America's New Pollution King
Transportation emissions have surpassed electricity emissions for the first time since 1978

- Electricity emissions (metric tons of CO2)
- Transportation emissions

U.S. Energy Information Administration
Bloomberg
Broward County’s Commitment
Benefits of EVs

**eGallon:** Compare the costs of driving with electricity

**What is eGallon?**
It is the cost of fueling a vehicle with electricity compared to a similar vehicle that runs on gasoline.

**Did you know?**
On average, it costs about half as much to drive an electric vehicle.

Find out how much it costs to fuel an electric vehicle in your state

<table>
<thead>
<tr>
<th>Component</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>regular gasoline</td>
<td>2.39</td>
</tr>
<tr>
<td>electric eGallon</td>
<td>1.09</td>
</tr>
</tbody>
</table>

Data and Methodology
Updated: October 05, 2019
Benefits of Evs (cont.)

State Averages for Florida

Electricity Sources

- **Natural Gas**: 70.46%
- **Coal**: 12.30%
- **Nuclear**: 11.97%
- **Biomass**: 2.09%
- **Other Fossil**: 1.22%
- **Solar**: 1.01%
- **Oil**: 0.85%
- **Hydro**: 0.10%

Annual Emissions per Vehicle

- **All Electric**: 4,474 pounds of CO2 equivalent
Overtaking Lane
Electric vehicle sales will surpass internal combustion engine sales by 2038

Source: Bloomberg New Energy Finance
Electric Vehicle Growth in Broward County

Registered BEV and PHEV Broward County
Registered BEV and PHEV Florida

Q4 2013: 738
Q4 2014: 6,377
Q3 2015: 10,068
Q4 2016: 12,749
Q4 2017: 19,627
Q4 2018: 24,852
Q2 2019: 47,533
Q4 2013: 1,206
Q4 2014: 1,480
Q4 2015: 2,339
Q4 2016: 2,922
Q4 2017: 4,518
Q2 2019: 5,606
SOUTHEAST EV — CUMULATIVE EV SALES

- Florida: 50,000 BEV, 10,000 PHEV
- Georgia: 30,000 BEV, 5,000 PHEV
- Virginia: 20,000 BEV, 3,000 PHEV
- North Carolina: 15,000 BEV, 2,000 PHEV
- Tennessee: 10,000 BEV, 1,000 PHEV
- South Carolina: 5,000 BEV, 1,000 PHEV
- Alabama: 2,000 BEV, 1,000 PHEV
- Mississippi: 1,000 BEV, 500 PHEV

Legend:
- BEV: Dark Blue
- PHEV: Orange
County’s Process of Going Electric

- Setting a goal: 100% electric fleet by 2030
- Establishing a plan
- Installing charging infrastructure
- Purchasing the vehicles
EV Planning

County EV Plan will include:
- Plan for EV replacement
- Plan for EV charger siting
- Vehicle and charger data tracking strategy
- Workplace charging strategy
- Driver experience resources
Installing Charging Infrastructure

Level 2

Electric Panel Room Discussion with FPL, CMD, FSD, FMD and Consultants

DC Fast/Level 3
Installing Charging Infrastructure (cont.)

Distribution System Infrastructure Needed for ZEVs

- Electric Distribution Infrastructure
  - Electric Distribution Service
  - Electric Vehicle Supply Equipment (EVSE)
- Utility Distribution Network
- Utility Pad Mounted Transformer
- Meter
- Panel (Boring/Trenching)
- Conductor (Boring/Trenching)
- EV Charger
- Electric Vehicle
- EV Service Connection
- EV Supply Infrastructure
- EV Charger Equipment
EV Options for the County

2019 Chevy Bolt

2019 Nissan Leaf

“I enjoyed the ride . . . It has ample trunk space to put whatever equipment and materials I need . . . To date, I have not had any issues when I needed to charge the car.” - Anonymous County Employee
EVs & Community-wide Resiliency

County Effort
- Community-wide strategy
- Grant program for multi-unit dwellings
- County workplace charging
- More EV rentals at airport

State/Regional Efforts
- Florida EV Roadmap
- Alternate Fuel Resiliency Plan
- Compact EV Summit
- FDOT - Alternative Fuel Corridor Designation
  - FTP ACES Subcommittee
- Electrify America’s Investment
Climate Compact EV Workshop

Alignment of Regional EV Planning
Alternative Fuel Corridor
Electrify America Cycle 1 Investments
Volkswagen Settlement

Eligible Mitigation Action Allocations ($166M)

- School, Transit, and Shuttle Buses (70%)
- Light-Duty ZEV Supply Equipment (15%)
- Diesel Emissions Reduction Act (DERA) (15%)

Air Quality Priority Areas
- Northwest
- Northeast
- Central
- Southwest
- Southeast
EV innovation on the horizon...

- EV trucks, SUVs and mini-vans
- Opportunities to couple solar and EV charging (BARC and Central Broward Regional Park)
- EV to grid technology
- Faster chargers and new ways to charge (EV charging roads & battery switching)
- Autonomous vehicles

Thank you
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