



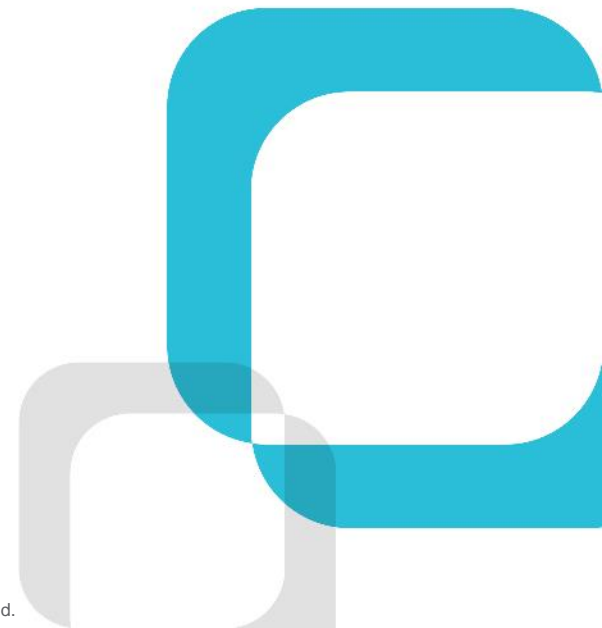
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The Clean Power Plan

Prepared for GenForum 2015

December 7, 2015



Today's Agenda

- Overview of the Clean Power Plan
- Current state – Where are We Now?
 - Battle Lines – Litigation
 - Politics
 - State Regulatory
- Wrap-Up



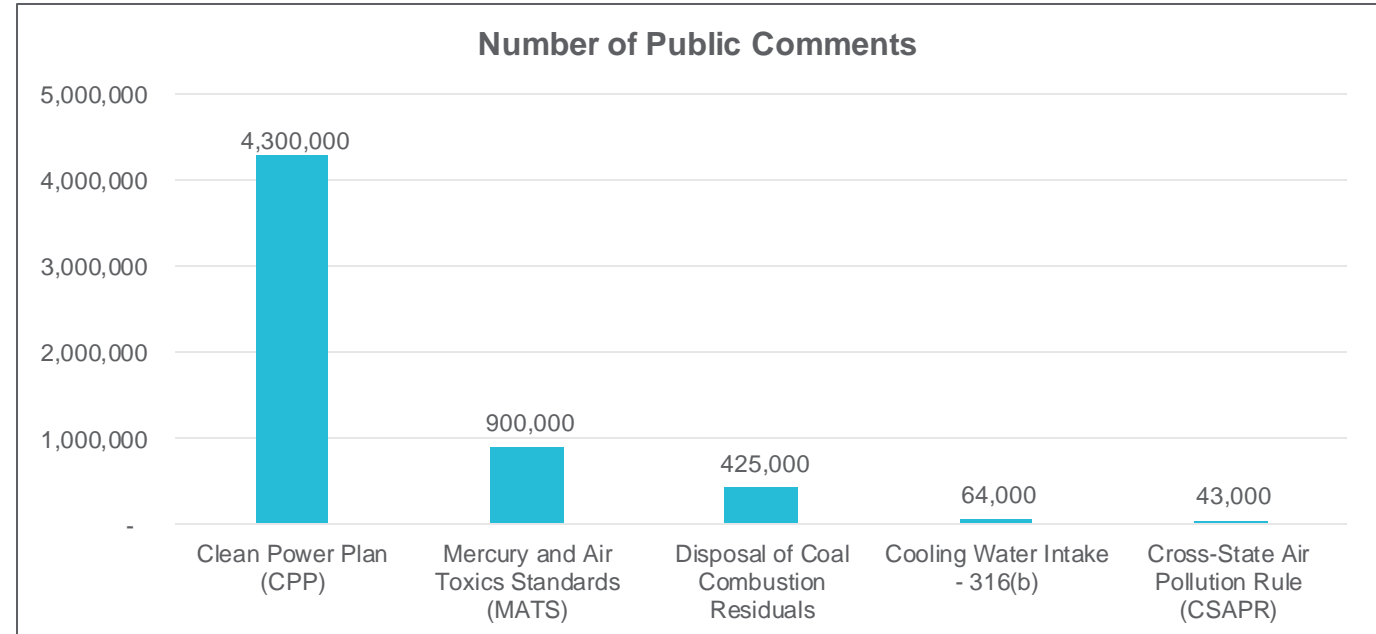
Overview of the Clean Power Plan



Background and Overview of the Rule

On August 3, 2015, the EPA released the Clean Power Plan (CPP), its 1,500-page final rule, governing performance standards for greenhouse gas emissions for existing and new power generation sources.

- The CPP was originally released for review in June 2014 – EPA received more comments on this one proposed rule than any other proposed rule to-date
- Why is it important to the EPA & supporters
 - First-ever national standards that address CO₂ emissions from power plants
 - EPA cites benefits including reducing health hazard, advancing clean energy innovation, and laying the foundation to address climate change
 - EPA analysis indicates the combined climate and health benefits of the CPP will far outweigh implementation costs; estimated at \$26B – \$45B in 2030



- Why is it important for opponents
 - “Coal-country” states such as Kentucky, Wyoming, and West Virginia may be doubly impacted because they rely on coal for electricity and their economies depend on mining it
 - Critics argue that the rule will lead to increased electricity costs of 4%–15%, kill jobs and harm low-income/minority communities
 - Detractors estimate higher costs than EPA numbers; \$41B – \$50B/year, a total economic impact of \$366B – \$900B by 2030 to implement

What Changed?

The final rule has significant modifications from the 2014 draft

- Compliance timeframe and reduction timing
 - Begins in 2022 (final rule) instead of 2020 (proposed rule)
 - No “cliff” in reduction targets (proposed rule), instead there are step-down “glide paths” in three two-year periods prior to final compliance (final rule)
- Building blocks – the final rule dropped increased implementation of end-use energy efficiency, leaving three “building blocks”
 1. Improve the heat rate of existing coal-fired power plants
 2. Substitute natural gas plants for coal-fired power plants
 3. Increase electricity generation from new zero-emitting renewable energy sources (like wind and solar)

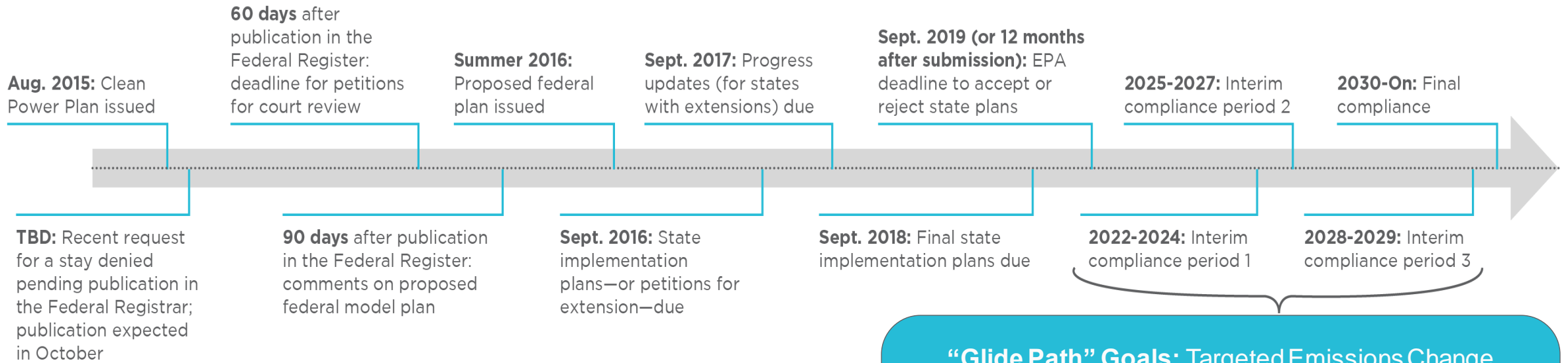
Other key changes are shown in the table below:

Area	Proposed Rule – 6/14	Final Rule – 8/15
Reliability Impacts	■ Not addressed	■ Safety valve added to final rule
CO ₂ Targets	■ Projected 30% cut from 2005 levels	■ Projected 32% cut from 2005 levels
Fossil Steam Heat Rates	■ Assumed 6% improvement	■ Interconnection-specific improvement of 2.1%–4.3%
Nuclear Generation	■ Used in goal-setting	■ Not used in goal-setting; new build and uprates may be in state plans
Natural Gas	■ Assumed 70% of nameplate	■ Assumed 75% of net summer capacity
Renewables	■ 22% of MWh generation	■ 28% due to lower installed costs

What Changed? – Compliance Training

States have until September 2016 to complete implementation plans or petition for extension

Clean Power Plan Finalization and Compliance Timing



“Glide Path” Goals: Targeted Emissions Change (in Tons) from 2012 Observed CO₂ Emissions*

- 2022-2024:** Decrease of 9%
- 2025-2027:** Decrease of 17%
- 2028-2029:** Decrease of 21%
- 2030-On:** Decrease of 23%

Source: EPA

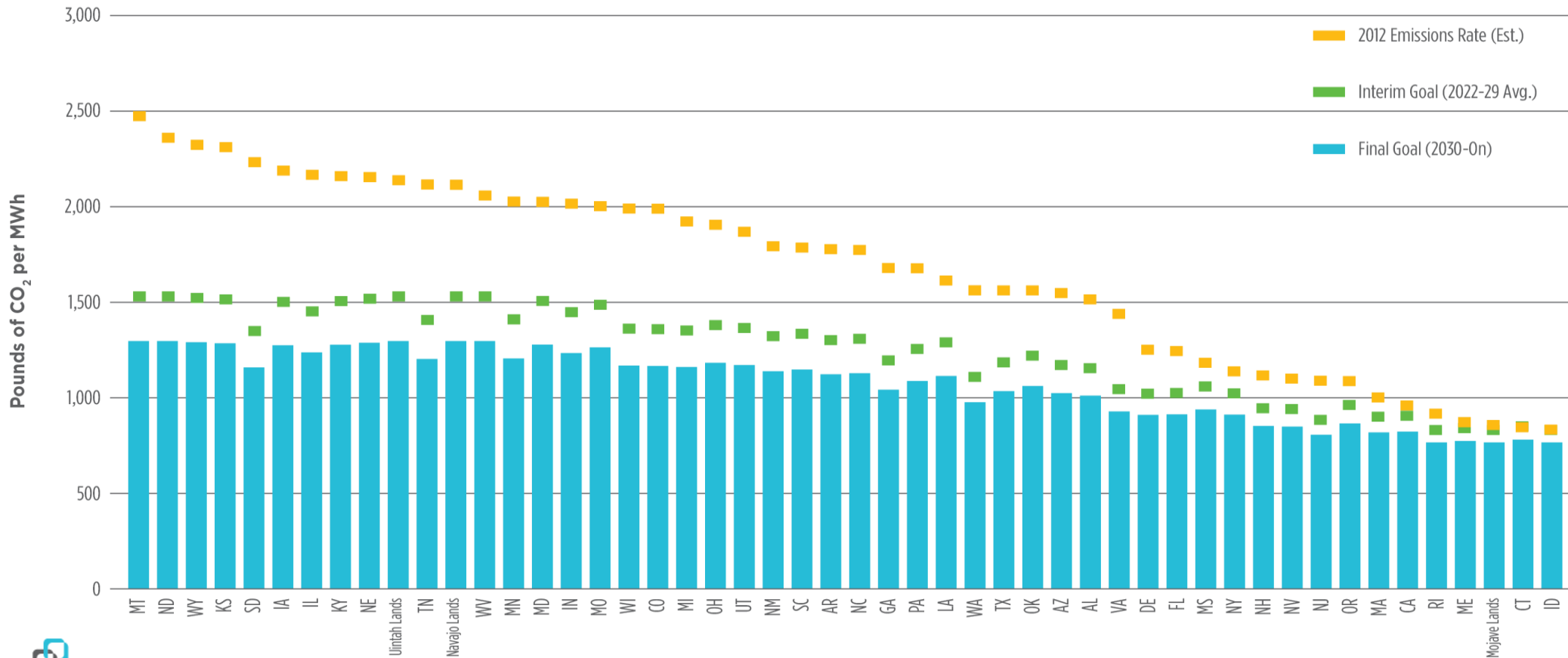
Notes: *2012 emissions are unadjusted and exclude under construction units; goals exclude New Source Complement, which increases emissions limits to accommodate load growth but pegs incremental emissions at compliance rates

Sources: EPA; industry reports; ScottMadden analysis

What Changed? – Target Setting

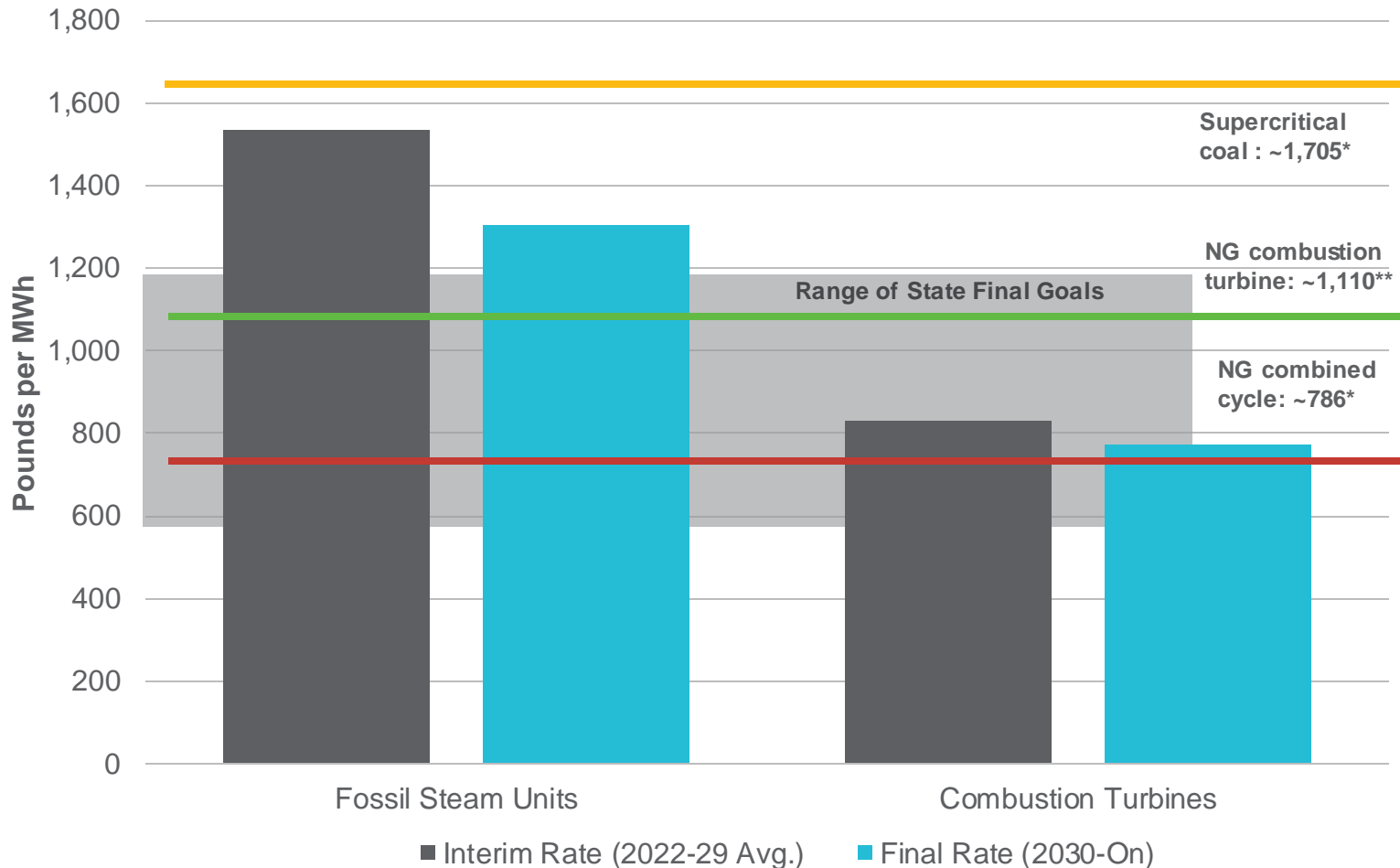
The final rule demands more from high emitting states and focuses on greenhouse gas emitters who have done little to control their emissions to this point

State and Tribal Lands CO₂ Emissions Rate Interim and Final Goals vs. 2012 Estimated Actual CO₂ Emissions Rates
(in Pounds of CO₂ per MWh)



What Changed? – Performance Rates by Technology

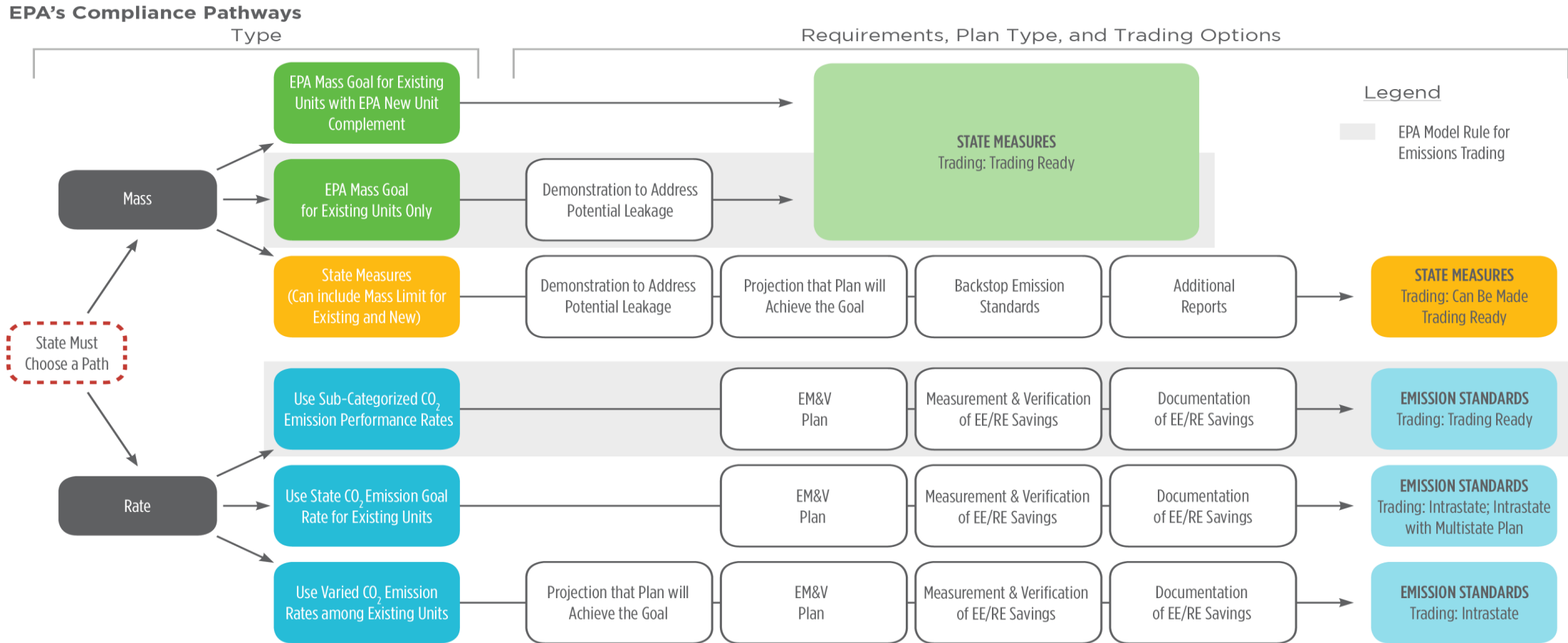
Target Existing Source Emissions Rates and Illustrative Emissions Rates by Technology (in Pounds of CO₂ per MWh)



- Final state goals lie between the fossil steam and combustion turbine (CT) technology targets
- Existing technology (supercritical and natural gas CT) emissions exceed targets
- All but the coal unit “building block” fall “outside the fence line” of a power plant and, critics say, outside of EPA's Clean Air Act authority to enforce

EPA Compliance Pathways to Achieve Goals

States must choose rate- or mass-based goals while balancing stakeholders' interests



Implementation Plans – State Decision Rights

According to the EPA, states should develop plans that take into account their unique circumstances

- Plans must achieve interim CO₂ emissions performance rates and final performance rates
- There are two implementation plans: “emissions standards” and “state measures”
 - “Emissions standards” focuses on plant-specific requirements for affected generation units
 - “State measures” mixes generator emissions limits with other measures (e.g., renewable energy standards) to meet mass-based goal—includes federally enforceable backstop triggered by reduction schedule failure
- States may choose to work with other states (e.g., emissions trading) or submit their own plan

If the EPA deems a state plan unsatisfactory, the state will default to the Federal Implementation Plan

The Federal Implementation Plan

- Notice signed on 8/3/15
- Proposed both rate- and mass-based trading programs and model trading rules
- Can stand alone as a Federal plan or act as a model for state plans
- Final rule expected summer 2016
- EPA intends to implement a single plan (rate or mass) for every state where it finalizes a Federal plan



Current State – Where Are We Now?



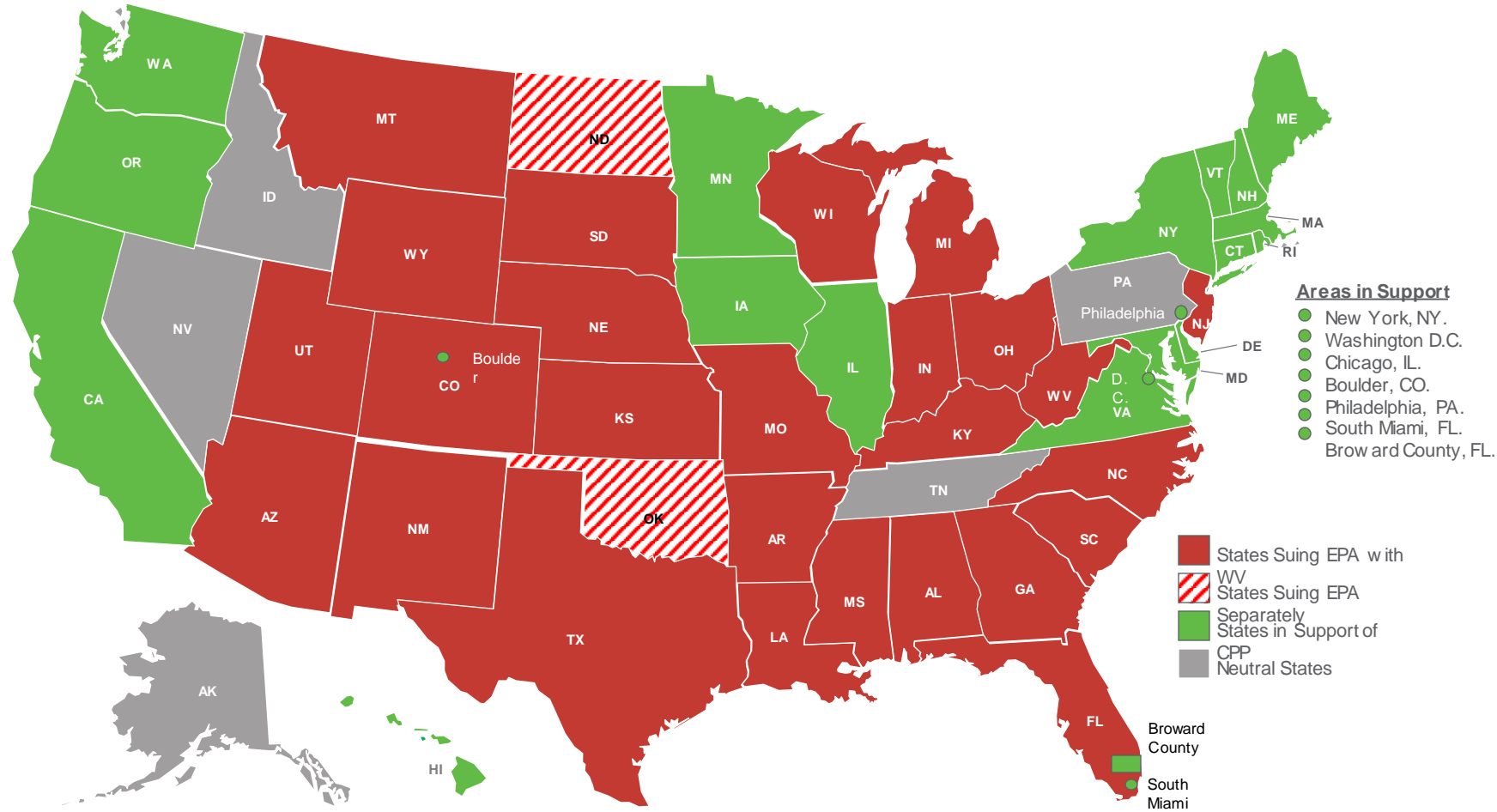
Battle Lines

Battle lines are drawn between energy companies, trade groups, and NGOs



Battle Lines – The States Divided

West Virginia and 23 states filed a suit vs. the EPA in the U.S. Court of Appeals for the District of Columbia Circuit. Oklahoma, North Dakota, and Mississippi each filed suits. Eighteen States support CPP



Battle Lines - Litigation

Legal Arguments

- CPP violates Fifth Amendment/Takings Clause by upending “settled investment expectations,” likely eliminating coal use in a dozen states
- Constitutional State sovereignty
- EPA decision that the “Best system of emission reduction” includes the entire electric grid is unprecedented
- EPA cannot use multiple sections of the Clean Air Act to regulate, since the new Mercury and Air Toxic Standards are regulated via Section 112, the EPA cannot base the CPP on Section 111

Primary suits vs EPA filed after the CPP was published in the federal register

West Virginia +23 states D.C. Circuit, Oct. 23	Oklahoma D.C. Circuit, Oct. 23	North Dakota D.C. Circuit, Oct. 23
U.S. Chamber of Commerce D.C. Circuit, Oct. 23	Murray Energy Corp. D.C. Circuit, Oct. 23	National Mining Assn. D.C. Circuit, Oct. 23
American Coalition for Clean Coal Electricity D.C. Circuit, Oct. 23	Utility Air Regulatory Group D.C. Circuit, Oct. 23	Alabama Power Co. D.C. Circuit, Oct. 23
CO2 Task Force of the FL Elect. Power Group D.C. Circuit, Oct. 23	Montana-Dakota Utl. Co. D.C. Circuit, Oct. 23	Tri-State Gen. & Trans. Assn. Inc. D.C. Circuit, Oct. 23
United Mine Workers of America D.C. Circuit, Oct. 23	National Rural Elect. Coop. Assn., Inc. D.C. Circuit, Oct. 23	Westar Energy, Inc. D.C. Circuit, Oct. 23
Northwestern Corp. D.C. Circuit, Oct. 23	National Association of Homebuilders D.C. Circuit, Oct. 23	Association of American Railroads D.C. Circuit, Oct. 23
Luminant Gen. Co. D.C. Circuit, Oct. 26	Basin Electric Power D.C. Circuit, Oct. 29	Mississippi D.C. Circuit, Nov. 5

Current State – Where are We Now?

West Virginia vs EPA

Status

- U.S. Court of Appeals for the D.C. Circuit consolidated all challenges: **West Virginia v. EPA, D.C. Cir., No. 15-1363**
- In early 2016, a three-judge panel will decide whether to stay the rule before hearing arguments on the merits

August 2015				October 2015				November 2015				December 2015			
8/10	8/17	8/24	8/31	10/10	10/17	10/24	10/31	11/9	11/16	11/23	11/30	12/10	12/17	12/24	12/31
<ul style="list-style-type: none"> ◆ Final version CPP unveiled: Aug. 3 				<ul style="list-style-type: none"> ◆ CPP published in Federal Register: Oct. 23 ◆ West Virginia sues EPA: Oct. 23 ◆ 18 other parties: Oct. 23 				<ul style="list-style-type: none"> ◆ Suits consolidated WV vs EPA: Oct. 29 ◆ Additional Motions for stay: Nov. 5 ◆ Respondent-intervenors' responses to motions to stay: Dec. 8 				<ul style="list-style-type: none"> ◆ EPA's consolidated response to motions for stay: Dec. 3 ◆ Replies in support for motions for stay: Dec. 23 			

- The panel might not render a final decision until late 2016 or early 2017

Expectations

- To obtain a stay, petitioners must demonstrate that rule will cause irreparable harm
- EPA has an excellent track record in court
 - Consensus is that West Virginia vs EPA is going to be a long legal battle
- Court watchers predict the case will end up in the U.S. Supreme Court in 2017 or 2018
- A new president will influence the course of litigation and rule implementation

Politics – The Candidates

The newly elected President has the power to dismantle the Clean Power Plan, including:

- Sign a bill that amends the CPP and/or handcuffs the EPA
- Replace the CPP with a new regulation
- Implement the CPP, but very loosely
- Fail to defend climate regulations in court



Hillary Clinton



Bernie Sanders



Martin O'Malley



Donald Trump



Jim Gilmore



Marco Rubio



Carly Fiorina



Rand Paul



Lindsey Graham



Rick Santorum



George Pataki

Veto Block



Ben Carson



Ted Cruz



Jeb Bush



Chris Christie

Politics - Legislation

- Congressional Republicans are extending the Clean Power Plan battle to the halls of the Capitol

- Senate Resolutions to Fight Administration's Cap and Trade Assault was introduced under the Congressional Review Act (CRA) to disapprove two final EPA rules issued for new (S.J. Res. 23) and existing (S.J. Res. 24) power plants. Arguments include:
 - Protect ratepayers and American jobs—The Administration's regulatory cap and trade scheme will drive up electricity prices, cost jobs, threaten grid reliability, and make our country less competitive
 - Protect states and citizens from a highly complex, intrusive, and unworkable regulatory scheme that requires states to reorganize their electricity sectors to meet mandatory emissions "goals" set by EPA without Congressional approval
 - **S.J. Res. 24** was approved by Senate on November 17; it is still under House consideration
 - President Obama vowed to veto the resolution should it reach his desk
 - The resolution needs a two-thirds majority vote to override a presidential veto

- House **H.J. RES. 72** (existing plants) – Congress disapproves of EPA CPP rule—rule shall have no force or effect
 - Since November, the resolution passed committee—on union calendar for a House of Representatives vote

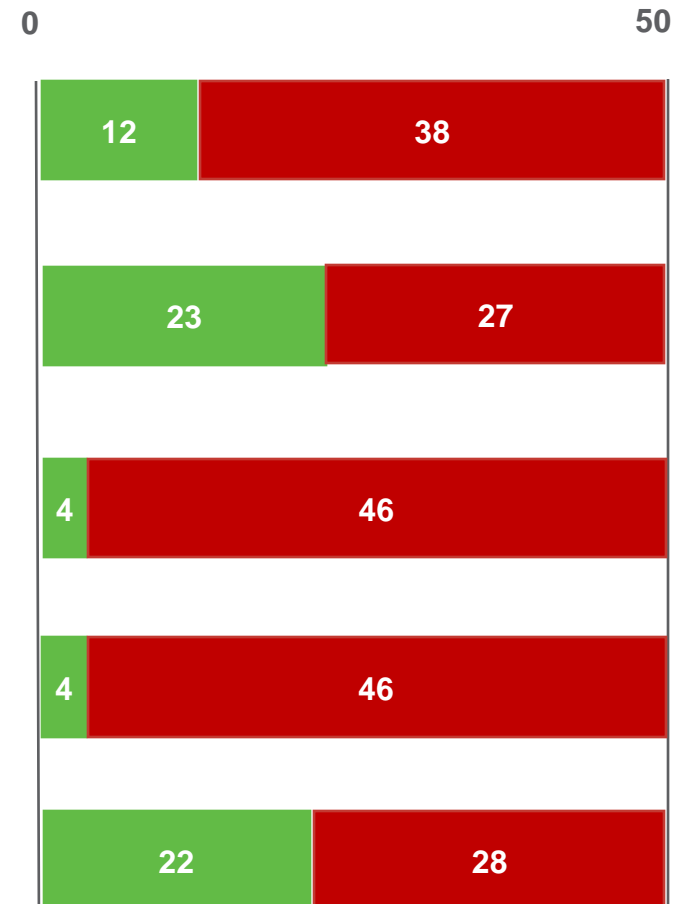
- In June 2015, the House passed **H.R.2042 - Ratepayer Protection Act of 2015**
 - The bill would allow governors to refuse CPP compliance
 - The bill delays implementation of CPP until all the court challenges are resolved
 - The White House promised to veto the bill
 - The bill is in the Senate for consideration

State Regulatory

Public utilities commissions are preparing (or not) for CPP in various ways

Information from websites of public utilities commissions of each state:

- Had or are holding public hearings
- Website search results on “CPP” or “Clean Power Plan”
- Websites that had news releases pertaining to CPP
- Websites with CPP on their current/hot topics section
- Websites with any type of information about CPP





Wrap-Up



ScottMadden Perspectives and Takeaways

- Inevitable litigation
- Possible nuclear benefit
- Complex interactions with other environmental regulations
- Reliability implications
- New source rules, too
 - Less carbon removal required
 - CT rate linked to CCs