Electric Refuse Truck Purchase

CITY OF FOLSOM
DISTINCTIVE BY NATURE

Background

- Two electric refuse trucks were ordered Jan. 2023 as a pilot project.
- Enterprise fund expense of $810,300, no general fund impact.
- Grant funding of $542,361 contributed to the purchase.
- Delivery was planned for Sept. 2023.
- Initial delivery was delayed over a year due to rodent damage, cooler pump failure, and difficulty obtaining the correct parts.
- Repeat delivery attempts failed due to mechanical issues.
- The primary concern has been transmission failure.

Current Status

- The city notified the vendor of our intent to terminate the contract.
- The vendor met with city staff, acknowledged deficiencies, and proposed a solution.
- Proposed upgrades include:
  - Motor and inverter.
  - Transmission.
  - Prop shaft and motor mount.
  - Hill start assist.
  - Electrical harness.
  - Artificial sound generator.
- Proposal addresses the concerns raised by city staff.
- Federal funding of $200,000 is uncertain due to the delays.

Electric Refuse Truck Pilot Project

- Side loaders use an average of 27 gallons per day of diesel fuel.
- Rear loaders use an average of 20 gallons per day of diesel fuel.
- At current fuel price of around $4.30 per gallon, about $200 per day.
- Reduced maintenance cost: no combustion engine, regenerative brakes.
- Electrical system repairs cannot be done by city staff.
- Charging infrastructure will be level 2.
- Advertised range is 200 miles, our average residential route is 70 miles per day.

Recommendation

- The cost of electric refuse trucks has increased about $200,000 since our order.
- Costs for the purchase will remain at the 2023 pricing.
- Grant funding will contribute up to 40% of the cost.
- Fifty percent of heavy vehicle purchases are required by California's Advanced Clean Fleets to be zero-emission.
- Pilot result will inform future decisions regarding converting to an electric refuse fleet.
- Vendor response addresses concerns raised by staff.