SENATE BILL 715

C5, C8 7lr2336
CF HB 773

By: **Senators Rosapepe, Currie, Feldman, Ferguson, Guzzone, Madaleno, Ramirez, Robinson, Smith, and Young**
Introduced and read first time: February 3, 2017
Assigned to: Finance

Committee Report: Favorable with amendments
Senate action: Adopted
Read second time: March 30, 2017

CHAPTER _____

AN ACT concerning

Clean Energy – Energy Storage Technology Study

FOR the purpose of requiring the ~~Maryland Clean Energy Center~~ Power Plant Research Program to conduct a study of regulatory reforms and market incentives that may be necessary or beneficial to increase the use of energy storage devices in the State; requiring the ~~Center~~ Program to consult with certain entities and interests in conducting the study; providing certain required considerations and criteria to be used in conducting the study; ~~requiring the Center to consider certain benefits for certain purposes;~~ prohibiting the cost of the study from exceeding a certain amount per fiscal year; requiring the ~~Center~~ Program to submit ~~an interim report and a final~~ a report on the study to certain standing committees on or before a certain ~~dates~~ date; and generally relating to the ~~Maryland Clean Energy Center~~ Power Plant Research Program and the study of energy storage systems.

SECTION 1. BE IT ENACTED BY THE GENERAL ASSEMBLY OF MARYLAND, That:

(a) (1) The ~~Maryland Clean Energy Center~~ Power Plant Research Program shall conduct a study to determine what regulatory reforms and market incentives are necessary or beneficial to increase the use of energy storage devices in the State in a manner that is fair and open to all stakeholders.

(2) In conducting the study required under this section, the ~~Center~~ Program shall consult with:

EXPLANATION: **CAPITALS INDICATE MATTER ADDED TO EXISTING LAW.**
[Brackets**]** indicate matter deleted from existing law.
Underlining indicates amendments to bill.
~~Strike out~~ indicates matter stricken from the bill by amendment or deleted from the law by amendment.

(i) the Public Service Commission;

(ii) the Office of People's Counsel;

(iii) the Maryland Energy Administration;

(iv) environmental organizations;

(v) electric companies;

(vi) third–party providers of energy storage devices;

(vii) associations of third–party providers;

(viii) the University of Maryland Energy Research Center;

(ix) the Maryland Clean Energy Center;

(x) developers and owners of electricity generation; and

~~(x)~~ (xi) other interested parties.

(b) In conducting the study and in collaboration with the consulted parties, the ~~Center~~ Program shall:

(1) consider the types and viability of different energy storage technologies and cases for their use, including projects deployed in the State and other states~~,~~; ~~and the potential applicability of these technologies to different service territories of the State;~~

~~(2) consider existing operational data and results of testing and trial pilot projects from existing energy storage facilities;~~

~~(3)~~ (2) consider wholesale market factors, including available information from PJM Interconnection, LLC, derived from PJM's testing and evaluation procedures, and the Federal Energy Regulatory Commission;

~~(4) consider the integration of energy storage technologies with other programs, including demand–side management or other means of achieving the purposes identified in the "Ten–Year Plan of Maryland Electric Utilities" prepared by the Commission and the Regional Transmission Expansion Plan process of PJM, that will result in the most economically efficient use of generation resources for society and cost–effective, energy–efficient grid integration and management;~~

~~(5)~~ (3) review energy storage regulatory policies, ownership models, cost recovery mechanisms, procurement targets, and market incentives in other states and use any data or results that are available from those states, as appropriate;

~~(6)~~ (4) review existing State regulatory policies and definitions and determine appropriate revisions to facilitate the expansion of energy storage in the State including considering issues of:

(i) ~~whether costs for energy storage can be subject to rate recovery and the standard for rate recovery;~~

~~(ii)~~ removal of any policy–related barriers that restrict the ability to capture all of the societal benefits of energy storage;

~~(iii)~~ (ii) encouraging the expansion of energy storage in the State through a variety of cost recovery mechanisms, including cost recovery through electric distribution rates; and

~~(iv)~~ (iii) encouraging the efficient and timely approval of interconnection of energy storage systems owned by an electric company, a customer, or a third party that are:

1. connected to customer facilities; or

2. directly connected to transmission and distribution facilities;

~~(7) consider how to ensure that any energy storage policies that are established are technologically viable and cost–effective, including standards for the capacity, efficiency, useful life, and charging characteristics of the systems;~~

~~(8)~~ (5) examine whether and how pumped hydropower should be included in any regulatory policies or market incentives;

~~(9)~~ (6) consider policies to incentivize deployment of energy storage systems that are connected to customers' facilities and of systems that are directly connected to transmission and distribution facilities;

(7) identify appropriate metrics and standards for energy storage systems such as energy capacity, charge and discharge rates, round trip efficiency, durability, and other appropriate metrics and standards; and

~~(10)~~ (8) consider any policies, procurement targets, or other market incentives that would allow for diverse ownership models including ownership of an energy storage system by an electric company, an electric supplier, or another party~~;~~.

~~(11) consider the following purposes for energy storage:~~

~~(i) integrating intermittent generation from eligible renewable energy resources into the safe and reliable operation of the transmission and distribution grid;~~

~~(ii) allowing intermittent generation from eligible renewable energy resources to operate at or near full capacity;~~

~~(iii) reducing the need for fossil–fuel–powered peaking generation facilities by using stored electricity to meet peak demand;~~

~~(iv) eliminating or reducing transmission and distribution line losses, including increased losses during periods of congestion on the grid;~~

~~(v) reducing the demand for electricity during peak periods and achieving permanent load–shifting;~~

~~(vi) providing back–up power and grid resiliency;~~

~~(vii) avoiding or delaying investments in the transmission and distribution system upgrades;~~

~~(viii) using energy storage systems to provide the ancillary services otherwise provided by fossil–fueled generating facilities;~~

~~(ix) as a grid modernization tool that enhances reliability, resiliency, and power quality for electricity consumers; and~~

~~(x) integrating distributed energy resources more efficiently at customer sites and on the transmission and distribution systems;~~

~~(12) consider necessary steps to maintain a safe work environment where energy storage systems are deployed and the associated expenses to customers, electric companies, or other parties;~~

~~(13) consider necessary steps for electric companies to efficiently support storage being connected to the transmission and distribution grid, including those related to customer service, regional transmission operator coordination, interconnection, other relevant issues, and the costs associated with those requirements;~~

~~(14) consider any other relevant aspect relating to green banks and clean bank financing initiatives that the Center or the Maryland Energy Administration determines appropriate; and~~

~~(15) consider whether barriers to the deployment of energy storage systems in the State exist in PJM markets and programs and what changes are needed to eliminate those barriers.~~

~~(c) When examining the cost–effectiveness issue of energy storage or market incentives under subsection (b)(7) of this section, the Center shall consider benefits including:~~

~~(1) cost savings to ratepayers from the provision of services such as energy price arbitrage, ancillary services, capacity, transmission, and distribution asset deferral or offsets;~~

~~(2) direct cost savings to customers that deploy energy storage systems and to others;~~

~~(3) an improved ability to integrate renewable resources;~~

~~(4) improved reliability and power quality;~~

~~(5) the effect on retail electric rates over the life of a given energy storage system compared to the impact on retail electric rates of using a nonenergy storage system alternative over the life of the nonenergy storage system alternative including system–wide impacts, such as long–term costs of avoided peak–capacity, transmission, and distribution replacement deferral, and market price reductions or efficiency improvements;~~

~~(6) the economic, noneconomic, and environmental benefits of avoided use of fossil fuels through the deployment of energy storage systems;~~

~~(7) the benefits of the ability to site storage systems compared with generation, transmission, or distribution assets; and~~

~~(8) the ability of storage systems to be deployed quickly and expanded easily.~~

(c) The cost of the study required under this section may not exceed $125,000 per fiscal year.

(d) ~~(1) On or before December 1, 2017, the Maryland Clean Energy Center shall present an interim report to the Senate Finance Committee, the Senate Budget and Taxation Committee, the House Economic Matters Committee, and the House Appropriations Committee, in accordance with § 2–1246 of the State Government Article, the findings of the study required under this section and any recommended policy actions.~~

~~(2)~~ On or before December 1, 2018, the ~~Maryland Clean Energy Center~~ Power Plant Research Program shall present a ~~final~~ report to the Senate Finance Committee, the Senate Budget and Taxation Committee, the House Economic Matters Committee, and the House Appropriations Committee, in accordance with § 2–1246 of the State Government Article, of the findings of the study required under this section and any recommended policy actions.

SECTION 2. AND BE IT FURTHER ENACTED, That this Act shall take effect July 1, 2017.

Approved:

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Governor.

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President of the Senate.

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Speaker of the House of Delegates.