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## Energy and Utilities

### H-3 Environmental Protection Agency Proposed Rule for Regulating Carbon Emissions

Following a Supreme Court case in 2007, *Massachusetts v. EPA*, the Environmental Protection Agency (EPA) issued an Endangerment Finding that six greenhouse gases (GHG), including carbon dioxide (CO<sub>2</sub>), threaten public health and welfare. Thereafter, the EPA has been building a regulatory framework to govern GHG emissions. As part of that framework, in June 2014, EPA issued a proposed rule titled “Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units (EGUs),” commonly referred to as the Clean Power Plan. The proposed rule defines Stationary Sources as any building, structure, facility, or installation that emits or may emit any air pollutant.

#### History of the Clean Air Act and Carbon Emissions Regulation

Initially adopted in 1963, the Clean Air Act of 1970 regulates air emissions from stationary sources such as power plants, authorizes the EPA as the agency responsible for carrying out the law, and establishes requirements for state implementation plans to achieve air quality standards. States must meet and enforce the minimum standards set by the EPA, and the EPA can issue sanctions against states for noncompliance. In 1970, seven air pollutants were regulated under the Clean Air Act. An additional 187 air pollutants became regulated when the Act was amended in 1990, followed by the regulation of 6 GHGs after 2007.

Beginning January 2, 2011, GHGs from stationary sources are subject to carbon emissions regulation, depending on their actual and potential carbon emissions and whether they are a new or existing source. On April 13, 2012, EPA proposed a new performance standard for carbon emissions from fossil fuel-fired EGUs. The EPA received more than 2.5 million comments on that proposed rule and withdrew the proposal. On June 25, 2013, President Obama announced a Climate Action Plan, and issued a Presidential Memorandum directing the EPA to complete carbon pollution standards for the power sector. The new rule for existing power plants, known as the Clean Power Plan, was proposed in June 2014 with a comment period extended to December 1, 2014. The EPA plans to issue the final rule in June 2015.

## Proposed Rule for Existing Power Plants

The proposed rule contains two main elements:

- State-specific CO<sub>2</sub> emissions goals; and
- Guidelines for the development, submission, and implementation of state plans.

The proposed rule calls for each state to achieve its CO<sub>2</sub> emission goal by 2030 and provides for a phase-in compliance period of up to 10 years, from 2020 to 2029. The EPA's proposed goal for Kansas is 1,578 lbs CO<sub>2</sub>/MWh for the interim period between 2020-2029 and 1,499 lbs CO<sub>2</sub>/MWh by 2030.

Each state must develop, adopt, and submit a plan to the EPA. The Kansas Department of Health and Environment (KDHE) is responsible for drafting Kansas' plan.

### Flexibility in Goals

The rule provides flexibility for states that want to translate emission rate-based data (e.g., quantity of CO<sub>2</sub>/MWh of electricity generated) to mass-based data (e.g. cap on the tonnage of allowable CO<sub>2</sub> emission). Each state must decide whether it will adopt the rate-based or mass-based option. Multi-state plans are allowed.

### State Plans for Emissions Reductions

The proposed rule sets out four building blocks for states to use in designing a portfolio of emissions reductions measures, using the Best System of Emission Reduction (BSER) framework:

Reduce the carbon intensity of generation through heat rate improvements of coal-fired steam (i.e., improve efficiency of conversion of fuel heat input to electricity output);

- Substitute lower-carbon fuels such as natural gas or nuclear for higher-carbon fuels such as coal;
- Substitute generation with low- or zero-carbon generation for generation with higher carbon generation; and

- Reduce generation by meeting 1-1.5 percent of electricity demand with energy efficiency (demand-side management).

The proposed rule includes scientific background for each of these building blocks.

### Evaluation and Approval of State Plans

EPA proposes to evaluate and approve state plans based on four criteria:

- Enforceable measures that reduce EGU CO<sub>2</sub> emissions;
- Projected achievement of emission goals established by the EPA, on a timeline equivalent to that in the emission guidelines;
- Quantifiable and verifiable emission reductions; and
- A process for reporting on plan implementation, progress toward achieving CO<sub>2</sub> reduction goals, and implementation of corrective actions, if necessary.

### Impact on Kansas

Electric utilities provided 82.0 percent of Kansas' net electricity generation in 2013. Fully 61.0 percent of that net generation came from coal-fired electric power plants.

Kansas' projected emissions baseline from 2020-2029 is 1,833 lbs CO<sub>2</sub>/MWh. The EPA's proposed goal for Kansas for that period, 1,578 lbs CO<sub>2</sub>/MWh, represents an overall reduction of approximately 14.0 percent.

As mentioned above, the EPA proposed four building blocks using the BSER framework. EPA's Kansas-specific goal for 20.0 percent of electricity demands met with renewables is consistent with Kansas' Renewable Portfolio Standards (RPS). The EPA proposes that, on average, states can achieve the rest with heat rate improvements, demand side management, and reducing use of carbon-intensive EGUs.

## Legislative Activity in Kansas

The 2014 Kansas Legislature adopted House Bill 2636, which granted authority to the Secretary of KDHE to establish separate performance standards for CO<sub>2</sub> emissions for EGUs that have been constructed or received a prevention of significant deterioration permit by July 1, 2014. Essentially, this law allowed flexible, voluntary mechanisms for state enforcement of the regulations that EPA has issued and allowed the state to develop compliance schedules different than those provided by federal rules and regulations.

In 2011, House Resolution (HR) 6008 urged Congress to adopt legislation prohibiting the EPA from regulating GHGs, impose a moratorium on new air quality regulation by the EPA for at least two years (except in the case of an imminent health or environmental emergency), and require the Administration to undertake a comprehensive study of the cumulative effect of the proposed regulations on America's economic competitiveness, including a cost-benefit analysis of all current and planned EPA regulations.

## Comments and Final Rule

The comment period for the rule closed December 1, 2014, and the EPA plans to issue a final rule in June 2015. The Kansas Corporation Commission (KCC) submitted the comments of its technical staff in October 2015. While the staff comments are not binding on the Commission, a cover letter from the Commissioners stated they agree with many of the staff concerns and urge the EPA to withdraw the proposed rule from consideration. The KCC staff stated the following concerns in their comments:

- The EPA is asserting jurisdiction over the production and dispatch of electricity;
- The EPA's calculation of Kansas's goal for carbon reduction is seriously flawed and too low;
- The EPA's carbon limit for Kansas does not ensure a reliable or affordable electric system, nor does it recognize investments that already have been made in Kansas;
- The EPA's proposed timelines for compliance are not feasible;

- The EPA's use of a state-wide emissions guideline creates cross-subsidy issues between Kansas ratepayers;
- The EPA's state-wide emissions guideline, in conjunction with the multi-state option, creates cross-subsidy issues between states; and
- The EPA's Clean Power Plan is a federally mandated energy policy.

The KCC staff concludes the EPA's Clean Power Plan is severely flawed, and the EPA cannot accurately model the complexities of the modern grid and establish a carbon limit on an individual state basis. Staff recommends the EPA withdraw the Clean Power Plan and develop a "best system of emission reduction" that is less complicated and ensures reliability at a reasonable cost. KCC staff recommends a number of changes to the Plan if it is not withdrawn.

The North American Electric Reliability Corporation (NERC), the regulatory authority charged with ensuring the reliability of the bulk power system in North America, conducted an initial reliability review of the Clean Power Plan. In its report, entitled *Potential Reliability of Impacts of the EPA's Clean Power Plan*, NERC identified a series of factors resulting from the Plan that require additional reliability consideration. A partial list of those factors are: implementation of the Plan will reduce fossil-fired generation; heat rate improvements assumed in the Plan may be difficult to achieve; the Plan places greater reliance on variable resources and gas-fired generation; and the Plan assumes energy efficiency will increase more rapidly than energy demand. NERC recommended that it continue to assess the reliability implication of the Clean Power Plan; that coordinated regional and multi-regional industry planning and analysis groups immediately begin detailed system evaluations to identify areas of concern and work in partnership with policy makers to ensure there is clear understanding of the complex interdependencies resulting from the rule's implementation; and that if the environmental goals are to be achieved, policy makers and the EPA should consider a more timely approach that addresses bulk power system reliability concerns and infrastructure deployments.

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