

U.S. EPA McCabe Presents Clean Power Plan at EUEC

By Dr. Prabhu Dayal, Chairman, [EUEC](#): USA's Largest Energy Utility Environment Conference



Pictured from left to right are Rear Admiral (Ret.) Len Hering, California Center for Sustainable Energy; Dr. Barry Wallerstein, South Coast AQMD; Warner Baxter, President & CEO, Ameren Corp.; and Janet McCabe, Acting Assistant Administrator, U.S. EPA.

This article provides a summary of the main elements and focus areas of the Clean Power Plan presented by U.S. EPA, Acting Assistant Administrator, Janet McCabe, at the 18th Annual Energy Utility Environment Conference (EUEC), February 16, 2015 in San Diego, California. Key elements of the Clean Power Plan presented by Janet McCabe are summarized, with references and links to relevant EPA Fact sheets and the Federal Register.

111(d) OF CLEAN AIR ACT

On June 2, 2014, the U.S. Environmental Protection Agency (EPA), under President Obama's Climate Action Plan, proposed the Clean Power Plan to cut carbon pollution from power plants. The Clean Power Plan proposes to cut carbon emissions from the power sector by 30 percent from 2005 levels, by 2030, including making progress with meaningful reductions by 2020. Each state needs to establish its own program to meet these limits by 2030.¹

Under the Clean Air Act, Section 111(d)¹²¹ EPA is developing standards of performance for carbon dioxide emissions from existing fossil fuel-fired power plants. These emission limits are established taking into account, the cost of achieving such reductions, and any non-air quality health and environmental impacts and energy requirements, the Administrator determines has been adequately demonstrated using the "best system of emission reduction" (BSER).¹³¹

OVERVIEW

At EUEC, EPA's McCabe stressed the reliance on a strong federal-state partnership, which recognizes the progress states, cities and businesses have already made. She stated that EPA intends to build on ongoing efforts to ensure reliable, affordable energy is available to all Americans and provide flexible compliance options and ample time for states and the power sector to develop implementation plans. She identified EPA's proposal to cut energy waste and leverage cleaner energy sources in two ways: First, set achievable, enforceable state goals to cut carbon pollution per megawatt hour of electricity generated; and second, lay out a national framework that gives states the flexibility to chart their own, customized path to meet the goals in their state plans.

BUILDING BLOCKS

The Assistant Administrator stated that EPA plans to utilize actual data and science, to make sure the standards are feasible and cost effective. She said, EPA uses four different types of strategies for states and utilities to reduce carbon emissions; namely, heat rate improvements; re-dispatching power to natural gas; greater reliance on zero carbon generation; and energy efficiency.

“To set state-specific goals, EPA analyzed the practical and affordable strategies that states and utilities are already using to lower carbon pollution from the power sector. These include improving energy efficiency, improving power plant operations, and encouraging reliance on low-carbon energy. Together, these make up the best system for reducing carbon pollution because they achieve meaningful reductions, and create jobs by driving clean energy investment and reducing energy waste to save families money.” [US EPA FACT SHEET: Clean Power Plan Framework](#)¹

INTERIM GOALS AND GLIDE PATH

McCabe stated that EPA’s proposal is to achieve final compliance by 2030, with an interim deadline of 2020. She referred to the glide path as a smooth transition between the interim goals, with a significant percentage of reductions to be achieved by 2020, in order meet its final objective by 2030. She stated that EPA will take into consideration the utility concerns on the implementation time required, to plan and construct new generation and transmission assets.

Table 1. EPA ACTIONS TO CUT CARBON POLLUTION FROM POWER SECTOR Proposed Carbon Pollution Standards for New, Modified and Reconstructed Sources	Date Proposed
– Standards for new power plants (published in January 2014)	Sept. 2013
– Standards for modified and reconstructed plants	June 2014
– Clean Power Plan for Existing Power Plants	June 2014
– Notice of Data Availability issued in	Oct. 2014
– Supplemental Proposal for power plants in Indian Country and U.S. territories	Oct. 2014
– Federal Implementation Plan announced in	Jan. 2015

[US EPA FACT SHEET](#) with key dates for proposing and finalizing Clean Air Act Standards and actions to address carbon pollution from existing, new, modified and reconstructed power plants.⁴

STATE ROLES

The Clean Air Act and the Clean Power Plan, enables the creation of a partnership between EPA and the states, where the EPA sets up goals and emission limits for carbon emissions. The states then decide how they will meet these limits, using a flexible mechanism. Each state will choose the best set of cost-effective strategies for its situation. The Clean Power Plan strives to help maintain an affordable, reliable energy system, while cutting pollution. [US EPA FACT SHEET: Clean Power Plan State Roles](#)⁵

FLEXIBILITY

The Assistant Administrator stated that the EPA proposes to establish a federal plan this summer, which could serve as a model for states. She said the federal plan would be triggered for those states that do not develop a plan, or coordinate one with other states.

“EPA’s proposal ensures that states have the flexibility to choose the best set of cost-effective reductions for them. By setting a state-specific goal and allowing states to work individually or in regional groups, EPA is making sure states have the flexibility they need to drive investment in innovation, while ensuring reliability and affordability.”
[US EPA FACT SHEET: Clean Power Plan Flexibility](#)⁶

CARBON POLLUTION EMISSION GUIDELINES FOR EXISTING STATIONERY SOURCES: EGUs

The EPA proposed emission guidelines for states to follow in developing plans to address greenhouse gas emissions from existing fossil fuel-fired electric generating units, which was published in the Federal Register June 18, 2014. An executive summary of the main elements of the proposed rule is illustrated in the side bar. The full length 130 page document can be found in its entirety [published in the Federal Register](#) (40CFR60).⁷

SUMMARY OF MAIN ELEMENTS OF PROPOSED RULE

“The proposal has two main elements: (1) State-specific emission rate-based CO₂ goals and (2) guidelines for the development, submission and implementation of state plans.

To set the state-specific CO₂ goals, the EPA analyzed the practical and affordable strategies that states and utilities are already using to lower carbon pollution from the power sector. These strategies include improvements in efficiency at carbon-intensive power plants, programs that enhance the dispatch priority of, and spur private investments in, low emitting and renewable power sources, as well as programs that help homes and businesses use electricity more efficiently. In addition, in calculating each state's CO₂ goal, EPA took into consideration the state's fuel mix, its electricity market and numerous other factors. Thus, each state's goal reflects its unique conditions.

While this proposal lays out state-specific CO₂ goals that each state is required to meet, it does not prescribe how a state should meet its goal. CAA section 111(d) creates a partnership between the EPA and the states under which the EPA sets these goals and the states take the lead on meeting them by creating plans that are consistent with the EPA guidelines. Each state will have the flexibility to design a program to meet its goal in a manner that reflects its particular circumstances and energy and environmental policy objectives. Each state can do so alone or collaborate with other states on multi-state plans that may provide additional opportunities for cost savings and flexibility.

To facilitate the state planning process, this proposal lays out guidelines for the development and implementation of state plans. The proposal describes the components of a state plan, the latitude states have in developing compliance strategies, the flexibility they have in the timing for submittal of their plans and the flexibility they have in determining the schedule by which their sources must achieve the required CO₂ reductions. The EPA recognizes that each state has differing policy considerations—including varying emission reduction opportunities and existing state programs and measures—and that the characteristics of the electricity system in each state (e.g., utility regulatory structure, generation mix and electricity demand) also differ. Therefore, the proposed guidelines provide states with options for meeting the state-specific goals established by the EPA in a manner that accommodates a diverse range of state approaches. This proposal also gives states considerable flexibility with respect to the timeframes for plan development and implementation, providing up to two or three years for submission of final plans and providing up to fifteen years for full implementation of all emission reduction measures, after the proposal is finalized.

Addressing a concern raised by both utilities and states, the EPA is proposing that states could choose approaches in their compliance plans under which full responsibility for actions achieving reductions is not placed entirely upon emitting EGUs; instead, state plans could include measures and policies (e.g., demand-side energy efficiency programs and renewable portfolio standards) for which the state itself is responsible. Of course, individual states would also have the option of structuring programs (e.g., allowance-trading programs) under which full responsibility rests on the affected EGUs.

The EPA believes that, using the flexibilities inherent in CAA section 111(d), this proposal would result in significant reductions of GHG emissions that cause harmful climate change, while providing states with ample opportunity to design plans that use innovative, cost-effective strategies that take advantage of investments already being made in programs and measures that lower the carbon intensity of the power sector and reduce GHG emissions.”⁷

OUTREACH AND PUBLIC INPUT

The Assistant Administrator stated that the EPA conducted a robust stakeholder engagement process, beginning in the summer of 2013. She stated that EPA heard from thousands of people, through hundreds of meetings, listening sessions, conference calls, emails, and a comment period open for 6 months. EPA met with more than 300 groups through the comment period, including reaching out to all 50 states, businesses, and other stakeholders. She said EPA plans to put together the package this summer taking into consideration over 4 million public comments received on the existing power plant rule, and 2 million comments on the new clean power plan rule.

EPA's KEY FOCUS AREAS

McCabe identified EPA's key focus areas for finalizing the Clean Power Plan, based on the input from a wide variety of stakeholders, and a broad range of comments, that include the following focus areas: credit for actions prior to 2020; changes to the building blocks; baseline year(s); glide path for emissions reductions; state goal calculations; State plan timing; system reliability considerations; energy, legal, and cost implications; and renewable and energy efficiency approaches.

SYSTEM RELIABILITY AND STRANDED ASSETS

The Assistant Administrator stated that EPA works closely with sister federal agencies FERC and DOE for their input on system reliability considerations. She said, in addition to consideration of feasibility, available technologies and cost, there have been a wide range of issues that will be evaluated including: safety valves, off-ramps in case of reliability problems, longer time periods, not having interim goals, etc. She said EPA recognizes that the law requires consideration of the useful life of existing facilities in determining the guidelines, and EPA will look at case studies data, policy and legal issues, concerning stranded assets that were received through the comments, to evaluate and establish the proposal. See [link](#) to EPA's blog by Janet McCabe on keys to ensuring reliable, affordable electricity.⁸

NEXT STEPS

McCabe stated that by mid-summer 2015 EPA plans to issue final rules for new, modified and existing power plants. EPA has begun the regulatory process for proposing a federal plan to meet goals for cutting carbon pollution from existing power plants. There is a strong preference to approve state plans, while providing states with information as they start thinking about their own plans. EPA will be continuing to engage with stakeholders as the agency works to review the public comments and finalize the proposed plan.

REFERENCES

1. US EPA FACT SHEET: Clean Power Plan Framework. - NATIONAL FRAMEWORK FOR STATES SETTING STATE GOALS TO CUT CARBON POLLUTION. <http://www2.epa.gov/carbon-pollution-standards/fact-sheet-clean-power-plan-framework>
2. Federal Register - Carbon Pollution Emission Guidelines for Existing Stationary Sources: EGUs - <https://www.federalregister.gov/articles/2014/06/18/2014-13726/carbon-pollution-emission-guidelines-for-existing-stationary-sources-electric-utility-generating#footnote-6>
3. Federal Register- Carbon Pollution Emission Guidelines for Existing Stationary Sources: EGUs - <https://www.federalregister.gov/articles/2014/06/18/2014-13726/carbon-pollution-emission-guidelines-for-existing-stationary-sources-electric-utility-generating#footnote-7>

4. US EPA FACT SHEET: Clean Power Plan & Carbon Pollution Standards Key Dates - [CUTTING CARBON POLLUTION FROM POWER PLANTS. http://www2.epa.gov/carbon-pollution-standards/fact-sheet-clean-power-plan-carbon-pollution-standards-key-dates](http://www2.epa.gov/carbon-pollution-standards/fact-sheet-clean-power-plan-carbon-pollution-standards-key-dates)
5. US EPA FACT SHEET: Clean Power Plan State Roles - THE ROLE OF STATES STATES DECIDE HOW THEY WILL CUT CARBON POLLUTION <http://www2.epa.gov/carbon-pollution-standards/fact-sheet-clean-power-plan-state-roles>
6. US EPA FACT SHEET: Clean Power Plan Flexibility - FLEXIBLE APPROACH TO CUTTING CARBON POLLUTION - <http://www2.epa.gov/carbon-pollution-standards/fact-sheet-clean-power-plan-flexibility>
7. Federal Register - Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units - <https://www.federalregister.gov/articles/2014/06/18/2014-13726/carbon-pollution-emission-guidelines-for-existing-stationary-sources-electric-utility-generating>
8. Janet McCabe - EPA Connect – The Official Blog of EPA Leadership - Time and Flexibility: Keys to Ensuring Reliable, Affordable Electricity - <http://blog.epa.gov/epaconnect/2015/01/time-and-flexibility/>
9. EUEC 2015: Technical Program Guide - <http://www.euec.com/wp-content/uploads/2014/12/EUEC-2015-Brochure.pdf>

EDITORIAL NOTE:

This article is the first part of a series of publications in the EUEC Journal, to include keynote presentations made at EUEC 2015. The second part of this series will address the Utility keynote response to the Clean Power Plan.

WHAT IS EUEC?

[EUEC](#) is USA's largest, longest-running, professional networking and educational event of its kind. EUEC 2015, the 18th annual energy, utility & environment conference was held Feb 16-18, 2015 in San Diego, California, with over 2,000 delegates, 200 exhibiting companies and 400 expert speakers in a 10 track [Program](#).² The keynote presentations at EUEC were made by EPA's Janet McCabe, both in 2014 and 2015. EPA Administrator, Gina McCarthy was the keynote speaker at the EUEC annual meetings in 2011, 2012 and 2013. The 19th annual EUEC 2016 will be held February 3-5, 2016 in San Diego, California.

MISSION STATEMENT: EUEC facilitates information exchange and fosters cooperation between industry, government, regulators, academia and stakeholders for the protection of our environment and energy security.