracks projects
 - Provides cushion should electricity prices increase at a faster rate than diesel
 - Improves New Starts CEI analysis
 - Savings improved when assuming New Starts funds 55% of incremental capital cost

Note: Assumes New Starts funds 55% of incremental capital cost, PV discount rate of 5%, and debt interest rate of 7%.

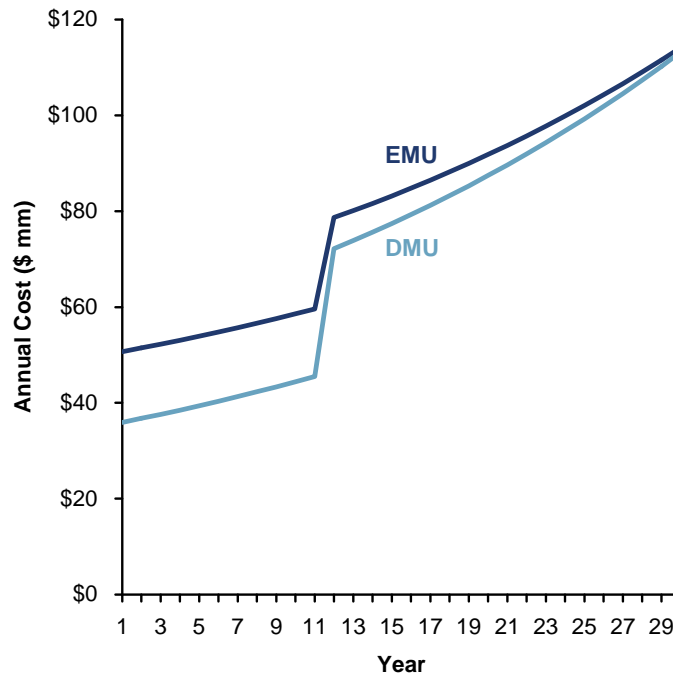




Summary of Savings: Combined North Metro and Northwest Corridors



Combined North Metro and Northwest Corridors



Findings

- DMU lower cost than EMU:
 - Lower operating cost due to lower operating frequency
- For the Northwest Corridor, the BNSF railroad has serious issues with EMU operating on shared track and long-term ROW availability for expansion

Savings from EMU (\$ mm)

Gross Savings	\$(233.3)
PV Savings	\$(151.1)

Note: Assumes PV discount rate of 5% and debt interest rate of 7%.

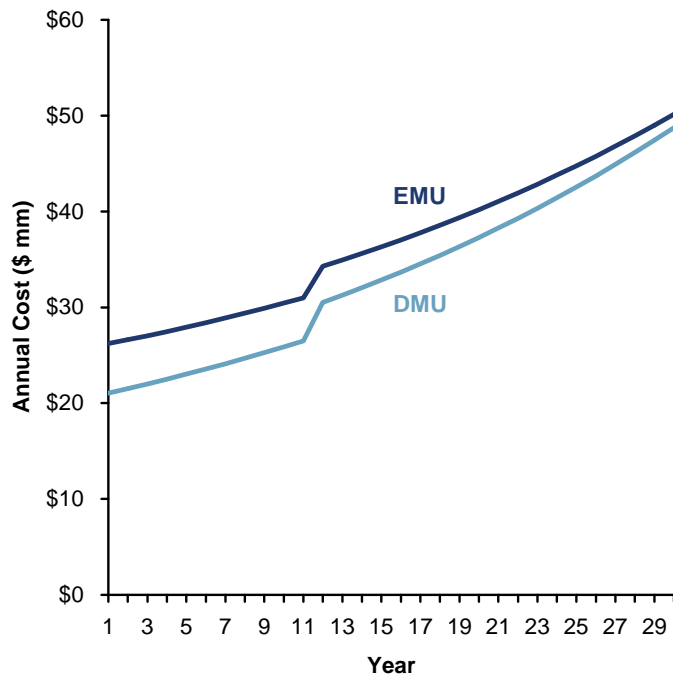




Summary of Savings: North Metro and Northwest Corridors Individually



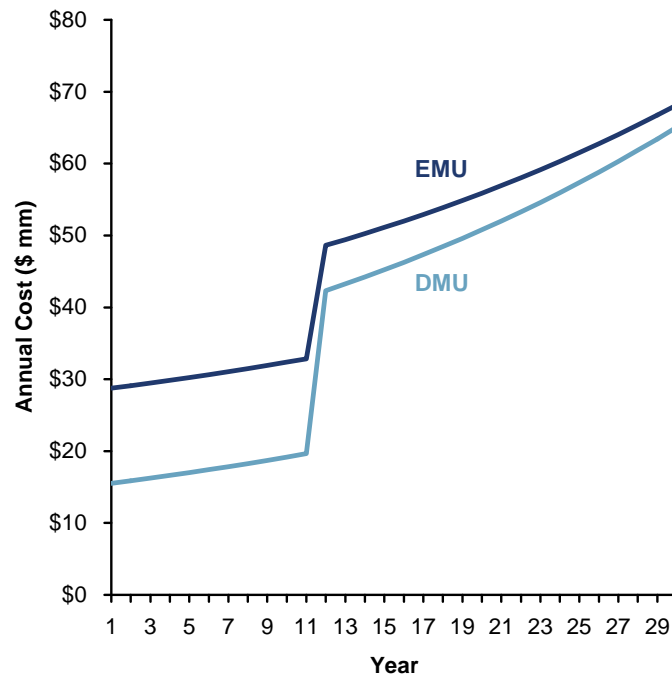
North Metro Corridor



Savings from EMU (\$ mm)

Gross Savings	\$(104.5)
PV Savings	\$(60.8)

Northwest Corridor



Savings from EMU (\$ mm)

Gross Savings	\$(237.2)
PV Savings	\$(145.7)

Note: Assumes PV discount rate of 5% and debt interest rate of 7%.

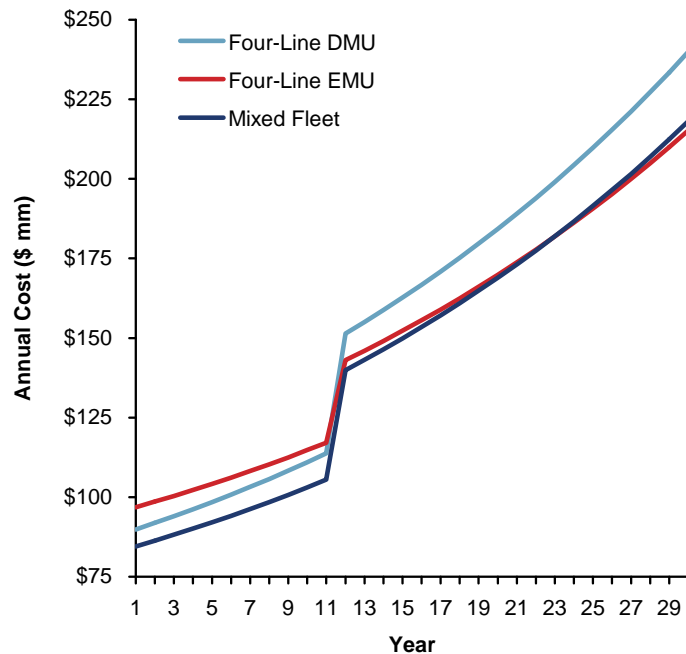




Summary of Savings: Four-Line System Comparison



Four-Line System



Methodology

- We examined having EMU and DMU on 2 corridors each versus EMU or DMU on all four corridors
- With a mixed fleet, we assumed:
 - EMU for East and Gold Line Corridors
 - DMU for North Metro and Northwest Corridors

Findings

- Mixed fleet offers lowest cost alternative
- All DMU would add \$380.9 million to the FasTracks financial gap, compared with the mixed fleet alternative

(\$ mm)	4 EMU vs. 4 DMU	Mixed Fleet vs. 4 EMU	Mixed Fleet vs. 4 DMU
Gross Savings	\$240.9	\$140.1	\$380.9
PV Savings	\$56.7	\$106.3	\$163.0

Note: Assumes New Starts funds 55% of incremental capital cost for East and Gold Line Corridors, PV discount rate of 5%, and debt interest rate of 7%.

