Department of Legislative Services
Maryland General Assembly
2004 Session

FISCAL AND POLICY NOTE

House Bill 1172 (Delegate Hubbard, *et al.*)
Economic Matters

Air Quality - Limits on Emissions from Coal-Fired Generating Units

This bill requires investor-owned public utilities that own or operate at least one coal-fired generating unit to meet lowest achievable emissions rates (LAER) and percentage reductions in air pollutant emissions. The Maryland Department of the Environment (MDE) must adopt regulations. Affected utilities must submit a compliance plan to MDE, the Department of Natural Resources (DNR), and the Public Service Commission (PSC) by December 31, 2004 and must submit annual reports. MDE must review information submitted. MDE, in conjunction with DNR and PSC, must study several emissions-related issues. The bill establishes criminal penalties; fine revenue would be paid into the Medicaid Managed Care Organization Fund within the Department of Health and Mental Hygiene (DHMH); that fund, which is established by the bill, would augment existing funding to pay managed care organization (MCO) provider fees.

The bill takes effect July 1, 2004.

Fiscal Summary

State Effect: General fund expenditures could increase by $75,000 in FY 2005 for contractual services. Future year estimates reflect ongoing contractual services. Special fund revenues from fines would be directed to the new MCO fund. If MCOs increase their provider rates, special and federal fund Medicaid expenditures would increase.

(in dollars)	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
SF Revenue	-	-	-	-	-
GF Expenditure	75,000	200,000	175,000	125,000	125,000
SF Expenditure	-	-	-	-	-
FF Expenditure	-	-	-	-	-
Net Effect	($75,000)	($200,000)	($175,000)	($125,000)	($125,000)

Note:() = decrease; GF = general funds; FF = federal funds; SF = special funds; - = indeterminate effect

Local Effect: The criminal penalty provisions of this bill are not expected to significantly affect local expenditures.

Small Business Effect: None. The bill would not directly affect small businesses.

Analysis

Bill Summary: The bill only applies to coal-fired generating units in the State that have the capacity to generate 25 or more megawatts of electricity. By the end of calendar 2010, an affected utility must collectively meet LAER for emissions of nitrogen oxides. An affected utility must collectively meet LAER for emissions of oxides of sulfur dioxide (assumed to be sulfur dioxide) by the end of calendar 2012. An affected utility must meet a required percentage reduction in mercury emissions by the end of calendar 2008. Also by the end of that year, an affected utility must either increase the efficiency with which its units convert coal into electricity or meet a required percentage reduction in carbon dioxide emissions. Each utility subject to the bill's requirements may determine how it will achieve the collective emissions limits and reductions. The bill authorizes the Governor to enter into agreements with utilities for the transfer of emissions allowances to the State.

MDE, in conjunction with DNR and PSC, must study the desirability of requiring and the feasibility of obtaining reductions in emissions of mercury and carbon dioxide beyond those required by the bill. MDE must annually report its preliminary findings to specified committees of the General Assembly (for mercury, beginning December 1, 2004, and for carbon dioxide, beginning December 1, 2005) and must report its final findings and recommendations by December 1, 2006. Those agencies also must study the desirability of requiring and the feasibility of obtaining reductions in emissions of nitrogen oxides and sulfur dioxide beyond those in the bill. MDE must annually report its findings beginning December 1, 2006.

The Governor must use all available resources and means to induce other states and entities to achieve reductions in emissions of nitrogen oxides, sulfur dioxide, mercury, and carbon dioxide comparable to those required under the bill.

The bill prohibits a person from knowingly acting or failing to act in violation of the bill or its regulations. A person who violates that prohibition is guilty of a misdemeanor and on conviction is subject to a fine of up to $25,000 or imprisonment for up to one year, or both. For subsequent convictions, a person is subject to a fine of up to $50,000 or imprisonment for up to two years, or both. The bill establishes a three-year statute of limitations. Revenues from fines would be deposited in the Medicaid Managed Care

Organization Fund, a special, nonlapsing fund established by the bill within DHMH. In addition to any fine revenues, the fund consists of any money appropriated in the State budget to the fund, any investment earnings of the fund, and any other money from any other source. The fund may only be used to pay for increases in MCO provider fees. Money expended from the fund is supplemental to and is not intended to take the place of funding that would otherwise be appropriated for MCO provider fees.

Current Law: MDE's Air and Radiation Management Administration operates the State's air pollution control programs under the framework established by the federal Clean Air Act (CAA). CAA requires all areas of the country to achieve specific air quality standards. MDE's air management program, among other things, monitors ambient air pollution levels, develops plans to maintain air quality standards, develops and enforces regulations to control air emissions, and provides technical assistance to businesses attempting to comply with CAA requirements.

Background: Under CAA, the U.S. Environmental Protection Agency (EPA) sets and enforces air pollutant limits on sources such as power plants to help protect against adverse health and environmental effects. LAER is a CAA term for low-emitting technology that must be applied to all new or modified major emission sources in ozone nonattainment areas. The type of technology that constitutes LAER is typically determined by looking at the cleanest technology installed at similar emission sources in the U.S. or elsewhere.

According to MDE, with respect to nitrogen oxides and sulfur dioxide control technology at power plants, LAER is assumed to be Selective Catalytic Reduction (SCR) and wet flue gas desulfurization (FGD), respectively. Generally, SCR can achieve a 90% reduction in nitrogen oxides emissions and FGD can achieve a 95% reduction in sulfur dioxide emissions. According to MDE, the use of SCR and FGD technologies also results in a reduction in mercury emissions.

However, MDE advises that because of the timeframe established by the bill, it is unclear how the mercury reduction requirement would be met. The requirement could be reached by employing a mercury-specific reduction technology called activated carbon injection (ACI). ACI is used at waste-to-energy facilities to control mercury emissions, but, according to MDE, has not been proven to be effective on larger-scale sources (such as power plants) or for all coal types. According to MDE, the bill's requirement relating to increasing efficiency or meeting the required percentage reduction in carbon dioxide emissions could likely only be met by switching to natural gas

In December 2003, EPA issued two proposed rules related to this bill. The first proposal, the Interstate Air Quality Rule, is EPA's regulatory effort to implement regional reductions in two pollutants (nitrogen oxides and sulfur dioxide) from coal-fired power plants in 29 eastern states and the District of Columbia. The second proposal, the Utility Mercury Reductions Rules, consists of two alternative approaches to reduce emissions of mercury from coal-fired power plants nationwide. EPA is currently receiving public comment on both proposed rules.

State Fiscal Effect:

Department of Natural Resources

General fund expenditures could increase by $75,000 in fiscal 2005 ($50,000 for contractual services to perform technical analyses for DNR's Power Plant Research Program in support of the required study relating to mercury, and $25,000 for contractual services to handle DNR's review of compliance plans). Future year estimates reflect: (1) ongoing contractual services for review of reports ($25,000 annually); (2) in fiscal 2006 and 2007, continued contractual services in support of the mercury study ($25,000 annually); (3) beginning in fiscal 2006, contractual services for the required studies relating to nitrogen oxides and sulfur dioxide ($100,000 annually); and (4) in fiscal 2006 and 2007, contractual services in support of the required study relating to carbon dioxide ($50,000 in fiscal 2006 and $25,000 in fiscal 2007).

Department of Health and Mental Hygiene

The Governor's proposed fiscal 2005 budget includes $1.38 billion in general/federal funds for payments to MCOs. Fine revenues would be directed to the Medicaid Managed Care Organization Fund within DHMH, which is established by the bill. Any such revenues cannot be reliably estimated at this time, as violations of the bill's provisions cannot be predicted. To the extent MCO provider fee payments increase (which would not be a result of this bill), DHMH would receive, on average, a 50% federal match on MCO fund expenditures. DHMH could handle any increase in workload with existing budgeted resources.

Other

MDE and PSC could handle the bill's requirements with existing budgeted resources. It is assumed that the Treasurer could handle the bill's requirements regarding transfer of emissions allowances with existing resources.

The incarceration penalty provisions of this bill are not expected to significantly affect State expenditures.

Additional Comments: Based on information provided by MDE, eight utilities (with a total of 15 coal-fired generating units) would likely be affected by this bill. Owners and operators of affected coal-fired generating units would likely incur significant costs to comply with the emissions limits and reductions established by the bill. MDE advises that, just to meet LAER for nitrogen oxides and sulfur dioxide, capital costs could be as much as $3 billion to $5 billion and that operating costs could total $1 billion to $3 billion annually. MDE advises that it is unclear if the bill's requirements relating to mercury could even be met in the timeframe provided by the bill, and that costs to meet the requirements relating to carbon dioxide would be significant. Presumably, any costs incurred would be passed on to consumers in the form of higher prices for electricity.

Additional Information

Prior Introductions: Similar legislation was introduced during the 2003 session as HB 380. The bill was referred to the House Environmental Matters Committee and the House Economic Matters Committee but was subsequently withdrawn.

Cross File: None.

Information Source(s): Department of Natural Resources, Maryland Department of the Environment, Department of Health and Mental Hygiene, Public Service Commission, Office of People's Counsel, Department of Legislative Services

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