Massachusetts Bay Transportation Authority

Fiscal and Management Control Board

South Coast Rail: Operating & Maintenance Costs

May 20, 2019

Background

- Phase I of the South Coast Rail Program includes the construction of approximately 37 miles of active Right of Way (ROW) from the Town of Middleborough Southwest to New Bedford and Fall River.
- In Spring 2018, the Secretary of EOEEA issued a MEPA certificate approving the revised Phase I (Middleborough) route.
- In Spring 2019, the project received approval of its finance plan and key environmental permits from the Army Corps of Engineers.
- During that time, incremental gross operating and maintenance (O&M) cost was estimated at $18.07 million per year, with projected fare revenues of $7.27 million per year, for an estimated net annual cost of $10.8 million (in 2017 dollars).
- Any previous O&M estimates are based on old scopes and assumptions and must be updated based on current information.

Proposed New Service

- South Coast Rail Phase I will extend the existing Middleborough/Lakeville commuter rail line to Taunton, Fall River and New Bedford.
- Phase 1 service will include a total of 26 trains (each-way) for weekday service.
  - The MBTA will operate three morning peak trains and three evening peak trains to both New Bedford and Fall River.
  - Taunton and Middleborough will see up to six morning and six evening peak trains because all of the service will pass through those communities.
  - During off-peak periods, three trains will operate on a 3-3 ½ hour frequency.
- Phase 1 will provide service to nine existing stations and six new stations
- The MBTA will build two new layover stations in Fall River (Weaver's Cove) and New Bedford (Wamsutta), each including six storage tracks, crew quarters, a maintenance shed and parking facilities. Phase 1 service will also use the existing Middleborough Layover facility.

Operating & Maintenance Cost Methodology

- There is a comprehensive, zero-based O&M cost estimate underway that will look at the costs of maintaining every station, grade crossing, bridge, culvert, switch, signal, and track mile in the South Coast extension.
- In the interim, a preliminary O&M estimate has been developed based on cost per train mile.
  - The methodology develops a unit cost per train mile, based on the MBTA's 2017 submission to the National Transit Database (NTD), inflated to year 2024.
  - This unit cost is then applied to the proposed service miles, based on the January 29, 2018 DRAFT proposed weekday schedule, as compared to the existing MBTA schedules as of May 14, 2019.
  - The estimate includes projected fuel costs.
- Estimated annual fare revenue was calculated using ridership projections and fare usage assumptions.

O&M Cost Methodology: Estimated Net Cost

Estimated Annual O&M Cost:

Applying the cost per mile to the annual net new mileage, the estimated O&M cost of the new service is approximately $18 million to $20 million per year in 2024 dollars.

Estimated Fare Revenue:

Applying average estimated fares to annualized ridership projections, the estimated fare revenue is approximately $8 million to $9 million per year in 2024 dollars.

Net Annual Cost: $9 million to $12 million in 2024 dollars

O&M Cost Methodology: Next Steps

- Preliminary estimated net annual cost of approximately $9M-$12M, based on:
  - Estimated gross O&M costs of approximately $18M-$20M per year, and
  - Estimated fare revenue of approximately $8M-$9M per year

- Continue comprehensive zero-based operating and maintenance estimate currently underway.
  - Expected to be completed within 3 weeks
  - Staff will continue to refine estimates and update the Board during future South Coast Rail presentations.