

## Electric Trolley Bus Fact Sheet

### Electric buses comprise the backbone of King County Metro transit service in Seattle

- Fleet consists of 159 electric buses
- 14 routes use electric buses on 68 miles of Seattle streets
- Electric bus routes carry about 1/4 of riders in King County

### Electric buses have environmental benefits

- Increased electric service supports Climate Action goals to reduce greenhouse gases
  - Power comes from 100% carbon neutral Seattle City Light
  - Saves hundreds of thousands of gallons of diesel each year
- Approximately twice as energy-efficient as internal-combustion buses
- Quietest transit vehicles available

### Electric buses have unique operational characteristics

- Must slow down at turns and through switches in the overhead wire system
- Excellent hill climbing ability and acceleration

### City of Seattle is investing directly in transit improvements

- SDOT is investing heavily in better speed and reliability for two major electric corridors
  - Rainier Avenue/Jackson Street (Route 7 to the Rainier Valley)
  - Market/45<sup>th</sup> (Route 44 from Ballard to the University District)

### Costs for electric buses are comparable to diesel and hybrid vehicles

- Electric buses are more expensive but last longer
- Cost to maintain the network is estimated to be \$2.75 million per year, with maintenance occurring at a rate that prevents the need to ever completely replace the system
- A King County audit claimed a much higher incremental cost of operating trolleys (though still less than 2% of Metro's budget)

### Electric buses are due for replacement in 2013-14

- King County is considering the replacement of electric buses with diesel hybrid vehicles
- King County will begin a detailed analysis of trolley alternatives in 2010, including system expansion which costs about \$4-6M per mile
- Decisions will be needed in 2011 for purchasing new fleet in 2013-14

### Modern electric buses are much improved

- New trolleys such as those in Vancouver include off-wire capability (to detour around accidents and construction), air conditioning, low floors (wheelchair ramp instead of lift), and other state of the art features



Electric trolley buses, such as this one in Vancouver, B.C., draw electricity from overhead wires.