

Opportunities to reduce emissions from energy use in MWCOG region

Kathryn Zyla

Georgetown Climate Center

February 27, 2015

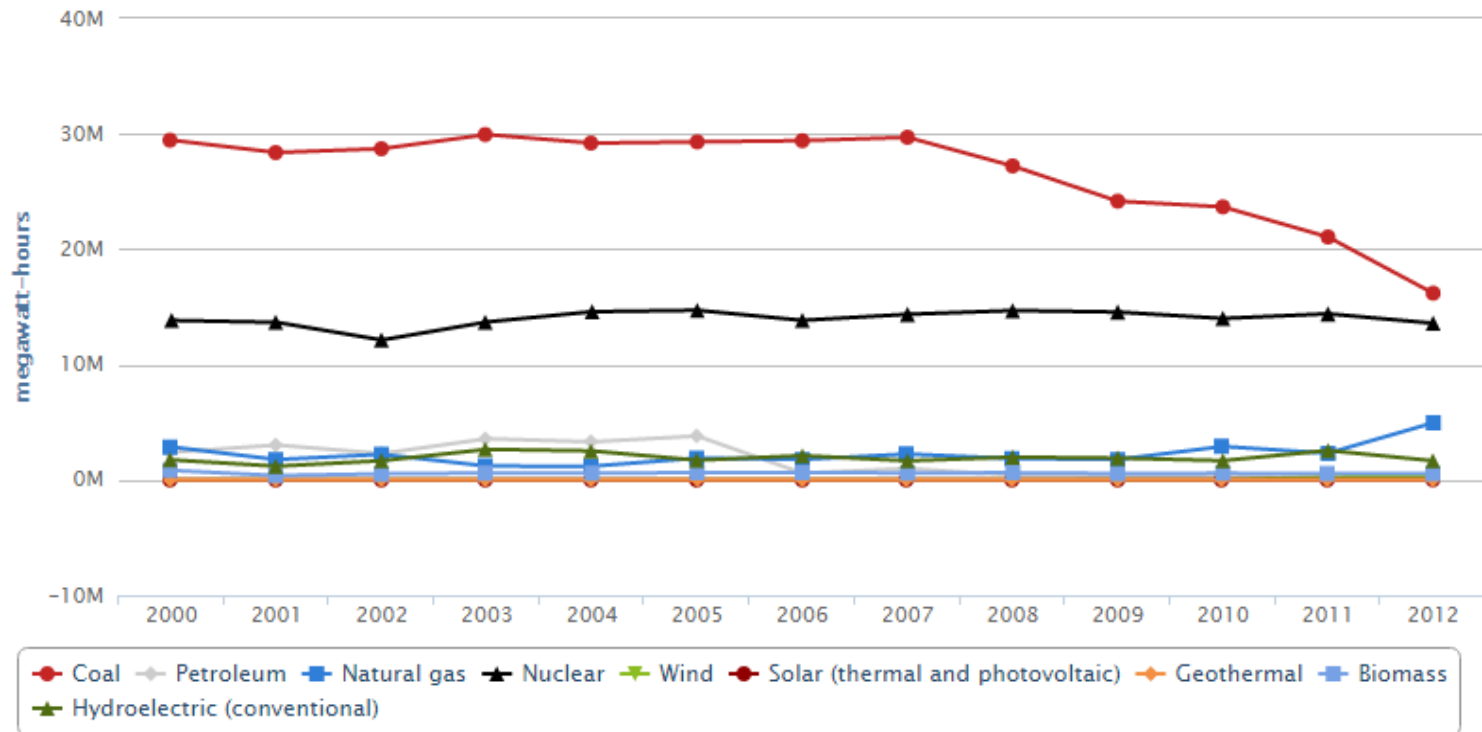
Background:

GCC's Work with States

- Founded as a resource for states
- Works with states and other stakeholders on Clean Power Plan through convenings, facilitation, and research
- Worked with officials from 15 states to submit comments to EPA

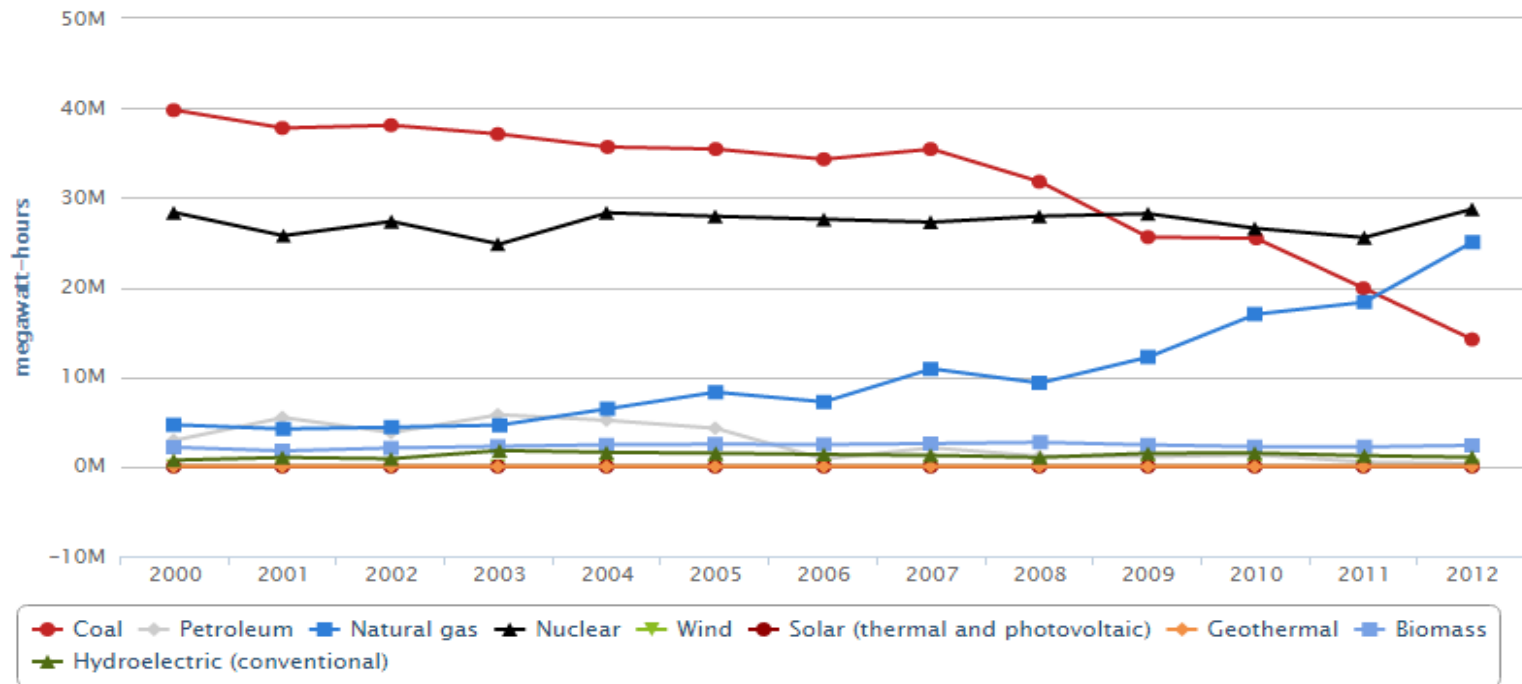


Changes in Maryland's Generation Mix from 2000-2012



From 2005-2012, Maryland experienced a 39% decline in carbon emissions from the power sector.

Changes in Virginia's Generation Mix from 2000-2012



From 2005-2012, Virginia experienced a 39% decline in carbon emissions from the power sector.

Energy Efficiency Strategies Identified for Reducing Emissions

- Identified in the Metropolitan Washington Council of Governments (MWWCOG) 2013-2016 Climate and Energy Action Plan.
- Improve energy efficiency in buildings by:
 - Tracking energy performance in government buildings
 - Engaging in programs to reduce energy consumption in government facilities, lit public areas, and residences, for example:
 - EPA Portfolio Manager (an energy measurement and tracking tool)
 - US DOE Better Buildings Challenge (provides technical support and energy efficiency solutions)
 - Home Performance with Energy Star program (a home energy efficiency improvement program)

Renewable Energy Strategies Identified for Reducing Emissions

- Install renewable energy systems on 5,000 residential, commercial, or government buildings.
- Participate in EPA's Green Power Partnership, a voluntary program in which partners commit to purchasing or generating on-site 3-20% of electricity used annually from green power.
- Implement two pilot programs for renewable energy parks.
- Water and wastewater facilities (government or utility-owned) implement energy efficiency measures, alternative energy, or renewable energy generation at their facilities.
- Develop financing programs to support building retrofit programs, or renewable energy generation in the residential and/or commercial sectors.

Progress and Opportunities

Local/regional level

- Existing plan: disclosure of government buildings' energy use and development of energy plans
- Potential for resources and support on energy financing (e.g., PACE)
- Pilot projects, e.g., microgrids. Already being explored—results being measured?
- Building codes?
- Issues in electricity regulation: treatment of net metering, electric vehicle charging.

State/national level

- State RPSs, EE, GHG programs
- Clean Power Plan

Clean Power Plan Summary

- Clean Power Plan Rule regulates carbon pollution from existing power plants under CAA Sec. 111(d)
- Projected to achieve 30% reductions by 2030 from 2005 levels
- Emission guidelines set minimum state emission goals based on “best system of emission reduction”
- States must develop plans with standards to meet limits
- EPA provides broad flexibility for state plans; states may build on existing state programs, develop multi-state plans

State Goals

Based on 4 Building Blocks

1.



Coal Plant Efficiency

2.



**Increased Use of
Natural Gas Plants**

3.



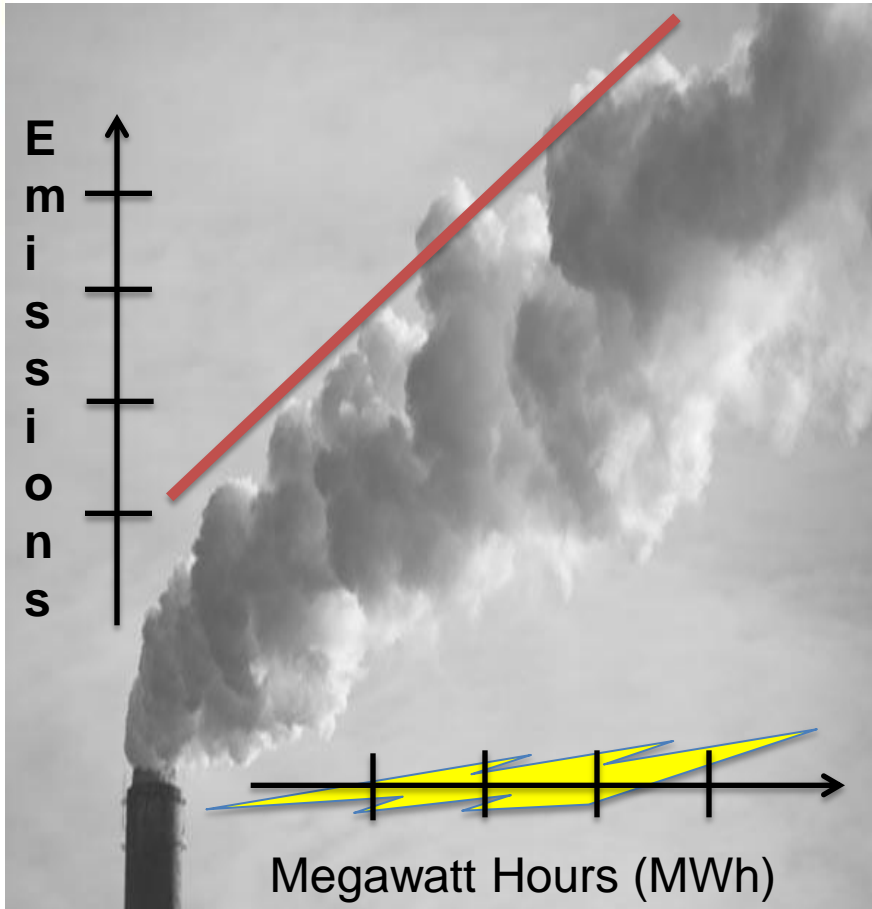
**Renewables &
Nuclear**

4.



**Demand-side
Efficiency**

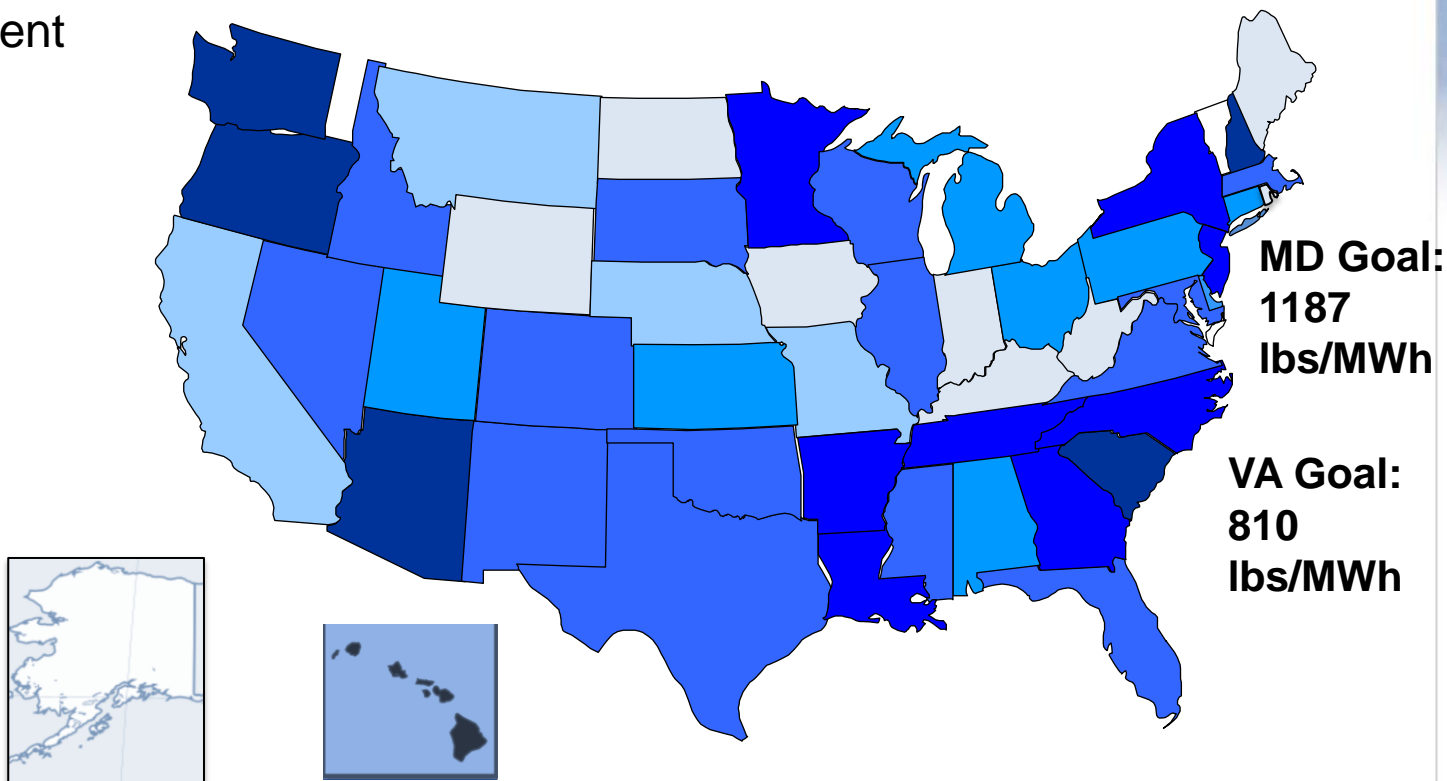
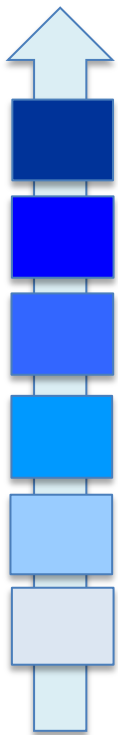
Rule Expresses State Goals as Rate-Based Standard



- **Limit on carbon pollution emitted per quantity of electricity generated**
 - Pounds CO₂ per megawatt hour of electricity
- **States may use renewables, energy efficiency, and a portion of nuclear generation to achieve limit**

Different Levels of Improvement Required Based on Potential in Formula

Greater Level
of Improvement
Necessary



* DC has no goal because it has no covered sources.

Timeline for Plan Development & Submission

- **October 16, 2014** – comment period ends
- **Midsummer 2015** – final rule to be issued
- **June 30, 2016** – initial state plans due
- **June 30, 2017** – final state plans for individual states due
- **June 30, 2018** – final plans for multi-state programs due
- **January 1, 2020** – proposed start of interim goal performance period
- **January 1, 2030** – proposed start of final goal performance period