HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HM 1027 Carbon Dioxide Emissions from Fossil-fueled Electric Generating Units
SPONSOR(S): Wood and others
TIED BILLS: **IDEN./SIM. BILLS:** SM 1174

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Local & Federal Affairs Committee		Kelly	Rojas
2) Regulatory Affairs Committee			

SUMMARY ANALYSIS

HM 1027 urges Congress to direct the Environmental Protection Agency (EPA) to use specified criteria in developing guidelines for regulation of carbon dioxide emissions from existing fossil-fueled electric generating units, including consideration for unique policies, energy needs, resource mixes, and economic priorities of Florida.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Background

Since 1970, Congress has regulated the pollution of air via the Clean Air Act (CAA).[1] Under section 110 and section 112 of the CAA, the Environmental Protection Agency (EPA) has the authority to set National Ambient Air Quality Standards (NAQQS) for certain air pollutants that the EPA has identified as particularly dangerous and ubiquitous, including ozone, particulate matter, carbon monoxide, sulfur dioxide, nitrogen dioxide, and lead.[2] Once the NAAQS have been set, states are then charged with the responsibility to come up with a State Implementation Plan (SIP) specifying the limitations and measures the state will take in order to attain the NAQQS.[3]

Section 111 of the CAA allows the EPA to establish emission standards for stationary sources of air pollution that "causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare" (i.e., a pollutant for which there is no NAAQS).[4] Section 111(b) allows the EPA to regulate new and modified sources.[5] In contrast, Section 111(d) of the CAA requires states to develop plans for *existing* sources of noncriteria pollutants whenever the EPA promulgates a standard for a new source. These plans are subject to EPA review and approval.[6]

Recently, the EPA has used section 111 to regulate carbon dioxide. Carbon dioxide is not a pollutant but is a greenhouse gas that is naturally present in the atmosphere as part of the Earth's carbon cycle (the natural circulation of carbon among the atmosphere, oceans, soil, plants, and animals).[7] The main human activity that emits carbon dioxide is the combustion of fossil fuels (coal, natural gas, and oil) for energy and transportation. The combustion of fossil fuels to generate electricity is the largest single source of carbon dioxide emissions in the nation, accounting for about 38 percent of total U.S. carbon dioxide emissions and 32 percent of total U.S. greenhouse gas emissions in 2011. The type of fossil fuel used to generate electricity will emit different amounts of carbon dioxide, but to produce a given amount of electricity, burning coal will produce more carbon dioxide than oil or natural gas.[8]

The EPA cites its authority to regulate greenhouse gases from two Supreme Court cases. First, in *Massachusetts v. EPA*[9] the Court found the EPA has the authority to regulate vehicular greenhouse gas emissions. Under *Am. Elec. Power Co., Inc. v. Connecticut*,[10] the Court affirmed the EPA's authority to regulate stationary sources of greenhouse gases (like power plants), so long as the EPA made an "endangerment finding" to justify the regulation.

On June 25, 2013, the President released a Presidential Memorandum that recognized that the EPA has already begun proposing rulemaking for new power plants and directed the EPA to issue standards, regulations, or guidelines that address carbon dioxide emissions for new and modified

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[1] U.S. Environmental Protection Agency, Clean Air Act Requirements and History, *available at* http://www.epa.gov/air/caa/requirements.html (last visited Mar. 27, 2014).
[2] 42 U.S.C. § 7410, 7412.
[3] Under Clean Air Act sections 110(a)(1) and 110(a)(2), each state is required to submit a SIP that provides for the implmentation, maintenance and enforcement of a revised primary or secondary NAAQS.
[4] 42 U.S.C. § 7411.
[5] 42 U.S.C. § 7411(b).
[6] 42 U.S.C. § 7411(d).
[7] U.S. Environmental Protection Agency, Overview of Greenhouse Gases, *available at* http://www.epa.gov/climatechange/ghgemissions/gases/co2.html(last visited Mar. 27, 2014).
[8] *Id.*
[9] Massachusetts v. EPA, 549 U.S. 497 (2007).
[10] Am. Elec. Power Co., Inc. v. Connecticut, 131 S. Ct. 2527 (2011).

sources under section 111(b) of the CAA.[11] Thus, President Obama directed the EPA to propose standards for existing sources under section 111(d) of the CAA. The EPA must finalize the rule by June 1, 2015, and the states must submit a state implementation plan to the EPA no later than June 30, 2016.

Because section 111(d) has been used rarely compared to other sections of the CAA, there are limited precedents for how the EPA will or should implement future performance standards under Section 111(d). There has not been a lawsuit challenging the sufficiency of the guidelines under Section 111(d).

The Florida Department of Environmental Protection (FDEP) is responsible for implementing air pollution programs that are in compliance with federal requirements. The FDEP adopted Rule 62-204, F.A.C., which incorporates the CAA air pollution requirements by reference and identifies Florida's state implementation plan to obtain these requirements. More so, s. 366.015, F.S. encourages the Florida Public Service Commission to participate in federal proceedings that affect the regulation of state utilities.

Effect of Proposed Changes

HM 1027 contains 15 whereas clauses, several of which make reference to coal or coal-fueled power plants. The issue, however, is broader than coal. As noted above, combustion of any fossil fuel produces carbon dioxide, coal simply produces more per unit of electricity generated than natural gas or oil. Additionally, municipal solid waste or waste-to-energy power plants also produce carbon dioxide.[12] The EPA rules will impact almost every type of facility producing electricity in Florida that meets any threshold criteria.[13]

The memorial urges the United State Congress to direct the EPA to take certain steps in developing guidelines for regulating carbon dioxide emissions from existing fossil-fueled electric generating units. These steps include:

allowing state regulators to develop performance standards which take into account the unique policies, energy needs, resource mix, and economic priorities of the state;

allowing Florida to set less stringent performance standards or longer compliance schedules; and

giving Florida maximum flexibility to implement standards.

Support for the memorial asserts that the EPA guidelines for existing electric generating units should avoid setting performance levels that are based on a national uniform approach and instead recognize the varying characteristics of specific states and regions of the U.S. Specifically, in Florida investments have been made in re-powerings, nuclear uprates, and other generating unit efficiency improvements have had a beneficial impact on air quality. As a result, the FDEP estimates Florida's average carbon dioxide emissions profile, for power produced in Florida decreased from 1,835 pounds per megawatt-hour (lb./MWh) in 2000 to 1,291 lb./NMWh in 2012.[14]

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[11] Memorandum to the Environmental Protection Agency from President Barak Obama, (June 25, 2013), *available at* http://www.whitehouse.gov/the-press-office/2013/06/25/presidential-memorandum-power-sector-carbon-pollution-standards (last visited Mar. 27, 2014).

[12] US Environmental Protection Agency, Clean Energy, Air Emissions, http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html (last visited March 28, 2014); *see also*, Energy Recovery Council, Waste-to-Energy Reduces Greenhouse Gas Emissions, *available at* http://energyrecoverycouncil.org/waste-energy-reduces-greenhouse-gas-emissions-a2966 (last visited March 28, 2014); Wheelabrator Technologies Inc., Climate, *available at* http://www.wheelabratortechnologies.com/environment1/climate/ (last visited March 28, 2014).

[13] Wind and geothermal produce negligible emissions in generating electricity because no fuels are combusted; however, Florida has very little of either, and no utility-scale wind turbines or what is commonly thought of as geothermal. Solar also produces negligible emissions, and Florida does have some solar, both utility owned and privately owned. Landfill gas used as a fuel to generate electricity, of which Florida has a small amount, does produce carbon dioxide, however, it is considered to be a part of the natural carbon cycle of the earth. Biomass, which Florida also has, also produces carbon dioxide emissions, which may not result in a net increase in carbon emissions if the biomass resources are managed sustainably, but it is not safe to assume biomass power plants are carbon neutral. US Environmental Protection Agency, Clean Energy, Air Emissions, *available at* http://www.epa.gov/cleanenergy/energy-and-you/affect/air-emissions.html (last visited March 28, 2014).

[14] Public Service Commission, Re: Considerations in the Design of a Program to Reduce Carbon Pollution from Existing Power Plants, December 13, 2013.

A copy of the memorial must be delivered to the President of the United States, the EPA administrator, President of the United States Senate, Speaker of the United States House of Representatives, and to each member of the Florida delegation to the United State Congress.

B. SECTION DIRECTORY:

Not applicable.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

None.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

The FDEP will be required to set performance standards for carbon dioxide emissions from existing fossil-fueled power plants.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The Florida Public Service Commission has written that it "is concerned that under the provisions of the proposed [Carbon Pollution Standard for New Power Plants] rule, electric utilities will be precluded from constructing coal-fired generation to meet future needs because the standard can be met solely with costly and unproven carbon capture and sequestration (CCS) technology. CCS at this time is costly and has not been adequately demonstrated on the scale necessary for deployment by the electric generation utility industry."[15]

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:
None.

1. Applicability of Municipality/County Mandates Provision:
None.

2. Other:

[15] PUBLIC SERVICE COMMISSION, in the US Environmental Protection Agency's Docket ID No. EPA-HQ-OAR-2013-0495, page 1, *available at* http://www.psc.state.fl.us/dockets/federal/PDFs/EPA-HQ-OAR-2013-495.pdf (last visited March 28, 2014).

None.

B. RULE-MAKING AUTHORITY:

Not applicable.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES