Georgia Environmental Protection Division (EPD)

Summary

Clean Power Plan Rule for Existing Power Plants

Signed On August 3, 2015

The goal of US EPA's Clean Power Plan (CPP) is to reduce carbon dioxide (CO_2) emissions from existing[1] fossil fuel-fired power plants. EPD will be required to submit a state plan to implement the CPP. The initial state plan is due by September 2016, with the final plan due by September 2018. US EPA will impose a federal plan on Georgia if the state fails to submit an acceptable state plan.

Background

- CO_2 is a greenhouse gas emitted by fossil fuel-fired power plants (primarily coal-fired plants and gas-fired plants). EPA's final CPP requires CO_2 reductions to be phased in from 2022 through 2030.
- Coal-fired power plants emit more CO_2 than natural gas-fired power plants. Typical emission rates for coal-fired generation and natural gas-fired generation are 2,000 pounds (lbs) CO_2 per megawatt-hour (MWh), and 900 lbs CO_2/MWh, respectively.
- Power generation from nuclear plants and from renewable sources (solar, wind, etc.) emits no CO_2. Energy efficiency measures such as installation of LED lighting and Energy Star appliances reduce consumer demand for electric power generation. Reduced demand for fossil-fired generation in turn reduces the associated CO_2 emissions.

The utilities that provide electricity in Georgia include the following: Georgia Power, an investor-owned utility; Oglethorpe Power, owned by 38 electric membership cooperatives (EMCs); Municipal Electric Authority of Georgia (MEAG), a public power entity created by an Act of the Georgia General Assembly in 1975 that represents 49 municipal utilities; Dalton Utilities, and several other independent power producers. Additionally, 10 counties in north Georgia are served or partially served by the Tennessee Valley Authority, a corporation of the US government.

Key differences between the Proposed CPP and the Final CPP

- The final rule gives Georgia a statewide 2030 emissions performance goal, expressed as a **rate**, of **1,049 lbs of CO_2/MWh** of power generation. By comparison, the proposed rule set Georgia's emissions performance goal at 834 lbs CO_2/MWh. The final emissions performance goal represents a 34% reduction from Georgia's actual 2012 baseline emissions rate, which was 1,598 lbs CO_2/MWh. Georgia's estimated Business-as-Usual emissions rate for 2020 is approximately 1,200 lbs CO_2/MWh. The Business-as-Usual rate is the expected emissions rate after currently-planned CO_2-reducing projects have been implemented – i.e. startup of two new nuclear units at Plant Vogtle, planned retirement of 14 coal-fired units, conversion of two coal units to gas, and startup of a number of renewable energy projects. The BAU estimate of 1,200 lbs/MWh assumes 2012 levels of generation and emissions for natural gas and coal units (with the exception of announced retirements).
- In the final rule, EPA included an alternative to the rate-based emissions performance goal. The alternative is a mass emissions limit (sometimes called a "cap") of **46 million tons** of CO_2. By comparison, the proposed rule required CO_2 emissions to be reduced to approximately 35 million tons by 2030.
- EPD submitted extensive comments on the proposed rule to US EPA on September 14, 2014 and December 1, 2014. Key changes in the final rule to Georgia's most important issues include the following:

[1] Existing plants are plants build prior to January 2014

Georgia EPD Summary

Clean Power Plan Rule for Existing Power Plants, continued

Important Issues to Georgia	How was this issue addressed in the final CPP?
Under-construction nuclear should not be part of the goal calculation but should be available for compliance demonstration	Under-construction nuclear CO_2 reductions were removed from goal calculation; Georgia can take credit for the zero CO_2 emitting generation in our compliance demonstration
Interim goal (2020-2029) requires too much, too soon	Interim goal period delayed until 2022 , and will be phased in three parts; states have flexibility to adjust the glide path as long as they meet the final 2030 goal
Heat rate efficiency improvement goal for coal-fired power plants unachievable	6% heat rate improvement goal changed to 4.3%
Natural gas dispatch rate of 70% may be difficult to achieve	Natural gas dispatch rate changed to 75%, based on net summer capacity (instead of name plate capacity)
Renewable energy (RE) target set too high at 10% of generation	EPA's methodology changed significantly from the proposal; EPA now using RE technical potential for the three electrical interconnection regions, based on a seven-step evaluation process and IPM modeling projections. We are still evaluating the impact of this approach on Georgia.
Electricity generated from biomass should count as RE	"Qualified" biomass counts as RE
Flexibility for interstate trading	Georgia able to trade with other states that participate in Ready-for-Interstate-Trading plan

The rule in its final form is significantly changed from the proposed rule. EPD is in the process of evaluating the rule in detail to determine its impacts to Georgia.

How will EPD develop a state plan to implement the CPP?

- Work closely with Georgia Environmental Finance Authority and the Georgia Public Service Commission to share information regarding various aspects of the rule
- Meet with utilities, non-governmental organizations (NGOs) and other stakeholders
- Meet with US EPA to discuss Georgia-specific concerns
- Hold public stakeholder meetings. The next stakeholder meeting is scheduled for October 8, 2015
- Share information with other southeastern states

EPD's charge is to develop a flexible state plan that provides a mechanism for interstate trading, and achieves Georgia's CO_2 emissions performance goal in the most cost-effective manner. EPD will have until September 2016 to develop an initial state plan, and may then qualify for a two-year extension to submit a final plan. The state plan will likely require revisions of the Georgia Rules for Air Quality Control. Rule revisions must be adopted by the Department of Natural Resources Board prior to submittal of the state plan to US EPA.

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