



Southern Alliance for
Clean Energy
www.cleaneenergy.org

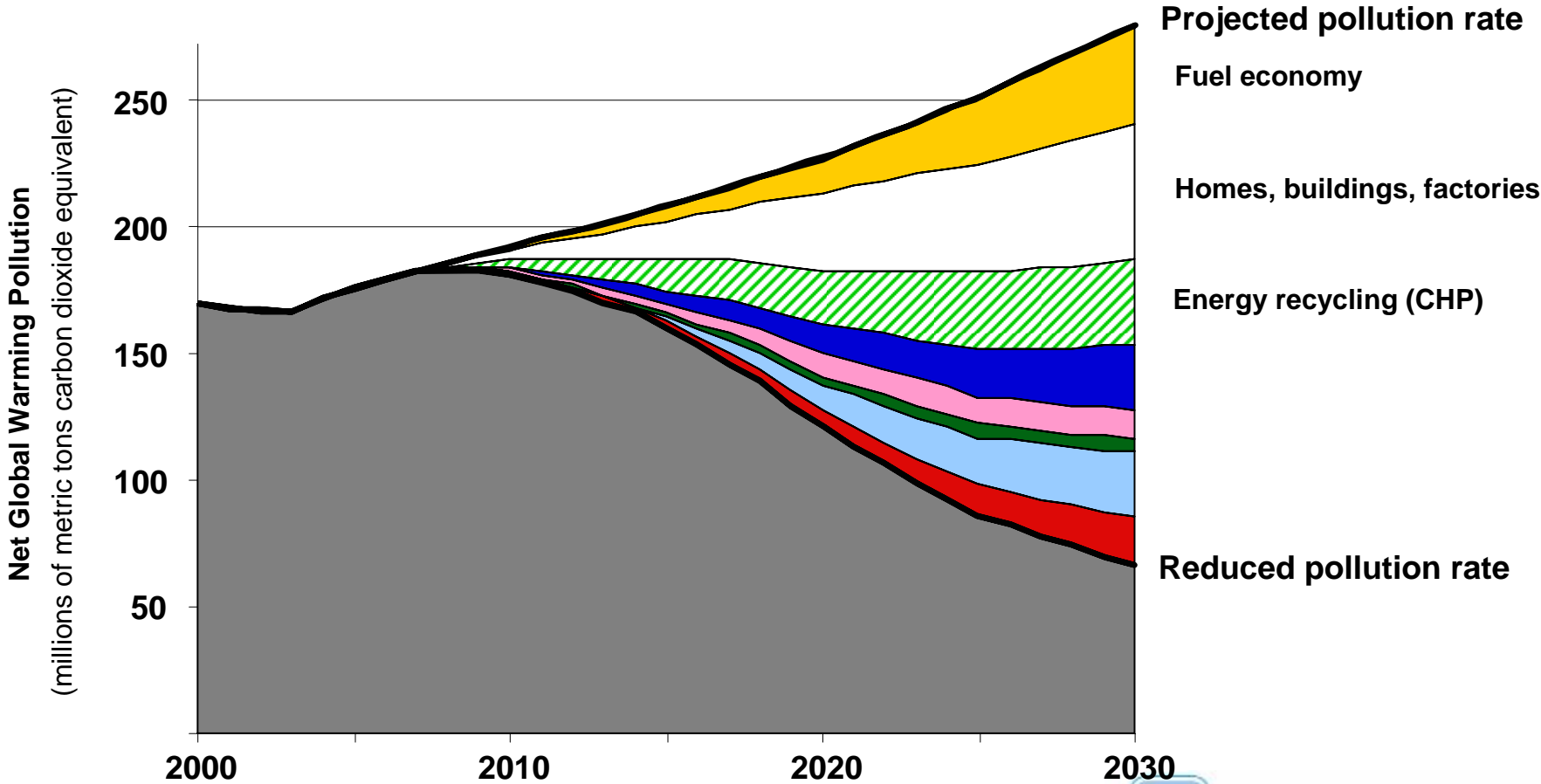
Energy Efficiency in North Carolina and Southeast

October 2, 2007

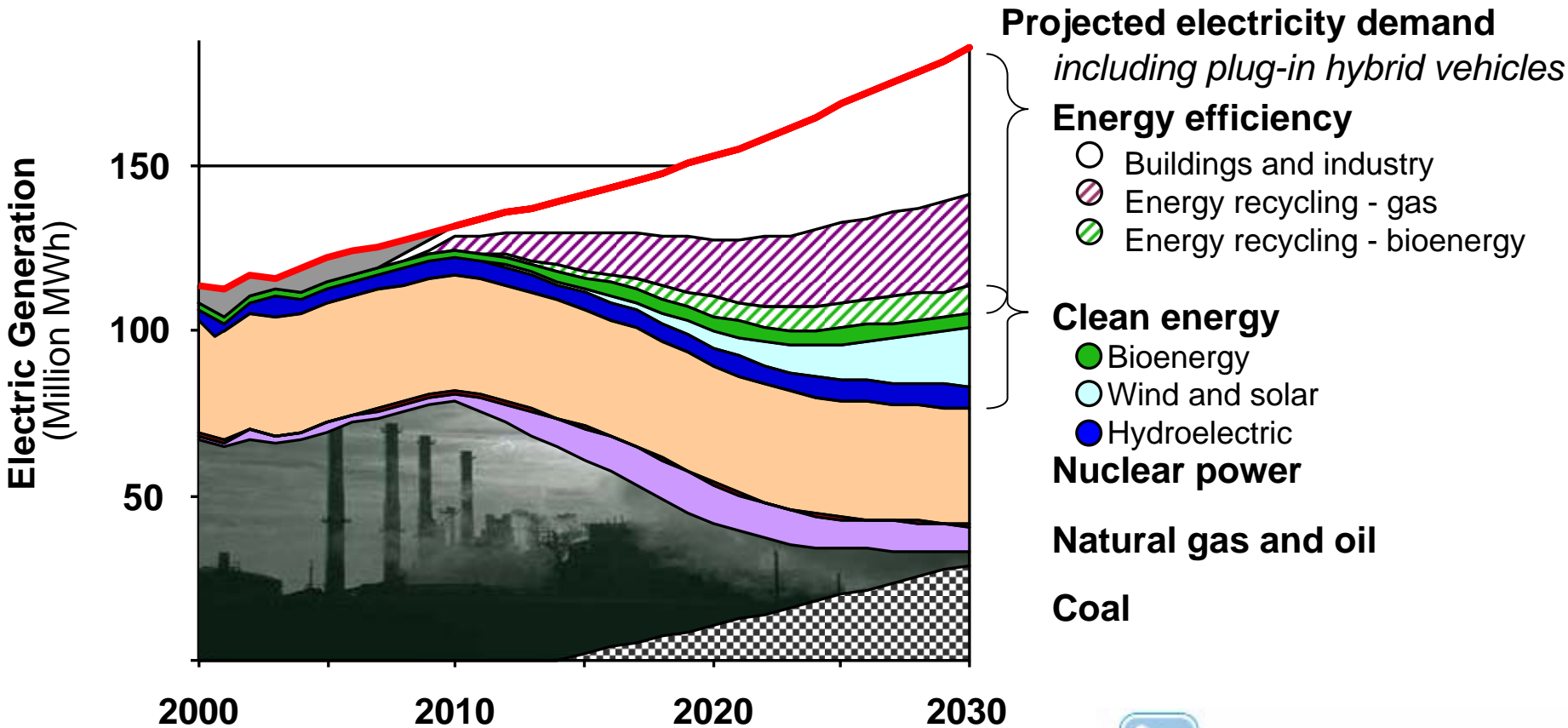


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Essential to Cutting Global Warming Pollution



Efficient & Clean Energy Future



North Carolina, Getting Started

Energy efficiency



2020 targets:

- 18% Residential
- 18% Commercial
- 14% Industrial

Initial steps:

- New utility proposals
- NC Gen Assembly
5% EE Standard
- Utility Commission

Vehicle efficiency



2020 target:

- 16% reduction in fuel per mile

No pending NC action

US Congress considering CAFE standard increase

Energy recycling (CHP)



2020 target:

- Grow from ?% to 15%

No pending NC action

North Carolina REPS

- Renewable Energy and Energy Efficiency Portfolio Standard (REPS) – Senate Bill 3
- 12.5% renewable energy by 2021
 - 10% for muni / co-ops
- 5% can be met through energy efficiency
- “Per account” cost cap for *incremental* costs
- Gives NCUC flexibility regarding financial model for energy efficiency
- Requires study of decoupling



Duke Save-a-Watt Proposal

- Novel financial model
- Reimbursement at 90% of avoided costs
 - Avoided cost of capital (MW)
 - Avoided cost of energy (MWh)
- Rider with true-ups to recover avoided costs as delivered
- North and South Carolina dockets



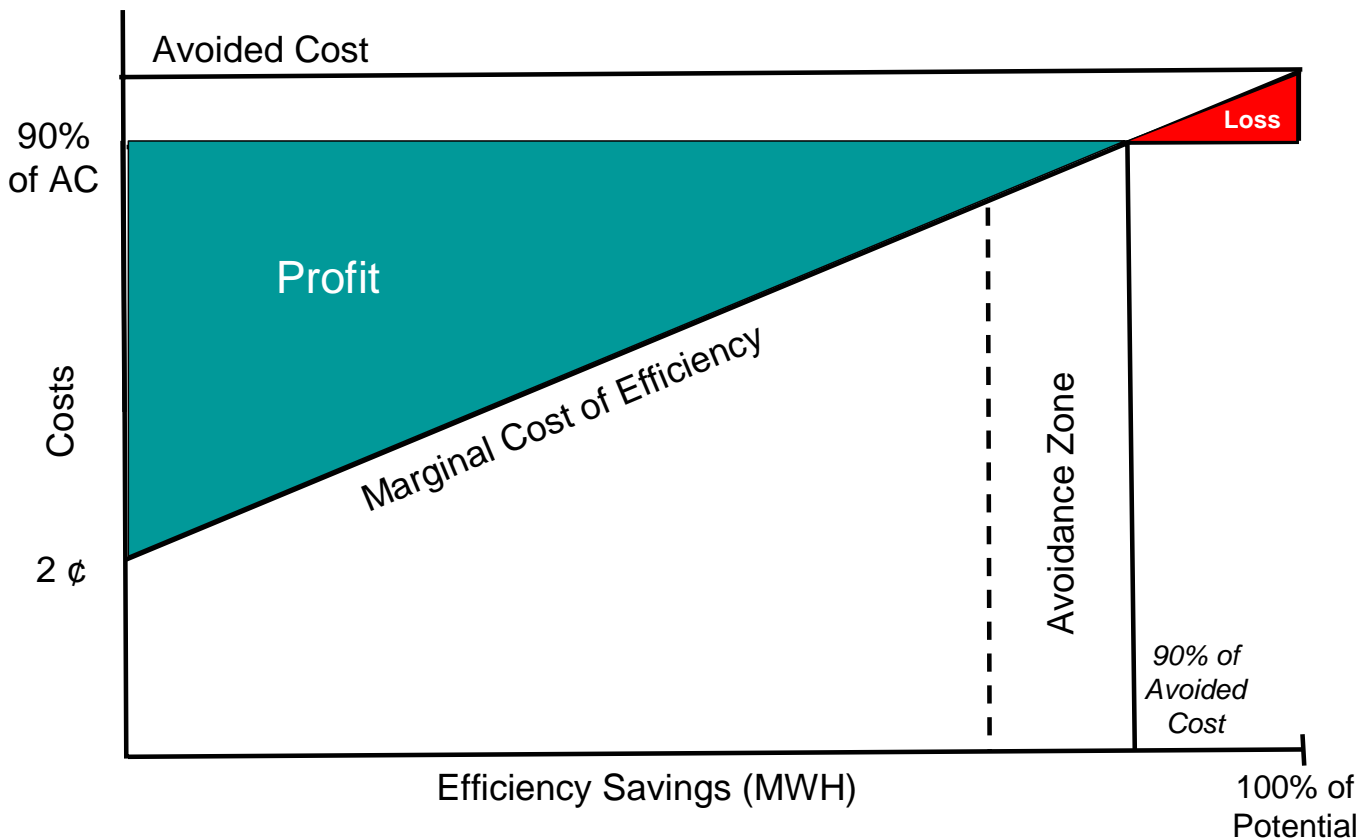
Duke Save-a-Watt Problems

- Efficiency goals and program portfolio
 - Only 0.3% energy efficiency annually (MWh)
 - Mostly demand response (MW)
- Underinvestment (in a low electricity rate context)
 - Management reluctance to reach 90% avoided costs
 - Avoided costs cover lost margins

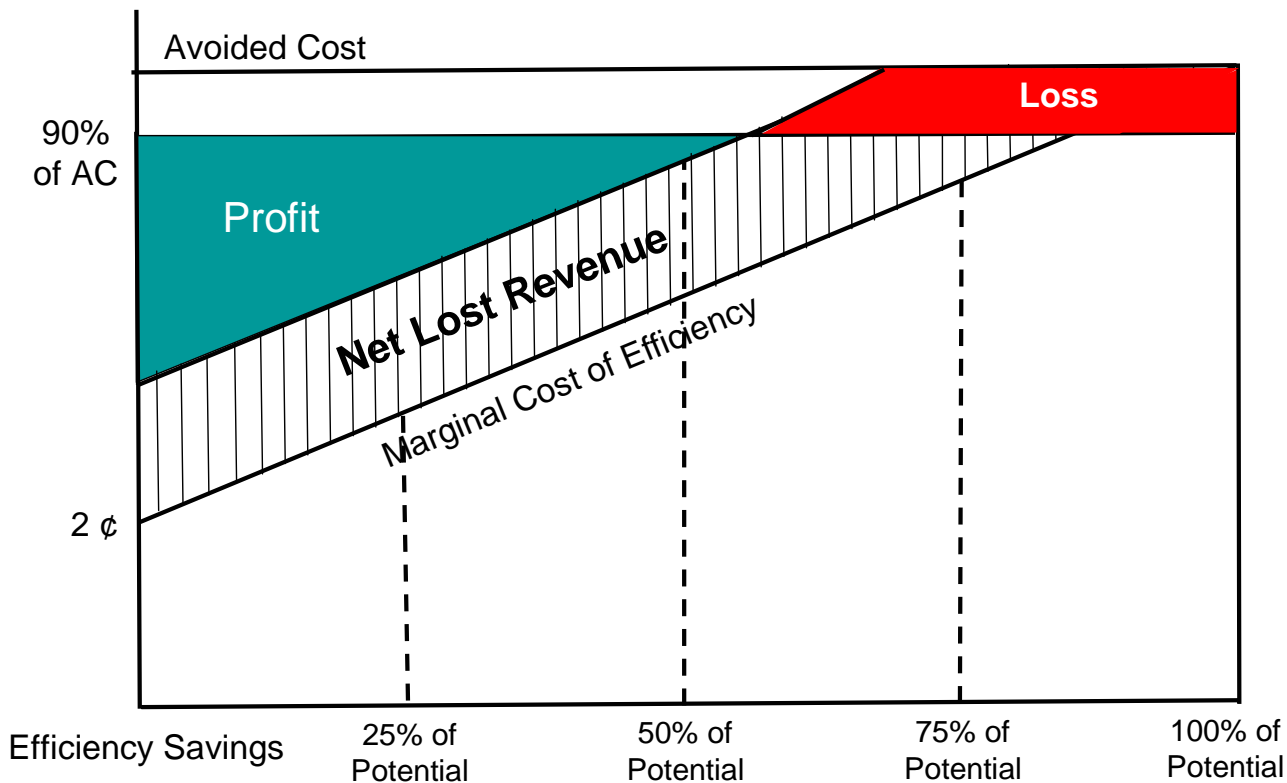
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Underinvestment Problem



Net Lost Revenue Makes Underinvestment Problem Worse



Duke Save-a-Watt Problems

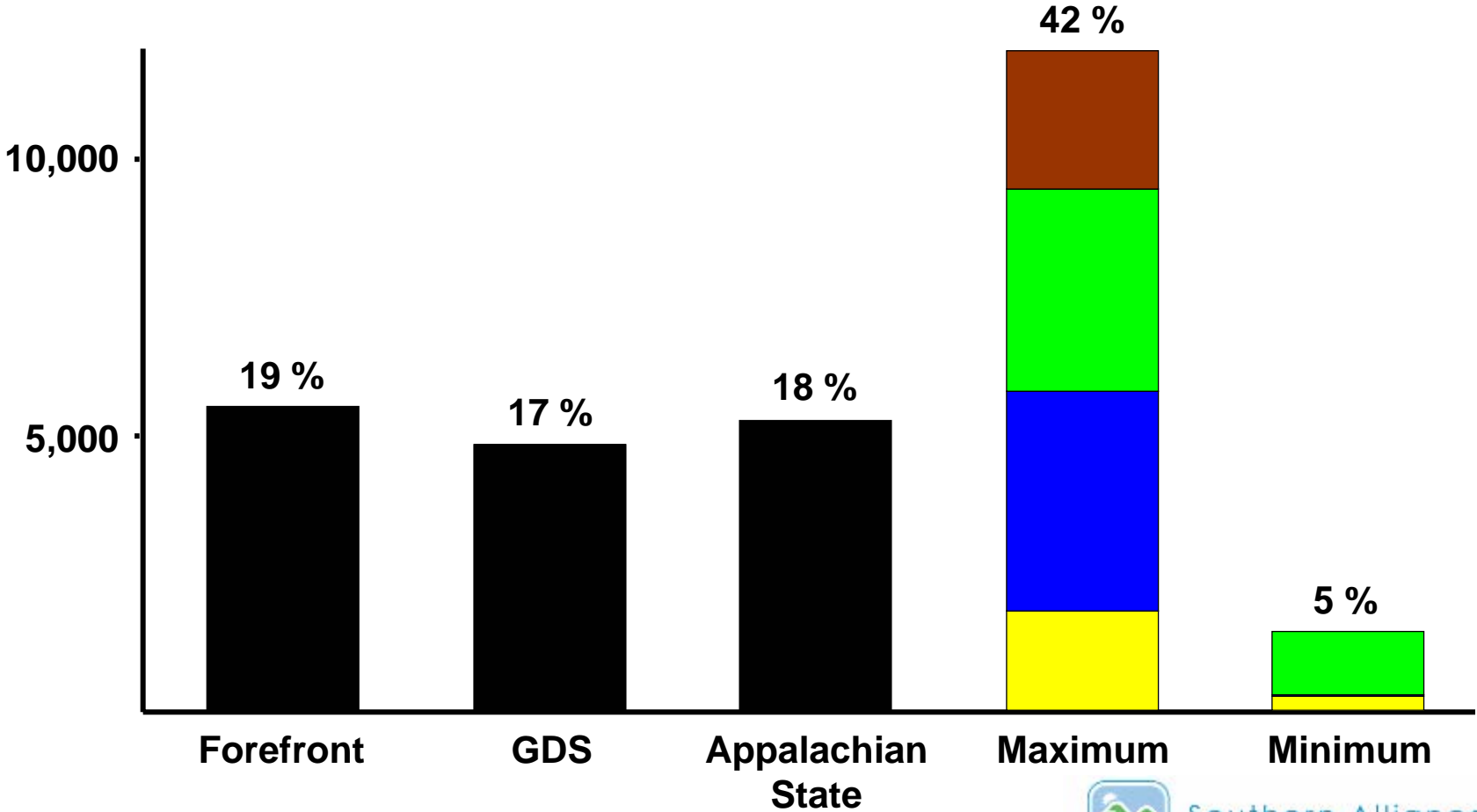
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- Underinvestment (in a low electricity rate context)
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 - Avoided costs cover lost margins
- Overcompensation
 - Easy, cheap measures get highest rewards
- Cascading rate impacts
 - Future financial returns exceed investments



How much efficiency?

Comparison of residential market potential studies

Cost-effective Potential Savings (GWh)



Other Southeastern Initiatives

- **TVA** – general commitment to about 0.3% capacity reduction per year
- **Florida** – Reduce utility global warming pollution to 2000 levels by 2017
 - Considering an energy efficiency standard
- **South Carolina** – most advanced energy efficiency codes

