



Department Source: Public Works

To: City Council

From: City Manager & Staff

Council Meeting Date: November 15, 2021

Re: Go COMO Transit Alternative Fuel Follow-Up Report

## Executive Summary

Council authorized the execution of a cooperative agreement with Washington State Department of Enterprise Service for the purchase of City of Columbia transit buses at the October 18, 2021 City Council meeting, with the understanding that staff would bring back a report at a future council meeting to include the pricing of the various types of buses available via the agreement with Washington State, and information regarding any restriction on the type of bus that is purchased with the federal grant funds received in 2020.

Staff is requesting to purchase three (3) Gillig compressed natural gas (CNG) buses via the Washington State agreement. This request is meant to be transitional only, a bridge between diesel and electric. CNG buses do meet the federal parameters for low or no emission vehicles and are consistent with the emissions reduction goals of the Climate Action and Adaptation Program (CAAP). Therefore, staff believes CNG is the best option in the short-term, but only until the electric bus technology has proven itself fully reliable.

## Discussion

Staff is requesting an additional year of data gathering on the existing four (4) BYD electric buses in order to determine their reliability and efficiency before we commit to adding more electric to our fleet. The data we have received to date indicates they are performing well, but because of the history with the previous BYD buses we want to be confident that performance and reliability does not trend downward as the buses age.

Go COMO currently has two (2) 2001 New Flyer diesel buses with over 550,000 miles each and one (1) 2010 Gillig diesel bus with 390,000 miles scheduled for replacement. Since it is often 12-16 months from the time of order to receive a new vehicle, and with the substantial saving via the State of Washington agreement, staff believes CNG replacements will serve as transitional vehicles until electric can be confirmed as viable for fleet service.

Go COMO had previously leased nine (9) early production BYD buses delivered in 2016 & 2017 that resulted in poor overall performance. The buses were subsequently returned to the manufacturer in 2019. After extensive conversations with the vendor, improved training and maintenance support, Go COMO purchased four (4) BYD 30 foot electric buses that were received in October, 2020.

Performance data has been collected for the four (4) BYD electric buses for one year and compared to other bus fleet vehicles. The electric buses have had issues that have been corrected and Go COMO wants to continue to test and receive comparative data for 2022.



If all data confirms the current efficiency and reliability, all new buses will be electric going forward.

Furthermore, the electric buses off of the State of Washington agreement are Gillig brand buses that staff has no experience with. While staff has found the Gillig CNG buses to be extremely mechanically and structurally reliable, going to a Gillig electric bus would result in a new learning curve for drivers and mechanics.

Detailed pricing off the Washing State transit bus agreement includes the following for 35 foot Gillig buses:

- Diesel - \$410,601/each, plus \$1,987 delivery
- CNG - \$455,915/each, plus \$1,987 delivery
- Hybrid (diesel/electric) - \$584,874/each, plus \$1,987 delivery
- Electric - \$808,816/each, plus \$4,804 delivery

Note: 35 foot BYD electric bus pricing - \$780,000/each

The two federal grants applied for and received in 2020 allow for the purchase of any of these options. Therefore that is not a factor in this decision.

### Fiscal Impact

Short-Term Impact: Savings to Go COMO Transit of approximately \$20,000- \$30,000 per bus over vehicles purchased directly from the company, outside of the cooperative agreement.

Long-Term Impact: Unknown at this time.

### Strategic & Comprehensive Plan Impact

Strategic Plan Impacts:

Primary Impact: Resilient Economy, Secondary Impact: Secondary, Tertiary Impact: Tertiary

Comprehensive Plan Impacts:

Primary Impact: Mobility, Connectivity, and Accessibility, Secondary Impact: Environmental Management, Tertiary Impact: Not Applicable

### Legislative History

Date	Action
10/18/2021	B322-21 Authorizing a cooperative agreement with the State of Washington, on behalf of its Department of Enterprise Services, for the purchase of transit buses.



# City of Columbia

701 East Broadway, Columbia, Missouri 65201

09/07/2021	B267-21 Amending the FY 2021 Annual Budget by appropriating funds for the purchase of buses and para-transit vans for the GoCOMO Public Transit System
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## Suggested Council Action

Staff requests authorization to purchase three (3) 35 foot Gillig CNG buses to allow for an additional year to monitor the performance and reliability of our existing four (4) 30 foot BYD electric buses. Staff will prepare a comprehensive report of this performance and submit it to Council prior to the purchase of any additional CNG buses going forward.

If Council directs staff to purchase two (2) electric buses staff will purchase them from BYD directly and not off the Washington State contract due to price and staff familiarity.