Welcome to Savannah!

- Savannah is well known for its beautiful coastal landscapes, its well-preserved architecture and its rich, vibrant history
  - Georgia’s first city

Bonaventure Cemetery featured in Midnight in the Garden of Good and Evil

The Cathedral of St. John the Baptist
Savannah’s Parks and Squares

• The squares and parks of Savannah are the community's most beloved icons
  – 22 of the original 24 squares remain today

Forsyth Park

The bench from Forrest Gump in Chippewa Square
Port of Savannah

- Home to the largest single-terminal container facility of its kind in North America
  - Comprised of two modern, deep-water terminals
Georgia Transmission Corporation

- Transmission-only, not-for-profit cooperative
- Formed in March 1997 from the restructuring of Oglethorpe Power Corporation
  - GTC provides network transmission services to 38 Member EMCs
    - Serves more than 70% of the land area in Georgia
  - 9,450 MW peak load
    - 35% of state’s peak demand
- Almost 300 employees
Statewide Stewardship

Oglethorpe Power

Georgia Transmission

Georgia System Operations

EMC Member owned

GREEN POWER EMC RENEWABLE ENERGY

Georgia EMC

CONFIDENTIAL
GTC Statistics

• Over 3,400 miles of line
  – 46 kV: 247 miles
  – 115 kV: 1,376 miles
  – 230 kV: 1,301 miles
  – 500 kV: 535 miles

• 742 transmission and distribution substations

• $3B in total assets
• GTC plans, builds and maintains transmission assets for our Members

• GTC has access to almost 18,000 miles of transmission lines in Georgia through the Georgia Integrated Transmission System (ITS)

• Through the ITS, each owner can take service from any substation or transmission line throughout the system with few exceptions
Georgia Integrated Transmission System (ITS)

- Transmission facilities owned by GTC, Georgia Power Company, MEAG Power and Dalton Utilities
- System is jointly planned and operated
- Alleviates need to construct duplicate facilities or to request transmission service
How Does the Georgia ITS Work?

• Transmission lines and substations are owned and maintained separately
  – Pro-rata investment share of total transmission assets needed
  – Payments made by those who are under invested to those who are over invested

• Access to and use of entire transmission system
Transmission in Georgia
Customer Choice Substations

Thumbs Up Substation

- 1-million square foot data center located in Social Circle, GA
- New 115 kV, (13) breaker and a half dedicated customer substation
- Walton EMC
GTC Focus on Reliability

DP-SAIDI Trend

DP-SAIFI Trend

DP-MAIFI Trend
Favorite Quote

• "We all want progress, but if you're on the wrong road, progress means doing an about-turn and walking back to the right road; in that case, the man who turns back soonerest is the most progressive." – C.S. Lewis

Source: Georgia Public Policy Foundation Friday Facts – December 31, 2010
What’s on our Mind?

• Solar integration
• BESS
• Promotion of EVs
Solar PV & Battery Activity in Georgia

- Concentrated in South and Central Georgia
- Largest plant: 615 MW
- Average plant: 120 MW

- 152 requests for the interconnection of 18,204 MW (in Georgia)
- 1,719 MW in commercial operation
- 2,615 MW under construction
  - Includes one solar plant with batteries (213 MW)
- 13,870 MW under study
  - Includes 1,605 MW of solar with batteries
  - Includes 1,500 MW of batteries only
- As of February 2020
Solar Plant Size Increasing

- Initial sizes were < 20 MW
- Reduces diversity to cloud cover resulting in potential voltage variability/swings
- Presents interconnection challenges
Battery Energy Storage Systems

• GTC is evaluating BESS opportunities for different types of applications
  – Peak reduction
  – T&D system deferral
  – Renewable firming
  – Reliability/Resilience
  – Commercial

• Stand alone or paired with solar
Impact of EVs

• Households that have an EV could see a 30% increase in energy sales
  – GTC promoting managing charging cycles to limit demand growth

• Commercial EVs are ripe for growth
  – Georgia has great opportunity due to location expanded supply chain
Industrial and Commercial Customers

• Industrial partnerships – Green Initiatives
  – Nearly half of Fortune 500 companies have clean energy purchasing targets
• Fleet conversion
  – UPS
  – USPS
  – Walmart
  – FedEx (1000 Vehicles)
  – Amazon (100,000 Vehicles)
• Forklift conversion
• EVs can be much better than a break-even proposition
Questions?