

**THE PUBLIC SERVICE COMMISSION
OF MARYLAND**

**Report on the Status of Net Energy Metering
In the State of Maryland**

For Calendar Year Ending December 31, 2009

**Prepared for the General Assembly of Maryland
Pursuant to § 7-306(i) of the Public Utility Companies Article,
*Annotated Code of Maryland***

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Executive Summary

This report is prepared by the Public Service Commission of Maryland (“Commission”) in compliance with §7-306(i) of the Public Utility Companies Article, *Annotated Code of Maryland* (“PUC Article”). Section 7-306(i) of the PUC Article requires the Commission to report on the amount of capacity by type of energy resource from net energy metered facilities in the State and recommend whether the cap on eligible capacity should be altered. This is the third report prepared by the Commission. The initial report was produced in 2008.

At this time, the Commission does not recommend changes to the eligibility cap for net energy metering. The current eligible limit of 1,500 megawatts (“MW”) far exceeds the level of installed capacity of approximately 13.5 MW. There has been an increase in the number of recent installations; however, it is unlikely that the current cap would be approached without several years of advance notice.

Net Energy Metering in Maryland

Net energy metering is a method of simplifying the measurement of energy produced by a renewable energy generator when it is connected to an electric utility distribution system. Net energy metering is permitted by the law for solar, wind, micro combined heat and power, and biomass generators that are, in general, intended to supply no more than the customer’s annual energy usage. The term “net energy metering” refers to measurement of electricity on the basis that the measurement is net of energy used and produced by a customer during a single reading period, *e.g.*, one month. The terms of utility tariffs typically require a customer to pay the monthly customer charge, regardless of the net energy used. However, for energy billed, the customer pays for energy that is used, netted against any generation produced by the customer. The practical effect of this policy is to allow customers to use the utility grid as battery storage, so that excess energy produced at any given instant can be captured for later use.

Eligible customer-generators¹ benefit also by less expensive interconnection with the utility (e.g. only a single standard meter, and without additional switches). In this manner electricity needs in excess of the renewable output can be obtained from the grid without having to disconnect or shutdown the renewable generator. The ease of interconnection allows the customer to use the renewable generator in a grid-connected manner without

¹ “Eligible customer-generator” means a customer that owns and operates, leases and operates, or contracts with a third party that owns and operates a biomass, micro combined heat and power, solar, or wind electric generating facility that: (i) is located on the customers premises or contiguous property; (ii) is interconnected and operated in parallel with an electric company’s transmission and distribution facilities; and (iii) is intended primarily to offset all or part of the customer’s electricity requirements. *See* §7-306(a) (3) of the PUC Article.

significant installation or operating expense, thus improving the benefit of the renewable generator.

While the net energy metering law in §7-306 of the PUC Article permits renewable net energy metering, utilities implement it through tariffs that are filed with the Commission. These tariffs place terms and conditions on the net-metering operations and specify monthly customer charges. These tariffs also include requirements for eligibility which cap the maximum installed size as well as the State-wide limit. The result of any changes to the legislation would be to require each utility to revise its tariff and file the revision with the Commission.

Eligibility Cap

Electric Companies are required to permit net energy metering for eligible customers. The alternative would be either to prohibit interconnection of renewable generation to the utility grid or to require use of a more expensive metering/switching arrangement to meter the energy flow precisely in both directions. Either of these conditions would reduce the benefit to the eligible customer-generator. The current limit on eligible renewable generation capacity is 1,500 MW. This limit represents about 8 percent of the peak demand of approximately 20,000 MW in the State.

Current Level of Renewable Deployment

Commission Staff surveyed Maryland electric companies for the number of net energy metered facilities currently operating in each electric company's distribution territory. The total amount of net-metered generation has increased from approximately 364 kW (0.364 MW) in 2007 to 2,450 kW (2.45 MW) in 2008 to 13,548 kW (13.548 MW) through the end of 2009. The table below shows the results of the Commission's Staff survey of net energy metered installations.

2008				
Electric Utility	Solar	Wind	Biomass	Utility Total
	Kilowatts of Installed Capacity			
A & N Electric Cooperative	No Response			0
Baltimore Gas and Electric Company	103.3	0	0	103.3
Choptank Electric Cooperative	16.2	0	0	16.2
Delmarva Power and Light Company	55.7	24.4	0	80.1
Easton Utilities	0	0	0	0
Hagerstown Municipal Light Company	1.0	0	0	1.0
Town of Thurmont	No Response			0
Town of Berlin	0	0	0	0
Potomac Electric Power Company	98.56	0	0	98.56
Potomac Edison Company	16.97	18		34.97
Williamsport Light	No Response			0
Southern Maryland Electric Cooperative	29.6	0	0	29.6
Somerset Electric Cooperative	No Response			0
State Total	321.33	42.4	0	363.73

2009					% Change	kW Change
Electric Utility	Solar	Wind	Biomass	Utility Total		
	Kilowatts of Installed Capacity					
A & N Electric Cooperative	None					
Baltimore Gas and Electric Company	302.8	0.8		303.6	194%	200.3
Choptank Electric Cooperative	21.2	37.2		58.4	260%	42.2
Delmarva Power and Light Company	85.4	27.7		113.1	41%	33
Easton Utilities	None			0		
Hagerstown Municipal Light Company	1.0			1	0%	0
Town of Thurmont	None			0		
Town of Berlin	None			0		
Potomac Electric Power Company	713.3			713.3	624%	614.74
Potomac Edison Company	1035.5	144.9		1180.4	3275%	1145.43
Williamsport Light	None			0		
Southern Maryland Electric Cooperative	83.2			83.2	181%	53.6
Somerset Electric Cooperative	None			0		
State Total	2242.4	210.6	0	2453	574%	2089.27

2010					% Change	kW Change
Electric Utility	Solar	Wind	Biomass	Utility Total		
	Kilowatts of Installed Capacity					
A & N Electric Cooperative	None					
Baltimore Gas and Electric Company	4996	91	0	5087	1675%	4783
Choptank Electric Cooperative	75	82	0	157	268%	98
Delmarva Power and Light Company	2362	127	0	2489	2201%	2376
Easton Utilities	None					
Hagerstown Municipal Light Company	1	0	0	1	100%	0
Town of Thurmont	None					
Town of Berlin	None					
Potomac Electric Power Company	3111	0	0	3111	436%	2397
Potomac Edison Company	2127	273	0	2400	203%	1220
Williamsport Light	None					
Southern Maryland Electric Cooperative	300	4		304	366%	221
Somerset Electric Cooperative	None					
State Total	12972	577	0	13548	552%	11095

Recommendation on Eligibility Cap

As of January 2010, the level of installed capacity is less than 1 percent of the current limit. At this time, the Commission does not view the 1,500 MW limit as a barrier to installation of new renewable sources. The data provided by the net energy metering survey asked for information on the date of installation. This information indicates an increase in new renewable capacity in recent years. However, the rate of installation does not indicate that the cap would be approached in the near future.

Other Issues

In 2009, the General Assembly passed Senate Bill 981 (Chapter 341) and House Bill 1057 (Chapter 436). These bills expanded the definition of an eligible customer-generator to include a customer who contracts with a third party that owns and operates eligible generation. The bills also allowed generation that is located on property contiguous to the customer's property, but associated with the customer's account, to be eligible for net energy metering. The Commission notes these expansions of eligibility may increase the ability of customers to net energy meter.

At this time the Commission has not identified other matters relating to the net energy metering eligibility limit or additional issues relating to net-metering that require the action of the General Assembly.