

CITY OF SANTA ROSA
CITY COUNCIL

TO: MAYOR AND CITY COUNCIL
FROM: SHAWN SOSA, ADMINISTRATIVE ANALYST
TRANSPORTATION AND PUBLIC WORKS DEPARTMENT
SUBJECT: APPROVAL OF BATTERY LEASE AGREEMENT WITH
PROTERRA INC FOR HIGH VOLTAGE BATTERIES FOR USE IN
THE TRANSIT DIVISION'S BATTERY ELECTRIC BUSES

AGENDA ACTION: RESOLUTION

RECOMMENDATION

It is recommended by the Transportation and Public Works Department that the Council, by resolution, approve authorization for the City Manager or designee to negotiate and execute a Battery Lease Agreement between the City and Proterra Inc, subject to approval as to form by the City Attorney.

EXECUTIVE SUMMARY

This agreement is a high voltage battery lease for the four (4) Battery Electric Buses (BEB) that are being purchased from Proterra Inc for use in the Transit Division's fixed-route fleet. The lease includes installation of the batteries during initial bus build, a limited operational warranty, and a replacement battery 6 years after commencement of the lease. The term of the lease is for 12 years and at expiration, a new lease or purchase will be required if the bus has remaining useful life.

This action would support City Council Goal #5 by investing in and sustaining infrastructure & transportation; and City Council Goal #8 by promoting environmental sustainability.

BACKGROUND

In 2017 and 2018 the Transit Division applied for federal funding to replace aging diesel transit buses with like-kind (40-foot) BEBs and was awarded funding from both applications. During the Transit Division's analysis of available options for BEBs, it was determined that leasing the battery systems would enable the Transit Division to maximize the awarded federal funding by replacing four (4) 20-year old diesel-fueled transit buses instead of three (3) if utilizing a straight purchase for the batteries. Per this analysis and previous Council action, the City, using the California Department of

APPROVAL OF BATTERY LEASE AGREEMENT WITH PROTERRA INC FOR HIGH VOLTAGE BATTERIES FOR USE IN THE TRANSIT DIVISION'S BATTERY ELECTRIC BUSES PAGE 2 OF 5

General Services State Cooperative Purchase Contract 1-19-23-17C, is purchasing four (4) new 40-foot BEB transit buses from Proterra Inc, of Burlingame, California.

Additionally, the City is participating in the Pacific Gas and Electric Company's (PG&E) EV Fleet program to facilitate the construction of infrastructure to support BEB charging at the City's Municipal Services Center (MSC). Per PG&E's Electric Vehicle Deployment Commitment, the City is required to purchase nine (9) BEBs and install five (5) 150 kW chargers within the next five years, while the City operates & maintains this electrical infrastructure for a minimum of ten years. The planned four-bus purchase is a significant step towards meeting the PG&E EV Fleet requirement.

Finally, deploying the City's first four battery-electric buses with a battery lease in place provides additional assurance that battery degradation will not negatively affect the ability to effectively deploy these vehicles in revenue service.

City staff received Council approval in November 2020 to purchase four buses from Proterra Inc, with the understanding that we would return to Council for approval of the Battery Lease Agreement for use in those buses.

PRIOR CITY COUNCIL REVIEW

On May 23, 2017 and June 5, 2018, the City Council, by Resolution Nos. 2017-077 and 2018-086, approved the applications for funds from the FTA's 5339 program for battery-electric buses.

On October 23, 2018 a Council Study Session was presented where zero-emission buses were discussed while reviewing progress in implementing the City's Climate Action Plan.

On April 2, 2019, Council approved the Transportation and Public Works Department application for the PG&E's EV Fleet program for electric vehicle charging infrastructure.

On April 2, 2019, a study session with Council discussed CityBus's fleet plan and anticipated electrification timeline considering fiscal, regulatory, and infrastructure-related factors.

On May 5, 2020, Council, by Resolution No. 2020-066 approved participation in the PG&E EV Fleet Program to develop Battery Electric Bus Charging Infrastructure to support battery-electric bus charging for the CityBus fleet.

On November 17, 2020, Council, by Resolution No 2020-201, approved the Cooperative Procurement purchase under the California Department of General Services State Cooperative Purchase Contract 1-19-23-17C of four 40-foot battery-electric transit buses and selected components from Proterra Inc, Burlingame, California.

APPROVAL OF BATTERY LEASE AGREEMENT WITH PROTERRA INC FOR HIGH VOLTAGE BATTERIES FOR USE IN THE TRANSIT DIVISION'S BATTERY ELECTRIC BUSES PAGE 3 OF 5

On January 5, 2021, Council, by Resolution No. 2021-006, authorized issuance of a Request for Proposals for the Design-Build procurement method for the CityBus Electrical Vehicle Fleet Electrification Project.

On April 27, 2021, Council, by Resolution No. 2021-062, awarded the Design-Build contract for the CityBus Electrical Vehicle Fleet Electrification Project.

ANALYSIS

With available funding from the federal awards, and the minimum required local match, the Transit Division analyzed the best method of procuring the replacement buses to maximize the use of the available funding. Some considerations included in the analysis were:

- Lower up-front costs and ability to retire four 2002 model-year diesel buses and replace with BEBs, instead of three. Leasing bus batteries will enable the City to realize the emissions and operational benefits of a larger initial BEB deployment.
- Amount of battery available to complete a full day of fixed-route service, known as State of Charge (SOC). As batteries age, the SOC drops, as an example:
 - Yr. 1 = 95%
 - Yr. 2 = 93%
 - Yr. 3 = 90%, and so on.

Given the expected degradation of batteries and the charge requirement necessary to complete a full service day in the CityBus system, a battery lease provides additional assurance that the SOC will be sufficient over the life of the bus.

- PG&E EV Fleet Program's requirement to have 9 BEB in the next five years. By leasing the bus batteries, the Transit Division can procure four BEBs and take a significant step towards meeting the PG&E requirement.
- Mid-life battery replacement and opportunity to benefit from advances in battery technology. The Battery Lease Agreement provides for bus batteries to be replaced at the bus's mid-life, likely with updated battery technology (lighter, more kWh, more efficient, etc.). This mid-life replacement ensures that full SOC will be restored to these vehicles following expected battery degradation.

In addition, the Battery Lease Agreement enables the City to lock in pricing with level payments during the 12-year term of the lease. If the City chose to buy the batteries up-front, the replacement cost could be higher than the lease's built-in cost for battery replacement.

APPROVAL OF BATTERY LEASE AGREEMENT WITH PROTERRA INC FOR HIGH VOLTAGE BATTERIES FOR USE IN THE TRANSIT DIVISION'S BATTERY ELECTRIC BUSES PAGE 4 OF 5

In staff's analysis, to ensure a sufficient SOC to perform a full service day for the minimum life of the bus (12 years), a mid-life replacement battery would be required. The comparison to buy vs. lease the battery and get a replacement battery under each option at mid-life are as follows:

- Buy \$321,195 up-front, plus estimated \$383,828 replacement mid-life
 - Total cost per bus = \$705,023
- Lease \$57,356 annual
 - Total cost per bus = \$688,275

The total Battery Lease Agreement cost for the full 12-year term for all four buses is \$2,753,100 based on an annual battery throughput of up to 200,000 kWh. The Battery Lease Agreement provides for an additional charge of \$0.2625 per kWh in excess of this annual battery throughput; however, the Transit Division does not expect to exceed this threshold.

The Battery Lease Agreement that Proterra requires the City to execute includes unfavorable provisions and lacks many of the standard terms, conditions and protections the City typically insists upon in the City's standard contracts to best protect the City's interests. Among other issues, the Battery Lease Agreement includes mutual, rather than one-way indemnity, limitations on liability to the amount paid under the agreement, a binding arbitration requirement, and broad confidentiality and assignment provisions. City staff are familiar with these terms and nevertheless believe that the benefits associated with the Battery Lease Agreement can outweigh the legal risks associated with the non-standard provisions; however, staff will continue negotiations with the vendor on these terms prior to execution in an effort to secure beneficial changes, all of which will be subject to approval as to form by the City Attorney.

FISCAL IMPACT

Approval of this action does not have a fiscal impact on the General Fund.

The Transit Division will pre-pay the first two years of this agreement using FTA Section 5339(b) funds awarded for this bus purchase. Lease payments during the remaining 10 years will be funded by the Transit Division's annual allocation of state Transportation Development Act IV (TDA) funds.

ENVIRONMENTAL IMPACT

The Council finds that the proposed action is exempt from the provisions of the California Environmental Quality Act (CEQA) under section 15061(b)(3) and 15378 in that there is no possibility that the implementation of this action may have significant effects on the environment, and that no further environmental review is required.

APPROVAL OF BATTERY LEASE AGREEMENT WITH PROTERRA INC FOR HIGH VOLTAGE BATTERIES FOR USE IN THE TRANSIT DIVISION'S BATTERY ELECTRIC BUSES PAGE 5 OF 5

BOARD/COMMISSION/COMMITTEE REVIEW AND RECOMMENDATIONS

On September 22, 2020, the Transit Division reported to the Council's Climate Action subcommittee on the findings of staff's research in selecting a BEB type and manufacturer for our initial purchase, and the progress of the charging infrastructure project at the MSC.

NOTIFICATION

Not applicable

ATTACHMENTS

- Resolution/Exhibit A (Agreement)

CONTACT

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