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Wanted: Dead or Alive – EPA's Clean Power Plan Context and Prognosis

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By

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In August of 2015, to implement a key component of President Obama's Climate Action Plan, the United States Environmental Protection Agency ("EPA") promulgated the Clean Power Plan ("CPP"), regulating greenhouse gas ("GHG")¹ emissions from existing fossil-fuel-fired power plants. Because the CPP had far-reaching implications for the energy sector and its various segments, its validity and merits have been the focus of contentious administrative, judicial, and political debate. With the ascendancy to the presidency of Donald Trump, the question is whether the CPP has any continued viability or whether it should be pronounced dead, and buried. This paper provides factual, legislative, regulatory, and judicial context for the CPP and then considers the ramifications for the CPP of this change in executive branch, offering a prognosis.

Factual, Legislative, Regulatory, and Judicial Context

Factual

The revolution in the domestic production and consumption of energy, driven by the combined deployment of horizontal drilling and hydraulic fracturing, has resulted in a redistribution of the relative contributions of power by various segments of the energy sector. That redistribution has primarily resulted from market forces, but has been affected as well by regulation, in particular, by the federal Clean Air Act, as implemented by the EPA, including by its promulgation of the CPP.

Attached is a chart that provides a simplistic overview of the energy sector and of the relationship of its various segments to each other. As to power production, the Energy Information Agency or EIA reports that in 2015 the five energy consuming industries, with their approximate percentages, were as follows: electric power—40%; transportation—28%; industrial—22%; residential—7%; and commercial—4%.² As to energy sources, the EIA

¹ EPA explains GHGs "act like a blanket around Earth, trapping energy in the atmosphere and causing it to warm" - the so-called greenhouse effect. EPA explains that although this effect is both natural and necessary to support life on Earth, the excessive buildup of those gases can change Earth's climate and result in dangerous effects to human health and welfare and to ecosystems, which is why GHGs are of regulatory concern. https://www.epa.gov/climatechange/climate-change-basic-information. Unlike conventional pollutants, whose effect is direct and regional, GHGs' effect, for the most part, is indirect – the consequences of climate change – and global. EPA refers to manmade GHG emissions, primarily from fossil fuel combustion, as carbon pollution. Carbon is shorthand for carbon dioxide (CO₂), the most prevalent GHG and the one to which other GHGs, like methane, are compared.

² <u>http://www.eia.gov/energyexplained/?page=us_energy_home</u>

reports the U.S. consumed about 98 quadrillion Btus, of which 36 % was from petroleum, 29% from natural gas, 16% from coal, 10% from renewable, and 9% from nuclear. Of the renewables, approximately 49 % was from biomass, 25% from hydroelectric, 19% from wind, 6% from solar, and 2% from geothermal.³ As to power consumption, the EIA notes that the U.S. imported about 9% of the energy it consumed in the form of petroleum, and of the 91% of the remainder it consumed, produced about 89 quadrillion Btus, of which approximately 32% was from natural gas, 28% from petroleum, 21% from coal, 11% from renewables, and 9% from nuclear.⁴

How those percentages may change in the future will depend, in part, how each energy source fares under the Act's regulatory programs and, in particular, on whether and to what extent they generate conventional air pollutants, on the one hand, and GHGs on the other. The CPP, with its focus on emissions of GHGs from existing fossil-fuel fired power plants, and how states chose to implement it had the potential to significantly affect that energy mix. As discussed below, the tortuous path to implementation of the CPP is about to come to an end, which itself will result in a change in the projected mix of energy sources.

In its publication, Annual Energy Outlook 2017 (January 5, 2017),⁵ the EIA compares a case assuming the CPP is not implemented with a reference case to see how its absence could affect energy markets and emissions. In the reference case, overall domestic energy consumption remains relatively flat, but the fuel mix changes significantly, with natural gas use increasing, petroleum consumption remaining relatively flat, and coal consumption in the electric power sector decreasing its market share in favor of natural gas and renewables. In the reference case, domestic energy production continues to increase, led by natural gas and renewables. In most cases, energy related CO₂ decreases, but with the highest emissions projected in the no CPP case.

The EIA Outlook also found that, as demand grows modestly, the primary driver for new capacity in the reference case is the retirement of older, less efficient fossil fuel units—largely spurred by the CPP and the near-term availability of renewable energy tax credits. Even if the CPP is not implemented, low natural gas prices and the tax credits result in natural gas and renewables as the primary sources of new generation capacity. The future generation mix is sensitive to the price of natural gas and the growth in electricity demand.

Legislative

The most complex of all environmental statutes, the federal Clean Air Act (the "Act") consists of over 400 pages of provisions.⁶ EPA's regulations implementing it, found in Parts 50 through 98 of Title 40 of the Code of Federal Regulations, occupy over a foot and a half of shelf space.⁷ As originally enacted in 1955 and amended in 1963, the Act's goal was quite modest—to provide research and technical assistance relating to air pollution control, leaving regulatory authority to states and local governments.

³ Id.

⁴ Id.

⁵ <u>http://www.eia.gov/outlooks/aeo/pdf/0383(2017).pdf</u>

⁶ In PDF from the U.S. Senate on the agency's website]

⁷ Parts 83 and 84 are reserved.

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