File #: 23-0485

REQUEST FOR CITY COUNCIL ACTION

DATE: 06/07/2023

TO: Honorable Mayor and City Council Members

FROM: Community Department

SUBJECT:
RESOLUTION APPROVING THE CITY OF CORONA TRANSIT SERVICE ZERO-EMISSION BUS ROLLOUT PLAN

EXECUTIVE SUMMARY:
This staff report asks the City Council to approve the Zero-emission Bus Rollout Plan prepared in compliance with the State of California Innovative Clean Transit regulation and adopt Resolution 2023-046 authorizing the submission of the Plan to the California Air Resources Board. Pursuant to this state mandate, all transit agencies are required to prepare and submit a Zero-Emission Bus Rollout and Implementation Plan by June 30, 2023, that analyzes existing bus fleet conditions and financial impacts related to the conversion to zero-emission fuel, i.e., battery electric and hydrogen fuel.

RECOMMENDED ACTION:
That the City Council:

a. Approve the City of Corona Transit Service Zero-Emission Bus Rollout Plan.

b. Adopt Resolution No. 2023-046 authorizing the submission of the zero-emission bus rollout plan to the California Air Resources Board as required by the Innovative Clean Transit Regulation.

BACKGROUND & HISTORY:
The California Air Resources Board (CARB) adopted the Innovative Clean Transit (ICT) regulation in December 2018. Per the regulation, all public transit agencies must gradually transition to a 100-percent zero-emission fleet by 2040. This goal is to be achieved through the purchase of new zero-emission buses (ZEB) in accordance with the purchasing rules, shown in the table below. Beginning in 2026 through 2028, 25% of bus purchases each year must comply with zero-emission technology.

And starting in 2029 and thereafter, 100% of fleet purchases must be zero-emission.

Starting January 1	ZEB Percentage of Total New Bus Purchases
2026	25%
2027	25%
2028	25%
2029	100%

Completing the ZEB rollout plans will allow CARB to assess the financial impacts of the regulation on transit agencies and plan for future funding assistance opportunities to aid all agencies in reaching the goal by 2040.

CARB requires the submission of the ZEB rollout plans for small public transit agencies by June 30, 2023. The smaller transit agencies in the Riverside County area approached Riverside County Transportation Commission (RCTC) for assistance in developing the ZEB Rollout Plans to meet the ICT regulation. The smaller transit agencies include the cities of Corona, Banning, Beaumont, Riverside, and Palo Verde Valley Transit Agency.

RCTC agreed to assist and applied for grant funding from the California Department of Transportation (Caltrans) FY 2021-2022 Sustainable Transportation Planning Grant program under the Sustainable Communities Competitive-Technical category. In June 2021, RCTC secured a Caltrans grant in the amount of $271,380 to match the $202,420 in State Transportation Improvement Program Planning, Programming, and Monitoring funds.

On April 13, 2022, RCTC awarded a contract to the Center for Transportation and the Environment (CTE), a 501c-3 nonprofit engineering and planning firm, to develop the ZEB Rollout Plans for the five smaller transit agencies. In addition to each transit agency's ZEB Plan, RCTC will prepare a countywide ZEB Financial Strategy to assist the transit operators with implementation. Following the award of the contract, RCTC and CTE initiated the kickoff meeting with Corona on June 16, 2022, to discuss the key activities and schedule the development of the ZEB Plans.

On February 15, 2023, staff provided an informational presentation to the City Council that included a detailed slide deck of CTE's financial analysis and the existing conditions analysis. The informational presentation was provided to allow the Council time to study the information before selecting the ZEB technology. Based on the results of the assessment, staff recommended pursuing a mixed-fleet fuel source option to include both technologies, battery electric and fuel cell electric buses. On March 15, 2023, the Council selected the mixed-fleet fuel source technology to provide

greater redundancy and resilience benefits and less reliance on a single fuel source.

ANALYSIS:
The final step in this process is the completion and adoption of the Zero-Emission Bus Rollout Plan. The Plan must include several analyzed components to achieve a complete fleet transition to ZEB by 2040.

The following is a summary of the entire Plan. A full copy of the ZEB Plan is attached to this staff report.

Key components analyzed:

- Existing conditions.
    - Relevant demographics
    - Service area characteristics
    - Existing fleet sizes and conditions
- Preparation of reports based on the findings and conclusions and preferred zero-emission technology option(s).
- Development of a detailed capital and operating financial analysis comparing the purchase of ZEB's to the purchase of existing CNG buses and a long-term implementation strategy report.
- Capital Analysis components include:
    - Purchasing & procurement schedule with efforts to avoid early retirement of conventional CNG buses.
    - A schedule and location for ZEB facilities and infrastructure.
    - Training plan and schedule for ZEB operators, maintenance, and repair staff.
- Financial Analysis components include:
    - Fleet costs
    - Fuel costs
    - Maintenance costs
    - Preliminary infrastructure projects & costs
    - Total cost of Ownership
    - Identification of potential funding sources.
- Benefits and drawbacks of each technology, i.e., battery electric and hydrogen cell fuel.

Corona Existing Conditions and Financial Report Summary
CTE was informed that the City is undergoing a Comprehensive Operations Analysis and looking to overhaul routes and services. Due to the mandate criteria, this analysis was required to study the City's conditions under existing service routes. This type of analysis will need to be revisited after the City transitions to its new transit services and routes.

Below is a summary of findings based CTE's analysis specific to Corona's existing transit services and conditions, i.e., existing Blue and Redline routes, relevant demographics, service area characteristics, existing fleet sizes and conditions, location and status of charging and maintenance infrastructure

and financial impacts of each.

Battery Electric Buses

- Fueling time longer than CNG (internal combustion engine (ICE) bus.
- Fuel cost highly variable could be higher or lower than fossil fuels.
- BEB bus cost approximately 50% higher than ICE bus.
- Infrastructure costs increases per bus when scaled up.
- No additional land needed for infrastructure (per staff assessment)

Fuel Cell Electric Buses (aka hydrogen fuel)

- Comparable range to ICE bus - 1:1 replacement ratio.
- Fueling time comparable to ICE bus.
- Fuel cost significantly higher than fossil fuel.
- Bus cost significantly higher than ICE bus.
- High infrastructure costs but reduce per bus when scaled up.
- Greater resilience.
- Land acquisition unknown (not analyzed by CTE as part of this report).

Based on the results of the assessment, a mixed-fleet fuel source option has been selected. Under the Federal Transit Administration bus replacement regulation, Corona is required to purchase seven (7) buses in 2028. Of the seven buses, only two (2) must comply with the purchasing mandate. Given the City's familiarity with battery electric fuel, staff anticipates pursuing that fuel source while continuing to explore the hydrogen fuel technology and allowing it to continue to mature and develop.

The ZEB Plan is a living document that will be revisited as the market matures and as the City's transit services expand. Therefore, the City can, at any time, reassess to determine the technology that best meets both ICT and the City's requirements.

Schedule and Timing

To meet the ICT submission deadline, the following timeline has been scheduled to develop and submit the Corona Transit ZEB Plan:

Tasks	Task Due	Status
#1 Development of Existing Conditions Report	October 2022	Completed
#2 Presentation to City Council to introduce matter, report on existing conditions and technologies available	February 2023	Completed
#3 Council selection of zero-emission bus technology	March 2023	Completed
#4 Council approval of the ZEB Plan based on bus technology approved by City Council on 3/15/23	June 2023	On track for council approval on June 7, 2023
#5 City submittal of ZEB Rollout Plan to CARB	June 2023	On track to submit June 30, 2023

Staff Recommendation

Staff recommends approval of the City of Corona Transit Service Zero-Emission Bus Rollout Plan and adoption of the accompanying resolution authorizing submission of the Plan to the California Air Resources Board by June 30, 2023.

FINANCIAL IMPACT:

There is no fiscal impact currently for the adoption of the Plan.

ENVIRONMENTAL ANALYSIS:

This action is exempt pursuant to Section 15061(b)(3) of the Guidelines for the California Environmental Quality Act (CEQA), which states that a project is exempt from CEQA if the activity is covered by the commonsense exemption that CEQA applies only to projects that have the potential for causing a significant effect on the environment. Where it can be seen with certainty that there is no possibility that the activity in question may have a significant effect on the environment, the activity is not subject to CEQA. This action is merely in further of a state mandate requiring local transit agencies to prepare, adopt and submit a zero-emission bus rollout plan to the California Air Resources Board. There is no possibility that this action will have a significant effect on the environment. Therefore, no environmental analysis is required.

PREPARED BY: SUDESH PAUL, TRANSIT PROGRAM MANAGER & CYNTHIA LARA, COMMUNITY ASSISTANCE MANAGER

REVIEWED BY: DONNA FINCH, INTERMIM COMMUNITY SERVICES DIRECTOR

Attachments:

1. Exhibit 1 - Zero Emission Bus Rollout Plan
2. Exhibit 2 - Resolution 2023-046