

### **EPA CPP Final Rule**

Mark Lauby September 30, 2015

#### **RELIABILITY | ACCOUNTABILITY**









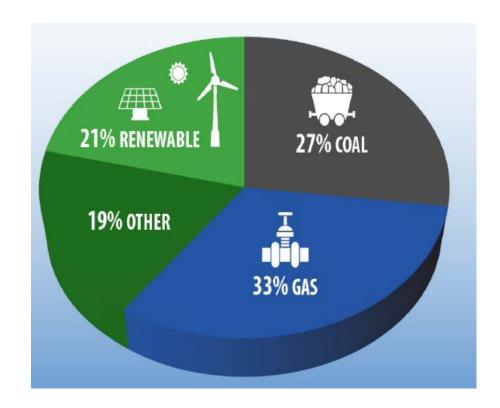


#### **EPA Projection of Resource Mix 2030**

Significant Increase in Renewables

Decline in Coal

Increase in Natural Gas







- The CPP sets CO<sub>2</sub> emissions performance for affected power plants that reflect the best system of emission reduction (BSER)
- EPA identified 3 "Building Blocks" as BSER
  - Calculated performance rates for fossil-fueled EGUs
  - Another rate for natural gas CC units
- EPA translated into a state goal measured in mass and rate, based on each state's unique mix of 2012 power plants



#### **Three Building Blocks**



# Block Building

 Improved efficiency at power plants

- Shifting generation from higher-emitting steam **EGUs** to lower-emitting natural gas power plants
- Shifting generation to renewables



# PA Calculated Ш How

 Increase operational efficiency of existing coal fired steam **EGUS** 

- Substituting increased generation from existing natural gas units for reduced generation at existing steam EGUs
- Substituting increased generation from zero emitting resources



of

Examples

#### **Boiler chemical** Compliance cleaning; equipment and software upgrades • Increase generation at existing NGCC

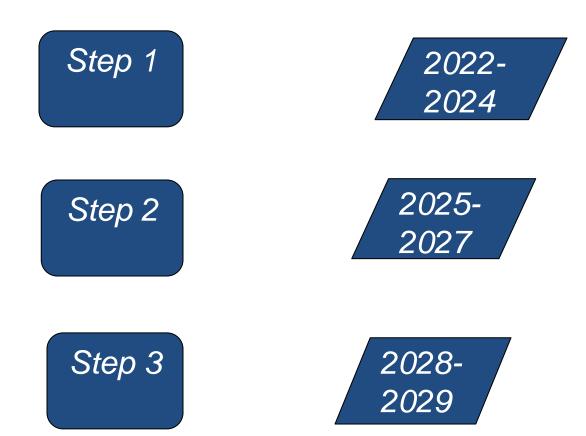
units

 Increased generation from solar, wind, nuclear, and CHP





 The interim period runs from 2022-2029 and includes three interim performance periods





#### **Clean Power Plan Timeline**



August 3, 2015 Final Clean Power Plan

1 Year

September 6, 2016 - States make initial submittal with extension request or submit Final Plan

3 Years

September 6, 2018 – States with extensions submit Final Plan

7 Years

January 1, 2022 – Compliance period begins

15 Years

January 1, 2030 - CO<sub>2</sub> Emissions Goals met



#### **State Plan Development**

- States can collaborate with other states linking plans through common administrative provisions ("trading ready")
- Trading ready mechanisms allow states or power plants to use creditable, out of state reductions to meet their goal without the need for up-front interstate agreements



#### **EPA Incentives for Early Investment**

- EPA provided the Clean Energy Incentive Program (CEIP) to incentivize early investment for wind and solar power or reduce end-use energy demand during 2020 and 2021.
- EPA will provide matching allowances or ERCs to states that participate in the CEIP, up to an amount equal to the equivalent of 300 million short tons of CO₂ emissions. The match is larger for low-income EE projects.

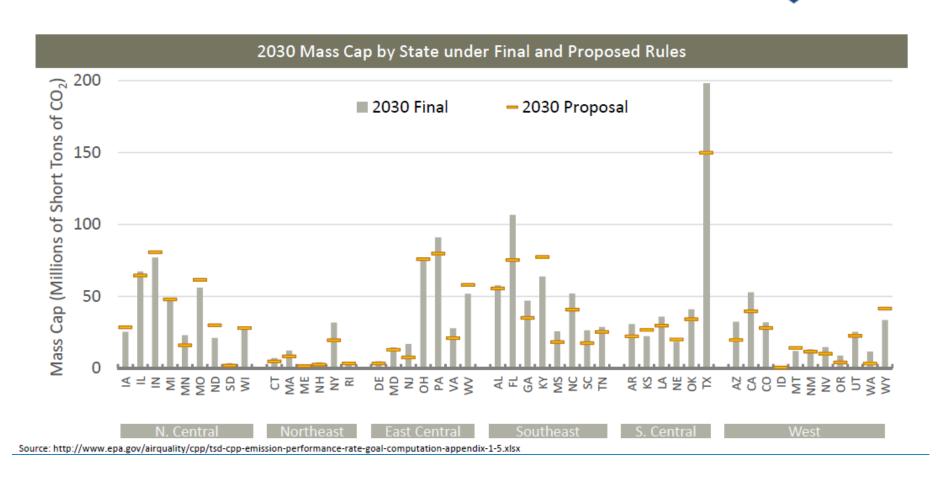


#### **Reliability Provisions**

- Each state is required to demonstrate in its final plan that it has considered reliability issues in developing its plan, including consultation with an appropriate reliability or planning agency
- EPA provides for a mechanism for a state to seek a revision to its plan in case unanticipated and significant reliability challenges arise
- Reliability safety valve to address situations where, due to an unanticipated event or other extraordinary circumstances, there is a conflict between the requirements imposed on an affected power plant and maintaining reliability



## State by State Changes/Preliminary and Final



ICF EPA CPP Final Rule Presentation





### **Questions and Answers**

