

# Kickoff Information Session Clean Power Plan in Ohio

Ohio EPA  
Public Utilities Commission of Ohio (PUCO)  
December 2, 2015



# Overview

- Introductions
- Presentation
- Discussion
- Questions and Answers (the best we can!)

# U.S. EPA Carbon Regulation of Power Sector

## Three actions designed to significantly reduce carbon emissions from the power sector

- Carbon Pollution Standards –new, modified and reconstructed sources
- Clean Power Plan (CPP) –existing sources
- Federal Plan proposal and model rule
- **U.S. EPA's stated CPP goals are to**
  - Achieve significant carbon emission reductions in 2030
  - Deliver an approach that gives states and utilities time to preserve ample, reliable and affordable power
  - Spur increased investment in non-carbon based renewables

# U.S. EPA's Clean Power Plan

*Final Rule - October 23, 2015*

- U.S. EPA rule requires a 32% reduction in emissions of CO<sub>2</sub> across the country.
- Establish carbon dioxide emissions rates for coal and gas power plants that reflect “best system of emission reduction” (BSER)
- In the final rule, U.S. EPA identified three “Building Blocks” and calculated performance rates using these assumptions
  - Block 1: Improve heat rate efficiency at individual units
  - Block 2: Increase existing NGCC generation
  - Block 3: Increase non-carbon based generation

*Block 4: Energy Efficiency has been removed from consideration as BSER in the final CPP.*

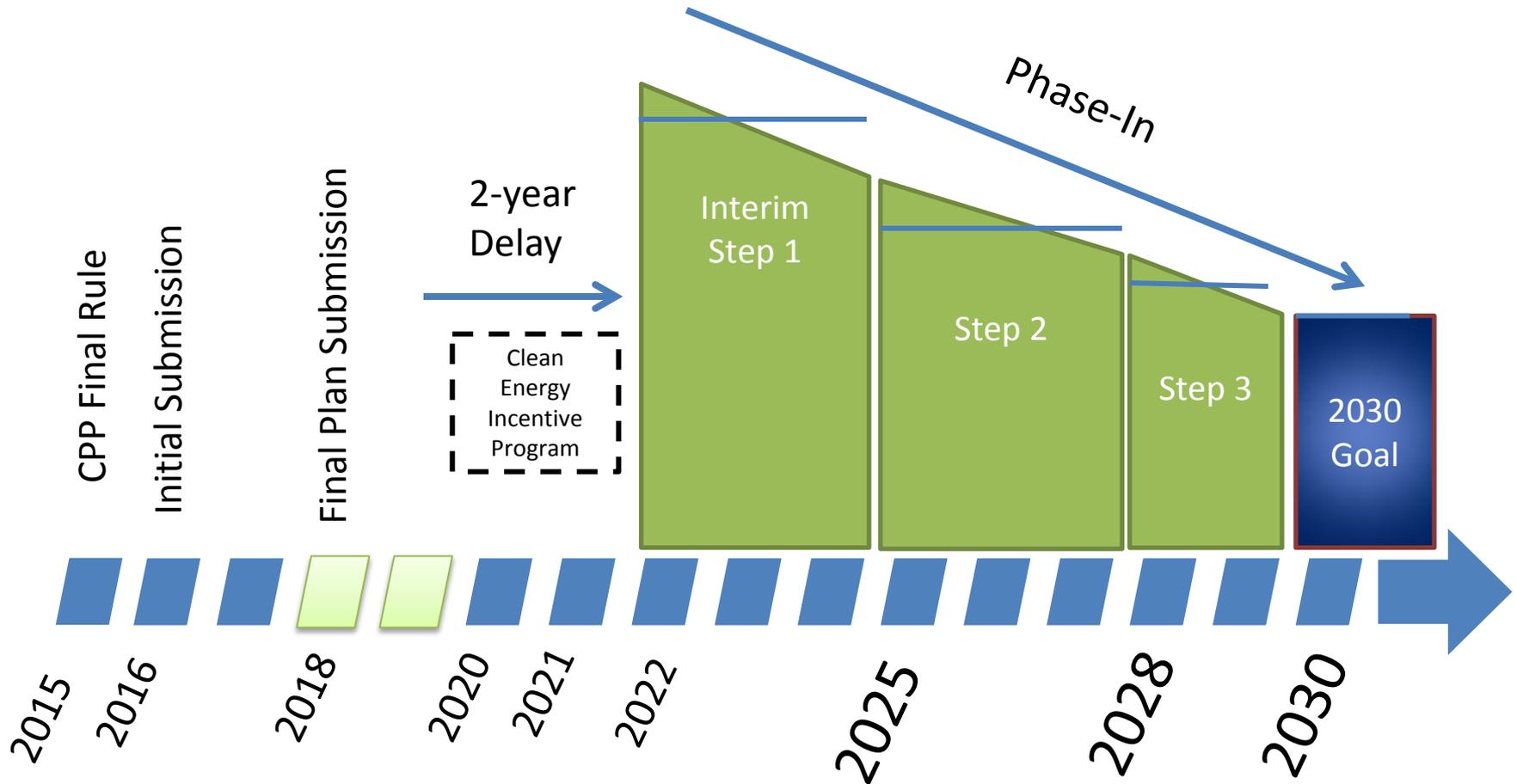
# Ohio's CPP Goals

Each state is tasked with developing an implementation plan to reach their respective target.

	Rate Based <u>(lbs CO<sub>2</sub>/MWh)</u>	Mass Based <u>(tons CO<sub>2</sub>)</u>
• 2012 Baseline	1,900	102,239,220
• Proposed CPP	1,338	-
• Interim Period 2022-2029	1,383	82,526,513
• Final Goal 2030+	1,190	73,769,806

*Between 2005 and 2014 Ohio has already experienced a reduction in CO<sub>2</sub> emissions of 30% as a result of market forces and federal regulations including the Mercury and Air Toxics Standard (MATS).*

# Clean Power Plan Timeline



# Ohio's CPP Timeline



# Legal Challenge

On October 23, 2015, Ohio and 26 other states (or entities) filed Petitions for Stay and Expedited Review asserting that:

- EPA lacks authority under CAA Section 111(d) to require states to fundamentally restructure their electric grids by requiring them to use less coal-fired energy and replace it with new non-carbon based generation.
- It also requires states to regulate coal-fired power plants under Section 111(d) of the Clean Air Act even though the EPA already regulates those same plants under Section 112 of the Act. Double regulation is prohibited by the Clean Air Act.

***This challenge and others identify irreversible harm to states, companies, electricity generation and the national power system prior to legal clarity.***

# Technical Exploratory Phase

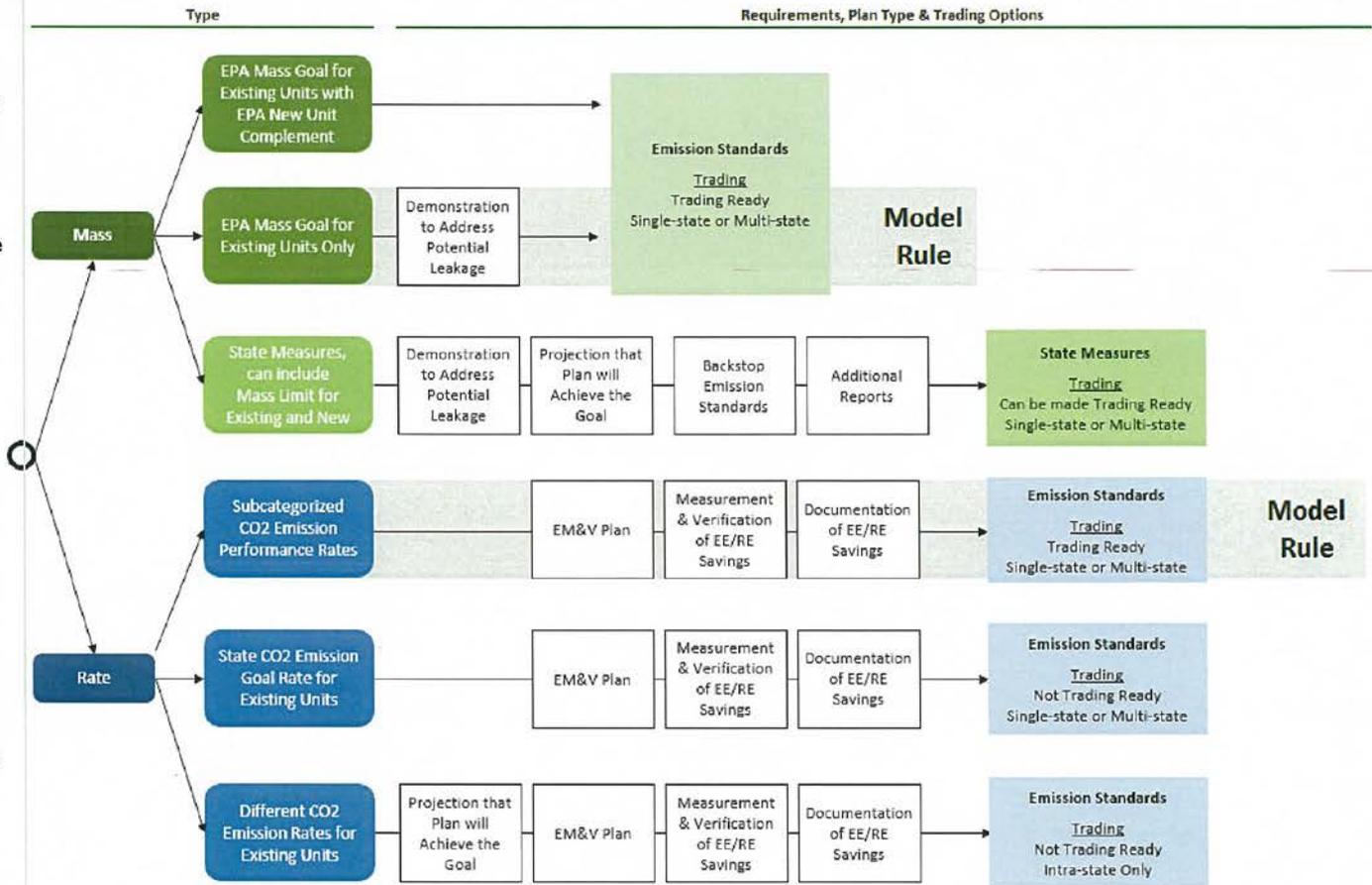
We are analyzing options and trying to identify best compliance pathway for Ohio

- Ohio EPA has dedicated unprecedented resources from traditional programs to review and understand the CPP
- Close coordination with PUCO, Attorney General's Office, other states
- PJM (our Regional Transmission Organization)
  - Consortium of 13 states plus District of Columbia
  - Focus on regional planning, reliability and market impacts



# More State Options, Lower Costs

- This chart shows some of the compliance pathways available to states under the final Clean Power Plan. Ultimately, it is up to the states to choose how they will meet the requirements of the rule
- EPA's illustrative analysis shows that nationwide, in 2030, a **mass-based approach is less-expensive** than a rate-based approach (\$5.1 billion versus \$8.4 billion)
- Under a mass-based plan, states that anticipate continuing or expanding investments in energy efficiency have unlimited flexibility to leverage those investments to meet their CPP targets. EE programs and projects do not need to be approved as part of a mass-based state plan, and EM&V will not be required
- For states currently implementing mass-based trading programs, the "state measures" approach offers a ready path forward
- Demand-side energy efficiency is an important, proven strategy that states are already widely using and that can substantially and cost-effectively lower CO<sub>2</sub> emissions from the power sector



# Technical Exploratory Phase

- We value your initial concerns, thoughts, research and ideas. Especially related to:
  - How can Ohio best examine potential compliance pathways?
  - Considerations, recommendations and resources
  - Challenges and benefits to different options
  - How can Ohio best communicate throughout the planning period?
- After this initial outreach phase and if an extension is granted, there will be additional opportunities to comment during plan development.

# Initial Outreach and Engagement

- Outreach and Engagement
  - Stakeholders and Interested Parties
  - Vulnerable and Impacted Communities
- 5-Regional Listening Sessions across the state expected in March/April
  - Brief Summary of the CPP
  - Hearing format – Court Reporter present
  - Opportunity to submit official oral or written comments
- Additional outreach to vulnerable communities most impacted by the CPP

# Key Questions and Challenges

- How to analyze Compliance Pathways efficiently?
- Mass vs. Rate?
- Trade-Ready plan?
- How do we minimize CPP impact on electricity costs to end users?
- How do we assure continued reliable service to the state?
- In a regional marketplace, should Ohio's status as a deregulated state impact our decision making process?
- How do we minimize unpredictability in the marketplace and provide certainty for future investment and development?

# Questions?

For more information and the latest updates on  
Ohio EPA's 111(d) progress:

[www.epa.ohio.gov/dapc/111drule.aspx](http://www.epa.ohio.gov/dapc/111drule.aspx)