

ELECTRIC AND HYBRID VEHICLE DEMONSTRATION PROGRAM
CITY OF PORTLAND
BUREAU OF FLEET MANAGEMENT

In April of 1980 the City of Portland was selected to participate in a demonstration of electric vehicle technology sponsored by the Department of Energy. Under the Electric and Hybrid Vehicle Demonstration Program, the City purchased 10 electric vehicles from three U.S. manufacturers. The federal government paid 85% of acquisition costs and is providing funding for replacement parts and batteries through the conclusion of the demonstration in April of 1984. The City is contributing in-kind project management and vehicle repair services through the Bureau of Fleet management. The following sections summarize data relevant to the electric vehicle demonstration.

FLEET COMPOSITION:

1. Sedans - (4) manufactured by South Coast Technology, Dearborn, Michigan.
Unit cost \$16,550. Delivery date: April 1981 (VW Rabbit conversion).
2. 1/2 Ton Pickups - (3) manufactured by Electra Motors, Las Vegas, Nevada.
Unit cost \$13,760. Delivery date: February 1981 (Datsun conversion).
3. Mini-vans - (3) manufactured by Jet Industries, Austin, Texas
Unit cost: \$11,800. Delivery date: June 1981 (Subaru conversion).

PERFORMANCE DATA:

Average months in service	:	19
Total fleet mileage as of 6/1/82	:	17,500 miles
Unit average	:	1,750 miles
Useable Range:		
Sedans -		40-45 miles
Vans -		30-35 miles
Pickups-		25-30 miles

Recharging Costs: \$.045 per mile (this is a preliminary figure based on a 385 mile sample and may change significantly once more data is available. For comparison, gas-driven units of comparable size use about \$.085 worth of gasoline per mile).

Operating Costs: The average cost per mile to operate the electrics, excluding the electricity needed for recharging, is \$1.04. Major repair and maintenance expenses have included battery servicing, battery replacement, repairs to chargers, replacement of a clutch, and one transmission rebuild. The operating costs for the electrics have been much higher than the operating costs for comparable gas-driven units. Gas-powered operating costs range from \$.04 per mile for sedans to \$.11 for small pickups.

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