

# SOUTH CAROLINA ENERGY PLAN

*WHERE WE ARE - WHERE WE WANT TO GO*

## I. EXECUTIVE SUMMARY

This plan provides an evaluation of how SC currently utilizes its available energy resources to promote economic development and to meet the needs of its businesses and residents. It also provides a pathway forward outlining how SC should leverage its energy resources to meet future energy needs during the ensuing 5 year and 10 year intervals...

## II. INTRODUCTION AND BACKGROUND

- State Energy Plan History
- Regulatory and Policy Framework
  - The Public Service Commission of South Carolina
  - The South Carolina Office of Regulatory Staff
  - The South Carolina Department of Health and Environmental Control
- Stakeholder Process and Methodology

## III. ENERGY OVERVIEW: INFRASTRUCTURE

- Electric and Natural Gas Utilities in South Carolina
  - Investor Owned Utilities
    - Background Information (business model, regulatory oversight, number of customers, generation capacity, etc.)
  - State Owned Utilities
    - Background Information (business model, regulatory oversight, number of customers, generation capacity, etc.)
  - Electric Cooperatives
    - Background Information (business model, list each coop, map of each service area, regulatory oversight, number of customers by coop, etc.)
  - Municipal Utilities
    - Background Information (business model, list each muni, regulatory oversight, number of customers by muni, generation capacity, etc.)
  - Merchant Generators
    - Background Information (business model, regulatory oversight, generation capacity, etc.)
- Service Territory Map
  - Update current service territory map
- Electric System Infrastructure – Current Status
  - Electric Transmission System
    - Map depicting placement of current transmission lines
    - Number of miles of transmission line by utility
  - Electric Distribution System
    - Number of miles of distribution line by utility
- Natural Gas System Infrastructure – Current Status
  - Natural Gas Transmission System
    - Map depicting placement of current transmission pipelines
    - Number of miles of transmission pipeline by utility
  - Natural Gas Distribution System
    - Number of miles of distribution pipeline by utility
- Transportation Infrastructure
  - Fueling Infrastructure
    - Registered Alternatively Fueled Vehicles in the State
    - Map of fueling stations (gasoline, E85, electric, CNG, etc.)
    - Location of existing park and ride areas

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- Electric System Reliability
  - Reliability and Resiliency Metrics & Comparisons
    - SAIDI and SAIFI metrics by utility

## IV. ENERGY USE AND RESOURCES: BASELINE

- Electricity and Natural Gas Demand by End Use Sector
  - Percentage of consumption accounted for by each sector (commercial, residential, industrial, transportation)
- Statewide Generation Resources
  - Generation Facility Inventory
    - Narrative discussion of the current role of each resource (coal, nuclear, natural gas, hydro, renewables, biomass, etc.)
    - Facility List (chart with name, capacity, location, type, operator, in service date, retirement date, etc.) by generation type
- Energy Efficiency & Demand Response
  - Inventory of EE Programs by utility
  - Inventory of DR Programs by utility
  - Total Energy Savings Due to EE and DR over most recently completed reporting period by utility
  - Related State and Federal Efforts
    - Weatherization Program (LIHEAP)
    - State Building Energy Consumption – 20% reduction mandate and status of program
- Statewide Capacity Mix
  - Allocated capacity
  - Unallocated capacity
  - Capacity as reported by EIA
- Statewide Generation Mix
  - Allocated generation
  - Unallocated generation
  - Generation as reported by EIA
- Economic and Demographic Drivers
  - Population
  - Income
  - Housing stock (number of mobile vs. built homes)
  - Literacy rate

## V. STATE AND FEDERAL STATUTES AND REGULATIONS

- Environmental Regulations – History/Background
- EPA's Clean Power Plan
  - Impact on SC
- Inventory of State Statutes
  - State Policies
  - State Tax Credits
- Inventory of Federal Statutes
  - Federal Programs Impacting SC
  - Federal Policies Impacting SC
  - Federal Tax Credits

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## VI. ENERGY USE AND RESOURCES: PROJECTIONS: 5 & 10 YEAR OUTLOOK

- Statewide Generation Resources
  - Narrative discussion of the role that each resource (coal, nuclear, natural gas, hydro, renewables, biomass, etc.) is expected to have in the future
- Energy Efficiency & Demand Response
  - Impact of EE and DR by utility in 5 & 10 years
- Statewide Capacity Mix
  - Allocated future capacity mix
  - Unallocated future capacity mix

## VII. POLICY RECOMMENDATIONS

It is the policy of SC to have a comprehensive energy plan that maximizes to the extent practical environmental quality and energy efficiency/conservation while minimizing the cost of energy throughout the State.