

Department of Legislative Services
 Maryland General Assembly
 2009 Session

FISCAL AND POLICY NOTE
Revised

Senate Bill 844
 Finance

(The President, *et al.*) (By Request - Administration)

Economic Matters

**Public Service Commission - New Electric Generation Facilities - Rate
 Regulation and Contracts**

This Administration bill specifies that it is the goal of the State to return to a regulated electric market. The bill re-establishes the integrated resource planning process that was in place prior to electric restructuring in 1999 and requires each electric company to develop and submit long-range plans regarding electricity needs and the means to meet those needs. Based on the evaluation of the long-range plans, the Public Service Commission (PSC) is directed to order construction of new electric generation facilities if it deemed to be in the public interest. Electricity produced by new generation facilities, as ordered to be constructed by PSC, must be sold to residential and small commercial customers under cost-of-service regulation principles.

The bill takes effect June 1, 2009.

Fiscal Summary

State Effect: Special fund expenditures increase by \$227,800 in FY 2010 for additional staff for integrated resource planning. Future year expenditures reflect inflation and annualization. Revenues are not affected.

(in dollars)	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014
Revenues	\$0	\$0	\$0	\$0	\$0
SF Expenditure	227,800	279,200	292,800	307,100	322,200
Net Effect	(\$227,800)	(\$279,200)	(\$292,800)	(\$307,100)	(\$322,200)

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

Local Effect: None.

Small Business Effect: A small business impact statement was not provided by the Administration in time for inclusion in this fiscal note. A revised fiscal note will be issued when the Administration's assessment becomes available.

Analysis

Bill Summary:

Integrated Resource Planning and New Electric Supply

On or before July 1, 2009, PSC must initiate a proceeding to investigate the electricity needs of the State. In this proceeding, PSC must consider whether to direct the construction of one or more generation facilities, and if so, the appropriate electric capacity and fuel source. In this proceeding, PSC must also consider if it should require additional energy efficiency, conservation, and demand response measures. On or before February 1, 2010, PSC must provide a status report on the proceeding to investigate electricity needs and the plan to transition residential and small commercial customers to regulated electric services.

With limited exceptions, an electric generation facility in the State may not be constructed without a directing order by PSC. Each electric company must develop and submit to PSC (biennially or as required by PSC) the company's long-range plans regarding electricity needs and the means to meet those needs. PSC must evaluate the long-range plans of each electric company and upon completion of this review, must issue orders for each electric company to implement a plan. Each order must include a schedule for implementation and the requirement that the electric company report on the status of the plan's implementation.

In developing the plan and issuing an order for implementation, the electric company and PSC must consider: (1) for a new electricity generation facility, the appropriate type of fuel or renewable energy source; (2) the need to deploy energy efficiency, conservation, and demand response programs; (3) the renewable energy portfolio standard; (4) the potential impact on rates and charges paid by customers; (5) the potential impact on the services and conditions of the operation of the electric company; and (6) any other issues the Commission considers relevant in relation to the public interest, convenience, and necessity.

On a determination that it is in the public interest, PSC may order an investor-owned electric company to construct an electric generating facility. Alternatively, PSC may require an investor-owned electric company to procure the necessary electricity through a bilateral contract or competitive bidding with another person for all or part of the output

of a new electric generation facility in the State. A facility may be located outside of the State or offshore so long as it is providing electricity from renewable energy sources. An electric company may acquire property through condemnation for construction of a generating facility, as approved by PSC. When considering an application to construct a generation facility PSC must consider the need to meet existing and future demand for electric services.

PSC may require an investor-owned electric company to procure other new alternative electricity resources through energy efficiency, conservation, and demand response in addition to any commitment already provided in State law.

Exceptions to Reregulation

The requirements of the bill do not apply to on-site or renewable on-site generation facilities; waste to energy facilities; facilities with 70 megawatts or less of capacity; and eligible customer-generators under the net energy metering program. Additionally, generation facilities owned or controlled by local governments and small rural electric cooperatives are exempt from the bill's requirements. The bill also specifies that a generating facility that has submitted an application for a certificate of public convenience and necessity (CPCN) to PSC prior to July 1, 2009 is not affected by the bill and may be constructed and operated as merchant generation.

Although PSC cannot require the owners of exempt generating facilities to construct or contract for new electric generation, the following facilities may make a request to be regulated if as of the date of the request the facility: (1) has a CPCN pending; (2) has been issued a CPCN, or (3) has an application pending or has been granted an exception from CPCN requirements. PSC may also allow an electric cooperative or municipal electric utility to construct, acquire, or lease and operate all or part of a generation facility subject to cost-of-service regulation principles. There are seven generation facilities that have not been constructed that have either applied for or been granted a CPCN or have applied for or been granted an exemption from the CPCN requirement. These facilities include four wind projects in Western Maryland, the Calvert Cliffs nuclear facility in Calvert County, the Competitive Power Ventures gas facility in Charles County, Constellation Energy gas/oil facility in Harford County.

Transition to Regulated Retail Electricity

Electricity produced or procured through a PSC order under the bill must be sold to residential and small commercial customers of an investor-owned electric company under cost-of-service regulation principles. PSC must develop and implement a plan to transition these customers from a program of customer choice to services regulated by PSC. The transition plan must include a schedule that incorporates existing contracts for

retail residential and small commercial supply and supply services and incorporate any changes needed to the procurement of supply and services for standard offer service. PSC must make recommendations for legislative changes to repeal laws that are obsolete or inconsistent with the transition plan. Recommendations may also include restoration of applicable law repealed under Chapters 3 and 4 of 1999, which deregulated retail electric markets in the State. These recommendations must also include changes necessary to ensure compliance with the renewable energy portfolio standard.

To the extent that additional generation is constructed by order of PSC and this generation provides reliability or economic benefits, PSC must establish a non-bypassable surcharge or other mechanism to ensure equitable cost-sharing among all customers and across all distribution territories.

Prior to March 1, 2010, PSC must consult with MEA to implement a program to require an investor-owned electric company to offer the option of purchasing green power from a renewable source to its residential and small commercial customers. This power should be in addition to any required purchase of green power to meet Tier 1 renewable sources, as required by renewable energy portfolio standards.

Current Law: In order to meet long-term anticipated demand in the State for standard offer service (SOS) and other electricity supply, PSC may require or allow an investor-owned electric company to construct, acquire or lease, and operate its own generating facilities, and transmission facilities necessary to interconnect the generating facilities with the electric grid, subject to appropriate cost recovery.

The licensing of new electric power plants or overhead transmission lines in the State is a comprehensive two-part process involving PSC and several other State agencies, including the Department of Natural Resources (DNR) and the Maryland Department of the Environment. The Power Plant Research Program within DNR provides comprehensive review and evaluation of proposed projects from the siting of new generation sources to expanding existing power plants and transmission lines and planning for future electricity needs statewide. PSC is the lead agency for licensing the siting, construction, and operation of power plants in the State. Companies wishing to construct a new power plant or an overhead transmission line must apply to PSC for a CPCN.

In an application for a CPCN, PSC must consider the recommendation of the local government in which the generating facility or overhead transmission line may be located. PSC must also consider the effect of the generating station or overhead transmission line on: (1) the stability and reliability of the electric system, economics, aesthetics, historic sites, aviation safety, air and water pollution; and (2) the availability of means for the required timely disposal of wastes produced by any generating facility.

Also, for the construction of any overhead transmission line, PSC must consider the need to meet existing and current demand for electric service.

To obtain the best price for SOS for residential and small commercial customers, PSC may require each investor-owned electric company to obtain its electricity supply through a competitive process. PSC may also require or allow an investor-owned electric company to procure electricity for these customers directly from an electricity supplier through one or more bilateral contracts outside the competitive process.

Background: The Electric Customer Choice and Competition Act of 1999 (Chapters 3 and 4) facilitated the restructuring of the electric utility industry in Maryland. The Act required electric companies to divest themselves of generating facilities or to create a structural separation between the unregulated generation of electricity and the regulated distribution and transmission of electricity. Some electric companies created separate entities to operate unregulated and regulated businesses under a single holding company structure and other companies divested generation facilities. 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.

Customer Choice

During the initial transition period from 2000 through June 30, 2004 rate caps were imposed for residential customers in PEPCO and Delmarva service territories. Rate caps in BGE and Allegheny Power expired June 30, 2006 and December 31, 2008, respectively. In both BGE and Allegheny Power service territories, PSC allowed many customers to mitigate the increases through a rate stabilization plan.

The rate caps, which aimed to give the electric industry time to switch to a competitive market, resulted in electricity suppliers being unable to compete with the below-market SOS rates in effect under the residential rate caps. After the expiration of rate caps, the potential savings for residential customers offered by customer choice has been limited as few competitive suppliers have offered rates lower than SOS. Nearly all alternative plans to SOS require a fixed-length contract of at least 12 months and have cancellation fees that range between \$75 to \$150. The majority of these alternative plans also include a portion of renewable energy, which may add additional cost. **Exhibit 1** shows the number of competitive electric suppliers actively seeking new customers in each service territory.

As a result of market conditions and a limited supply choices, residential customers have been slow to transition to competitive suppliers in most markets. **Exhibit 2** illustrates the number of residential customers who are served by competitive suppliers in each service territory.

**Exhibit 1
Residential Electric Choice
March 2009 Survey**

<u>Service Area</u>	<u>SOS Price (per kWh) To Compare</u>	<u>Competitive Suppliers</u>	<u>Suppliers With Offers Lower Than SOS</u>
BGE	\$0.1182	7	2
Delmarva	0.1133	2	1
PEPCO	0.1175	5	2
Allegheny Power	0.0866	0	0
SMECO	0.1189	0	0
Choptank	0.0891	0	0

Source: Office of the People's Counsel

**Exhibit 2
Residential Customers Served by Competitive Suppliers
February 2009**

<u>Distribution Utility</u>	<u>Customers Served by Competitive Suppliers</u>	<u>Total Accounts</u>	<u>Percent of Total</u>
Allegheny Power	26	217,081	0.0%
BGE	27,870	1,107,643	2.5%
Delmarva	1,101	171,954	0.6%
PEPCO	27,360	475,351	5.8%
Total	56,357	1,972,029	2.9%

Source: Public Service Commission

Since the removal of rate caps for residential customers, the number of residential customers receiving competitive service has increased, but the majority of residential customers still procure electricity from standard offer service. Since 2005, the number of residential customers receiving competitive service has increased from 38,765 to 56,357. Since 2005, the number of non-residential customers has increased from 13,454 to 57,958. As shown in **Exhibit 3**, the percentage of customers receiving competitive

service increased significantly between 2005 and 2007 but has not changed substantially since.

Exhibit 3
Percentage of All Customers Served by Competitive Suppliers

<u>Customer Class</u>	<u>February 2005</u>	<u>February 2007</u>	<u>February 2009</u>
Residential	2.0%	2.5%	2.8%
Small Commercial & Industrial	3.5%	22.5%	17.2%
Mid Commercial & Industrial	22.4%	52.3%	47.6%
Large Commercial & Industrial	63.3%	88.4%	86.8%
Total	2.4%	5.0%	5.1%

Source: Public Service Commission

Electricity Rates

For residential customers, those who have not chosen competitive supply, the price of electricity depends on the results of SOS wholesale electric supply auctions. SOS supply auctions procure supply by purchasing wholesale power contracts, typically of 2-year lengths, through sealed bid procurements. Since the end of residential price freezes in July 2004, SOS rates have increased to such an extent that the average annual residential electricity cost have increased significantly over pre-restructuring rates. **Exhibit 4** shows the changes in the average annual residential electricity cost in Maryland and surrounding states.

Electricity bills in Maryland consist of generation, transmission and distribution components. The generation component represents approximately 73% of the average residential customer bill in the State and includes charges for capacity, energy, and other services to ensure reliability. **Exhibit 5** presents an estimate of the component of customer bills for each customer class.

Exhibit 4
Comparison of Annual Electricity Cost in Surrounding States
Average Annual Residential Cost

	<u>1998</u>	<u>2000</u>	<u>2002</u>	<u>2004</u>	<u>2006</u>	<u>2008</u>	Avg. Annual Increase	
							<i>Nominal Change</i>	<i>Inflation Adjusted</i>
Delaware	\$1,128	\$1,056	\$1,075	\$1,085	\$1,465	\$1,721	4.3%	1.4%
District of Columbia	989	993	986	989	1,221	1,567	4.7%	1.8%
Maryland	1,043	983	957	964	1,200	1,707	5.0%	2.2%
New Jersey	1,408	1,269	1,283	1,388	1,587	1,971	3.4%	0.6%
Pennsylvania	1,227	1,178	1,204	1,184	1,279	1,408	1.4%	-1.4%
Virginia	928	929	963	988	1,049	1,199	2.6%	-0.2%
West Virginia	777	775	770	770	785	869	1.1%	-1.7%
U.S. Average	\$1,079	\$1,018	\$1,043	\$1,106	\$1,285	\$1,403	2.7%	-0.2%

Note: Annual residential cost is based on the usage of 1,030 kWh per month.

Source: U.S. Energy Information Administration

Exhibit 5
Typical Rate Allocations for Electric Service in Maryland
(2007)

<u>Component</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>
Generation	73%	79%	86%
Transmission	3%	2%	3%
Distribution	24%	18%	12%

Source: U.S. Energy Information Administration, Edison Electric Institute

Operational control of the transmission network in the State and auctions for wholesale power are administered by the PJM Interconnection, the regional transmission organization which Maryland belongs. Within PJM, electric generators produce power at the direction of PJM, allowing for electricity to be produced and dispersed throughout the PJM region and across state borders as needed. Typically, the generating facilities with the lowest cost generation are dispatched first, with more expensive generation being

dispatched incrementally as needed. In periods of peak demand, constraints in transmission lines limit the amount of low-cost power that can be imported into Maryland, resulting in congestion charges, as higher-cost generation must be brought online to meet demand in the State. Central Maryland and the Eastern Shore have experienced significant transmission congestion in recent years. Transmission congestion can be reduced through investments in transmission infrastructure, construction of lower cost in-state generation facilities, or a reduction in peak electricity demand in the State.

The existence of increased congestion costs and high wholesale electric prices have not provided a powerful enough incentive for construction of electric generation facilities in the State. As a result, PJM created capacity markets to provide additional incentives. The PJM Reliability Pricing Model (RPM) is PJM's capacity market designed to create long-term price signals to attract needed investments in reliability within the PJM region. Through a competitive auction, incentives are provided for additional capacity resources, demand response, and qualifying transmission upgrades. RPM charges for capacity are estimated to increase the cost of electricity in Maryland by \$0.02 per kWh, which equates to \$240 a year for a 1,000 kWh/month user.

Efforts to Return to a Regulated Electricity Market

In response to the concern that deregulation had not served the public interest, the General Assembly, through Chapter 549 of 2007 (SB 400), required PSC to conduct studies and complete reports on electric industry reregulation and to assess the availability of adequate transmission and generation facilities to serve the electrical load demands of all customers in the State. PSC, at a cost of approximately \$2 million, completed a study of the efforts for new generation and possibilities for reregulation.

In this report PSC outlined various options for "reregulation" considering tradeoffs among direct costs, risks, and benefits. PSC concluded that it would not recommend that the legislature seek to return the existing generation fleet to full cost-of-service regulation (where the ratepayers bear all prudently incurred costs to own and operate a generation plant, plus a rate of return) given the costs, risks, and likely disruptions that may result from acquiring the plants. The study valued only the impact of the cost of purchasing the assets under fair market value relative to ratepayer benefits and does not attempt to quantify complexities and risks that may result in added costs.

Instead, PSC recommended incremental, forward-looking reregulation when appropriate. Other options involve measures to mitigate price volatility for residential consumers that include directing utilities to enter into long-term contracts for new generation, establishing a State power authority to initiate power projects, adopting integrated resource planning to coordinate a variety of efforts, and aggressively intervening in

Federal Energy Regulatory Commission proceedings to shape PJM wholesale market policies.

Of the 22 States that deregulated electricity markets to allow for customer choice, eight of these states have since suspended deregulation and have signaled the intention to return to a regulated market. **Exhibit 6** lists these states.

Exhibit 6
Status of Electric Restructuring in the U.S.

Deregulated Electric Markets

Connecticut	New Hampshire
Delaware	New Jersey
Illinois	New York
Maine	Ohio
Maryland	Pennsylvania
Massachusetts	Rhode Island
Michigan	Texas

Suspended Deregulation

Arizona
Arkansas
California
Montana
Nevada
New Mexico
Oregon
Virginia

Source: U.S. Energy Information Administration

State Fiscal Effect: The bill requires PSC to review long-term plans submitted by each investor-owned electric utility. PSC assumes ultimate responsibility for determining the electricity needs of the State and directing investor-owned utilities to take action to meet those needs. In order to review these plans and direct construction of new generation a technical assessment of the plans submitted by electric companies is required. This assessment also will involve forecasting future electricity needs and determining the method of meeting those needs in a cost-effective manner.

Additionally, PSC is required to establish a nonbypassable surcharge or other mechanism to ensure equitable cost-sharing among all distribution territories and customer classes to reflect reliability or economic benefits received. Economic benefits may include a reduction in the overall cost of electricity due to an increase in the supply of locally generated electricity. These benefits may also include a reduction in capacity charges, and a reduction in transmission congestion charges. The surcharge on customer bills will likely vary geographically and for each customer class, based on the actual benefits received. In order to determine these benefits, PSC must perform technical analysis on the impact of additional generation or other actions taken by PSC.

The cumulative tasks assigned to PSC in the bill require ongoing forecasting, modeling and technical analysis of electricity supply and demand in the State. As a result, special fund expenditures increase by \$227,800 in fiscal 2010, which accounts for a 90-day start-up delay. This estimate reflects the cost of hiring one assistant director and three regulatory economists. Future year expenditures reflect full salaries with 4.4% annual increases, and 3% employee turnover, and 1% annual increases in ongoing operating expenses.

Additional Comments: Electric rates paid by residential and small commercial customers are not likely to be immediately affected by the bill. The transition to a regulated electric market for these customers will be gradual, as new generating facilities are brought online under cost-of-service regulation. In the long-run it is unclear whether electricity produced at newly constructed generating plants will be less expensive than electricity purchased in the wholesale power market. To the extent that a regulated generating facility produces electricity below wholesale rates for electricity, residential and small commercial customers benefit. To the extent that wholesale electricity rates are below the rate which a regulated facility can produce power, the electricity costs for residential and small commercial customers may increase slightly. Regardless of the price of electricity generated by such a facility, all classes of electric customers in the State stand to benefit from an increase in the supply of electricity as a result of actions taken by PSC under the bill.

Additional Information

Prior Introductions: None.

Cross File: None.

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

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