

# Reliable, Affordable, OR Responsible? Must We Choose?

“Comments on Energy and Energy Policies”  
State Regulation of Public Utilities Review  
Committee

December 11, 2008



# Driving Consumer (Member) Behavior

- Through Pricing Signals:
  - Federal Climate Change Legislation
    - Cap and Trade/ Carbon Tax
    - Renewable Portfolio Standard

# Driving Consumer (Member) Behavior

- Climate Change
  - Raise price of electricity generated from fossil fuels (CO<sub>2</sub> emitting)  
Intended Result:
    - Less use or
    - Change in generation mix



# Driving Consumer (Member) Behavior

- How large will the price signal be?
- Presume tariff with pure auction\*:
  - Cooperatives and Santee Cooper (2010)
    - 10 million tons of Coal (creating 36 million tons of CO<sub>2</sub>)
      - At \$12 per ton = \$432 million
      - At \$150 per ton = \$5.4 billion

\*No allocation/no safe harbor for current use levels

# Driving Consumer (Member) Behavior

- **WHERE WILL THE DOLLARS GO?**
  - Auction Proceeds Become Federal Investment In:
    - Conservation/ Energy Efficiency
    - Renewables
    - Research
  - Post-Auction Proceeds Become
    - Profit to Speculator

# Driving Consumer (Member) Behavior

- Renewable Portfolio Standard
  - Incentivizing development of renewables by penalizing generators that don't meet standards
    - Availability of native renewables?
- If not native, purchase of REC's?



# Driving Consumer (Member) Behavior

- **WHERE WILL THE DOLLARS GO?**
  - Dollars to Invest in Native Renewables—Stay in S.C.
  - Dollars to Purchase Non-Native REC's?—  
Transfer of Wealth

# How Will Our Members React? S.C. Users are Unique

- **Affected by Poverty**
  - 12.5% of S.C. families live below the poverty level
    - 25% higher than the national average
  - \$27,580—S.C. average personal disposable income
    - Approximately 20% lower than national average



# How Will Our Members React?

## S.C. Users are Unique

- Affected by Climate
  - Winter
    - Electricity is primary form of heating (80% of cooperative homes have electricity as primary form of heating)
  - Summer
    - S.C. ranks 7<sup>th</sup> in cooling degree days per year

## How Will Our Members React?

### S.C. Users are Unique

- Impacted by Housing Stock
  - 18.8% of houses in S.C. are manufactured homes
    - Electric cooperatives in S.C.—22% (Three times higher than the national average)
- S.C. has the highest percentage of owner occupied housing in the nation—72.2%

## How Will Our Members React?

### S.C. Users are Unique

- Impacted by Functional Illiteracy
  - S.C. has 5<sup>th</sup> highest percentage of level 1 & level 2 illiteracy—56%



# How Will Our Members React? S.C. Generators are Unique

- Dependency on Coal
  - 80% of the average S.C. Cooperative home's electricity derived from coal
    - Our consumers rely upon an average of ½ ton of coal per month to generate their electricity (producing approximately 1.8 tons of CO<sub>2</sub>)
      - A tariff of \$12 per ton of CO<sub>2</sub> would represent an annual increase of \$250 in their electric bill
      - A tariff of \$150 per ton of CO<sub>2</sub> would represent an annual increase of \$3,200 in their electric bill (would remove \$1.9 billion of wealth from cooperative homes)

## How Will Our Members React?

### S.C. Generators are Unique

- Relative Youth of Coal Fleet
  - 27 years—Average remaining life of a coal plant in S.C.
  - 38.7 years—Average remaining life of Santee Cooper's 11 coal plants

## How Will Our Members React?

### S.C. Generators are Unique

- Dearth of Affordable and Reliable Renewables (Currently Available)
  - Landfill methane gas
  - Hydro
  - Biomass

Will these even count under Federal RPS?



## How Will Our Members React?

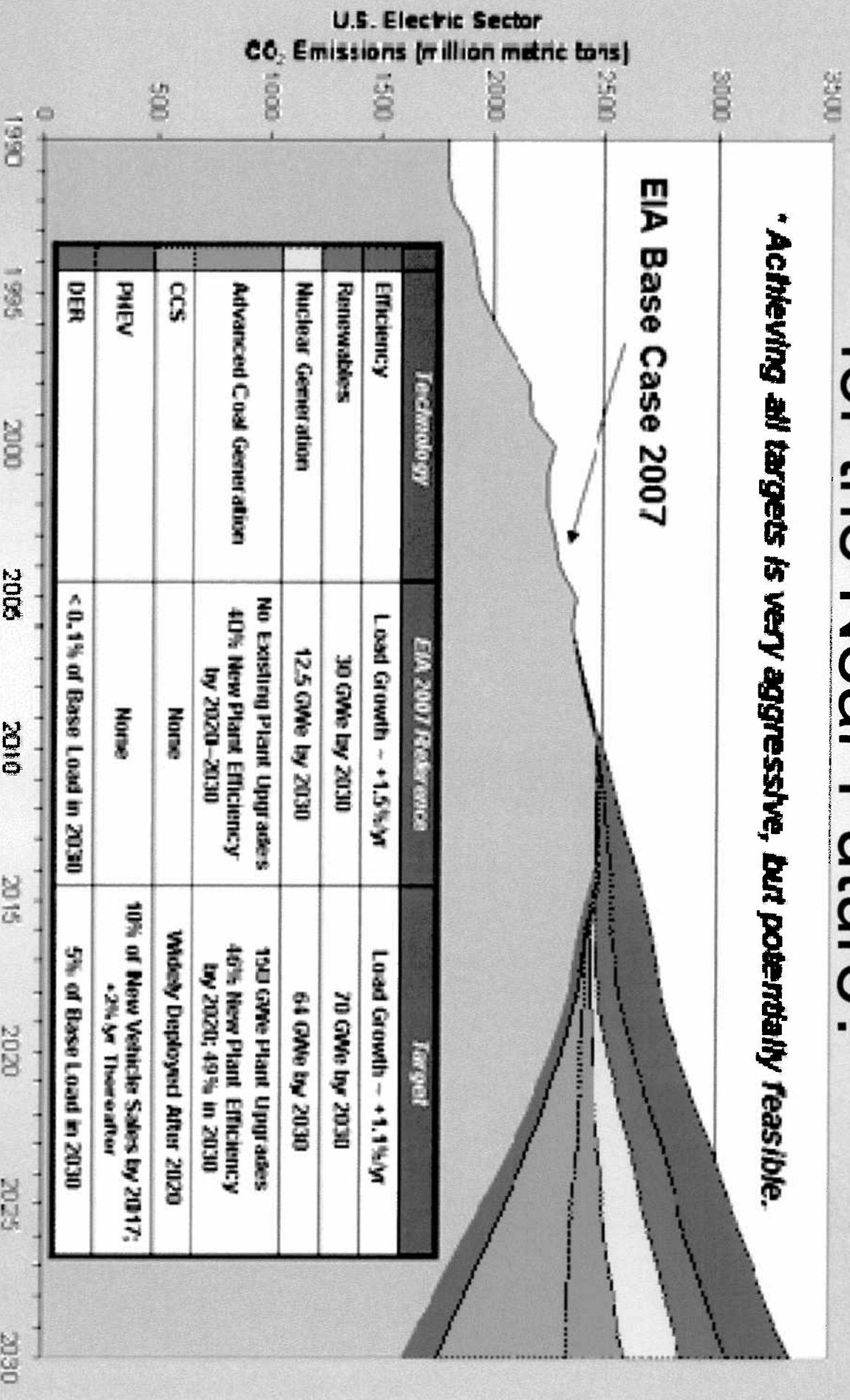
State of S.C.'s Energy Policy (By Default)

- Lack of Comprehensive Policy
  - Late Start
- Danger of Incrementalism
- Need for Accountability
  - Reliable
  - Affordable
  - Responsible

# Is Conservation S.C.'s Best Hope for the Near Future?

*\* Achieving all targets is very aggressive, but potentially feasible.*

**EIA Base Case 2007**



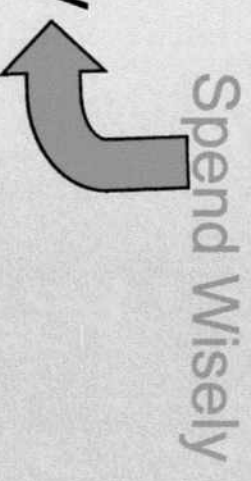
## Is Conservation S.C.'s Best Hope for the Near Future?

- Energy efficiency should not be the 5<sup>th</sup> fuel, it should be the 1<sup>st</sup> fuel.
- But like any fuel, it should be tested as to affordability, reliability, and environmental responsibility.



# Driving Consumer (Member) Behavior

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# Owning The Challenge

- **Legislative**
  - Need for Effective Oversight
  - Support Research for S.C. Based Solutions
- **Judicial/PSC**
  - Support of conservation and renewables through cost recovery by regulated utilities
- **Regulatory/Executive**
  - Federal Action Will Create the Impetus for Movement
    - No Need for Cheerleaders
    - Need for Expertise as to Reliability, Affordability, and Responsibility

- The state of South Carolina should overhaul its energy policies and consolidate authority for effectuation of energy policy. Clear authority should be given to a single regulatory agency (ORS) to administer energy efficiency and conservation programs which might be funded through federal dollars directed to the state of S.C. ORS should be also charged with advising the General Assembly as to cost effective programs to curb energy use, including: more effective building standards, loan guarantee programs enabling the elderly and low income households to invest in weatherization and energy efficient HVAC and appliances, and additional incentives to encourage renewable energy generation and the growth of job opportunities in that sector. A single, joint committee of the General Assembly (PURC) should be charged with oversight of these efforts. Energy policy, in whole, should be viewed less as a disconnected series of regulated transactions but more in the way of continuous implementation of a policy which effectuates a transition to a carbon constrained economy with minimal negative impact upon the population of the state.



