

Department of Legislative Services
Maryland General Assembly
2012 Session

FISCAL AND POLICY NOTE

Senate Bill 677
Finance

(Senator Rosapepe)

Public Service Commission - Solar Water Heating Systems and Billing Services -
Prince George's County

This bill requires a person to be licensed by the Public Service Commission (PSC) to provide services as a solar water heating utility provider in Prince George's County. The bill specifies related customer billing requirements. PSC must adopt regulations or issue an order to establish procedures to implement the bill's provisions.

Fiscal Summary

State Effect: Minimal increase in special fund revenues to the Public Utility Regulation Fund beginning in FY 2013 from licensing fees. PSC can implement the bill with existing budgeted resources.

Local Effect: Minimal.

Small Business Effect: Meaningful.

Analysis

Bill Summary: "Solar water heating system" means solar water heating equipment that provides hot water heated wholly or partly by solar energy.

"Solar water heating utility biller" means an entity PSC authorizes to provide billing services for a solar water heating utility provider or its assignee, which may include a public service company, the Washington Suburban Sanitary Commission, an electricity supplier, or a gas supplier.

“Solar water heating utility provider” means an entity that installs a solar water heating system on property located in Prince George’s County for which it or its assignee remains the owner of the heating system, and is entitled to reasonable compensation from a customer for providing solar water heating services.

A person must be licensed by PSC before providing solar water heating services as a solar water heating utility provider. An application must include specified information, including proof of technical and managerial competence and payment of the applicable licensing fee as PSC determines. PSC must, by regulation or order, require a licensee to (1) provide proof of financial integrity; (2) post a bond or similar instrument, if it is judged necessary by PSC; (3) provide proof that it is qualified to do business in the State with the State Department of Assessments and Taxation; and (4) agree to be subject to all applicable taxes.

A solar water heating utility biller must supply billing services for a solar water heating utility provider if the utility provider is licensed and requests that the utility biller provide billing services, and the utility biller is authorized to do so by PSC. Further, the customer of the utility provider must be a current customer of the utility biller for other billing services, and must agree to having the utility biller supply billing services for the utility provider.

The utility biller is entitled to a fee of 1.5% of the amount billed to customers to cover the expenses of billing. The balance is remitted to the utility provider within 30 days. The utility biller is not responsible for specified losses. The utility biller must allocate funds received from each customer according to the services provided to the customer, and may not discriminate in the application of funds received from a customer by favoring its other billing services over the services it supplies for a utility provider.

Current Law: A “solar water heating system” is a system that generates energy using solar radiation for the purpose of heating water and does not feed electricity back to the electric grid. A solar water heating system must be comprised of glazed liquid-type flat-plate or tubular solar collectors as defined and certified to the OG-100 standard of the Solar Ratings and Certification Corporation. A solar water heating system does not include a system for the sole purpose of heating a hot tub or swimming pool.

A person who owns and operates a “solar water heating system” commissioned on or after June 1, 2011, shall receive Solar Renewable Energy Credits (SRECs) equal to the amount of electricity saved by using a solar water heating system. SRECs from a solar water heating system may be transferred and applied to the Tier 1 Solar portion of the State Renewable Energy Portfolio Standard. To calculate the SRECs from a solar water heating system, the amount of electricity saved must be converted from British Thermal Units to kilowatt-hours.

For a nonresidential or commercial system, the amount of electricity generated and consumed by a solar water heating system must be measured by an on-site meter that meets specified standards. Energy savings by a residential solar water heating system must be measured by a meter that meets specified criteria or measured by the Solar Ratings and Certification Corporation's OG-300 thermal performance rating for the system and certified by the corporation. Residential systems may not generate more than five SRECs per year, and must be installed in accordance with State and local plumbing codes.

Background:

Task Force on Solar Hot Water Systems

Chapter 649 of 2010 established the Task Force on Solar Hot Water Systems in Prince George's County, which met a number of times but did not complete its objectives before terminating in December 2010. Chapter 590 of 2011 reestablished the task force to study various policy, financial, market, and other aspects of widespread implementation of solar hot water systems in Prince George's County. In its 2011 report to the General Assembly, the task force found that most existing local and State incentives will not scale for mass-deployment. It also reported that the solar hot water system grant through the Maryland Energy Administration (MEA) will probably cease in 2012 due to a decrease in funding, and that the primary subsidy moving forward will most likely be SRECS. The grant is currently 20% of installed costs of a project, up to a maximum of \$500. MEA issued approximately 1,000 grants in fiscal 2009 through 2011.

The task force identified three fundamental reasons for the lack of penetration of solar hot water heating systems:

- costs (for small quantity markets) greatly exceed potential benefits;
- complexity of homeowner financing limits market demand; and
- complexity of the buying process limits market demand.

One of the four key components to drive down installation costs was identified as using the existing customer billing relationships already in place with most households. The other components included vendor negotiating power, low-cost capital, and technology validation.

Solar Hot Water Systems

The U.S. Department of Energy indicates that solar hot water is one of the most cost-effective ways to include renewable technologies into a building and that a typical residential solar hot water system reduces the need for conventional water heating by

SB 677/ Page 3

about two-thirds. Typical residential systems cost between \$2,500 and \$7,500 while commercial size installations can cost up to \$50,000, depending on the size of the system. Although this is usually more than the cost of a conventional electric, gas, or fuel oil system, solar heating systems are cost competitive when considering total energy costs over the entire life of the system.

Nevertheless, the cost of these systems has created a market for financing and ownership structures which defray initial costs to the customer. Many solar companies now offer financing plans, which finance the cost of the project over multiple years. In general, the terms work similar to a residential mortgage: while payments are still being made by the customer, the solar company maintains ownership of the solar equipment (defined as a solar hot water utility provider in the bill). At the end of the financing terms, ownership is conferred to the customer.

In fiscal 2011, 423 solar hot water systems were installed in Maryland.

RPS Compliance

Solar ACPs have comprised the dominant portion of RPS compliance payments for the most recent years data is available. There was a shortfall of 2,707 megawatt-hours (MWh) in 2008 and 2,865 MWh in SRECs for the Tier 1 Solar requirement, which represent approximately 99% of the total ACPs made in those years. ACPs for Tier 1 Solar were \$1.2 million in 2008 and \$1.4 million in 2009.

Small Business Effect: Small businesses involved with the installation of solar hot water heating systems in Prince George's County benefit from the ability to contract with utility billers for billing services, but must also pay licensing fees and any other costs associated with regulation. Therefore, the overall impact is unknown at this time. There are currently several small businesses that provide such services in the State.

Additional Information

Prior Introductions: None.

Cross File: HB 1185 (Delegate Frush) - Economic Matters.

Information Source(s): Public Service Commission, Office of People's Counsel, Maryland Energy Administration, Prince George's County, Task Force on Solar Hot Water Systems in Prince George's County, U.S. Department of Energy, Sunpower Corporation, Department of Legislative Services

Fiscal Note History: First Reader - March 1, 2012
mlm/lgc

Analysis by: Stephen M. Ross

Direct Inquiries to:
(410) 946-5510
(301) 970-5510