



Preparation of Control Strategies EGU Sector

Clean Air Markets Division
U.S. EPA Office of Air and Radiation

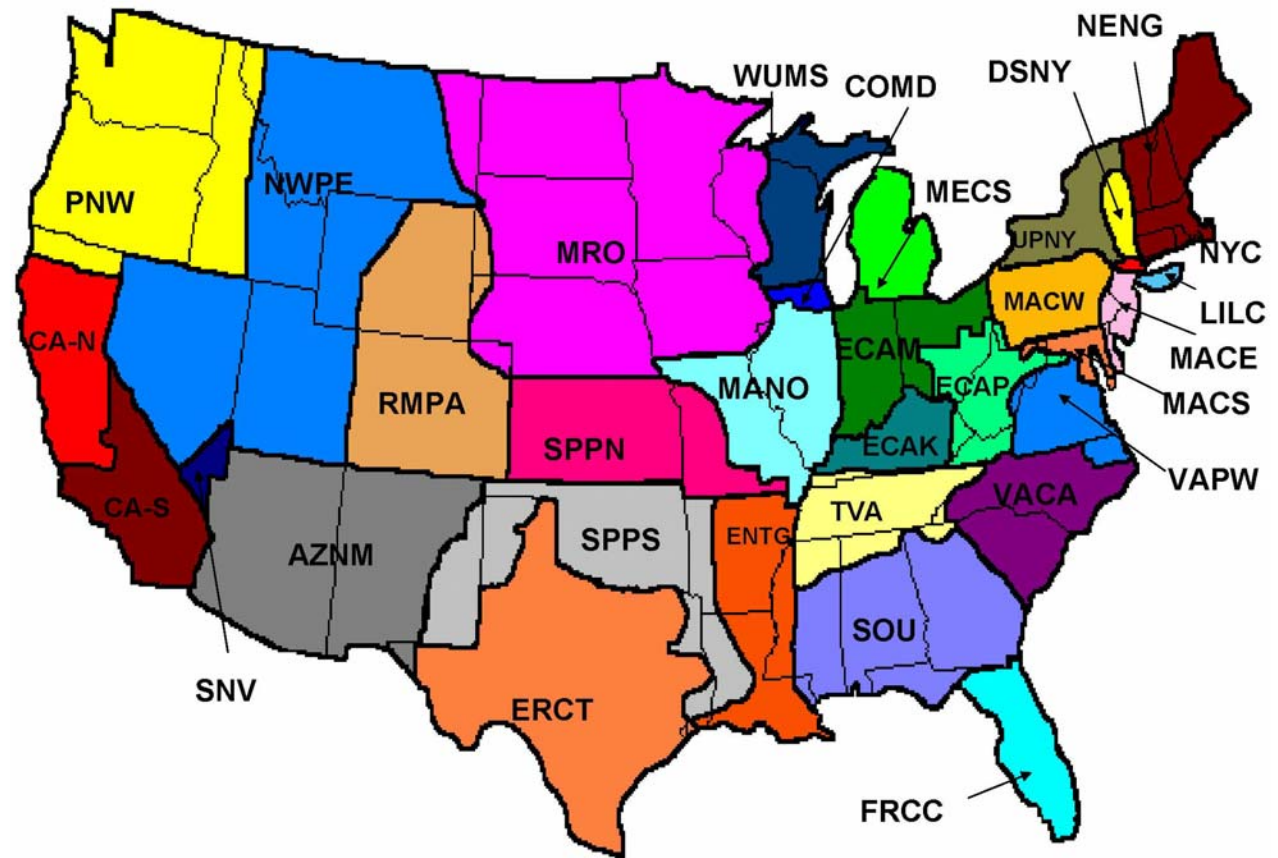
17 October 2007

Overview

- *Brief Background on IPM*
- *How are EGU strategies prepared?*
 - *Base Case (CAIR/CAMR/CAVR)*
 - *Where are the cost-effective additional reductions possible?*
 - *Regional programs*
 - *Potential state policies?*
 - *Geographic extent*
 - *Projected NA areas*
 - *Other Impacts*

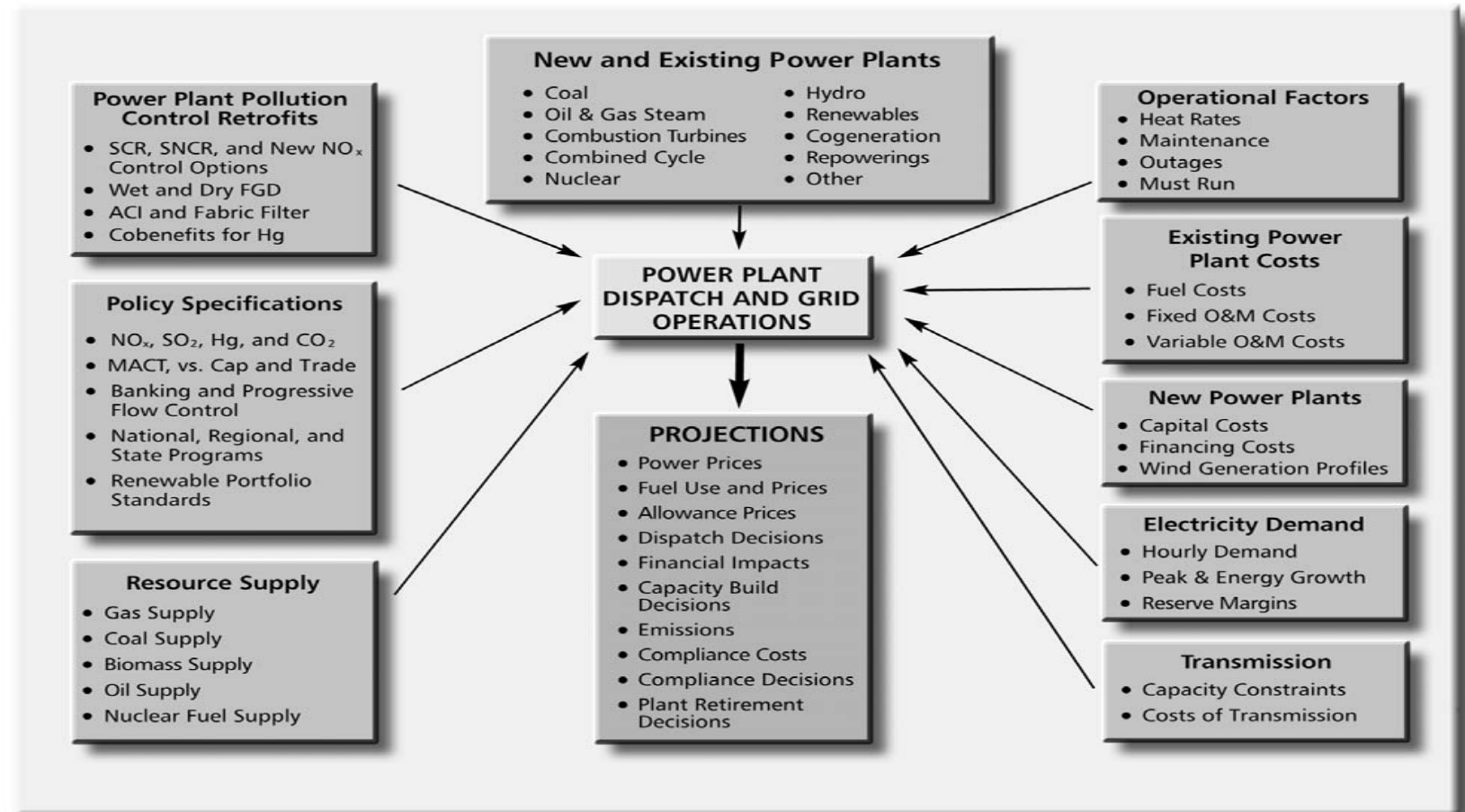
Brief Background on IPM: What is IPM?

- IPM is a long-term capacity expansion and production costing model for analyzing the U.S. electric power sector
- EPA uses IPM to analyze emissions policies affecting the power sector
- IPM outputs are used in EPA's air quality models
- IPM was used on
 - CAIR
 - CAMR
 - CAVR
 - Clear Skies Initiative

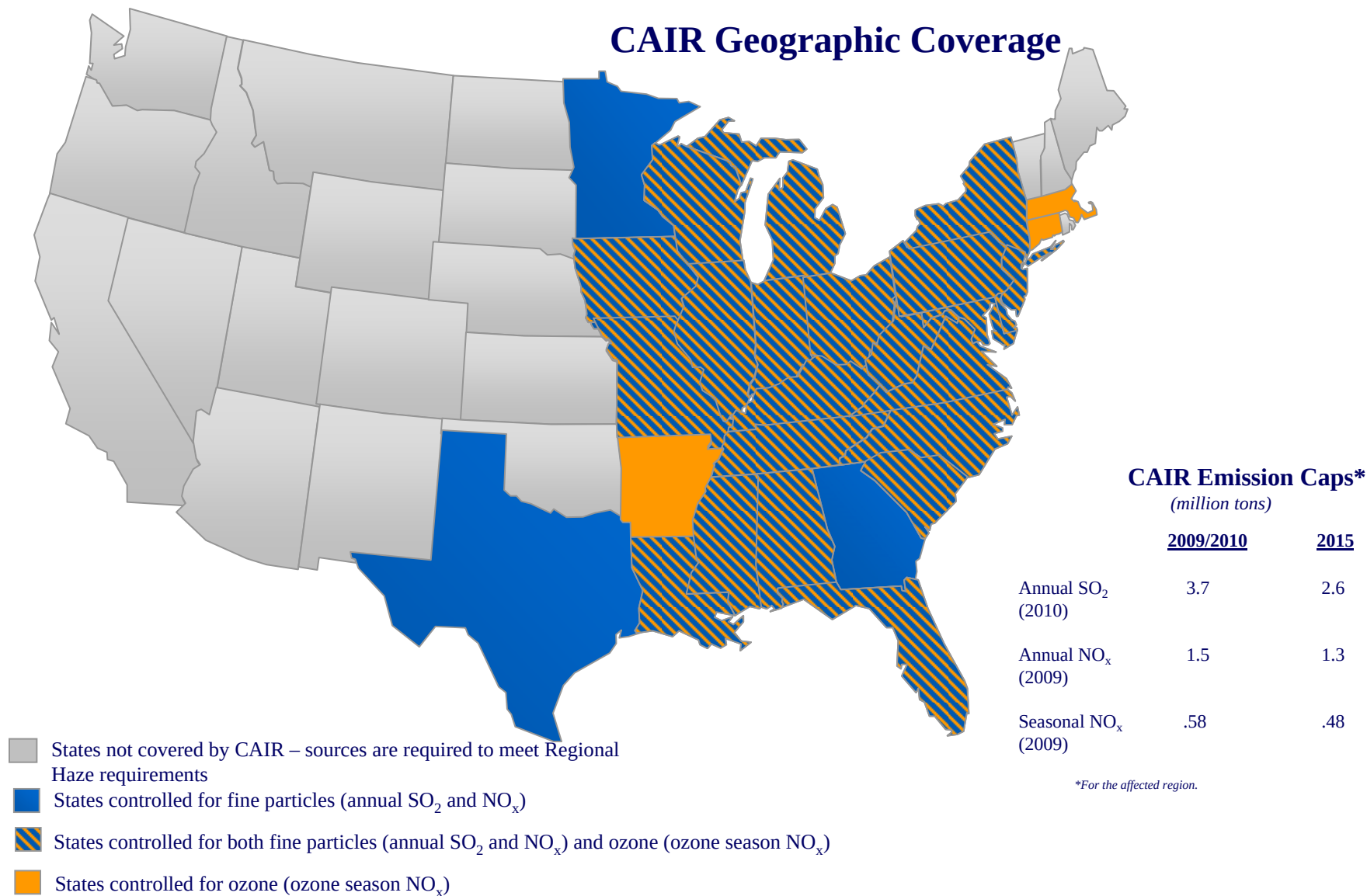


Model Regions in IPM v3.0

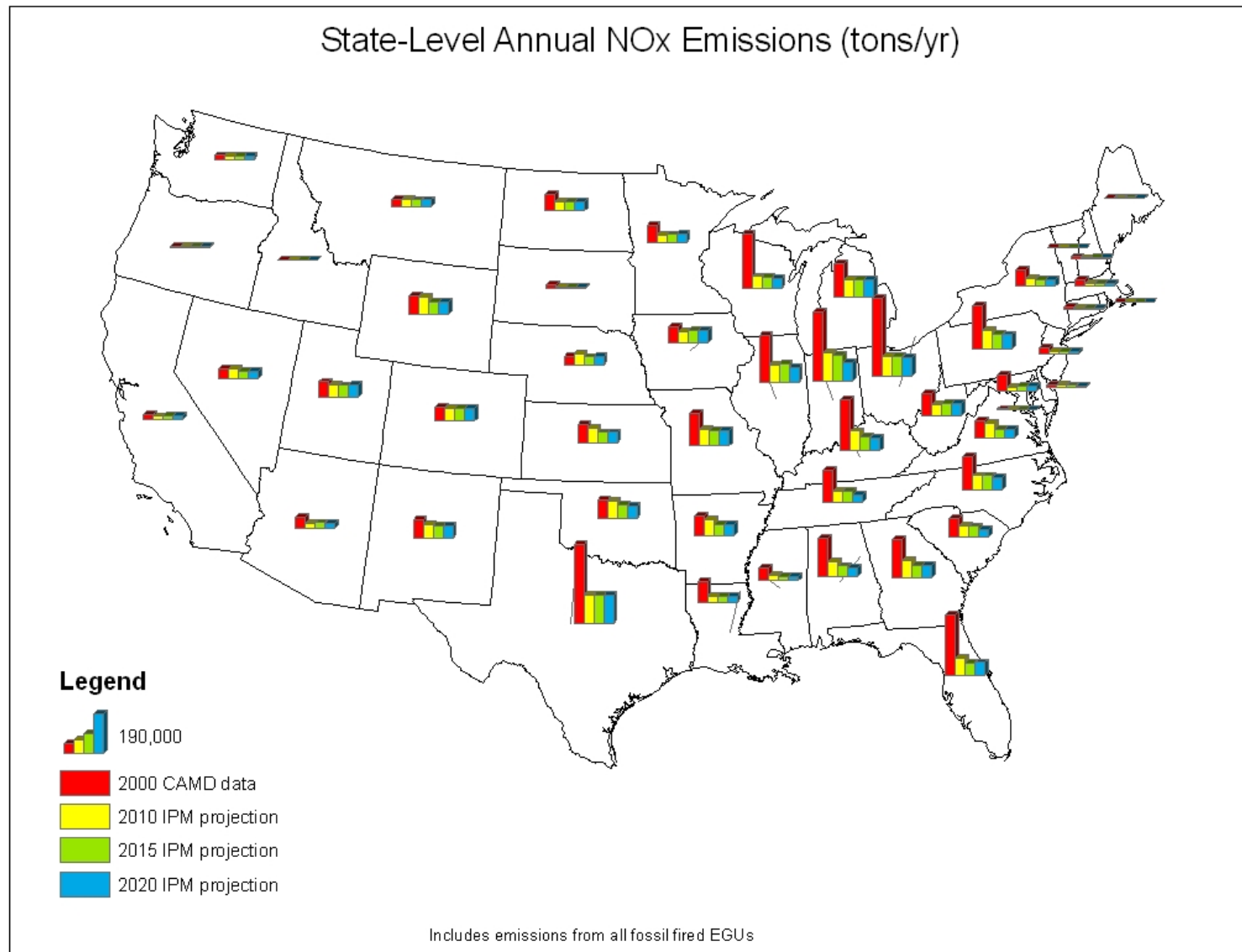
Brief background on IPM: IPM Structure



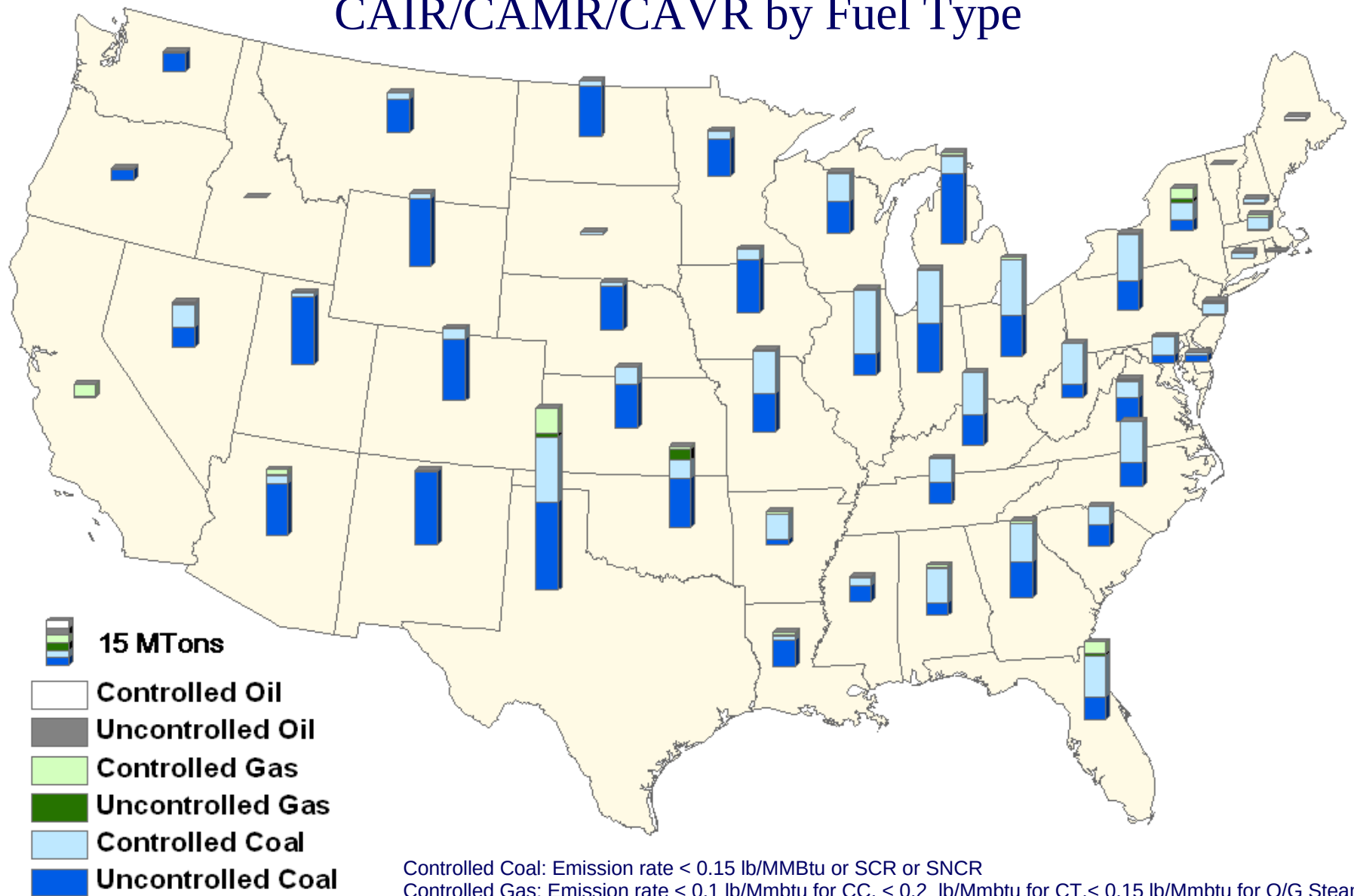
Regional Policy already in place: Base Case (CAIR/CAMR/CAVR)



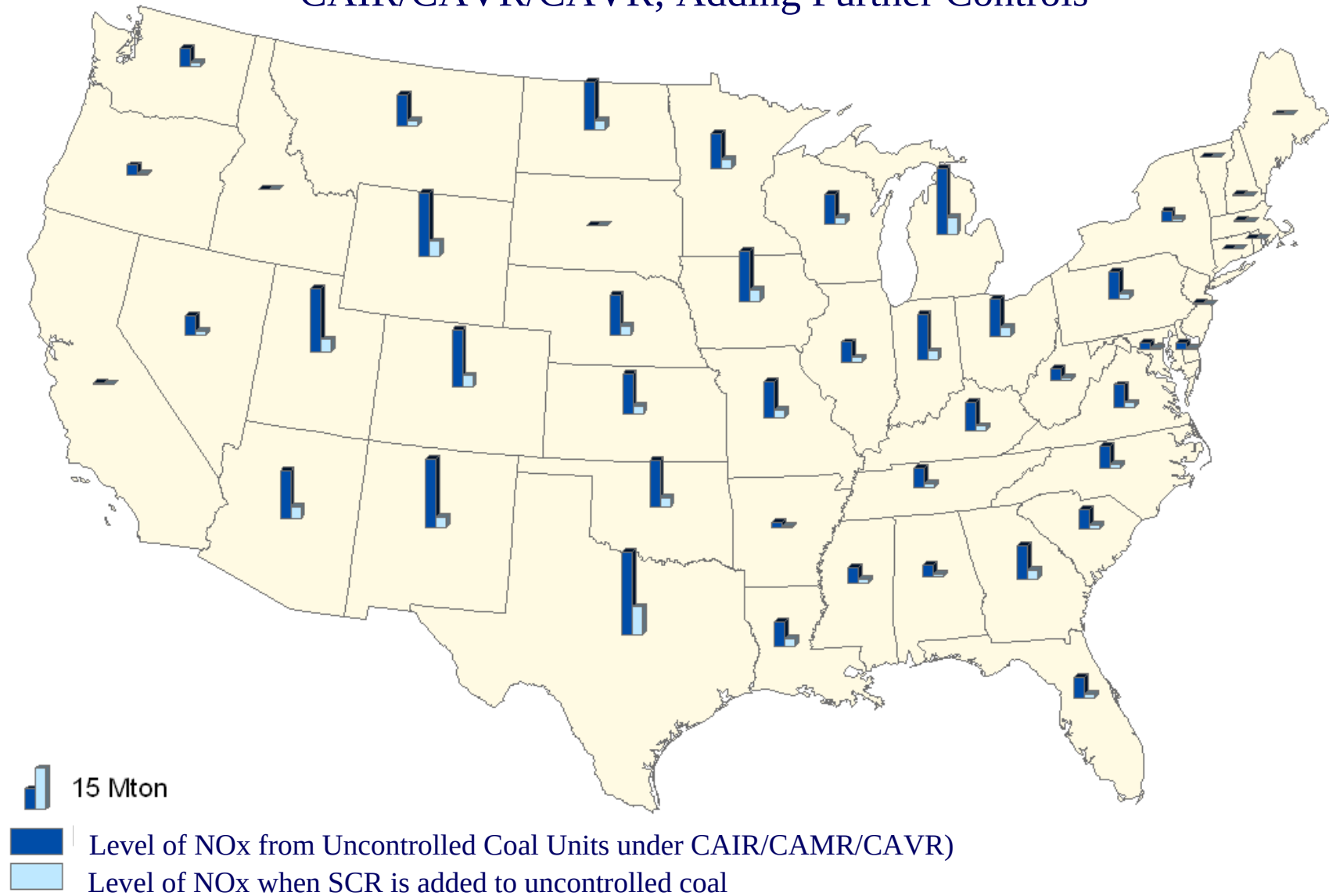
Annual NO_x: State-Level Emissions



2020 Summer Season EGU NO_x Emissions under CAIR/CAMR/CAVR by Fuel Type

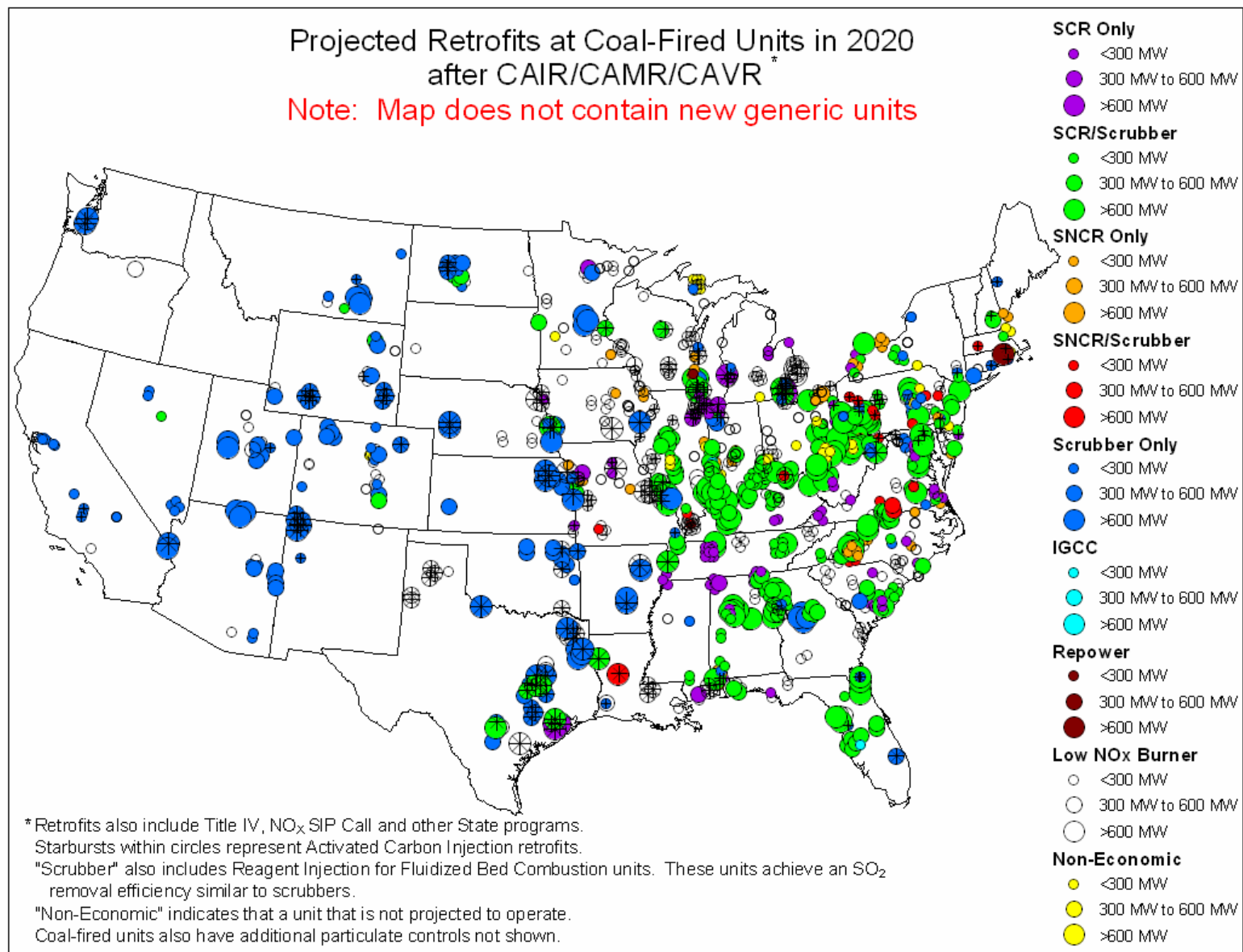


2020 Summer Season Uncontrolled Coal EGU NO_x Emissions under CAIR/CAVR/CAVR; Adding Further Controls

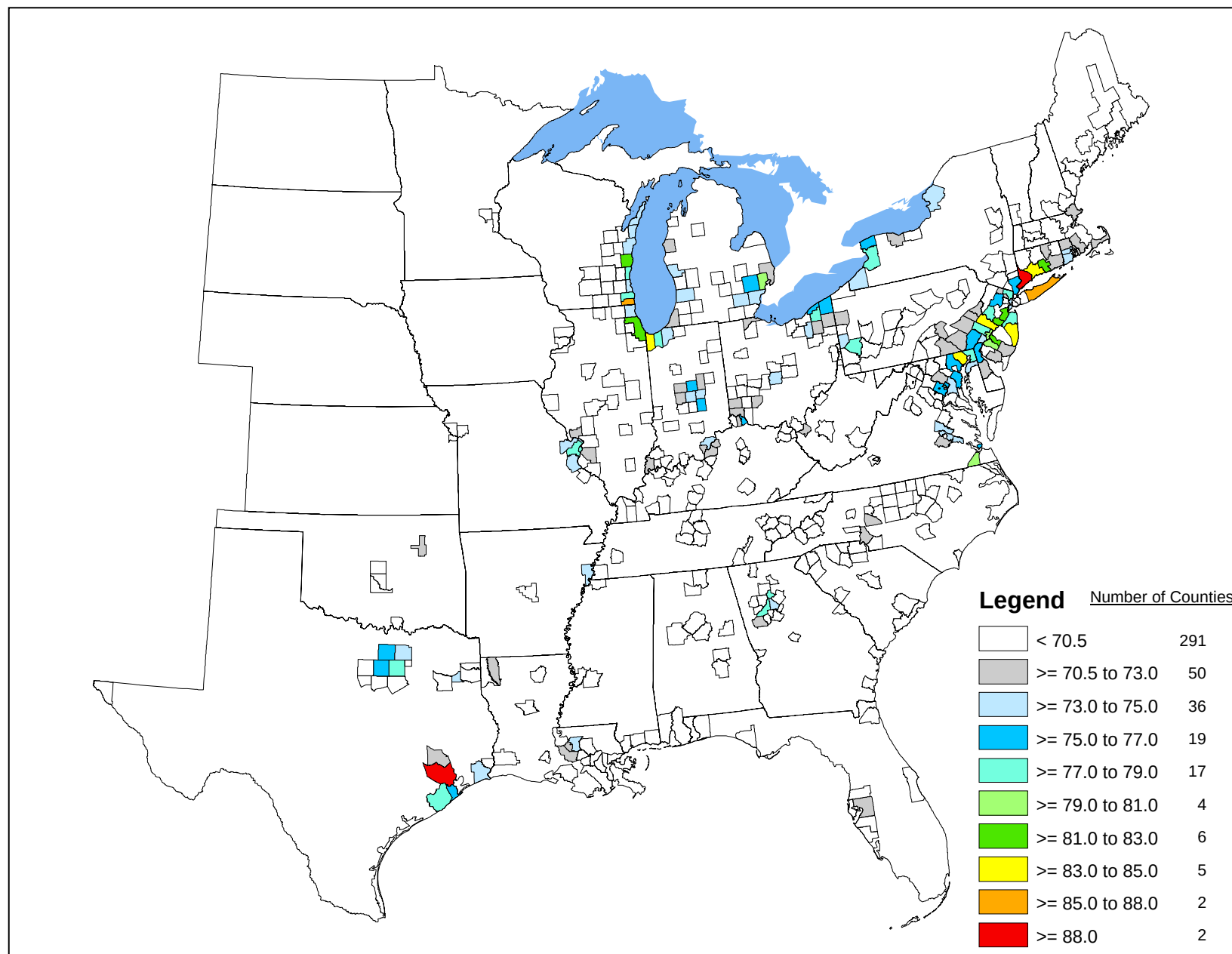


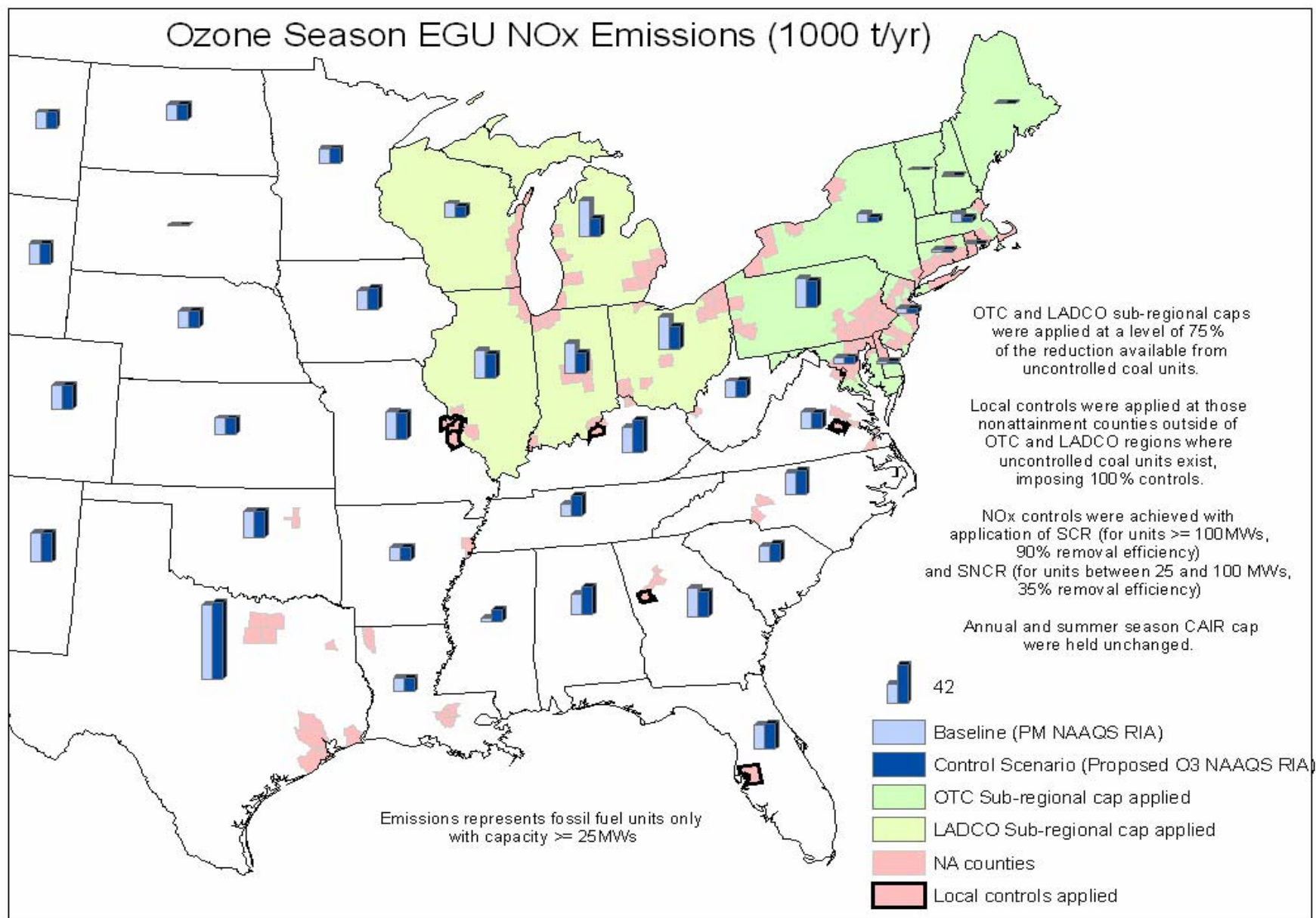
Controlled Coal: Emission rate < 0.15 lb/MMBtu or SCR or SNCR

2020 Retrofits



Projected 8-Hr Ozone (ppb) for 2020_070a1 Learning Strategy



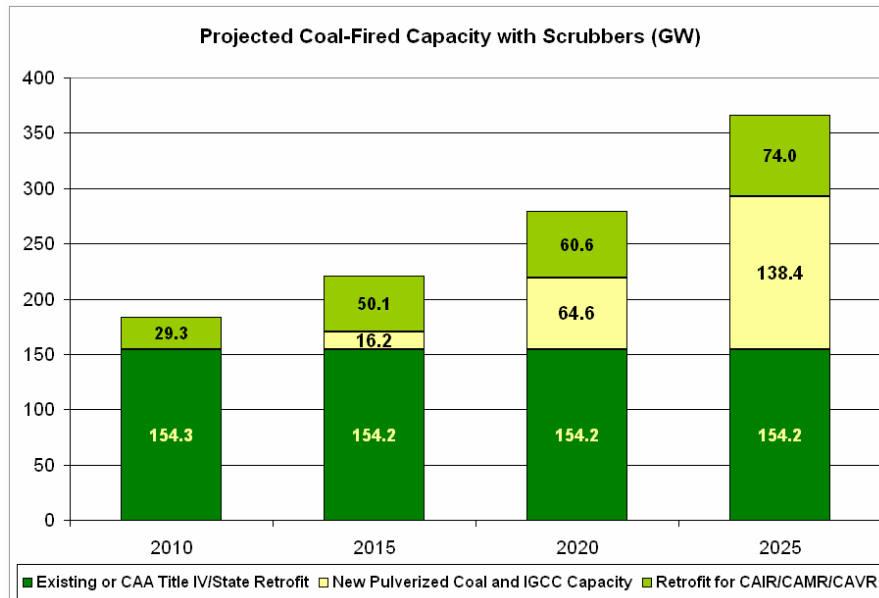


DRAFT: Deliberative. Do not Quote or Cite Preliminary Results. Data still in final QA review.

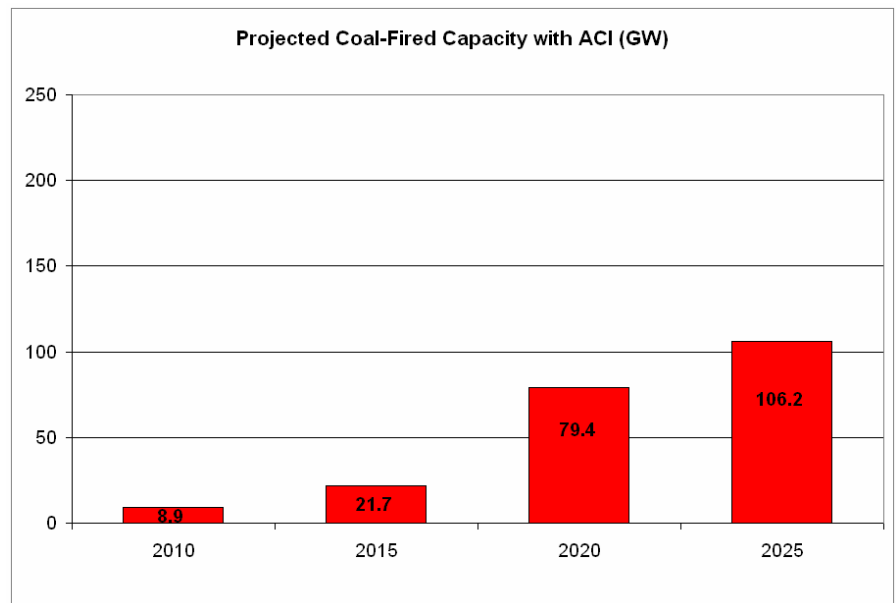
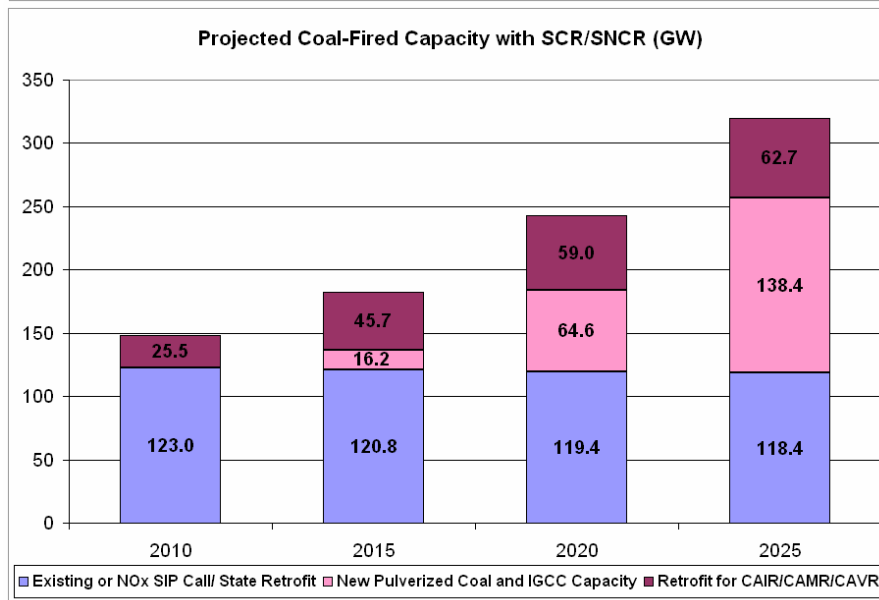
2020 Ozone Season EGU NO_x Emissions (Mtons)



Other Impacts



- Cost of the policy
- Marginal cost
- Fuel prices
- Generation mix
- Wholesale electricity prices
- Retirements



*2025 numbers are highly tentative due to more uncertainty in future years.

For More Information:

www.epa.gov/airmarkets

www.epa.gov/airmarkets/epa-ipm

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