HB 374

Department of Legislative Services

Maryland General Assembly
2008 Session

FISCAL AND POLICY NOTE
Revised

House Bill 374 (The Speaker, *et al.*) (By Request – Administration)
Economic Matters Finance

EmPOWER Maryland Energy Efficiency Act of 2008

This Administration bill requires electric companies to procure and provide customers with a cost effective demand response program that is designed to achieve specific electricity savings and demand reductions for specified years through 2015. Electric company plans must include program descriptions, anticipated costs, projected electricity savings, and other Public Service Commission requested information. Electric companies must consult with the Maryland Energy Administration regarding design and adequacy of the program's plan to meet the target reductions. PSC must review the plans for adequacy and cost effectiveness in achieving the electricity savings and demand reduction targets.

The bill takes effect June 1, 2008.

Fiscal Summary

State Effect: General fund expenditures could increase by $216,700 in FY 2009 due to one-time contractual costs and one new employee at MEA. Future year expenditures are adjusted for inflation. Special fund expenditures could increase by $300,000 in FY 2009 for PSC and the Office of People's Counsel to hire consultants. Special fund revenues would increase by a corresponding amount from the cost recovery assessment on entities under the jurisdiction of PSC.

(in dollars)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
SF Revenue	$300,000	$0	$0	$0	$0
GF Expenditure	216,700	92,300	96,400	100,700	105,200
SF Expenditure	300,000	0	0	0	0
Net Effect	($216,700)	($92,300)	($96,400)	($100,700)	($105,200)

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

Local Effect: Local government finances and operations are not directly affected.

Small Business Effect: The Administration has determined that this bill has minimal or no impact on small business (attached). Legislative Services concurs with this assessment. (The attached assessment does not reflect amendments to the bill.)

Analysis

Bill Summary: Using 2007 as a base year, this bill establishes a per capita State goal of achieving a 15% reduction in electricity consumption and a 15% reduction in peak demand by the end of 2015. Beginning with the 2008 calendar year and each year thereafter, PSC must calculate the per capita electricity consumption and peak demand for the year. On or before December 31, 2008, PSC, to the extent it determines that cost effective energy efficiency and conservation programs are available for each affected class, must require electric companies to procure and provide customers with a cost effective demand response program that is designed to achieve targeted electricity savings and demand reduction through 2015, which is shown in **Exhibit 1**. Additional 2015 per capita reductions in electricity consumption of 5% may be achieved independent of the bill, via MEA-lead efforts to obtain the overall 15% reduction in electricity consumption in 2015.

Exhibit 1
Annual Electric Reduction

	2011	2013	2015
Per Capita Consumption	5%	n/a	10%
Per Capita Peak Demand	5%	10%	15%

Note: Reductions from a 2007 base year.

By July 1, 2008, and every three years thereafter, electric companies must consult with MEA regarding program design and adequacy. Electric companies must provide additional information to MEA upon request. Subsequently, by September 1, 2008, and every three years thereafter, electric companies must submit plans to PSC that provide proposed program details for achieving specified targets for each of the three subsequent calendar years. Plans must include a description of each program component, anticipated costs, and projected electricity savings. The plan must address all retail sectors, including

low-income and low-to-moderate-income communities. PSC must consider only written findings provided by MEA regarding the design and adequacy of the plans.

PSC must review plans with respect to adequacy and cost-effectiveness, and must consider impacts on jobs, the environment, electricity rates, and other requested information. Electric companies must provide PSC and MEA with annual updates. PSC must monitor and analyze program impacts for "best possible results." PSC, upon a finding that "best possible results" are not being obtained, can direct an electricity company to include specific measures in the electric company's annual update.

Each electric company and gas company must notify affected customers of the energy efficiency and conservation charges imposed and benefits conferred. Notice must be provided on the company's web site and included with billing information.

Notwithstanding any other law, electric companies may not be authorized to control the amount of electricity an electric customer uses

As directed by PSC, each municipal electric utility and each electric cooperative that serves a population of less than 250,000 in its service territory must include energy efficiency and conservation programs or services as part of their service to their customers.

MEA, in consultation with PSC, must review and report to the Senate Finance Committee and the House Economic Matters Committee by December 31, 2012 on the following: • the effectiveness of the goals and determine if new electricity consumption and peak demand reduction targets should be set beyond 2015; and • the feasibility of setting energy saving targets in 2015 and 2020 for natural gas companies. PSC must also evaluate the cost effectiveness of smart meters or smart grid technologies and implement within each electric company's service territory if cost effective.

The bill allows PSC, for fiscal 2009 only, to impose up to $300,000 as a special assessment upon applicable electric companies for PSC and the Office of People's Counsel to accomplish the bill's requirements. PSC may expend up to $250,000 and OPC may expend up to $50,000 for consultants and related expenses.

Current Law: PSC is required to evaluate the cost effectiveness of the investments by electric companies in energy conservation to reduce electrical demand and in renewable energy sources to help meet electric demand. This includes:

- the electric companies' promotion and conduct of a building audit and weatherization program;

- utilization of renewable energy sources;
- promotion and utilization of electricity from cogeneration and wastes; and
- widespread public promotion of energy conservation programs.

Gas and electric utilities in Maryland are required to develop and implement energy efficiency and conservation programs, subject to review and approval by PSC. PSC can require a utility to establish any such program or service that PSC finds to be both cost effective and appropriate. PSC is required to adopt ratemaking policies for programs that encourage energy efficiency and conservation. PSC is empowered to consider reasonable financial incentives to participating utilities.

In 2007, PSC approved a rate adjustment decoupling mechanism for both PEPCO and Delmarva Power to account for unanticipated changes in usage due to severe weather, customer response to supply price increases, or State-mandated energy-efficiency programs.

Federal efforts to encourage end users to modify their energy consumption patterns include the implementation of minimum efficiency costs, standards and guidelines for appliances, building equipment, and building envelopes. Federal, state, and local energy codes provide an approval and compliance process for the construction of new residential and commercial buildings. The efficiency standards for major household appliances were first established with the passage of the Energy Policy and Conservation Act (EPCA).

Background: The EmPOWER Maryland Energy Efficiency Act of 2008 is one of four components to Governor O'Malley's Strategic Electricity Plan. The relatively high capital costs associated with the investment, financing, and construction of new electric power facilities serves to provide a strong financial incentive to explore methods to minimize the need for new plant construction. Traditional demand-side management programs are implemented by a regulated utility within its service territory in order to modify a rate payer's (*i.e.*, customer's) energy consumption. State regulators initially evaluate the cost effectiveness of the programs and compare these costs with the additional costs of building new facilities. With barriers to import lower-cost power supplies and the realization of high wholesale market prices in the Baltimore/Washington metropolitan area, demand programs and utility-sponsored energy conservation programs can be an attractive option relative to supply-side options as a means of meeting and controlling growth in the demand for electric power.

With the restructuring of the electric industry, Maryland's traditional local electric utilities have transferred their electric generation assets to unregulated subsidiaries or have sold these assets to unaffiliated companies. As a result, the regulated electric

companies now primarily consist of distribution and transmission facilities – the "wires" portion of the traditional utility.

However, the bulk of the costs associated with providing and delivering power to an end user stems from costs associated with the generation of power. With the elimination of the generation functions from regulation, PSC no longer determines the need for additional supply sources as was the case prior to implementation of restructuring; and, therefore, the relevance and comparison of demand-reducing energy programs on an integrated basis that considers generation costs is limited. As a result, the implementation of restructuring no longer requires PSC to determine the need for additional supply resources and electric suppliers cannot be ordered to implement demand-reducing and energy-conserving programs. Simultaneously, PSC no longer compares the cost effectiveness of demand-side programs in relation to the construction of new power plants along with the "wires" segment that the utility still owns. Therefore, electric company demand-reducing and conservation programs play less of a role now than in the recent past due to changing regulatory policies and current market conditions.

Noteworthy is that these "wire" facilities owned by the electric companies are largely fixed-cost, capital investments that transfer power to retail customers. However, while the costs of these "wire" facilities are fixed, a significant amount of the electric companies' revenues are collected by the electric company on a kilo-watt hour (kWh) basis. Demand-reducing programs reduce sales and, consequently, revenues and fixed-cost recovery decline. This creates a disincentive for electric companies to consider demand-side resources even when they are the lowest cost option. Mechanisms that decouple revenues from energy sales provide regulated electric companies with cost recovery and an equitable return on capital investments.

To manage electric demand and defer power plant construction, programs and services focus on (1) load control and peak shifting programs; and (2) energy efficiency and conservation programs.

Load management programs target and shift a customer's electric usage away from those times when energy is demanded by customers at a level close to the system's maximum capacity. Typically, energy use is greatest in the late afternoon of a hot summer day or on a cold winter day. Electric companies experience seasonal and daily peak energy demands – which is when consumers require the largest amount of energy from the utility's system. Load management programs serve to shift energy usage to off-peak periods, allowing the existing plant facilities to provide energy more steadily and, therefore, more efficiently and potentially at lower overall costs. However, the total amount of energy usage is generally not substantially affected and certain load

management activities may actually cause more energy to be consumed than would otherwise be the case.

Important load management programs can include interruptible or curtailable service to large business customers; time-of-day pricing for residential, commercial, and industrial customers; and air conditioning/water heater cycling. Large manufacturers currently have financial incentives on the wholesale market to reduce energy usage during times of high priced peak demand.

Energy conservation and energy efficiency programs are designed to reduce customers' overall energy consumption. The principal focus of conservation programs is to lower energy consumption during periods of peak demand. While forestalling the construction of new power plants, transmission, and distribution lines, conservation programs also decrease total energy use. Conservation programs are programs designed to change consumer behavior by limiting the usage of devices that consume energy; thereby, less energy is consumed and the resources to provide energy are saved. Energy efficiency programs are programs where either the energy used as an input is reduced while still maintaining a given level of service, or there is an increase in the productive output of a piece of equipment while the same amount of energy is used as an input. Examples of programs include home energy audits, conservation advertising, low-income weatherization, purchase of energy-efficient equipment, and providing technical advice to customers.

There can be significant barriers to consumer investment in energy efficiency, including but not limited to, lack of awareness, high upfront point-of-sale costs, and energy price volatility. While the market does provide many opportunities for energy efficiency investments, targeted programs can help promote greater use of energy-efficient products and resource acquisition, and help overcome these barriers.

State Fiscal Effect: General fund expenditures could increase by an estimated $216,713 in fiscal 2009, which accounts for a July 1 start-up. This estimate reflects the cost of one program analyst at MEA to review electric company plans, prepare evaluations, and provide PSC with written findings with respect to program design. It includes technical consulting assistance for one year to meet the timelines proposed to review utility proposals. It also includes salaries, fringe benefits, one-time start-up costs, and ongoing operating costs.

Salaries and Fringe Benefits	$58,639
Contractual Services	148,000
Operating Expenses	10,074
Total FY 2009 MEA State Expenditures	**$216,713**

Future year expenditures reflect • full salaries with 4.4% annual increases and 3% employee turnover; and • 2% annual increases in ongoing operating expenses.

PSC and OPC would incur one-time special fund expenditures of $250,000 and $50,000, respectively, in fiscal 2009 to retain consultants and evaluate and review the electric company demand response programs. Special fund revenues for PSC and OPC would increase by a corresponding amount from the cost recovery assessment on entities under the jurisdiction of PSC.

Additional Comments: As a component of the Electric Choice and Restructuring Act of 1999, the General Assembly required PSC to report on Demand-Side Management (DSM) programs in the State. In PSC's 2001 *Report on Energy Efficiency and Conservation Programs*, PSC recommended that another State agency take the lead in promoting DSM efforts, focus on specifics of developing programs, and provide day-to-day management oversight. PSC supported MEA as the agency to oversee such programs.

Additional Information

Prior Introductions: None.

Cross File: SB 205 (The President, *et al.*) (By Request – Administration) – Finance.

Information Source(s): Maryland Department of Natural Resources, Maryland Energy Administration, Public Service Commission, Office of People's Counsel, Department of Legislative Services

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