



Metro Transit Electric Bus Initiative

Transportation Committee

March 28, 2016

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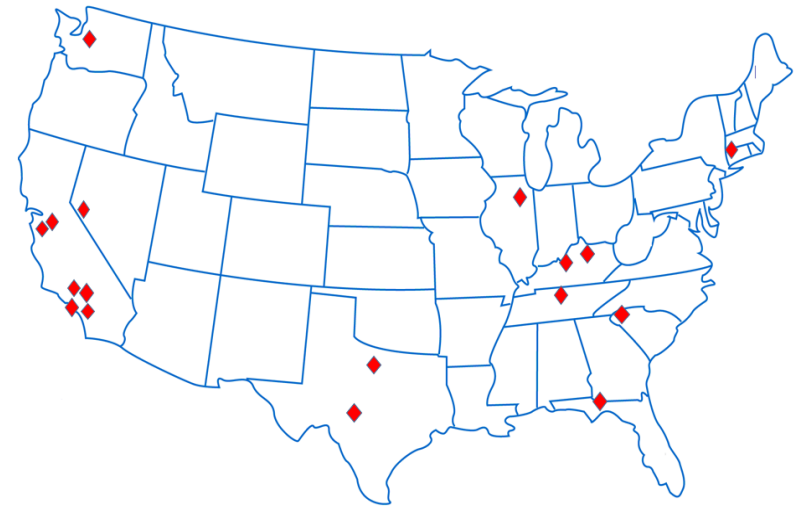
Electric Bus Technology

- Electric propulsion
- On-board energy storage
 - Two approaches
- No engine emissions
- Lower maintenance costs
- Quiet operation



Electric Bus Research

- Electric bus demonstrations
 - April, May of 2015
 - New Flyer, Proterra, BYD
- Transit property visits
 - L.A. Metro, Antelope Valley
 - Foothill Transit
 - Winnipeg Transit
- Manufacturer meetings
 - BYD
 - New Flyer



Electric bus fleet locations

Electric Bus Challenges

- Route and scheduling questions
 - Limited bus range
 - On-route charging
 - 5 bus maximum / hr.
- Technology questions
 - Battery life
 - Bus design
 - Incompatible charging systems



Electric Bus Costs

- 40' Bus price - \$325,000 premium
- Charging stations
 - On-route - \$500,000
 - Garage - \$50,000
- Energy costs
 - On-route charging vs. garage charging rates
 - Diesel vs. electric



Going Forward

- Anticipated technology improvements
 - Improved and less costly batteries
 - Standardized charging equipment
- Lo-No grant
 - Five 40' electric buses
 - One on-route charger
- Future RFP
 - 40' and 60' electric buses
 - Charging stations

