

Department of Legislative Services
Maryland General Assembly
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FISCAL AND POLICY NOTE

Senate Bill 622

(Senator Madaleno, *et al.*)

Finance

Nonresidential Electricity and Gas - Energy Benchmarking and Disclosure - State Buildings

This bill requires electric and gas companies to maintain energy consumption records for nonresidential retail customers in a format that is compatible with uploading to the U.S Environmental Protection Agency's (EPA) Portfolio Manager (an Internet-based energy management tool), and to upload those records after receiving authorization from a building owner or operator. In addition, State buildings of more than 10,000 square feet must be "benchmarked" annually by the Department of General Services (DGS), beginning in 2012, using the EPA Portfolio Manager. The benchmarking information must be compiled and submitted to the Maryland Energy Administration (MEA) to be made publicly available. The bill also requires State building benchmarking information to be made available to (1) existing lessees of more than 2,000 square feet by January 1, 2015, and each year thereafter; and (2) prospective buyers and specified prospective lessees and lenders beginning January 1, 2015.

Fiscal Summary

State Effect: General fund expenditures may increase by a significant amount in FY 2012 to meet the requirements of the bill. The amount of the increase, however, cannot be reliably estimated. *For illustrative purposes only*, under one set of assumptions, costs for contractual services could total \$200,000. Additional costs to modify the metering of buildings that do not have individual electric and gas meters may also be incurred if all State buildings of more than 10,000 square feet are to be benchmarked. Any ongoing costs associated with benchmarking in future years is assumed to be limited. Revenues are not directly affected.

Local Effect: None.

Small Business Effect: Minimal.

Analysis

Bill Summary: The bill requires electric and gas companies to maintain records of the electric or gas consumption of each nonresidential retail electric or gas customer in a format compatible with uploading to the EPA Portfolio Manager. After receiving authorization from the owner or operator of a nonresidential building, the electric or gas company must upload the electric and gas consumption records for the accounts that serve the building to the EPA Portfolio Manager.

Beginning in 2012, DGS must benchmark each State building with an interior space of more than 10,000 square feet at least once each year and must compile and submit the benchmarking information to MEA. The bill specifies that unless MEA makes the submitted information available to the public in some other manner, it must be included in its annual report related to the Strategic Energy Investment Fund (SEIF). Another provision of the bill, however, requires the benchmarking information to be included in that report.

“Benchmark” means to obtain energy statistics for structures comparable to a particular structure and, if applicable, Energy Star ratings, using the EPA Portfolio Manager.

By January 1, 2015, and each year thereafter, the owner or operator of a State building must disclose the building’s benchmarking information for the most recent 24-month period to each lessee of more than 2,000 square feet of the building.

Beginning January 1, 2015, the owner or operator of a State building must also disclose the building’s benchmarking information for the most recent 24-month period to a prospective buyer of the building, lessee of more than 2,000 square feet of the building, and lender that would finance the purchase or lease of more than 2,000 square feet of the building.

Current Law: Under State law, subject to review and approval by the Public Service Commission, gas and electric companies are required to develop and implement programs and services to encourage and promote the efficient use and conservation of energy by consumers, gas companies, and electric companies. Under the EmPOWER Maryland Energy Efficiency Act of 2008 (Chapter 131), PSC was required, on or before December 31, 2008, by regulation or order, to:

- require each electric company to procure or provide for its electricity customers cost-effective energy efficiency and conservation programs and services, to the extent determined to be available, with projected and verifiable electricity savings that are designed to achieve a targeted reduction of at least 5% by the end of 2011 and 10% by the end of 2015 of per capita electricity consumed in the electric company's service territory during 2007; and
- require each electric company to implement a cost-effective demand response program in the electric company's service territory that is designed to achieve a targeted reduction of at least 5% by the end of 2011, 10% by the end of 2013, and 15% by the end of 2015, in per capita peak demand of electricity consumed in the electric company's service territory during 2007.

The Act required electric companies, on or before September 1, 2008, and every three years thereafter, to submit plans to PSC detailing the electric companies' proposals for achieving the electricity savings and demand reduction targets for the three subsequent calendar years.

With respect to State government energy consumption, DGS, in cooperation with MEA, is required to project energy-related lifecycle costs and conduct energy consumption analyses with respect to building construction and renovation, and, so that it can audit and evaluate competing design proposals, set standards for energy performance indices. DGS must also, in cooperation with MEA, establish standards and procedures for evaluating the efficiency of the design for any proposed State-financed or State-assisted building construction, which must be updated by March 1 of each odd-numbered year.

The State Building Energy Efficiency and Conservation Act of 2006 (Chapter 427 of 2006) required that:

- DGS, in cooperation with MEA, set energy performance standards to reduce the average energy consumption in State buildings from the baseline 2005 level by 5% in 2009 and 10% in 2010;
- each State agency conduct an analysis of the gas and electric consumption in each of the buildings under its jurisdiction and the cost of that consumption by December 31, 2007. The analysis was to be conducted under the direction of MEA and in coordination with DGS and was to include an examination of methods to achieve energy and costs savings; and

- each State agency upgrade its energy conservation plan, developed in consultation with DGS and MEA, to achieve the performance standards set by DGS no later than July 1, 2008.

Background:

EPA Portfolio Manager/Energy Star Rating

The EPA Portfolio Manager is an online energy management tool that allows energy and water consumption of buildings to be tracked and assessed and allows the energy performance of certain types of commercial buildings to be rated on a scale of 1-100 relative to similar buildings nationwide (Energy Star rating). Not all commercial buildings are eligible to receive a rating, but types of eligible buildings include offices, hospitals (acute care and children's), courthouses, and K-12 schools. Colleges and universities, fire stations and police stations, and libraries are building types that appear to currently be ineligible to receive an Energy Star rating. Buildings must also meet certain criteria and at least 11 consecutive months of energy meter data that accounts for all energy use (regardless of fuel type) must be available.

Energy Star's website indicates that the rating was developed as a screening tool, which does not by itself explain why a building performs a certain way, or how to change the building's performance, but helps organizations assess performance and identify those buildings that offer the best opportunities for improvement and recognition.

Energy Star indicates that a small number of State and local governments have established requirements for Energy Star or equivalent benchmarking/rating of certain public and/or private buildings, including the District of Columbia; the cities of Austin, Denver, New York, and Seattle; and California, Hawaii, Michigan, Ohio, and Washington. California's and Washington's laws include similar requirements to the requirement in this bill that electric and gas companies maintain energy consumption records for nonresidential retail customers in a format compatible with uploading to the EPA Portfolio Manager.

Utility Demand Response and Energy Efficiency Programs

Utilities submitted their first plans to achieve the EmPOWER Maryland goals in 2008, which were approved, with some modifications, in 2008 and 2009. MEA's 2010 *Maryland Energy Outlook* (MEO) indicated that utilities' demand response programs are based on the concept of utilities turning off or "cycling" a customer's air conditioner or water heater during times of high demand and provide financial incentives for customers to participate. The utility plans also included energy efficiency and conservation programs to encourage utility customers to implement energy efficiency measures

through financial incentives and broad-based, systemwide consumer education efforts. According to the MEO, utilities have developed their own energy efficiency programs, but common program features include energy audits and rebates for lighting, efficient appliances, and other efficiency measures, with utilities typically offering a different set of programs for residential and nonresidential customers.

Current Efforts to Reduce State Government Energy Consumption

DGS' Office of Energy Performance and Conservation currently seeks to reduce energy consumption in State facilities through facility upgrades, a comprehensive electricity purchasing strategy, renewable energy, and the implementation of a new statewide utility database. Most of the State's energy-related facility upgrades are performed via energy performance contracts which typically consist of selection of an energy service company; an energy audit; project financing; design and construction; maintenance; and savings monitoring and verification. There are currently 15 projects under construction and 9 projects under development. The statewide utility database is operational and houses nearly 600,000 utility bills, covering approximately 16,000 utility accounts throughout the State. As of February 2011, the database contained utility account information for 91% of all utility accounts in fiscal 2010 and 87% in fiscal 2011 year-to-date. Specifically with respect to electricity usage, 100% of electric utility account information is included in the database for fiscal 2010 and 98% is included in the database for fiscal 2011 year-to-date.

DGS Jurisdiction

DGS' facilities and operations responsibilities are limited to only a portion of State buildings, including the Annapolis and Baltimore public buildings and grounds and 17 regional multiservice centers.

State Fiscal Effect: General fund expenditures may increase by a significant amount in fiscal 2012 to meet the requirements of the bill; however, a number of uncertainties make it difficult to reliably estimate the actual cost of complying with the bill, including:

- uncertainty of the number of State buildings that meet the threshold of at least 10,000 square feet of area;
- uncertainty of the level of contractual work that may be required to initially benchmark each State owned or operated building with an area of at least 10,000 square feet each year; and
- uncertainty of the number of State buildings that have individual electric and gas meters, which is necessary to benchmark an individual building using the EPA Portfolio Manager.

DGS estimates there are 2,000 State buildings of more than 10,000 square feet, though the actual number appears to be uncertain. Based on discussions with EPA, it appears any State building with an individual meter likely could be “benchmarked,” as defined in the bill, using the EPA Portfolio Manager. While not all buildings are eligible to receive an Energy Star rating, an energy use metric (such as energy use/square foot) could at least be determined for all buildings and measured against the same metric for comparable structures.

Using the EPA Portfolio Manager generally requires entry of both information on the building’s energy consumption and characteristics of the building itself and its use. The existence of the statewide utility database (which allows for uploading of energy consumption information from the database to the EPA Portfolio Manager – though possibly at an added cost) likely will reduce the amount of time spent on data collection and data entry to benchmark State buildings. Data on the characteristics of each building and its use, however, will still need to be collected and entered.

Based on information provided by EPA personnel, the cost per building for contractual services to benchmark each building may range from approximately \$25 to \$300 (based on a \$50 per hour cost and between one-half hour and six hours of time spent collecting and entering data), depending on the amount of the required information that would need to be collected and manually entered into the EPA Portfolio Manager. *For illustrative purposes only*, assuming that the time required for data collection and entry into the EPA Portfolio Manager for each building would be on the lower end of the above range due to the existence of the statewide utility database, if benchmarking took on average two hours for each building, general fund expenditures would increase by \$200,000 to benchmark 2,000 State buildings.

The number of buildings that a contractor would need to benchmark may also be reduced to the extent benchmarking could be handled by personnel within the agency or agencies using the various buildings. DGS, however, noted in the past difficulty gathering information from all agencies for the statewide utility database, and therefore, hiring a contractor to benchmark most buildings may be the most effective manner of meeting the bill’s requirements.

Presumably any costs associated with benchmarking State buildings in future years would be much more limited once each building’s profile (characteristics and use) is entered into the EPA Portfolio Manager, and possibly could be handled with existing State agency staff.

DGS indicates that numerous State buildings are not individually metered and therefore incapable of being benchmarked. Costs to modify the metering of these complexes to be able to obtain energy consumption information specific to each building could be

significant. DGS provided a rough estimate in 2010 of the cost of individually metering a building of \$15,000, though noting uncertainty about the estimate due to the effect the conditions of each building can have on the cost. MEA, however, has indicated that obtaining building-specific energy consumption information in complexes could be done less expensively through submetering.

Additional Information

Prior Introductions: SB 713 of 2010, a similar bill affecting private and local government buildings as well as State buildings, received an unfavorable report from the Senate Finance Committee. Its cross file, HB 985, received a hearing in the House Economic Matters Committee but was subsequently withdrawn.

Cross File: None.

Information Source(s): Department of General Services, Maryland Energy Administration, Public Service Commission, Department of Budget and Management, Maryland Department of Transportation, Department of Public Safety and Correctional Services, Office of People's Counsel, University System of Maryland, U.S. Environmental Protection Agency, Department of Legislative Services

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