
Zero Emission Bus-CEO Recommendation

Meeting: Board of Directors

Meeting Date: October 19, 2023

INFORMATION TYPE
Other
RECOMMENDED ACTION(S)
Receive for information and discuss through January 2024.
ALTERNATIVE OPTION(S)
Decision is not required until January 2024 at which time the Board can approve, defer or reject the recommendation.
PRIOR RELEVANT BOARD ACTIONS & POLICIES
Global Executive Constraint (2.0) Financial Planning / Budgeting (2.4) Environmental Sustainability policy (2.11)
ISSUE SUMMARY
The CEO is bringing forward a recommendation for a zero-emission bus pilot project. Board discussions can continue until January 2024, when a grant deadline becomes imminent. The CEO foresees two separate board approvals in 2024.
BACKGROUND
<p>The Board has directed staff to investigate ways to reduce the agency's pollution output. As buses are the largest source of carbon emissions from a transit agency, staff have focused on developing recommendations for zero-emissions buses propulsions. Other vehicles and facilities will be the subject of future work.</p> <p>For a variety of reasons detailed in the attachments and an accompanying video presentation, the CEO is recommending a pilot project test of hydrogen fuel-cell buses.</p> <p>Requiring 4-5 years, the pilot will include:</p> <ul style="list-style-type: none">• 2 hydrogen fuel cell buses and equipment,• 1 outdoor fueling station,• Workforce training, and• 12 months of operation in all seasons. <p><i>If successful, the pilot will increase confidence for fully deploying a solution that eliminates all bus emissions while minimizing fiscal risks for passengers and services. Although emissions savings from the pilot will be modest, elimination of <u>all</u> bus emissions would save about 7,000 tons of carbon emissions per year.</i></p>

Timeline & Approvals

To meet anticipated grant deadlines in March/April 2024, the CEO anticipates asking the Board for two, increasingly firm, approvals:

1. First, a general agreement from the Board that they want staff to pursue the grant application. This can be by consensus or vote if necessary. The CEO would like to ask the Board for this agreement by January 2024 at the latest.
2. Second, a firmer commitment represented by approval of a federally required "Transition Plan" that outlines our general intent to pursue zero-emissions technology. This will likely come along with a final project proposal in March 2024. If a grant is submitted and approved, TheRide will be committed and need to incorporate costs into future annual budgets.

Priorities

Although there is much to discuss concerning the strengths and weaknesses of various technologies, the CEO feels the main points the Board may want to consider are: our risk tolerance (both proceeding and not proceeding bring risks), and the relative priority for use of limited Capital Funds between emissions reduction efforts and infrastructure projects. Attachments illustrate financial implications for other projects. In the short term, the agency can afford the pilot project. But full deployment of a new propulsion system will exacerbate a lack of long-term capital funding and be in competition with Bus Rapid Transit for scarce local matching funds.

Costs

The capital costs make the pilot project dependent on securing competitive federal grants, specifically the [Low-No Emissions Grant](#). This grant will pay for about 80% of capital costs. A grant application will constitute a commitment for TheRide to spend capital and operation funds in FY2025-FY2029, should the grant be successful. Initial cost estimates for the recommended hydrogen pilot project are provided below, and will be finalized before Board action.

Capital Costs: \$5.5-\$7.5 million in total

- TheRide: \$1.1-\$1.5 million
- Federal: \$4.4-\$6 million

Operating Costs: \$1.4-\$3.3 million

Subtotal for TheRide: \$2.5-\$4.8 million

Total project costs: \$6.9-\$10.8

Funding for the non-federal share would need to come from TheRide's limited Capital Reserve, which would also need to be used for some operating costs. The Michigan DOT may help pay for a portion of the non-federal capital expenses as well (TBD).

IMPACTS OF RECOMMENDED ACTION(S)

- Budgetary/Fiscal: Pilot project is contingent on winning competitive federal grant and using TheRide's Capital Reserve.
- Social: Any new buses would need to be rotated through all neighborhoods (equity).
- Environmental: Help to create confidence in larger investments to eliminate most agency carbon emissions.
- Governance: Board approvals required.

ATTACHMENTS

1. CEO Recommendation Presentation Slides (Video also sent)
2. Illustrative 10-Year Capital Plan