Electric Buses
and other Broward County Transit Initiatives
Broward County Transit

• 2nd largest transit system in the State of Florida
• Two major operations & maintenance facilities
  • Copans Road – Pompano Beach
  • Ravenswood Road – Dania Beach
• Four major transfer facilities
  • Downtown Main Terminal on Broward Blvd., Lauderhill Mall, Northeast Transit Center & West Regional
Services Provided

• 44 weekday bus routes
• Partnerships with 19 cities for Community Bus
• In FY 2018, BCT provided over 30.8 million passenger trips
  • 27.8 million Fixed-Route passenger trips
  • 2.2 million Community Bus passenger trips
• Over 867,293 Paratransit trips
Broward County’s Commitment to Zero Emission Transportation

- Procuring only zero emission vehicles for appropriate fleet by 2030
- Promoting the roll out of zero emission vehicles charging infrastructure and fueling stations
- Providing incentives for the purchase of zero emission vehicles by consumers and businesses.
New Electric Bus Initiative

Why Electric?

- Advancement of clean, sustainable, innovative transportation and energy technologies
- Environmental and health Benefits
- Cost per mile savings
- Reduced maintenance
- Ride quality
New Electric Bus Initiative

Electric Bus Trends

- Approximately 330 in the US
- Approximately 2,500 in Europe
- Approximately 385,000 in China

- First Step: Hybrid fleets
- Long Term: 100% electric
- Improved battery technology
New Electric Bus Initiative

Underway/Planned

• Addition of electric buses to Broward County Transit fleet.
  • Five 45 foot over the road coach buses ordered for new I-75 express service
  • Fifteen 40 foot buses to be purchased for existing local service
  • Investigation of various type of electric technologies for the development of specifications for future bus purchases
  • Testing of various electric vehicles to determine suitability
  • Improvements at two existing Transit maintenance facilities to add electric bus charging infrastructure
  • Addition of new solar canopies to offset new electric loads
New Electric Bus Initiative

Key Challenges

- Initial capital cost (Vehicle and Infrastructure)
- New operational and scheduling requirements
- Training and driver behavior
- Procurement hurdles
- Charging interoperability / standards
- Coordination with utility company
Other Sustainable Initiatives

Efficient AC Systems

• Rooftop air conditioning specified on all new bus purchases for more efficient cooling, less engine drag, better performance
Other Sustainable Initiatives

Hybrid Buses in Fleet

- 40 foot hybrid bus purchases started in 2007
- 42 foot hybrid bus with WiFi
- Average 20% increase in fuel efficiency
Other Sustainable Initiatives

Articulated Buses

• First hybrid articulated (60 foot) bus purchased in 2009
• More passengers per trip combined with fuel efficiency
• 19 of 47 articulated buses are now hybrid
Other Sustainable Initiatives

Solar Lit Bus Shelters

• 575 solar lit shelters installed in various cities and Unincorporated Broward County.
• Hundreds more to be installed in the coming years.
Other Sustainable Initiatives

Fleet Replacement

• 55 new propane vehicles for Community Shuttle service by 2020
• Propane costs are approximately $1.20 less per gallon than gas
• 19,318,336 fewer lbs of CO2 produced to date
First countywide bike sharing system
A healthy form of transportation that’s good for you and the environment
Great for short trips lasting under half-hour and connections to other Transportation
Over 274,000 trips taken since program launch in 2011
Over 197,000 riders and 23,579 annual members
994,032 miles ridden, saving 48,964 gallons of gas
964,592 lbs of carbon offset (GHG emissions)
40,302.021 calories & 10,643 lbs of fat burned
Located in Pompano Beach, Lauderdale-by-the-Sea, Fort Lauderdale, Hollywood, Dania Beach & Hallandale Beach
Future Initiatives

Expand Electric Bus Pilot Programs

- Hydrogen Fuel Cell buses
- New battery technology
Future Initiatives

Facility Solar Panel Installation

- Net metering
- Bi-directional metering
- Reduce grid dependence
Penny for Transportation

Plan Overview

- Collaborative plan with projects in every community
- Prioritizing connectivity and congestion relief
- Dedicated 30 year transportation-specific funding
- Independent Board reviews revenues and expenditures, assuring project transparency and accountability.
- Makes Broward County eligible for a larger share of state and federal funds.
Penny for Transportation

Transit Projects Include:

- Bus service enhancements
  - Route extensions, realignments, increased frequencies, service spans, new local routes, new rapid bus on 8 corridors
- Light Rail Transit (26 miles) – location TBD
- Full funding for Community Shuttle and Paratransit programs
- Transit center and park and ride lot expansion
- Bus shelters and related amenities
Penny for Transportation

Multimodal Projects Include:

- Roadway improvements
- Traffic signal synchronization (real time information)
- Fiber optic cables
- Countywide traffic video system
- Sidewalk and bike lanes
- Street lighting
- School safety zones
- Improved drainage
- Future technology adaptation
Questions?

www.broward.org/bct