Advancing Economic Development Through Innovation in Energy Technology
Georgia’s Centers Of Innovation Connecting To The Innovation Ecosystem

• The Centers of Innovation are “solution integrators” connecting companies to the vast resources of Georgia’s Innovation Ecosystem through:
  – Technical Industry Expertise
  – Collaborative Research
  – Partnerships
Georgia’s Centers of Innovation
Advancing Economic Development Through Innovation

• **focus on Key Industries** to accelerate businesses ability to connect, compete and grow
  1. Logistics (Savannah)
  2. Agribusiness (Tifton)
  3. Aerospace (Macon)
  4. Manufacturing (Atlanta)
  5. Information Technology (Atlanta)
  6. Energy Technology (Atlanta)
Energy Technology $$$ Outflow for Fossil Fuels

Approx. Annual Cash Outflow For Energy $27.2B
Approx. Annual State Gov. Budget $23.7B

ENERGY TECHNOLOGY
“NEW” INDUSTRY

- New Ideas
- New Products
- New Business Models
Energy Technology Research in Georgia’s Universities

- Georgia Research Alliance
  - University of Georgia
  - Georgia Institute of Technology
  - Georgia State University
  - Augusta University
  - Clark Atlanta University
  - Emory University
  - Mercer University
  - Morehouse University

- Other Engineering Research Universities
  - Georgia Southern University
  - Kennesaw State University

~$1 Billion in University Research Annually
(Source: National Science Foundation)
Energy Technology
Georgia’s Sustainable Energy Ecosystem

Localize the Energy Model
Invest in local/regional economy
FOCUS ON OUR “UNFAIR” ADVANTAGE
BUILD INDUSTRY ECOSYSTEMS

Biomass
- Recruited Wood Pellet manufacturers

Solar
- Recruited Solar manufacturers (Suniva, Mage Solar, SolarMax, Sonnen Batterie, etc.)

Electric Vehicles support
- Worked with partners to support EV Charger deployment

Waste to something useful…
Energy Technology
Advancing Economic Development

• Solar Energy – A Growing Segment
  – Approx. 3,000 new jobs in Solar Industry
  – $2B in Capital Investment in the State
  – Approximately 1.4 GW of Solar
  – Top 10 Solar Portfolio in USA

• Electric Vehicles - Almost 20,000 sold in Georgia
  – EV Charger infrastructure expansion
  – Electric Buses – Blue Bird school bus project
Energy Technology
Advancing Economic Development

• Waste Streams as a Resource
  – GIS maps of waste streams by COI-Energy with Ga Environmental Protection Division, EPA and the Ga Recycling Coalition to connect waste streams to potential users

• Sustainable Materials Management (Pilot Project)- Seeks most productive use of resources. Seeks to minimize/manage waste.

• Three waste to Energy Projects
  – Tire pyrolysis (underproductive oil wells and refineries)
  – Consumer Waste to transportation fuel
  – Plastics to petroleum
DID YOU KNOW?

- Novelis, with its North American headquarters in Atlanta, is the largest aluminum recycler in the world.
  
  Processing plant is located in Greensboro, GA.
1/3rd of all plastic beverage containers recycled in North America end up in Georgia and are turned into carpet (mainly in Northwest Georgia).
DID YOU KNOW?

- Georgia’s Paper Industry recycles almost 8% of all the paper consumed in the United States
More than 120 Georgia businesses use recovered materials to manufacture a variety of new consumer products.
ENERGY TECHNOLOGY
Advancing Economic Development

• Georgia’s “Clean Tech” Industries

✓ 800+ companies

✓ 20,000 jobs

✓ $3B+ in annual revenues
“THE POWER” OF COLLABORATION
PRIVATE, PUBLIC, PHILANTHROPIC PARTNERSHIP

• A partnership between The Ray, The Georgia Department of Transportation (GDOT), Georgia Department of Economic Development (GDEcD) and Private Industry

• Use State owned facilities as a “laboratory" to test innovative technologies in the areas of renewable energy, highway safety and sustainability.
Georgia’s Centers Of Innovation

Center of Innovation for Energy Technology

Focused on:

Energy Generation

Energy Storage

Energy Consumption

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Georgia energy firms can accelerate the development of new energy solutions with assistance from the Georgia Center of Innovation for Energy Technology. The Center is the state’s key resource to create, connect and grow Georgia’s energy ecosystem.