



# DRAWDOWN GA

[www.DrawdownGA.org](http://www.DrawdownGA.org)

## Electricity Sector Local GHG Emissions Tracker

Technical Documentation  
Figures for Major Data Sources  
and Emissions Calculations



# Electricity generation emissions

# Electricity basic strategy

1. From the EIA API download monthly electric power sector **fuel use, net generation**, and **retail sales**
2. Apply most recent EIA **CO<sub>2</sub> coefficients** to calculate total Georgia electricity generation CO<sub>2</sub> emissions
3. Calculate electricity **imported from Alabama**
4. Calculate **Alabama CO<sub>2</sub> emissions per kWh** and apply to imported electricity to calculate “imported” emissions
5. **Sum** Georgia emissions plus imported electricity emissions, and distribute to end-use sectors according to sales

# Electricity Data Sources

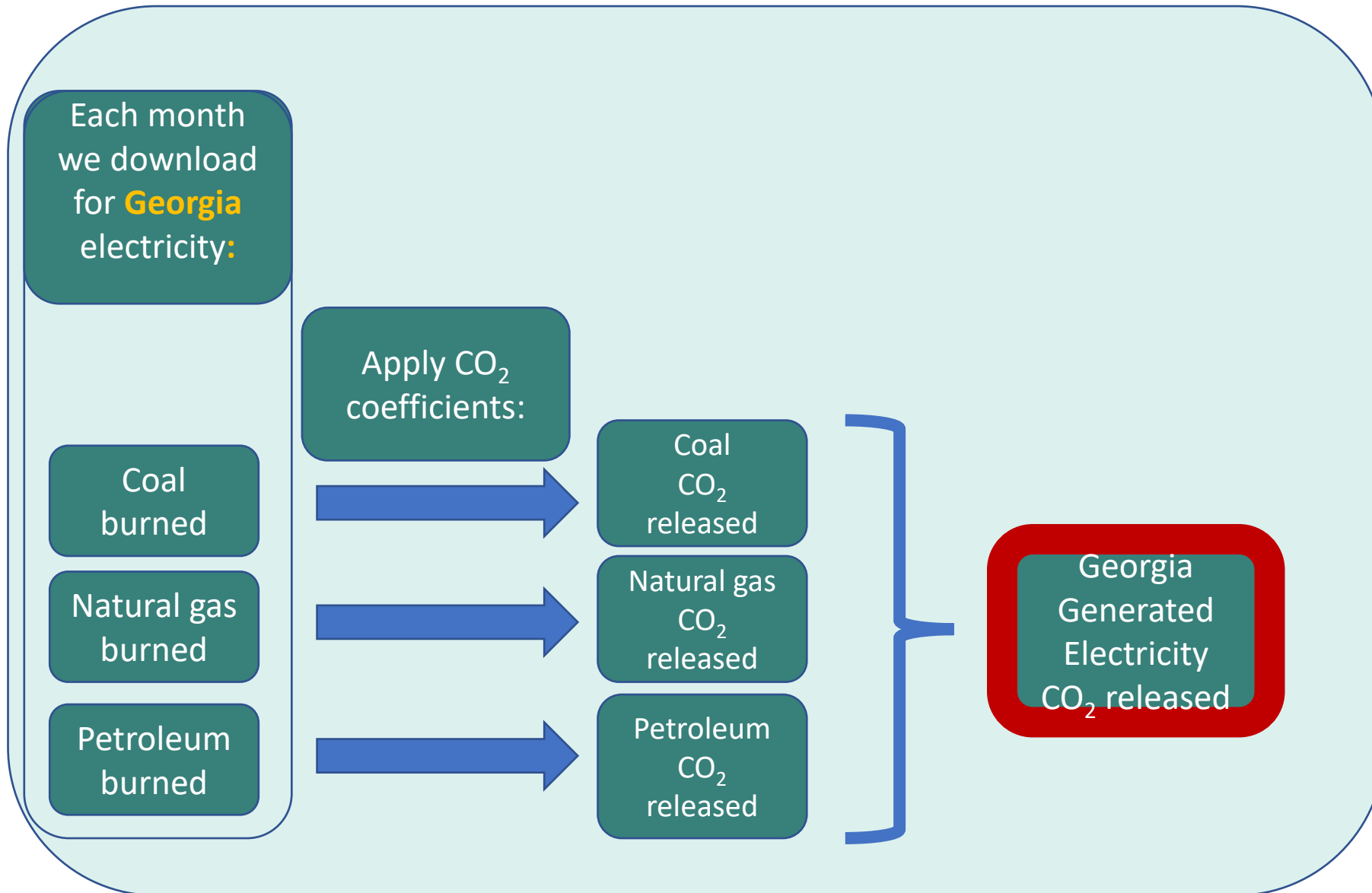
## **1. EIA Open Data API monthly data**

- a. State-level coal, natural gas, and petroleum products used to generate electricity
- b. State-level sales by sector
- c. Plant-level data on net generation

## **2. EIA Open Data API annual data**

- a. State-level CO<sub>2</sub> coefficients for coal, natural gas, and petroleum used for electric power
- b. State-level electricity net imports/exports
- c. State-level net generation of electricity
- d. State-level retail sales of electricity

# Georgia Electricity Generation

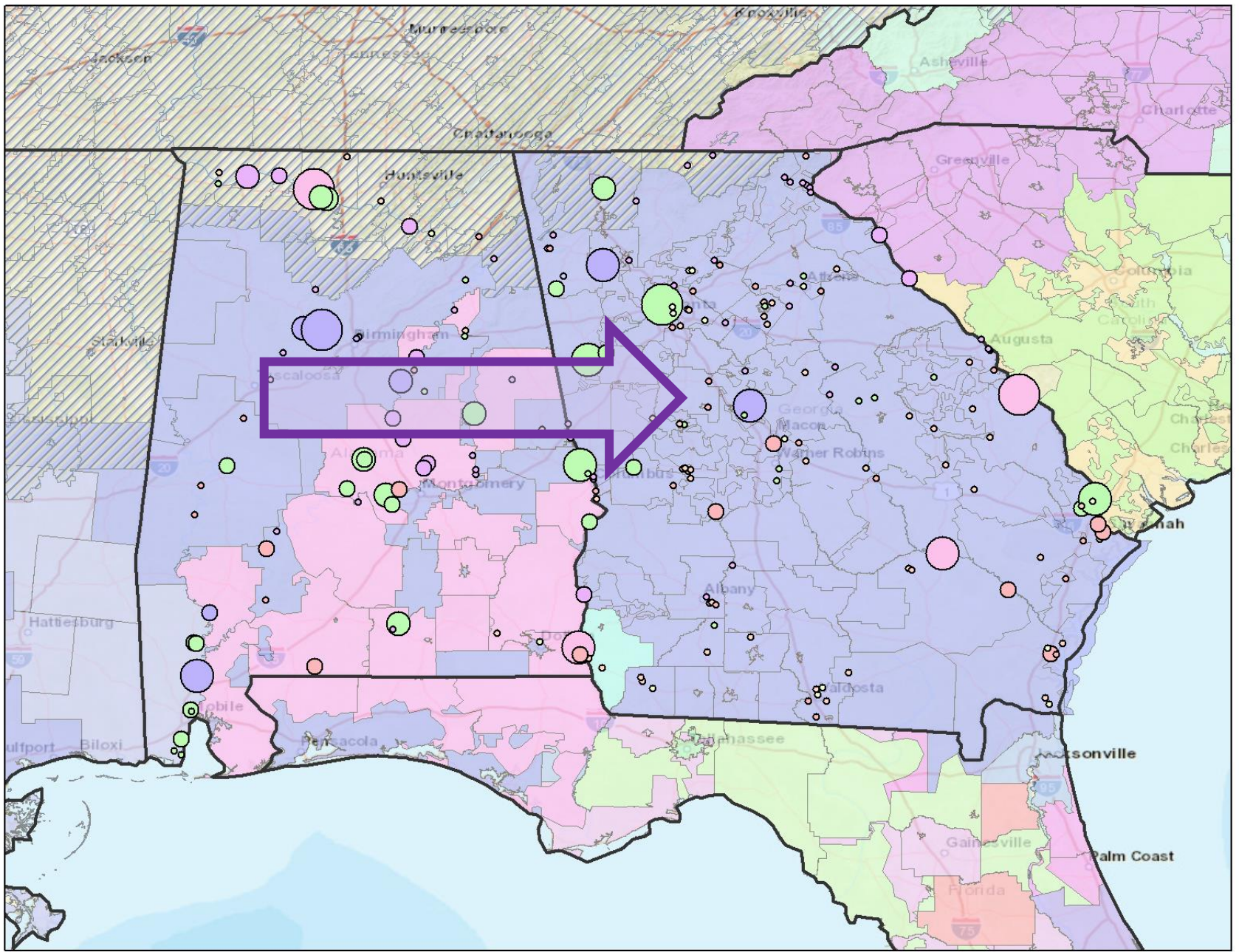


## Residential Side note:

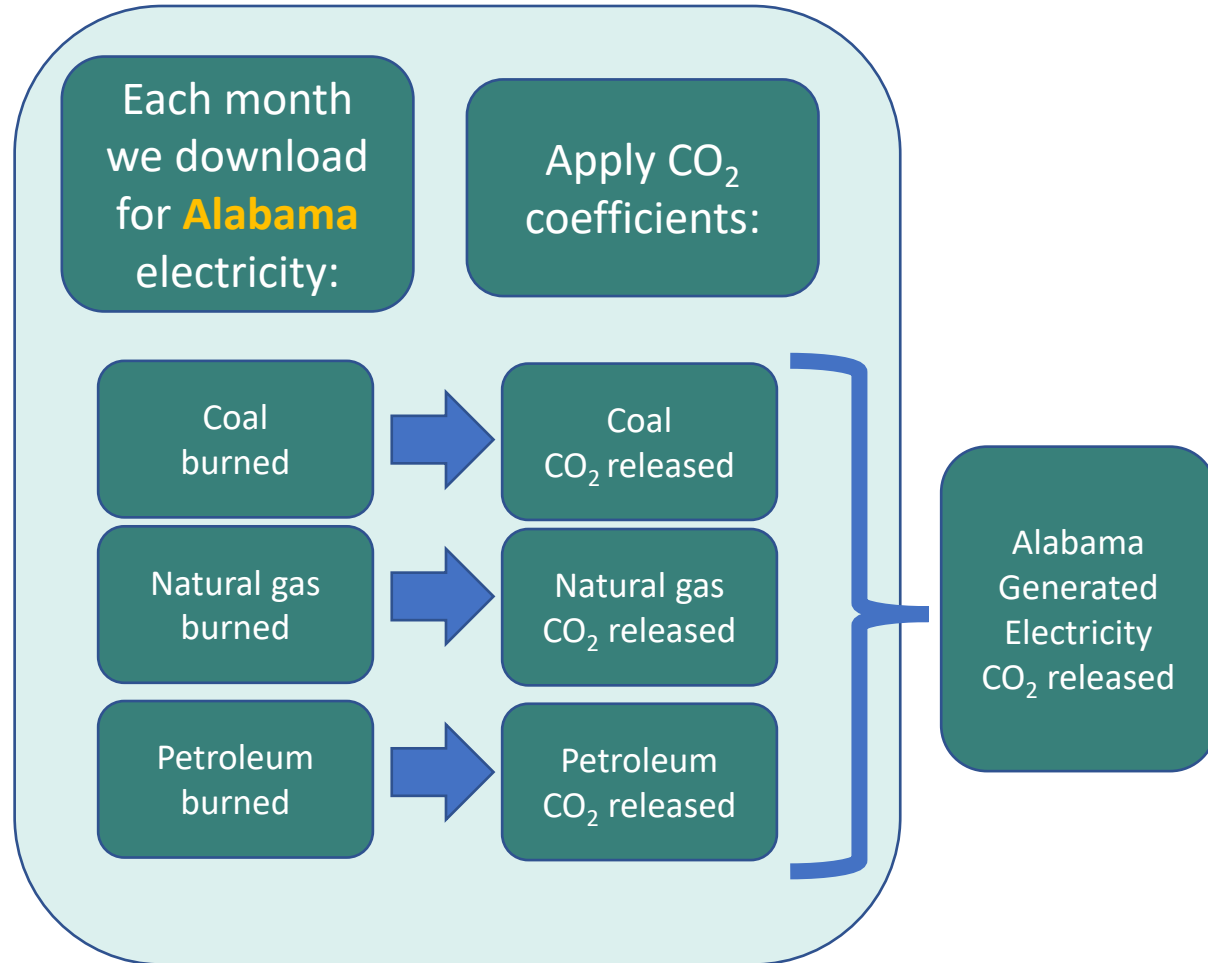
We also download residential natural gas usage data and apply CO<sub>2</sub> coefficients to calculate residential natural gas emissions.



Georgia imports about 20% of its electricity in recent years, largely from Alabama.

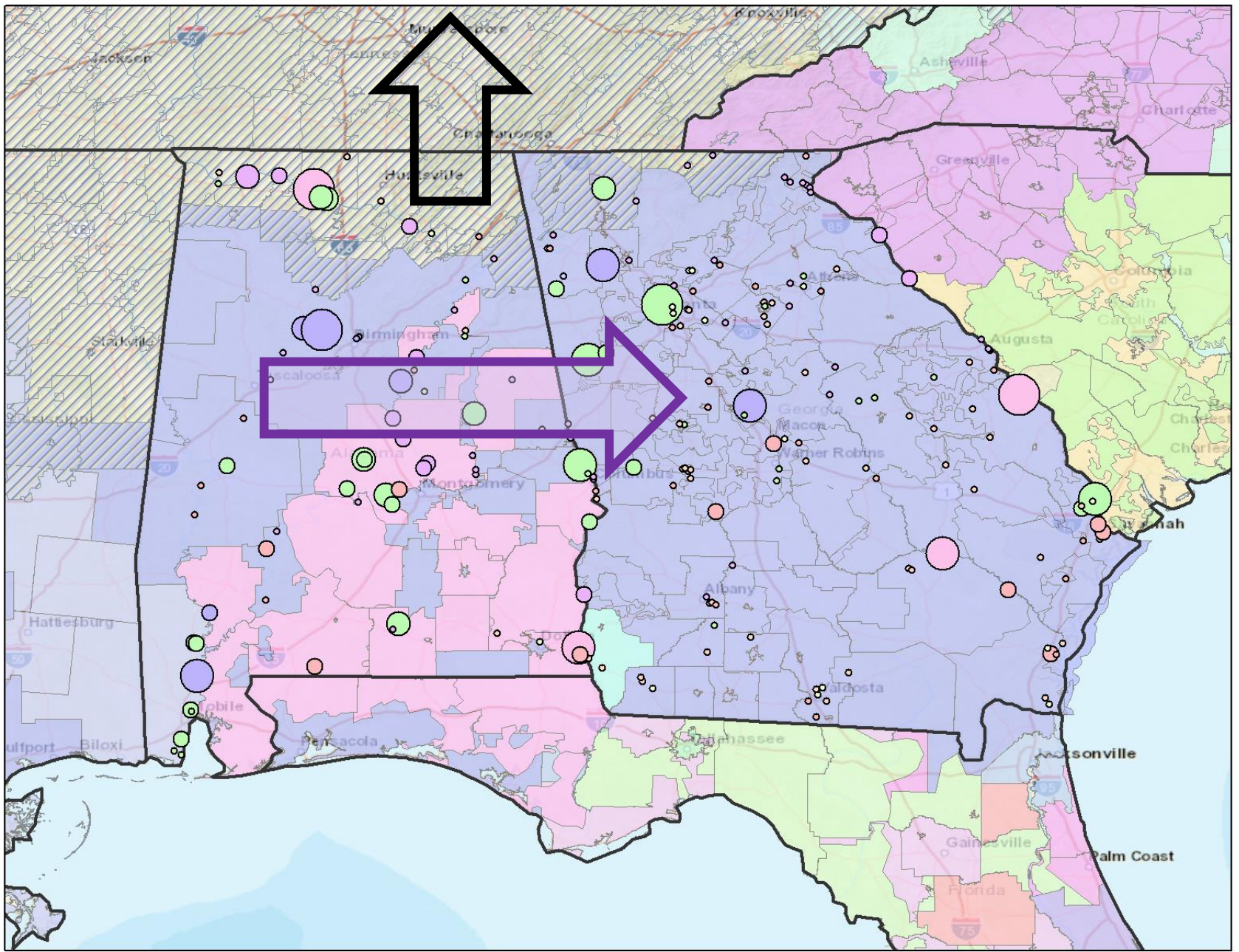


# Alabama CO2 from Electricity Generation



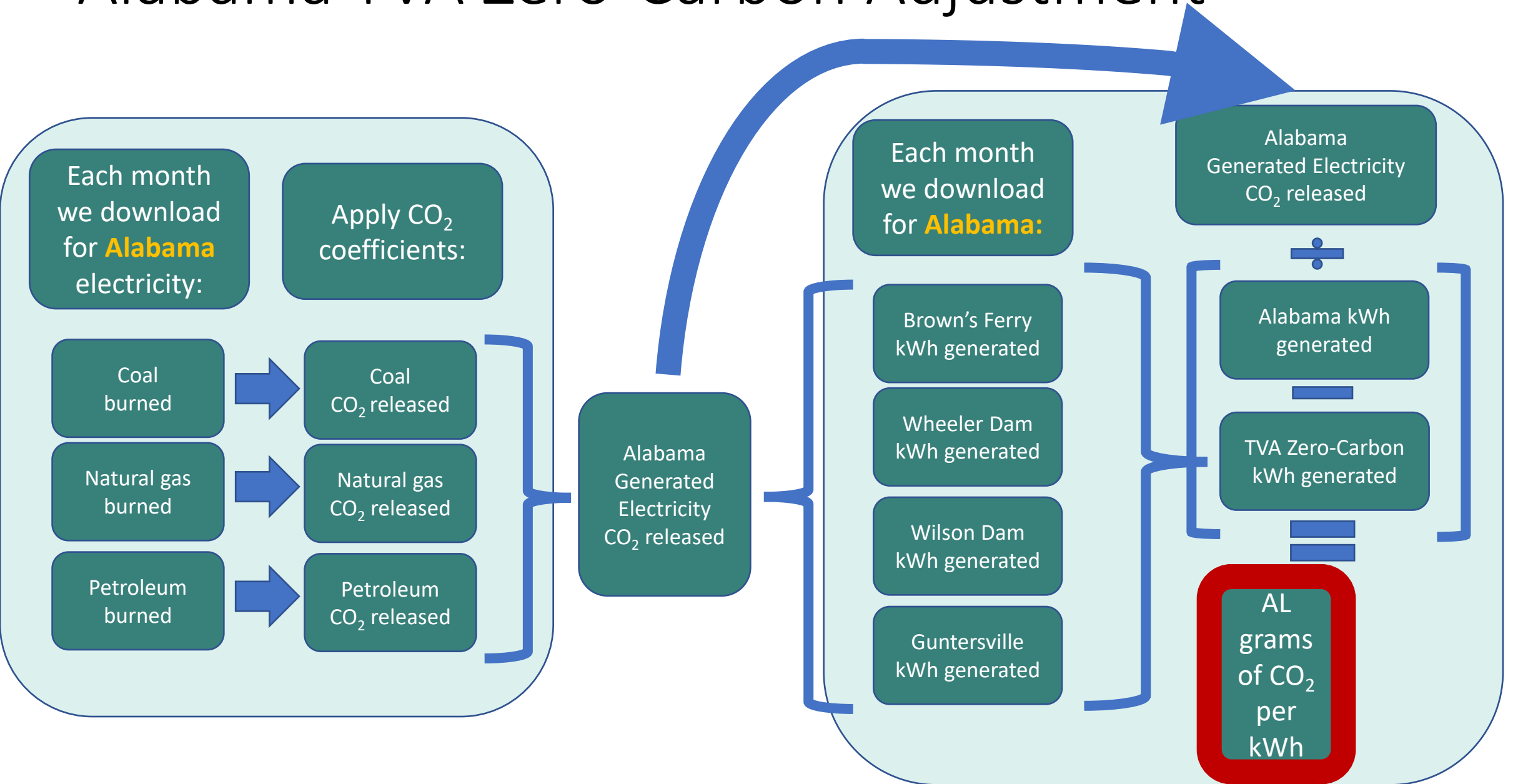


Northern Alabama  
TVA area  
(diagonal  
striping)  
includes  
Brown's  
Ferry  
nuclear  
plant  
and three  
hydro  
plants





# Alabama TVA Zero-Carbon Adjustment



# Georgia Electricity Consumption

