

Summary: Clean Power Plan – Notice of Data Availability

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This document provides a summary of EPA’s Notice of Data Availability (NODA) issued October 28, 2014,¹ which supplements EPA’s proposed Clean Power Plan regulation issued June 2, 2014.² In the NODA, EPA provides additional information and solicits comment about input provided to EPA by stakeholders in three topic areas: the glide path for state emission-reduction goals from 2020 to 2029; aspects of the building block methodologies used to establish state goals relating to natural gas generation and renewable energy; and issues relating to the base year used in the state goal formula and the methodology for calculating state goals. Comments on the NODA, as well as the proposed rule, are due December 1, 2014.

On October 28, 2014, EPA also issued a supplemental proposal to the Clean Power Plan to address carbon pollution from affected power plants in Indian Country and U.S. territories;³ comments on this supplemental proposal are due December 19, 2014. The supplemental proposal is not covered in this summary. EPA Administrator Gina McCarthy has stated that the Agency will release additional information regarding the methodology for translating rate-based state goals into mass-based emissions budgets at a later date.

2020 to 2029 Glide Path – Flexibility in the Interim Compliance Period

- EPA notes that stakeholders have raised concerns about a lack of flexibility resulting from the stringency of some states’ interim goals. Specifically, stakeholders have expressed concern about EPA’s calculation of building block 2—shifting dispatch from coal-, oil-, and natural gas-fired steam generation to less carbon-intensive natural gas combined cycle (NGCC) generation—which includes an assumption that states will achieve much of the shift to existing NGCC generation by 2020. Stakeholders have commented that calculating the interim goals this way requires such significant reductions early in the compliance period that the intended flexibility in the 2020 to 2029 glide path is in practice substantially limited.
- EPA notes in the NODA that it requested comment in the proposed rule on two approaches that could potentially address this concern by providing credit for reductions that take place between the issuance of the rule and the beginning of the proposed compliance period:
 - 1) Crediting of certain pre-2020 reductions, which could offset reductions needed during the 2020-2029 period;⁴ and
 - 2) Allowing states to begin demonstrating emission performance earlier than 2020, effectively lengthening the “glide path” of the interim compliance period by creating a longer timeframe to achieve the same overall level of emission performance that would have otherwise been required over 10 years.⁵
- EPA also solicits comment on two new potential approaches for adjusting the interim goal calculations to allow for more gradual phase-in of building block 2 during the 2020 to 2029 period. Under these approaches, interim state goals would reflect a “ramp-up” to the full rate of NGCC utilization, similar to the proposed “ramp-up” of renewable resources and demand-side energy efficiency under building blocks 3 and 4. The two approaches are as follows:

¹ Available at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-notice-data-availability>.

² EPA’s proposed rule and related materials are available at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule>; the Georgetown Climate Center has prepared a detailed summary of the proposal, available at <http://www.georgetownclimate.org/detailed-summary-of-the-epas-proposed-rule-to-limit-carbon-pollution-from-the-power-sector>.

³ Available at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-supplemental-proposal>.

⁴ 79 Fed. Reg. at 34918-19.

⁵ 79 Fed. Reg. at 34919.

- 1) A phase-in schedule for building block 2 based on necessary infrastructure improvements (e.g., natural gas supply pipelines) to support more use of existing natural gas-fired generation. This phase-in schedule would be based on two parameters: the amount of utilization shift feasible by 2020, and how quickly that could grow until the level of NGCC utilization EPA uses to set the goal could be achieved.
- 2) A phase-in approach that takes into account the “book life” of higher-emitting fossil units and any major upgrades or retrofits to those assets.

Issues Related to Building Block Methodology

Stringency of Building Block 2 (Dispatch Changes Among Affected EGUs)

- EPA notes that stakeholders have raised a variety of concerns about the stringency of building block 2. Different stakeholders have argued that it is too stringent or too weak. Others have commented that there is a disparity in the state goals between states with significant unused NGCC capacity and states with little or no unused capacity at existing NGCCs.
- EPA solicits comment on new potential approaches for the treatment of emission reduction opportunities due to shifts to natural gas generation:
 - Whether there are ways to incorporate greater use of new NGCC or co-firing of natural gas at existing steam boilers into EPA’s goal calculation methodology.
 - Whether to include an assumption about some minimum level of generation shift from higher emitting to lower emitting sources in the state goals (i.e., to set a floor for the amount of generation shift), whether that shift is from re-dispatch to existing NGCC, re-dispatch to new NGCC, or co-firing natural gas.
 - EPA solicits comment on several issues relating to this potential approach, including: whether to establish some minimum value as a floor, what that value should be, and how this approach would relate to the proposed approach requiring 70 percent utilization of existing NGCC capacity.
 - EPA notes that it requested comments on many aspects of natural gas co-firing in the proposal, but requests comment on additional observations in the NODA, including: costs and potential benefits, factors that might affect the decision to use co-firing or limit the amount of co-firing that could be done, and the extent to which co-firing is already taking place.
 - EPA also highlights in the NODA the alternative approach to building block 2 that was included in the proposal. This alternative approach would consider regional availability of NGCC generation in setting building block 2 targets, and EPA requests comment on the appropriate regional structure to use.

Methodology for Building Block 3 (Replacing Generation from Affected EGUs with Increases in Renewable Generation)

- EPA notes that stakeholders have raised concerns about potential misalignment between setting state targets based on in-state renewables while allowing out-of-state renewables to count toward compliance.
- EPA provides for comment a third potential methodological option for computing the renewable energy component of state goals, in addition to the proposed and alternative renewables approaches in the June 2014 proposal. EPA refers to this third potential option as a “regionalized approach.”
 - The regionalized approach would group states into regions, aggregate renewable energy generation potential across the region, and then reapportion that generation to individual states.
 - EPA requests comment on the details of this approach, including: how to set the region, how to reapportion state targets, and what components of state renewable energy targets should be regionalized. EPA also notes that there are a number of possible methodologies for using technical and economic renewable energy potential to quantify renewable generation for purposes of state goals, and invites comments on other possible “techno-economic” approaches.

EPA notes that the Agency already takes comment in the proposal on the stringency of building block 1 and the inclusion of nuclear units in building block 3, therefore no new approaches to these aspects of the building blocks are presented in the NODA.

Implementation of the Goal-Setting Equation

Formula for Goal Calculation

- EPA notes that stakeholders have raised concerns that the formula for calculating each state's goal is not applied in the same way to incremental generation from existing NGCC units under building block 2, as it is to incremental renewable energy generation in building block 3 and demand-side efficiency generation avoidance in building block 4. For building block 2, the goal-setting formula subtracts 1 MWh of fossil steam generation and corresponding emissions from the 2012 baseline levels for every 1 MWh of incremental NGCC generation (i.e., decreasing pounds of CO₂ in the numerator and offsetting megawatts of fossil steam generation in the denominator of the goal calculation formula), reflecting the assumption that incremental NGCC generation will supplant more carbon-intensive fossil steam generation. However, under building blocks 3 and 4, the formula adds incremental renewable energy and demand-side energy efficiency to the 2012 baseline generation levels (i.e., it increases megawatts in denominator) but does not reduce the levels of fossil generation (i.e., does not decrease the pounds of CO₂ in the numerator nor decrease megawatts in the denominator reflecting displaced fossil generation). This methodology does not take into account the potential for reducing generation at fossil-fired EGUs due to increased renewables or demand-side efficiency. Stakeholders argue that by holding existing fossil generation at 2012 levels and estimating blocks 3 and 4 independent of the interaction with fossil generation, state goals do not reflect the full potential for incremental renewable energy and energy efficiency to replace fossil steam generation.
- EPA provides for comment two new potential approaches for revising the goal setting formula:
 - 1) Replace all historical fossil generation on a pro-rata basis by assuming that renewable energy and demand-side energy efficiency directly replace 2012 fossil generation and the corresponding emissions proportionally across generation types (i.e., fossil steam and NGCC), based on the state's generation mix.
 - 2) Prioritize replacement of fossil steam generation by assuming that renewable energy and demand-side energy efficiency would first replace fossil steam generation because it has a higher carbon intensity than NGCC, and any remaining incremental renewable energy or demand-side energy efficiency would subsequently replace NGCC generation levels.
 - EPA requests comment on whether such a formula change would better reflect the emission reduction potential from incremental renewable energy or demand-side energy efficiency, and which approach better reflects the best system of emission reduction (BSER).

2012 Data Year

- Stakeholders have raised concerns about using 2012 as the single data year for calculating state goals, for example because of potential generation and weather anomalies in that year.
- EPA seeks comment on whether it should use another single year or average a combination of years for the state goal calculations. EPA is making eGRID data for 2010 and 2011 available in the docket for the proposed rule to allow for comparison.⁶

⁶ These data are also available at <http://www2.epa.gov/carbon-pollution-standards/clean-power-plan-proposed-rule-technical-documents>.