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/45th (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