



# Overview of the Clean Energy Incentive Program, Proposed Federal Plan, and Draft EM&V Guidance

Presentation at NASEO Clean Power Plan Workshop

September 16, 2015



# Clean Energy Incentive Program

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- EPA is providing the Clean Energy Incentive Program (CEIP) to incentivize early investments that reduce end-use energy demand in low income communities or that generate wind and solar power during 2020 and 2021
- The CEIP is an optional, “matching fund” program states may choose to use to incentivize early investments in wind or solar power, as well as demand-side energy efficiency measures that are implemented in low-income communities
- EPA will provide matching allowances or Emission Rate Credits (ERCs) to states that participate in the CEIP, up to an amount equal to the equivalent of 300 million short tons of CO<sub>2</sub> emissions nationally. The match is larger for low-income EE projects, targeted at removing historic barriers to deployment of these measures. Also, states with more challenging emission reduction targets will have access to a proportionately larger share of the match
- The CEIP will help ensure that momentum to no-carbon energy continues and give states a jumpstart on their compliance programs
- EPA will engage with stakeholders in the coming months to gather feedback on specific elements of the program and finalize implementation details



# Proposed Federal Plan

Overview

- On August 3, the EPA proposed a federal plan to implement emission guidelines for power plants under section 111(d) of the Clean Air Act in any state that does not submit an approvable plan. The proposed federal plan:
  - Ensures the CO<sub>2</sub> reductions required in the final CPP are achieved
  - Co-proposes two different approaches to a federal plan— a rate-based trading plan type and a mass-based trading plan type - Both of which would require affected EGUs to meet emission standards set in the CPP
  - Proposes to implement the CEIP under a rate or mass type of plan
  - Proposes to allow for ERCs from eligible RE under a rate-based approach
  - Takes comment on allowing for demand-side EE set asides (under mass) or ERCs from EE (under rate)
- Will be finalized only for those affected states with affected EGUs that EPA determines have failed to submit an approvable Clean Air Act 111(d) state plan by the relevant deadlines set in the emission guidelines
- Even where a federal plan is put in place, a state will still be able to submit a plan which, if approved, will allow the state and its affected EGUs to exit the federal plan
- EPA currently intends to finalize a single approach (i.e., either the mass-based or rate-based approach) for every state in which it finalizes a federal plan



# Proposed Model Rule

Overview

- EPA also proposed rate-based and mass-based model trading rules that provide a cost-effective pathway for states to adopt a trading system supported by EPA and make it easy for states and power plants to use emissions trading.
- The Proposed Model Rule
  - Does the heavy lifting for states that choose to use a model rule as their state plan
  - Demonstrates a readily available path forward for Clean Power Plan implementation
  - Presents flexible, affordable implementation options for states
  - Includes presumptively approvable provisions for EE and RE ERC issuance under the rate-based model rule
  - Allows for participation in the CEIP under a rate or mass type of plan
  - Includes stand-alone portions, such as the evaluation, measurement and verification (EM&V) procedures for emission rate credits (ERCs), that would be approvable even if a state adopted an approach that differs in other respects from the model rule.
- Once finalized, states can follow these model rules when developing their own plans to capitalize on the flexibility built into the final Clean Power Plan
- A state trading program that adheres to the model trading rule provisions specified in this rulemaking, when final, would be presumptively approvable.
- EPA intends to finalize both the rate-based and mass-based model trading rules in summer 2016.



# Send Us Your Comments

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- Under the federal plan and model rule proposal, there are several areas related to EE/RE where EPA is seeking comment
  - Clean Energy Incentive Program (e.g. Definition of an EE project that benefits a low income community, size of the matching reserve for RE and for low-income EE, method to convert MWh to CO<sub>2</sub> emission allowance equivalents under a mass approach, etc)
  - Proposed Federal Plan (e.g. Eligibility of RE and EE for ERC issuance under a rate-based federal plan; set-asides under a mass-based federal plan)
  - Proposed Model Rule (e.g. Eligibility and Provisions for EE/RE ERC issuance under the rate-based model rule; set-asides under a mass-based model rule approach, EM&V provisions)
  - Draft EM&V Guidance: <http://www2.epa.gov/cleanpowerplantoolbox>
- For more information on the federal plan and model rule proposal, see <http://www2.epa.gov/cleanpowerplan/clean-power-plan-existing-power-plants#federal-plan>
- A Factsheet is available at: <http://www.epa.gov/airquality/cpp/fs-cpp-proposed-federal-plan.pdf>
- You have 90 days to comment, following publication of the proposed federal plan and model trading rules in the Federal Register
- We expect that the model rule will be finalized by Summer 2016



## EM&V in the CPP – Big Picture

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- **Regulatory provisions for evaluation, measurement and verification (EM&V)** are included in both the final emission guidelines and proposed rate-based model trading rule
  - The *final emission guidelines* include the basic requirement to conduct EM&V under certain state-plan circumstances
  - Additional EM&V provisions are *proposed in the model trading rule* to support issuance of emission rate credits (ERCs)
- EPA also released draft **EM&V guidance for EE** that supports implementation of the *final guidelines* and proposed rate-based model rule
  - The purpose is to provide supplemental information to help states and EE providers successfully quantify and verify savings
  - Not a regulatory document
  - Your input on the draft guidance is needed



# When is EM&V Required?

Type of Approach	Role of EE/RE in State Plan	How states can advance EE/RE	EM&V Req'd?	Considerations
Emission Standards	<b>Mass</b> <i>EE reduces cost, EE/RE lowers CO<sub>2</sub> emissions but are not enforceable or written into the state plan</i>	<ul style="list-style-type: none"> <li>Allocate CO<sub>2</sub> allowances for EE/RE (e.g. through a set aside)</li> <li>Auction allowances, use \$ for EE/RE</li> <li>Secure matching allowances for solar, wind and low-income EE from Clean Energy Incentive Program (CEIP)</li> </ul>	<input type="checkbox"/> * <input type="checkbox"/> <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>Unlimited flexibility with EE implementation</li> <li>* EM&amp;V generally not required for CPP purposes, except for CEIP and set asides specifically created to meet the leakage requirement</li> </ul>
	<b>Rate</b> <i>Explicitly written into state plan; Used to generate ERCs and directly adjust reported CO<sub>2</sub> emissions rate of affected EGUs</i>	<ul style="list-style-type: none"> <li>Include EE/RE ERC tracking, trading, and issuance provisions in the state plan</li> <li>Issue ERCs for quantified and verified MWhs from eligible EE/RE measures</li> <li>Secure matching ERCs from CEIP for solar, wind, low-income EE</li> </ul>	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>EM&amp;V plans and M&amp;V reports required</li> <li>E/RE E is explicitly tracked &amp; credited</li> <li>Trading-ready plans facilitate broad access to ERCs</li> <li>EE/RE implemented after 2012 can generate credits starting in 2022</li> </ul>
State Measures	<b>State Demonstration Based on Mass</b> <i>Explicitly included as supporting material for state plan – enforceable under state law; State EE /RE policies and measures can be used to help affected EGUs meet mass goal</i>	<ul style="list-style-type: none"> <li>Implement state EE/RE policies and programs (e.g., EERS, RPS, building codes) that are enforceable under state law, either to meet goal or in conjunction with federally enforceable limits</li> <li>Secure matching allowances from CEIP for solar, wind and low-income EE</li> </ul>	<input checked="" type="checkbox"/> * <input checked="" type="checkbox"/>	<ul style="list-style-type: none"> <li>* Projection of EE/RE impacts required and EGU CO<sub>2</sub> performance required</li> <li>EM&amp;V Plan for EE/RE measures must be included as supporting material for state plan</li> <li>Backstop emission standards for affected EGUs if CO<sub>2</sub> reductions don't materialize</li> </ul>



# EM&V is Important for a Range of CO<sub>2</sub> Reduction Strategies

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- Heat rate improvements
- Fuel switching to a lower carbon content fuel
- Integration of renewable energy into EGU operations
- *Combined heat and power*
- *Qualified biomass co-firing and repowering*
- *Renewable energy (new & capacity uprates)*
  - *Wind, solar, hydro*
- *Nuclear generation (new & capacity uprates)*
- *Demand-side EE programs and policies\**
- *Demand-side management measures*
- *Electricity transmission and distribution improvements*
- Carbon capture and utilization for existing sources
- Carbon capture and sequestration for existing sources

**EM&V  
Required** to  
generate ERCs  
in rate-based  
plans

\* Focus of EPA's draft EM&V guidance



# Draft EM&V Guidance Leverages What Leading States are Already Doing

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- EM&V for demand-side EE is well established
  - Several decades of experience, with refinements along the way
  - Well-established protocols and guidelines
  - Overseen by PUCs, SEOs, and other implementing agencies and authorities
  - Many large firms, hundreds of individual practitioners
  - Training and certification programs
  - Rich library of published reports and publicly available data and technical resources
- EPA's approach to the draft guidance:
  - Leverage existing protocols and procedures that are widely used
  - Strike a reasonable balance between EM&V rigor and accuracy, and evaluation costs and effort
  - Avoid excessive interference with EM&V practices that are already robust, transparent, and working well
  - Anticipate and support the continued evolution of EM&V into the future



# What's in the Draft Guidance?

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- **Section 1:** Overview and context
- **Section 2:** Discussion and Guidance for 12 Key EM&V Topics, including:
  - Methods
  - Baselines
  - Effective useful life (EUL)
  - Verification
  - Protocols
  - More...
- **Section 3:** Additional EM&V guidance for several common EE program and project types, including:
  - Utility/Demand-side EE Programs (i.e., programs implemented using utility customer funds)
  - Individual or Aggregated EE Projects (e.g., those implemented by ESCOs or at industrial facilities)
  - Building Energy Codes
  - Appliance Energy Standards
- **Appendix A:** Glossary
- **Appendix B:** Templates for EM&V Plans
- **Appendix C:** Considerations for selecting/implementing EM&V methods



## What's Not Included?

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- Quantification and verification of RE and other zero/low emitting measures
- Criteria for *projecting* the impacts of EE measures
- How rate-based ERC trading works
- Required components of state trading programs
- Accounting and ERC tracking procedures

*More information on these topics is provided in Section VIII of the final EGs and Section IV of the proposed MR*



# Send Us Your Comments

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- The draft guidance is available at:  
<http://www2.epa.gov/cleanpowerplanttoolbox>
- You have 90 days to comment, following publication of the proposed federal plan and model trading rules in the Federal Register
- Send your feedback on the draft guidance to:  
[emvinput@epa.gov](mailto:emvinput@epa.gov)
- EPA will consider all comments received
- Comments related to the proposed federal plan and model rules must be submitted in that docket