Regional Electrification Plan

Transportation Coordinating Committee (TCC) Meeting

06.03.2022

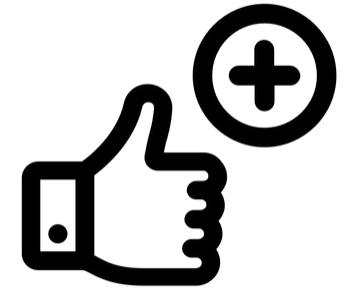# Agenda

Credit: Forbes

➤ Why?

➤ Opportunities

➤ Current Context

➤ Regional Electrification Plan

Why?

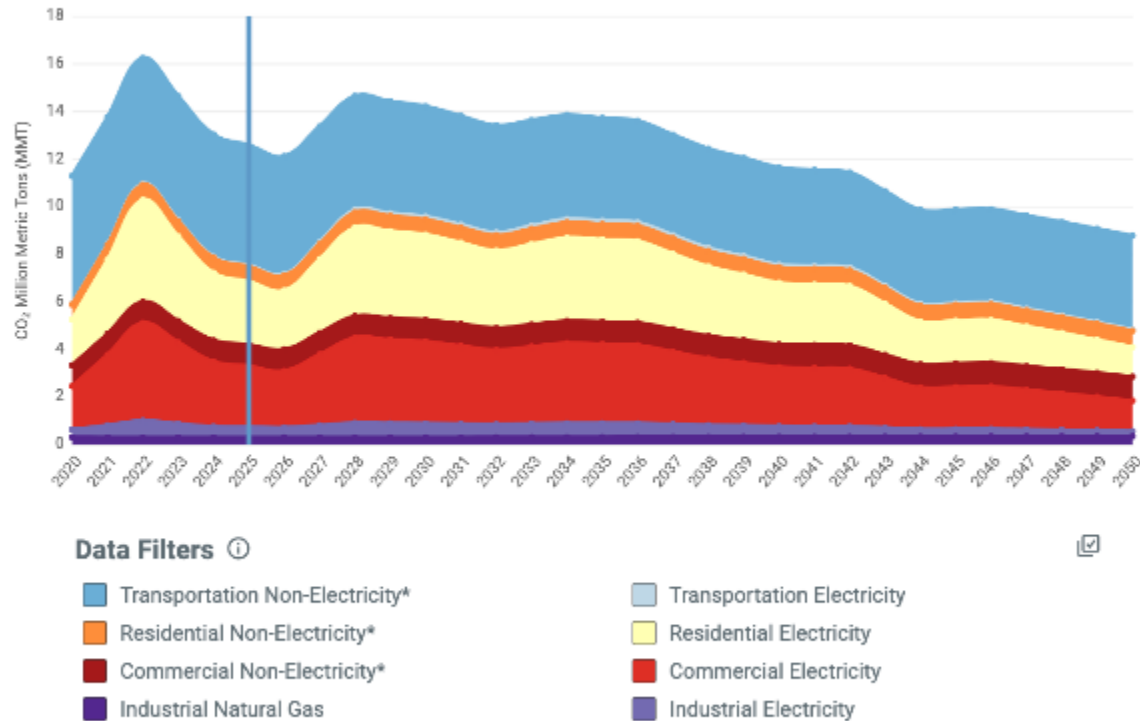# Electric Vehicle Advantages

- No tailpipe emissions
- Less maintenance
- Charge using a variety of energy sources
- Flexible energy use
- Will achieve cost parity with ICE (internal combustible engine) vehicles by 2023

SLOPE Scenario Planner

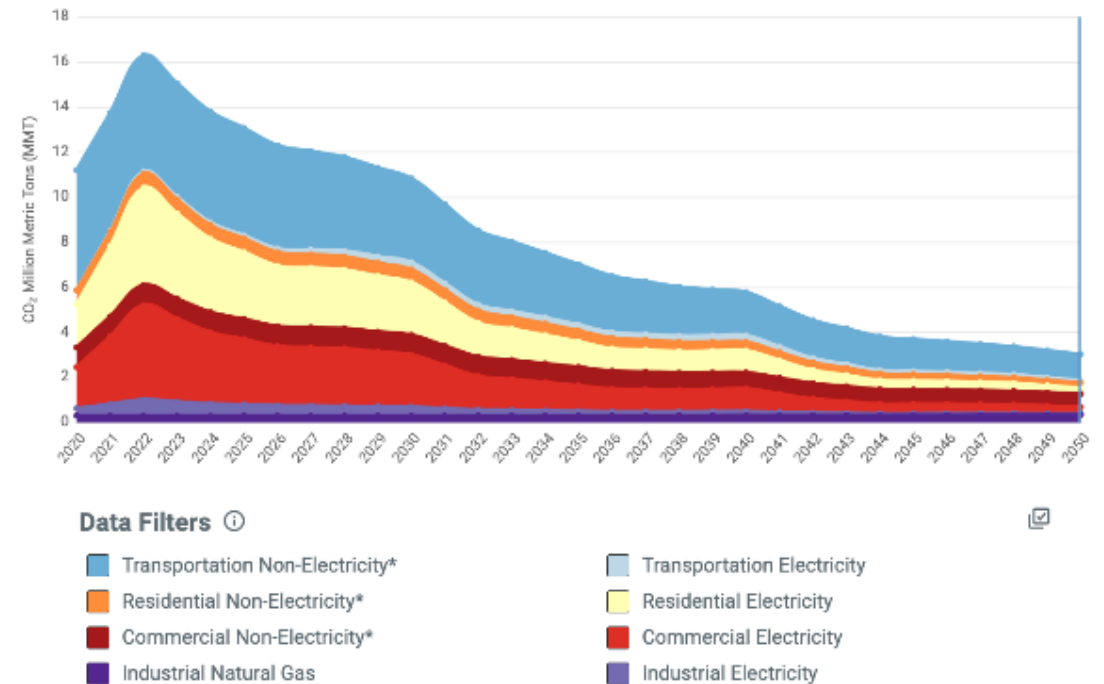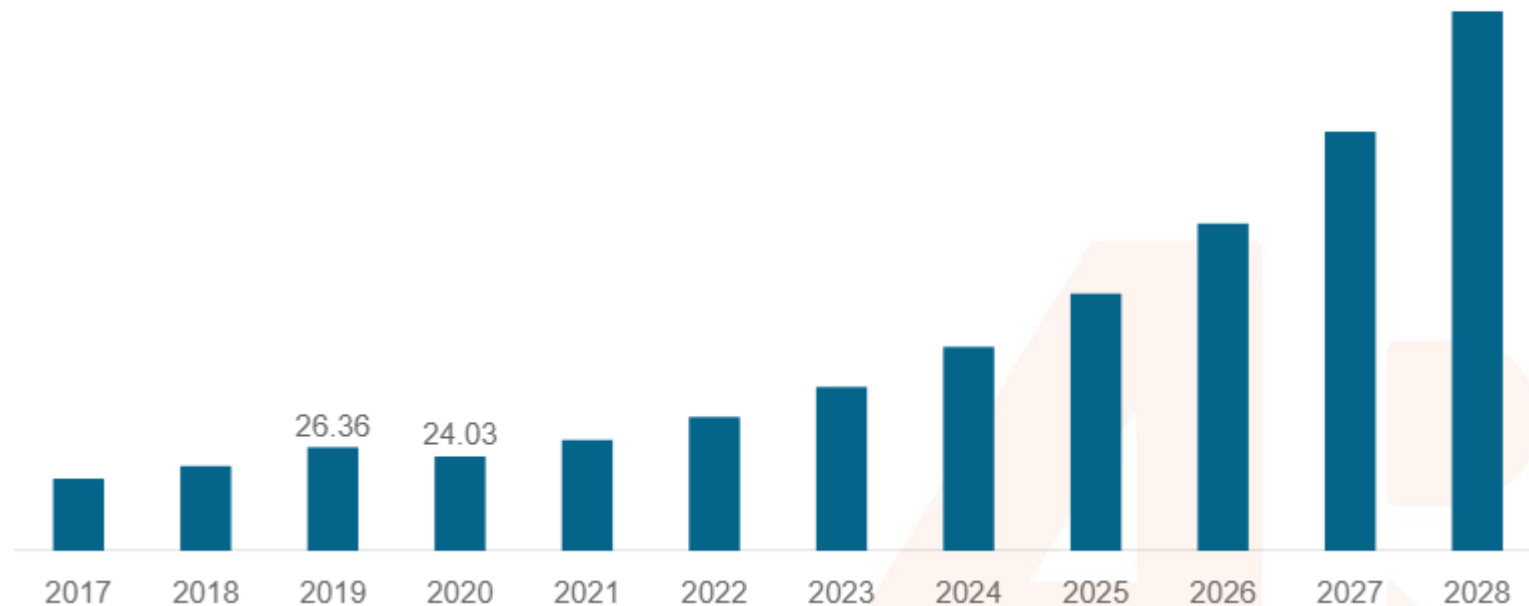The 2050 business-as-usual scenario projects a 22% emissions reduction from 2020 levels

95% electricity grid decarbonization would reduce emissions 24% by 2050. Widespread adoption of electric vehicles achieves 75% emissions reductions by 2050

National Research Energy Laboratory https://maps.nrel.gov/slope

EV Market Growth

➤ EV share of <u>all new vehicle sales</u> in the US to grow from 3.4% (2021) to 8.5% (2025)

➤ GA is growing in market share

➤ EVs will dominate global powertrains by <u>2037</u> (49 new models to be released over the next three years, with a range of 200 miles or more – most at 300)

U.S. Electric Vehicle Market Size, 2017-2028 (USD Billion)

Bullet data by Cox Automotive. Graph by Fortune Business Insights.

Opportunities

Opportunities & Challenges

➤ Relative lower cost of electricity in GA

➤ Gov't, Freight, and Transit Fleet Transitions

➤ Utility Companies Advancing Electrification

➤ Inequitable Access to EVs & Charging

➤ Petroleum Companies Evolving

➤ Battery Technology and Supply

➤ Grid Modernization

➤ Land Use/Built Environment Compatibility

➤ Shared Mobility Demand and Access

➤ Local Revenue Generation

➤ Future Proofing

➤ State Energy Policies & Programs

Gov't, Freight, & Transit Fleets

➤ 650,000 U.S. gov't EVs by 2040

➤ UPS reserves 125 Tesla Tractors

➤ 100,000 Amazon EVs by 2030

➤ Entire FedEx fleet by 2040

➤ MARTA deploying six e-buses this year

➤ Local fleet transitions

➤ School Districts

Land Use & Built Environment

- ➤ Planning & Zoning
- ➤ Building Codes
- ➤ Parking Design
- ➤ Gas Stations
- ➤ Retail & Shopping
- ➤ Single-Family vs. Multi-Family Residential accommodations
- ➤ Curbside Management

Current Context

Recent Policies and Programs

➤ Bipartisan Infrastructure Law
- Georgia will receive $115 million in EV charging infrastructure funding

➤ GDOT : National Electric Vehicle Infrastructure (NEVI) Plan
- Must complete by 8/1/22 before BIL funds can be spent

➤ ATL : Zero Emission Transition Plan
- $1 million plan currently in selection process

➤ City of Atlanta building code requiring pre-wiring for charging in new construction

➤ Walton EMC investing in charging infrastructure

➤ Cox Automotive PIVET fleet electrification program

➤ Georgia Power (gerogiapower.com/ev) :
- Community Charging
- Make Ready

Regional Electrification Plan

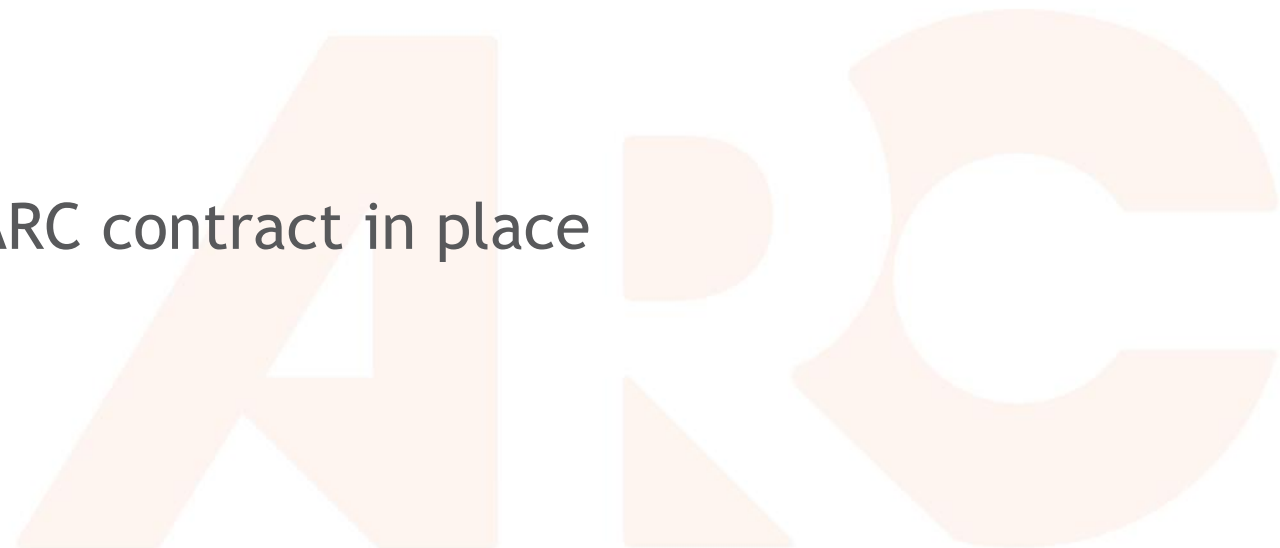# Regional Electrification Plan Overview

➤ Timeline
  - 12 Month Contract w/ option to extend

➤ Budget
  - $500,000

➤ Schedule
  - Currently working to get GDOT-ARC contract in place
  - RFP Announcement to follow

Regional Electrification Plan Goals

➤ Relationship Building
- New stakeholders outside ARC's current partner list

➤ Regional Environment and Context
- Assessment of the current and projected trends in the region impacting electrification

➤ Vision
- Performance targets to be continually evaluated

➤ Strategy
- Prioritizing projects for funding and giving local governments a better understanding of how to plan for an electric future
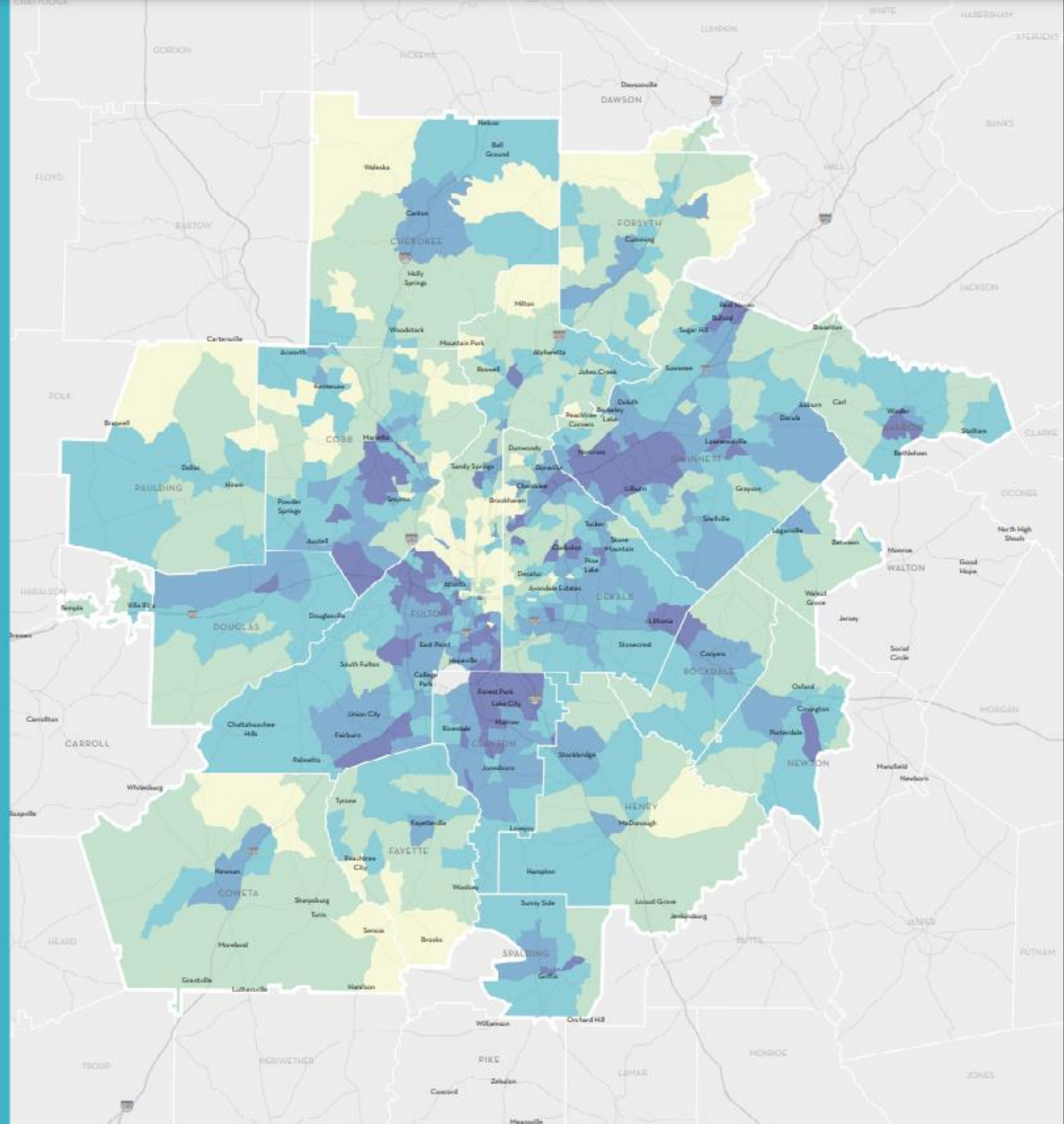
Equity

➤ Accelerating equitable adoption of EVs

➤ Reducing transportation-related greenhouse gas emissions

➤ Positioning the region's workforce to support resulting investments and deployments

Equity Analysis: Protected Classes Model

The adjacent map reflects concentrations of specific demographic and socioeconomic criteria at the census tract level across the region. This analysis is used throughout ARC to demonstrate compliance with Federal guidance and to support equitable treatment of populations identified through environmental justice legislation.
The analysis criteria includes:

- Older Adults
- Youth
- Females
- Racial Minority
- Ethnic Minority
- National Origin
- Limited English Proficiency
- People with Disabilities
- Low-Income

Legend

Concentration of Protected Classes

- Most Concentrated
- Least Concentrated

Thank you

Maria Roell: mroell@altantaregional.org

Kofi Wakhisi: kwakhisi@atlantaregional.org