Electrifying State Light-Duty Fleets & Transit

- Moderator:
  - **Alexa Voytek**, Energy Consultant/Senior Program Manager, Tennessee Department of Environment and Conservation
- Speakers:
  - **Secretary Chuck Brown**, Louisiana Department of Environmental Quality
  - **India Birdsong**, Chief Operating Officer, WeGo Public Transit/RTA of Middle Tennessee

NATIONAL GOVERNORS ASSOCIATION

Electrifying State Light-Duty Fleets & Transit

Chuck Brown, Louisiana Department of Environmental Quality

LDEQ – Driving into the future

Chuck Carr Brown, Ph.D. – Secretary


Alternative Fuel Corridor
Ann Vail Shaneyfelt
Susan Shiflett

MAP of I-10: FHWA Approved Alternative Fuel Ready Corridor

I-10 is a major transcontinental interstate highway in the southern United States and covers 274.42 miles across the southern portion of Louisiana from Texas to Mississippi. This section of the interstate travels through Sulphur, West Lake, Lake Charles in the west; Lafayette at the crossroads of Interstate 49; the Greater Baton Rouge area, Louisiana's Capitol City; south to the New Orleans metropolitan area on to Mississippi.

CNG READY: **I-10:** From LA/TX border to New Orleans, LA
LNG READY: **I-10:** From LA/TX border to Lafayette, LA
LPG READY: **I-10:** From TX border to LA/MS border

*Approval pending for CNG from N.O. to LA/MS boarder.
*Approval pending for LNG from Lafayette to LA/MS boarder.

MAP of I-20: FHWA Approved Alternative Fuel Ready Corridor

I-20 is a part of the interstate highway system that spans 1,539.38 miles from Reeves County, Texas to Florence, South Carolina. Within the state of Louisiana, the highway travels 189.94 miles from the Texas state line west of Greenwood to the Mississippi River. I-20 traverses the northern portion of the state, serving the metropolitan areas of Shreveport-Bossier City and Monroe, as well as the smaller cities of Minden and Ruston.

CNG READY: **I-20:** From TX border to LA/MS border

LPG READY: **I-20:** From LA/TX border to Tallulah, LA

MAP of I-49: FHWA Approved Alternative Fuel Ready Corridor

I-49 is an interstate highway that spans 243.36 in a north-south direction, running from I-10 in Lafayette to the Arkansas state line north of Shreveport, largely paralleling the older US 71 corridor and connects the state's two east-west interstates at two if its metropolitan centers.

CNG READY: **I-49:** From Shreveport, LA to Lafayette, LA

MAP of I-12: FHWA Pending Approval Alternative Fuel Ready Corridor

I-12 is an interstate highway located entirely within the state of Louisiana. It spans a total of 86.65 miles in an east-west direction from I-10 in Baton Rouge to an interchange with both 1-10 and I-59 in Slidell. It also intersects with I-55 in Hammond. It serves as a northern bypass of the New Orleans metropolitan area and is heavily used as a shortcut for the through traffic on I-10.

LPG READY: I-12: **From Baton Rouge, LA to Slidell, LA (at the intersection at I-10)**

Contact Information

Chuck Carr Brown, Ph. D.

225-219-3950

chuck.brown@la.gov

DEQ Web site

www.deq.louisiana.gov

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Electric Vehicle Usage in Public Transit

Presented by India Birdsong, Chief Operating Officer, WeGo/RTA

3/11/19

WeGo Public Transit

Customizing the Product: Electric Vehicles (EV) in Nashville

Proterra (Bus Manufacturer)

WeGo (Music City Circuit)

WeGo Report Card: January 2019

Charging Forward

- On average, two gallons of diesel fuel creates as many pounds of carbon dioxide as a tree sequesters in one year.
- This month WeGo saved 39883 pounds of greenhouse gases. It's like planting:

- **831 trees**

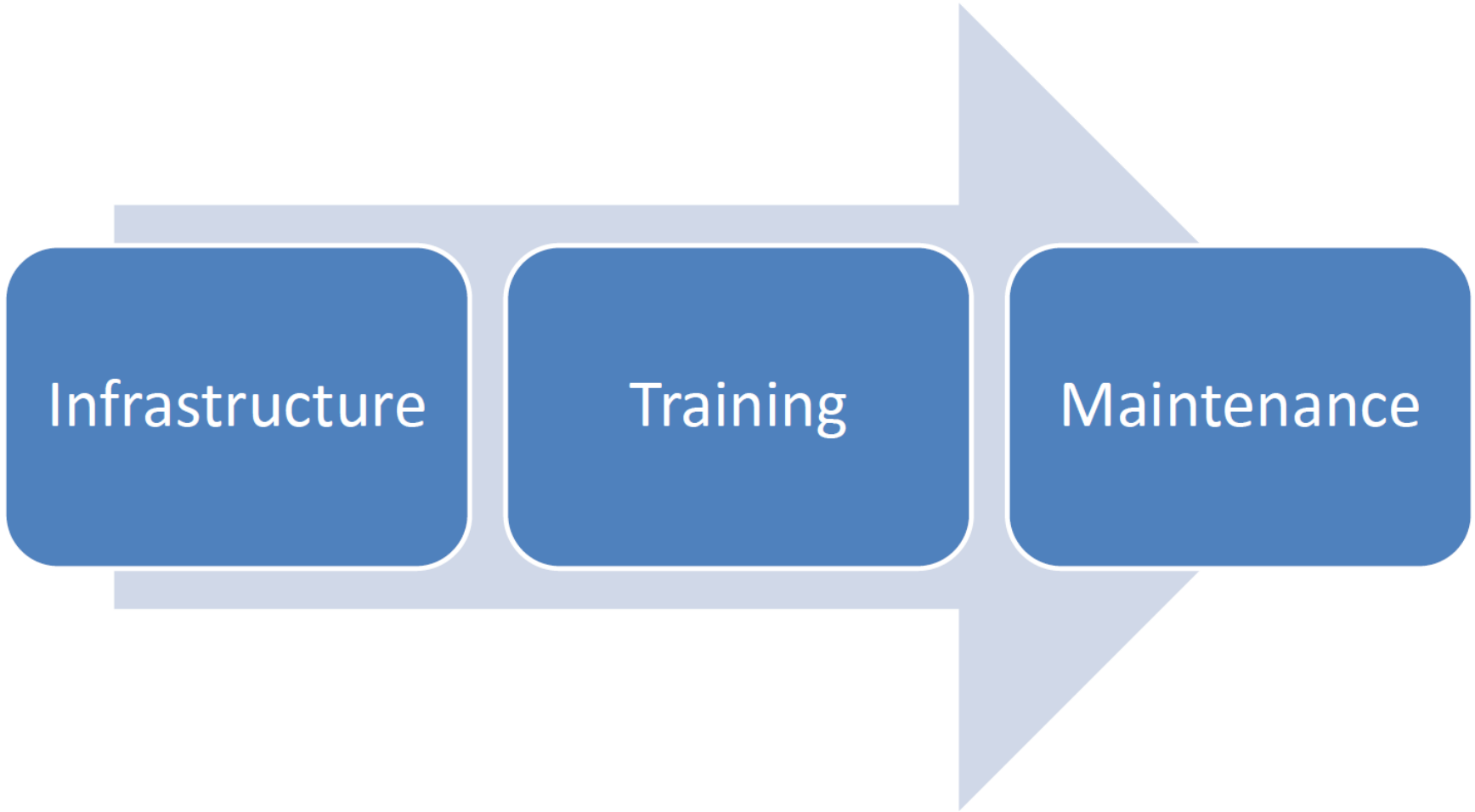
Monthly Statistics

- Average MPGe: 12.0
- Total charge cycles: 999
- Total kWhr consumption: 19,718
- Average time per charge (min): 7 min 23 sec
  - *Includes 1 minute for docking*

Operational Considerations: Battery Life and Usage

- Typography
  - Hills/flat ground
- Weather conditions
  - A/C or excessive heat
- High traffic areas / cross-town service
  - Downtown area
- Special Event / traffic delays
  - Special events, parades, AM/PM rush hour traffic

Preparing for Revenue Service --- What's Involved?



Preparing for EV Infrastructure

- Location, location, location!
  - Frequency & usage of station; operating in mixed traffic areas
- Protecting your Asset
  - Removable bollards; overhead chargers
- Station Amenities
  - Traffic gates; enhanced lighting; bus only lanes
- Auxiliary / Mobile Chargers

Training for EV Bus Operations

- Operator Training
  - What's different? Solicit operator feedback.
- Train in Phases
  - Picked runs, then extra board operators trained. Refresher trainings available for additional instruction.
- Get in the Field!
  - Eight hour training, 2.5 classroom and 5.5 driving (groups of 3). Practice docking at both stations.

Maintenance of Your EV

- Training Your Maintenance Team
  - Effective transfer of knowledge from EV technician, during initial integration into fleet
- Inventory Adjustments
  - Parts list updated to ensure quick turnaround for minor mechanical repairs
- Operating within a mixed fleet
  - When charging station or EV buses down, be prepared to run alternative fleet as replacement until EV service restored.