

Department of Legislative Services
Maryland General Assembly
2011 Session

FISCAL AND POLICY NOTE
Revised

Senate Bill 271

(Senator Edwards)

Finance

Economic Matters

Public Utilities - Net Energy Metering - Hydroelectric

This bill expands the sources of generation that are eligible for net energy metering to include a closed conduit hydroelectric generating facility. A closed conduit hydroelectric facility must generate electricity within existing piping or limited adjacent piping of a potable water supply system; be owned by a municipality or public water authority; and be designed to produce less energy than is consumed to operate the water supply system.

Fiscal Summary

State Effect: None. The Public Service Commission (PSC) can implement the bill with existing budgeted resources.

Local Effect: Electricity expenditures for the City of Frostburg may decrease by an estimated \$15,000 in FY 2012 and by an estimated \$20,000 annually thereafter if the city installs hydroelectric generation in its existing water mains. To the extent any other local governments become eligible for net energy metering as a result of the bill, they too would benefit from reduced electricity expenditures.

Small Business Effect: None.

Analysis

Current Law: Net energy metering is the measurement of the difference between the electricity that is supplied by an electric company and the electricity that is generated by an eligible customer-generator and fed back to the electric company over the eligible customer-generator's billing period. An "eligible customer-generator" is a customer that owns and operates, or leases and operates, a biomass, solar, fuel cell, wind, or micro combined heat and power electric generating facility located on the customer's premises

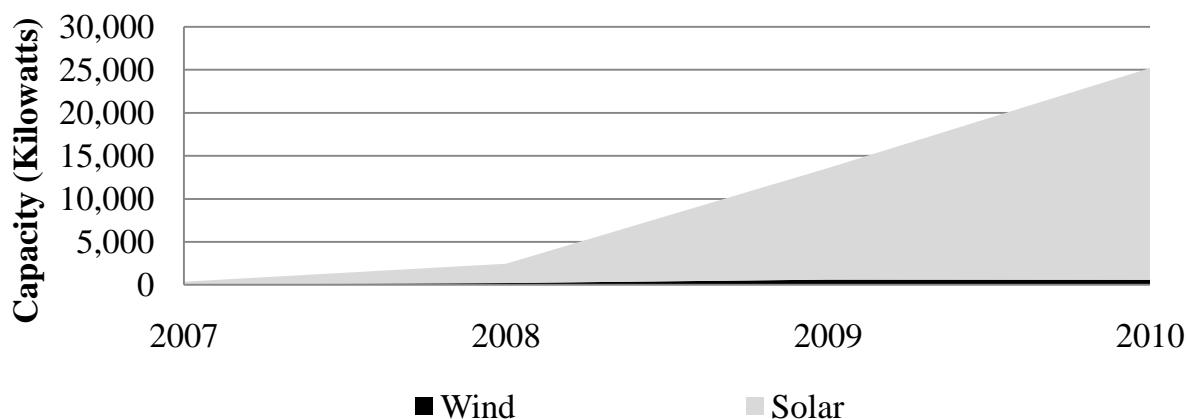
or contiguous property; interconnected and operated in parallel with an electric company's transmission and distribution facilities; and intended primarily to offset all or part of the customer's own electricity requirements. The generating capacity of an eligible customer-generator for net metering may not exceed two megawatts.

Chapter 438 of 2010 altered the net energy metering program by changing the way an eligible customer-generator may accrue credits from excess generation from a kilowatt-hour (kWh) basis to a dollar basis and established the conditions under which an electric company must provide payment to an eligible customer-generator for excess generation. The Act also required PSC to (1) establish a technical working group to address issues relating to the pricing mechanisms for different hours and seasons, meter aggregation, and the transfer of generation credits or aggregation of generation among separate accounts; and (2) adopt implementing regulations. Regulations to implement Chapter 438 have been proposed but have not yet been adopted.

PSC is required to submit an annual report on the status of net energy metering to the General Assembly by February 1 of each year. This report must contain the amount of generating capacity owned by eligible customer-generators in the State, the type of energy resource used in generation, a recommendation regarding whether the generating capacity limit of the net metering program should be altered, and other pertinent information.

Background: The most recent data reported to PSC on net energy metering is provided in **Exhibit 1**. During calendar 2010, the amount of generation increased from 13,555 kilowatts to 25,207 kilowatts. This represents only 0.8% of the current statewide limit of 1,500 megawatts for total net energy metering capacity. As of December 2010, 97.7% of net metering capacity was from solar, 2.2% from wind, and approximately 0.1% from micro-CHP. **Exhibit 2** shows the amount of net metering for each electric company as of December 2010.

Exhibit 1
Maryland Net Metering Capacity



Source: Public Service Commission

Exhibit 2
December 2010 Net Metering Capacity
(Kilowatts)

<u>Electric Utility</u>	<u>Solar</u>	<u>Wind</u>	<u>Micro- CHP</u>	<u>Utility Total</u>
A & N Electric Cooperative	-	-	-	-
Baltimore Gas and Electric Company	11,617	101	30	11,747
Choptank Electric Cooperative	221	87	-	307
Delmarva Power and Light Company	2,827	108	-	2,935
Easton Utilities	15	-	-	15
Hagerstown Municipal Light Company	35	-	-	35
Town of Thurmont	-	-	-	-
Town of Berlin	-	-	-	-
Potomac Electric Power Company	4,948	-	-	4,948
Potomac Edison Company	4,387	236	-	4,624
Williamsport Light	-	-	-	-
Southern Maryland Electric Cooperative	567	27	-	594
Somerset Electric Cooperative	2	-	-	2
Total	24,619	559	30	25,207

Note: There were no eligible biomass facilities in 2010.

Source: Public Service Commission

Local Fiscal Effect: Net energy metering provides a meaningful benefit to eligible customer-generators. During times of peak generation, excess electricity produced is fed into the electric grid and the customer-generator is only charged for the net difference of electricity used each month. The practical effect is that customer-generators are able to use the utility grid as battery storage, so excess energy produced at any given instant can be captured for later use. Additionally, customer-generators may receive payment for excess electricity produced at the end of a 12-month period.

The City of Frostburg obtains its water supply from Piney Dam and pumps the water from the reservoir to the top of Big Savage Mountain. The water flows downhill to the city through two water mains; this flow of water could be harnessed through a turbine to generate electricity. Based on current daily raw water flow and current electric rates, the city estimates that if this generation is authorized for net energy metering, electricity expenditures could decrease by \$15,000 in fiscal 2012, taking into account the bill's October 1, 2011 effective date. Future year expenditures for electricity decrease by an estimated \$20,000 annually, based on current water flow and electric rates. As the volume of water increases over time and/or electric rates increase, expenditures decrease further.

Additional Information

Prior Introductions: None.

Cross File: HB 275 (Allegany County Delegation) - Economic Matters.

Information Source(s): City of Frostburg, Maryland Energy Administration, Public Service Commission, Department of Legislative Services

Fiscal Note History: First Reader - February 7, 2011
ept/lgc
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