WHY GO ELECTRIC?

- Advancement of a cleaner, more sustainable, innovative transportation and energy technologies system
- Environmental and health benefits to the riding public
- Ride quality / experience
- Cost per mile savings
- Reduces maintenance and operational cost
Planning & Analysis

- Route and Schedule Evaluation
  - Length of route
  - Layovers and bus stops
  - Deadhead miles

- Service Type
  - Local
  - Express
  - Circulator

- Fleet Replacement Schedule

- Coordination with Local Utility Company

Vehicle Operations

- Route Analysis
- Ops Planning
- Battery Efficiency
- Stress Testing
- Vehicle Spec
Planning & Analysis

- Space / bus parking requirement
- Bus Procurement
  - Type of vehicle
  - Range
  - Battery capacity
  - Warranty
  - Maintainability
- Efficient and viable charging infrastructure (AC or DC)
- Electrification Phasing
Installation

Charging Infrastructure

- Power/grid requirement
- Type of chargers
  - Depot
  - En-route
- Charging requirements
  - Kilowatts
  - Charge rate
  - Number of units
- Specification of electric equipment
Installation

Additional Infrastructure

- Smart Charging Network
- Backup power (redundancy)
- Electrical rooms
- Fleet Car Chargers
Installation

Solar Initiatives

- Solar canopies
- Solar panels – roof installation
- Reduce grid dependence
Challenges

- Upfront capital cost / funding – vehicle and infrastructure

- Charging
  - Interoperability
  - Standards

- Management
  - Space
  - Charging

- Training and driver behavior

- Climate
  - Rainfall
  - Heat