

Chapter 26

U.S. Public Support to Climate Change Initiatives? Setting Stricter Carbon Dioxide Emission Limits on Power Plants

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ABSTRACT

The Obama Administration Climate Action Plan is enforcing goals to reduce greenhouse gas emissions below 2005 levels by 2020, regulating both stationary and mobile sources of pollution. As energy-related carbon dioxide emissions account for the majority of greenhouse gas emissions, the plan proposed carbon pollution standards for both new and existing plants. Impacts related to upgraded regulations have been projected as both favorable and not, with public and political opinions showing support among some groups and among other interests a concern. The purpose of this chapter is to analyze factors predicting which groups are supportive and non-supportive on setting stricter carbon dioxide emission limits on coal-fired electricity generating power plants. This topic is explored using multivariate regression analysis and individual level data. Findings suggest that comprehension of the policy area and individual financial situation are the most important factors in predicting support for stricter emission limits.

INTRODUCTION

Climate system change is a policy issue that is gaining attention across interest groups, industries, consumers, and policymakers. The greenhouse effect has been linked to global warming and climate change events (U.S. Energy Information Administration, June 2, 2014; U.S. Environmental Protection Agency [EPA], July, 2014). The reported negative effects of this change are broad, such as inland flooding, new water borne illnesses and disease, food insecurity, limited access to drinking water and disrupted liveli-

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hoods (EPA, June, 2014, p. 179). At varying rates, climate change has been experienced across the United States with the upper Midwest and Alaska particularly affected by temperature increases (Pew Research Center, May 9, 2014). In all, slowing the climate change requires a substantial and sustained decrease of greenhouse gas emissions (EPA, April, 2014; EPA, June 2014, p. 179) and a collective public effort across all sectors. The EPA has not been alone in voicing concerns over the impact of greenhouse gas emissions; global efforts to maintain the integrity of the environment have been ongoing. The World Health Organization (WHO) who passed a 2015 resolution declaring air quality as the leading environmental risk (World Health Organization, May 26, 2015), has been pushing for stronger cooperation between governmental sectors on air pollution policy. The Intergovernmental Panel on Climate Change (ICPP) has called upon countries, including the U.S., to prioritize developing policy solutions that significantly reduce greenhouse emissions (ICPP, 2014a, 2014b).

Governmental response by the United States, at least, has primarily consisted of legislation that could be described as incremental, administrative, and largely regulatory. One environmental threat to come under increased scrutiny under the Obama Administration has been carbon dioxide emissions from electricity generating power plants using fossil fuels such as coal which are reported to largely contribute to the environmental greenhouse gas (GHG) effects (EPA, April, 2014, p. 2-1). In June 2014, the Obama Administration advanced its GHG reduction goal with a policy (Climate Action Plan) targeting power plants. It reinforces the use of cleaner technologies for electricity generation, and devolves more responsibility to the EPA to develop pollution standards, including those for carbon, for both new and existing power plants (Executive Office of the President, June 2013, p. 6). This latest effort to reduce GHG effects has been met with both support and opposition among varying stakeholders. Slowing climate change requires a substantial and sustained decrease of GHGs (EPA, April, 2014; EPA, June 2014, p. 179) and a collective public effort across all sectors. Studies show U.S. public and political response to government policy initiatives to be mixed, but overall, favoring government intervention. Although Americans see global climate change less important than other countries (Pew Research Center, January 27, 2014), about 65% of Americans reported favoring “stricter emissions limits on power plants in order to address climate change” (Pew Research Center, June 2, 2014). The extent to which government action is taken to protect the environment, including efforts to reduce GHG, is predicated on a number of factors including the response of competing stakeholders. This chapter explores the impact of one group of stakeholders (the American public) on stricter emission limits on power plants as part of the Obama Administration’s response to climate change concerns.

BACKGROUND ON COAL-FIRED POWER PLANTS AND CARBON DIOXIDE EMISSIONS

Energy producing power plants are not the only source of greenhouse gas emissions, “human activities, such as the combustion of fossil fuels, produce additional GHGs that build up in the atmosphere causing an enhanced greenhouse effect” (World Coal Association, 2014, p. 1). GHGs include carbon dioxide, methane, nitrous oxide, and water vapor among other, occurs naturally. These emissions have increased at a 0.2% annual rate from 1990 to 2012 (EPA, April, 2014, p. 2-1). Nevertheless, “Energy-related carbon dioxide emissions account for more than 80 percent of U.S. greenhouse gas emissions”... and 98% of carbon dioxide emissions alone in 2009 (U.S. Energy Information Administration [EIA], March, 2011, pp. 21-22). This level has fallen below the 2005 level by 608 million metric tons, with the

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