



Proposed Rule: Federal Plan Requirements for Greenhouse Gas Emissions from Electric Utility Generating Units Constructed on or Before January 8, 2014; Model Trading Rules; Amendments to Framework Regulations

Presentation for Environmental Justice Communities
on the Clean Power Plan



Outline

- Overview of the Proposal
- Timeline
- Mass-based Approach
- Rate-based Approach
- Information and Resources
- Next Steps



Overview of the Proposal

- The EPA has proposed federal plans that also serve as model rules for Clean Power Plan (CPP) implementation
- The federal plan and model rule proposal contains four key actions:
 - A rate-based model trading rule
 - A mass-based model trading rule
 - A rate-based federal plan
 - A mass-based federal plan
- EPA intends to finalize a single federal plan approach (i.e., either the mass-based or rate-based approach)

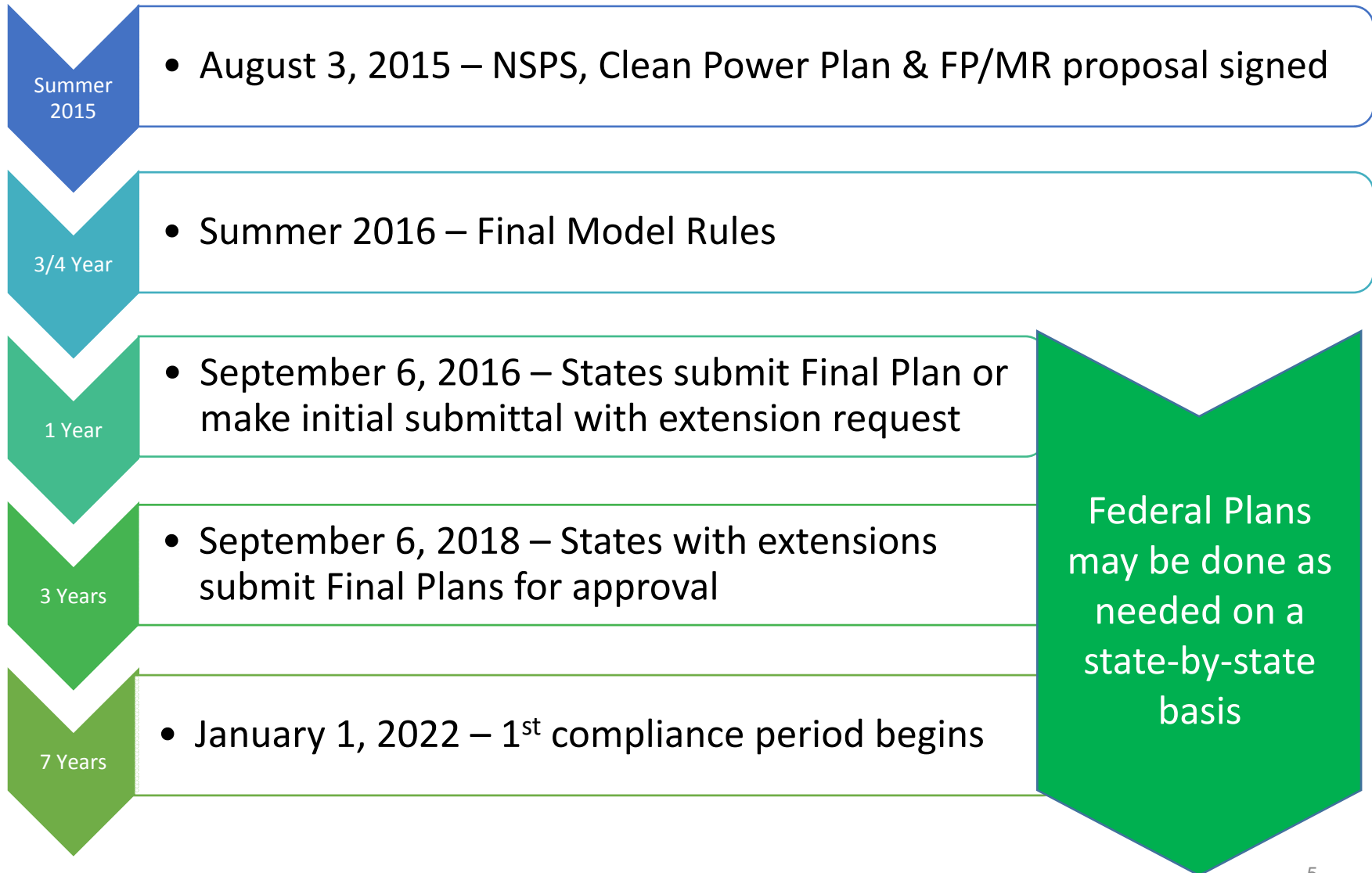


Overview of the Proposal - cont.

- Both the proposed federal plan and model rules:
 - Satisfy the requirements of the CPP Final Emission Guidelines
 - Ensure the carbon dioxide (CO₂) emission performance levels set in the final CPP are achieved
- The model rules, when finalized, will be presumptively approvable state plans
 - Different in some aspects from the FP: for example, Demand Side-Energy Efficiency is included
 - Procedural requirements must still be met: e.g., letter from governor, demonstration of legal authority, demonstration that public participation requirements have been met, etc.



Clean Power Plan and FP/MR Timeline





Mass-Based Approach

How does it work?

- State emissions budgets equal the mass goals finalized in CPP
 - Interim period glide path and final goals as finalized in CPP
 - Multi-year compliance periods same as in CPP
- Emission standard on affected units is the requirement to hold allowances equal to reported emissions
- Allowance tracking and compliance system similar to system used for existing EPA-administered trading programs
- Interstate allowance trading across federal plan states and with sources in states with approved mass-based plans that
 - Are “trading ready”
 - Use same compliance instrument (short tons)
 - Use EPA-administered tracking system
- Proposing to distribute allowances (minus three set-asides) to affected EGUs based on historical generation data
- Proposing three allowance set-asides
 - Clean Energy Incentive Program (CEIP) early action set-aside
 - Output-based allocation set-aside
 - Renewable energy set-aside



How Mass-based Trading Works

State's emissions budget = its mass CO₂ goal (short tons)

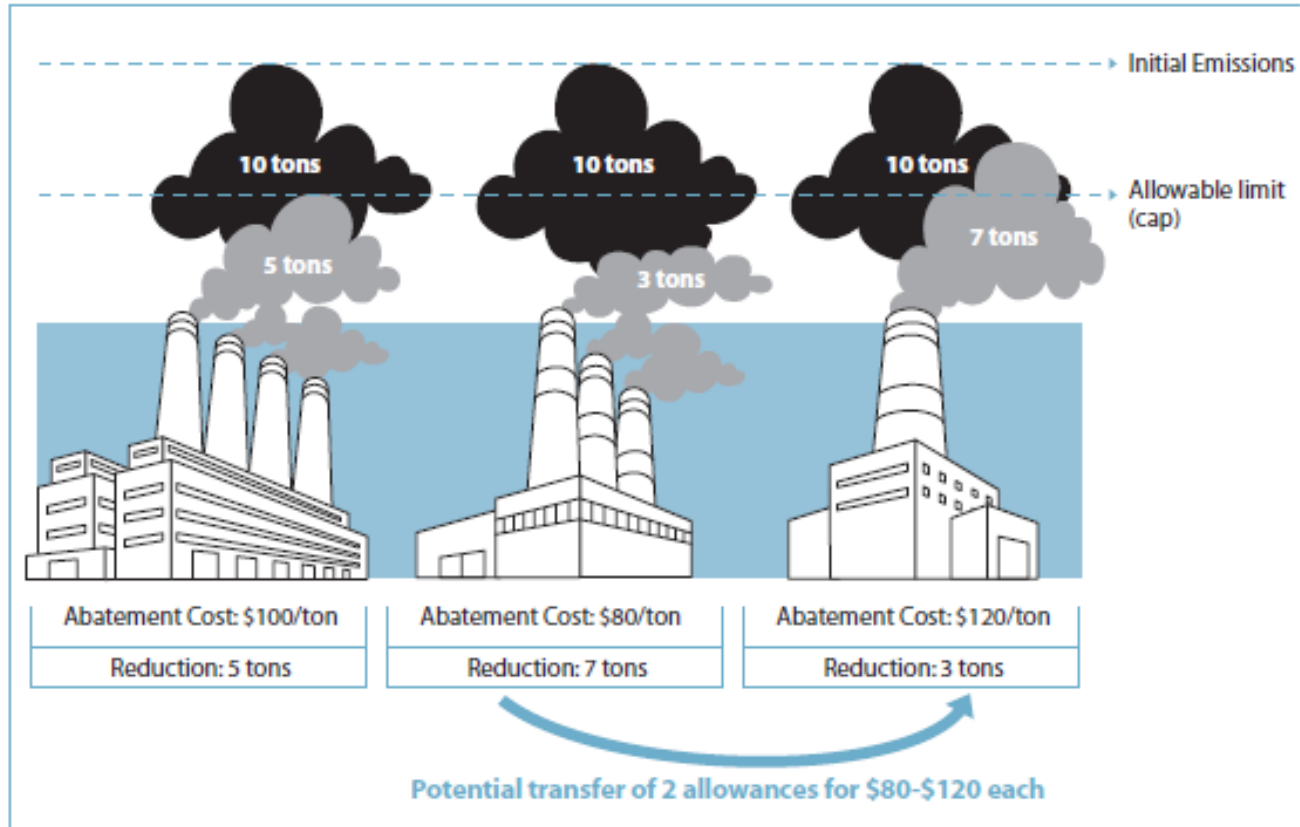


Distribution of allowances

- Emissions budget = total number of tons that can be emitted
- State budget is distributed in form of allowances
 - Each allowance authorizes emission of a ton of CO₂
- In state plan, state determines allocation approach
- In federal plan, EPA determines allocation approach OR a state can choose its own approach
- Allowances can be bought, sold, or banked for future use
- Compliance = EGU must report its emissions and surrender allowances equal to its emissions for each compliance period



How Mass-based Trading Works





Mass-Based: Allowance Set-Asides

Interim period			Final period
1st Compliance Period 2022-2024	2nd Compliance Period 2025-2027	3rd Compliance Period 2028-2029	2030-2031 and thereafter
Clean Energy Incentive Program and Renewable Energy	Output-Based Allocation and Renewable Energy	Output-Based Allocation and Renewable Energy	Output-Based Allocation and Renewable Energy



Mass-Based: CEIP Early Action Set-Aside

- Propose to implement CEIP on behalf of any state where we issue final federal plan
- In mass-based approach, we would create CEIP allowance set-asides
 - Up to a total of 300 million allowances (same total size as matching pool)
 - 100 million from each year's budget in the 2022-2024 compliance period
 - Size based on each state's share of total difference between 2012 baseline and 2030 mass goal
 - Would distribute any unused set-aside allowances back to affected EGUs in state from which set-aside was drawn
- Propose that a state that chooses its own allocation approach must include CEIP set-asides
- States that do so have flexibility on size of set-asides



Mass-Based: Output-Based Allocation Set-Aside

- Propose to include output-based allocation set-aside to address leakage
 - Would target some allowances to existing NGCC units based on their generation
 - Same approach proposed for federal plan and model rule
- Size of set-aside based on capacity of NGCC in 2012 baseline; varies by state
- Implement set-aside starting with second compliance period (2025-2027)
- Distribution of set-aside allowances to NGCC units
 - NGCC unit receives set-aside allowances if its average capacity factor in prior period is above 50% -- it gets more allowances if generates more
 - Would distribute any unused set-aside allowances back to affected EGUs in state from which set-aside was drawn
 - NGCC units also receive allocations from general historical data approach



Mass-Based: RE Set-Aside

- In addition to output-based set-asides, RE set-aside also included to address leakage
- 5% of total allowances in all years are reserved in a separate set-aside for each state
 - Distinct from the CEIP; incents generation during compliance periods
- Eligible measures limited to specific RE types (wind, solar, geothermal, hydropower)
- Set-aside Distribution
 - RE projects apply for eligibility (process similar to first step in the ERC issuance)
 - Allowances are awarded in advance of each vintage year according to projections
 - Allowance distribution is based on % of eligible generation in state that provider represents
 - Measurement and Verification (M&V) report must be submitted on the back-end
 - If projections are more than 10% off, additional reporting requirements apply
 - If it happens repeatedly the provider can be temporarily excluded from program



Rate-based Approach

- EGUs emission standards are based on emission guidelines subcategorized CO₂ emission performance rates for fossil steam and NGCC units
 - Follows the emission guidelines glide path with progressively more stringent standards through the interim period; the final period standard reoccurs
- Compliance is achieved using Emission Rate Credits (ERCs) representing clean megawatt hours (MWhs)
- Tracking would be done using an EPA-administered system similar to what is currently used in other EPA trading programs
- EPA proposes that EGUs subject to a federal plan may trade with EGUs subject to rate-based state plans that are deemed to be “ready for interstate trading” and that use the EPA-administered tracking system



Rate-based Trading: Types of ERCs

- ERCs are generated by:
 1. RE measures (wind, solar, geothermal, hydro) and nuclear
 - EPA proposes to include in model rules (and requests comment for the FP) other RE and DS-EE as eligible resources for ERC generation
 - ERCs are generated for every MWh generated or avoided
 2. An EGU operating below its applicable sub-category emission standard
 - ERCs are generated or owed by EGUs based on the degree that the EGU is below or above its standard
 3. NGCC operation to reflect incremental increases in existing NGCC generation
 - Generates a more specific form of ERC – a GS-ERC – that may only be used only by fossil steam EGUs for compliance purposes
 - GS-ERCs are a subcategory of ERC that represent a shift in generation from steam generators to combustion turbines
 - May only be used by steam generators for compliance



How Rate-based Trading Works

Tracking of CO₂ emission performance rates



Generation of ERCs representing clean MWhs

- Each power plant must meet its prescribed emissions rate, either actually or after adjusting generation with ERCs
- ERCs are the instruments that can be generated, traded, and used to demonstrate compliance in a rate-based trading system
- ERCs represent 1 MWh with zero deemed emissions (0 lbs CO₂ / 1 MWh)



Information and Resources

After two years of unprecedented outreach, the EPA remains committed to engaging with all stakeholders as states implement the final Clean Power Plan.

- For more information and to access a copy of the rule, visit the **Clean Power Plan website**: <http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants>
- Through graphics and interactive maps, the **Story Map** presents key information about the final Clean Power Plan. See: <http://www2.epa.gov/cleanpowerplan>
- For community-specific information and engagement opportunities, see the **Clean Power Plan Community Page**: <http://www2.epa.gov/cleanpowerplan/clean-power-plan-community-page>
- For a graphical and detailed walk through of the EGU category-specific CO₂ emission performance rate and state goals, see **State Goal Visualizer**: <http://www2.epa.gov/cleanpowerplantoolbox>
- EPA provides **webinars** and **training** on CPP related topics at the air pollution control learning website. See: <http://www.apti-learn.net/lms/cpp/plan/>



Next Steps

- October 23, 2015 Publication
- 90-day comment period
 - Ends on January 21, 2016
- Public hearings
 - November 12–13, 2015 in Pittsburgh, PA
 - November 16–17, 2015, in Denver Colorado
 - November 18–19, 2015 in Washington, DC
 - November 19–20, 2015 in Atlanta, Georgia
- EPA trainings, webinars, and additional outreach efforts



FPMR Contacts

We welcome your feedback and questions!

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