

ORDER NO. 85294

IN THE MATTER OF POTOMAC ELECTRIC
POWER COMPANY AND DELMARVA
POWER AND LIGHT COMPANY REQUEST
FOR THE DEPLOYMENT OF ADVANCED
METER INFRASTRUCTURE

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BEFORE THE
PUBLIC SERVICE COMMISSION
OF MARYLAND

CASE NO. 9207

IN THE MATTER OF BALTIMORE GAS
AND ELECTRIC COMPANY REQUEST FOR
AUTHORIZATION TO DEPLOY A SMART
GRID INITIATIVE AND TO ESTABLISH A
SURCHARGE MECHANISM FOR THE
RECOVERY OF COST

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CASE NO. 9208

IN THE MATTER OF THE REQUEST OF
SOUTHERN MARYLAND ELECTRIC
COOPERATIVE, INC. FOR
AUTHORIZATION TO PROCEED WITH
IMPLEMENTATION OF AN ADVANCED
METERING INFRASTRUCTURE SYSTEM

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CASE NO. 9294

Issue Date: January 7, 2013

In this Order, the Maryland Public Service Commission (the “Commission”) concludes that the public interest requires that we provide ratepayers of Potomac Electric Power Company (“Pepco”), Baltimore Gas and Electric Company (“BGE”) and Southern Maryland Electric Cooperative, Inc. (“SMECO”) (collectively “the Companies”) with an additional option related to the installation of smart meters in their homes.¹ We will conduct additional proceedings to determine whether the preferred course is either a) to allow customers the option of retaining their current analog meter, or b) to require all customers to

¹ Chairman Nazarian and Commissioner Speakes-Backman have jointly filed a dissent in this case. We understand and agree with many of the concerns raised by the dissent, and may ultimately determine that their proposed outcome is the better path to take. However, we do not believe the current record adequately establishes that allowing customers to retain an analog meter would so increase costs either to the Companies or to individual customers that we should remove this option from consideration at this time.

receive a smart meter but with the option to have that meter installed to operate in an “RF-free” or near RF-free manner². Whichever option we ultimately choose, we will require those ratepayers that exercise the option to bear appropriate costs. However, because we do not believe the record before us provides us with sufficient information regarding the overall system, as well as customer-specific, cost-differential between these two options, we will conduct additional proceedings to resolve these remaining issues. Until such time as we decide which option will be available to customers and the specific costs that will be associated with that option, our May 25, 2012 Interim Order remains in effect, and those ratepayers that have previously informed their utility that they do not wish to receive a smart meter need not take any additional action at this time. After we ultimately determine the nature of the “opt-out” and its associated costs, all ratepayers will have the opportunity to provide their utility with their final decision.

I. PROCEDURAL HISTORY

On February 29, 2012, we issued a “Notice of Hearing and Opportunity to Comment on an “Opt-Out” Option for Smart Meters”,³ initiating this phase of our proceedings. In that Notice, we identified eight specific issues regarding an opt-out option for which we sought input, including the effect on: (1) a smart meter project’s costs and benefits; (2) the current installment schedule; (3) the types, components and/or configuration of meters available for customers who “opt out”; (4) future meter reading; (5) communication of data between the utility and the customers; (6) future billing practices; and (7) electric tariff rate structures and energy programs.⁴ We also scheduled a legislative-style hearing for May 22, 2012, and

² “RF” refers to Radio Frequency.

³ Case No. 9207, Item No. 175; Case No. 9208, Item No. 112.

⁴ *Id.*

directed interested parties to submit initial comments by April 6, 2012 and reply comments by April 27, 2012.⁵

Several parties moved to intervene in these cases, and we received initial written comments from Commission Staff (“Staff”),⁶ the Maryland Energy Association (“MEA”),⁷ BGE,⁸ Pepco,⁹ the Office of People’s Counsel (“OPC”),¹⁰ Washington Gas Energy Services (“WGES”),¹¹ the Maryland Smart Meter Awareness Organization (“MSMA”),¹² Ms. Rebecca Hanna-Diener,¹³ and Mr. Chris Bush.¹⁴ Additionally, BGE submitted the written testimony of Mr. Jules Polonetsky¹⁵ and Dr. Peter Valberg.¹⁶ Finally, on April 26-27, we received reply testimony from Pepco,¹⁷ BGE,¹⁸ MEA,¹⁹ MSMA,²⁰ Direct Energy,²¹ and Mr. Chris Bush.²²

On May 22, 2012, we conducted an extensive legislative-style hearing during which we heard from 51 witnesses.²³ Following this hearing, we issued our May 25, 2012 Interim

⁵ *Id.*

⁶ Case No. 9207, Item No. 180; Case No. 9208, Item No. 119.

⁷ Case No. 9207, Item No. 181; Case No. 9208, Item No. 120.

⁸ Case No. 9208, Item No. 122.

⁹ Case No. 9207, Item No. 183.

¹⁰ Case No. 9207, Item No. 184; Case No. 9208, Item No. 123.

¹¹ Case No. 9207, Item No. 182; Case No. 9208, Item No. 121.

¹² Case No. 9207, Item No. 177; Case No. 9208, Item No. 114.

¹³ Case No. 9207, Item No. 188.

¹⁴ Case No. 9208, Item No. 117.

¹⁵ Case No. 9208, Item No. 126.

¹⁶ Case No. 9208, Item No. 122 at Exhibit 1.

¹⁷ Case No. 9207, Item No. 191.

¹⁸ Case No. 9208, Item No. 134.

¹⁹ Case No. 9207, Item No. 193; Case No. 9208, Item No. 133.

²⁰ Case No. 9208, Item No. 128.

²¹ Case No. 9207, Item No. 192; Case No. 9208, Item No. 132.

²² Case No. 9208, Item No. 127.

²³ Case No. 9207, Item No. 204; Case No. 9208, Item No. 146.

Order, in which we allowed customers, on an interim basis, to inform their utilities that they did not wish to receive a smart meter pending our final ruling on the subject.²⁴

Following the May 22, 2012 hearing, BGE and Pepco submitted written responses to questions posed by the Commission regarding the technical and financial feasibility of various AMI installation alternatives.²⁵ We invited interested parties to comment on these responses,²⁶ and we thereafter received comments from Staff,²⁷ OPC,²⁸ MSMA,²⁹ Ms. Traci Radice,³⁰ and Mr. Chris Bush.³¹

After hearing news reports that Pennsylvania Electric Company (“PECO”) had suspended its smart meter roll-out after encountering overheating and fires, we scheduled another legislative-style hearing for August 28, 2012 and directed the Companies to appear at the hearing to update the Commission as to “any issues of electrical overheating or malfunction associated with their further AMI meter deployment.”³² The Companies appeared before the Commission on August 28, 2012 to discuss the safety of their respective smart meter roll-outs.³³

II. DECISION

1. Additional Costs

The Companies, Staff and MEA have identified several issues that allowing customers to retain their current analog meter would impose upon the ongoing BGE and

²⁴ Order No. 84926.

²⁵ Case No. 9207, Item No. 210; Case No. 9208, Item No. 151.

²⁶ Case No. 9207, Item No. 213; Case No. 9208, Item No. 152.

²⁷ Case No. 9207, Item No. 216; Case No. 9208, Item No. 155.

²⁸ Case No. 9207, Item No. 218; Case No. 9208, Item No. 159.

²⁹ Case No. 9207, Item No. 219; Case No. 9208, Item No. 160.

³⁰ Case No. 9208, Item No. 156.

³¹ Case No. 9208, Item No. 157.

³² Case No. 9207, Item No. 220; Case No. 9208, Item No. 161; Case No. 9294, Item No. 9.

³³ Case No. 9207, Item No. 222; Case No. 9208, Item No. 165; Case No. 9294, Item No. 12.

Pepco roll-outs as well as the potential roll-out in SMECO's service territory.³⁴ These issues include the need to maintain and incur costs associated with a manual meter-reading staff,³⁵ a dual billing system,³⁶ an augmented customer education plan,³⁷ IT system modifications,³⁸ and increased customer service staffing.³⁹ There will also be costs when a residence in which the owner has "opted out" is transferred to a new resident who wants a smart meter instead, and vice versa. No party disputes that allowing customers to retain their current analog meter will cause the Companies to incur costs in each of these areas. If we do ultimately decide to allow customers to retain their current meter, the Companies strongly urge that we require those customers to incur these costs in their entirety.⁴⁰ As previously stated, we will hold additional proceedings to determine these costs and how best to allocate them.⁴¹

2. Lost Benefits

The Companies, Staff and MEA also identify several benefits from AMI that allowing customers to retain their analog meter will dilute from a territory-wide standpoint

³⁴ SMECO's request for authorization to proceed with an Advanced Meter Infrastructure is currently pending before the Commission in Case No. 9294.

³⁵ See e.g., Pepco April 6, 2012 Comments at 10-11; MEA April 6, 2012 Comments at 8-9; May 22, 2012 Tr. 26-28 (Staff).

³⁶ See e.g., Pepco April 6, 2012 Comments at 11.

³⁷ See e.g., Pepco April 6, 2012 Comments at 13. MEA goes further and urges that, in the event we allow customers to retain their analog meter, we require the utilities to inform those customers of all of the benefits they would forego by exercising this option. MEA April 6, 2012 Comments at 13. We will address the specific information to be conveyed to customers when we have decided the precise nature and associated costs of whichever option we ultimately adopt.

³⁸ See e.g., Pepco April 6, 2012 Comments at 2-3.

³⁹ See e.g., Pepco April 6, 2012 Comments at 2-3.

⁴⁰ BGE April 6, 2012 Comments at 17-18; Pepco April 6, 2012 Comments at 12-15; May 22, 2012 Tr. at 132-133 (BGE/Harbaugh).

⁴¹ The Dissent is correct that we analyzed these costs and the alleged concomitant benefits at length prior to our initial approval of BGE's, Pepco's and Delmarva's smart meter roll-out. However, we did so within the overall context of comparing 100% AMI participation versus maintaining the non-AMI *status quo*. We did not develop a record sufficient to allow us to determine whether a slight reduction in AMI participation would render the overall project unfeasible or even affect it sufficiently to over-ride the sincere desire of a small number of customers to forego an AMI meter. As we concede, we may ultimately conclude that it does, but we are not yet ready to reach that conclusion.

and eliminate from the perspective of those customers who exercise this option. In our Orders approving BGE and Pepco's requests for authorization to install territory-wide smart meters, we discussed at length the various operational and supply-side benefits that the utilities hope to achieve through their AMI roll-out.⁴² Not surprisingly, in urging us to require all customers to receive a smart meter, the Companies (supported by Staff and MEA) observe that any alternative will reduce the benefits to be generated by AMI and potentially undermine the project's long-term cost-effectiveness.⁴³ As with the additional costs discussed above, no party denies that some dilution of AMI-related benefits will occur should we allow customers to choose to retain their analog meters. However, we do not believe the record adequately reflects what the likely extent of these lost benefits will be, and we have therefore decided to conduct additional proceedings to closely analyze the extent of both the additional costs and lost benefits before we ultimately decide this issue. Should we ultimately decide to allow customers to retain their analog meter, we will address the effect, if any, this has upon cost-effectiveness when we evaluate the Companies' request for cost-recovery.

3. Health Effects of Smart Meters

MSMA and several individual ratepayers have expressed grave concern that the Radio Frequency ("RF") emissions from smart meters located within or just outside a residence could have adverse health consequences on the home's occupants, particularly those customers unusually susceptible to the effects of even low-level radiation.⁴⁴ In

⁴² See e.g., Order No. 83571 (Pepco) at 29-31 (operational benefits), 31-37 (supply-side benefits).

⁴³ See e.g. BGE April 6, 2012 Comments at 2-4.

⁴⁴ See e.g., MSMA April 2, 2012 Comments at 2 (citing the World Health Organization's classification of smart meter radiation as a level 2B carcinogen); May 22, 2012 Tr. at 169-170 (Jinner)(Citing a study by the California Council on Science and Technology that concluded that RF radiation from smart meters was much higher than

response, the Companies and Staff provided detailed testimony and comments that establish the RF emissions from smart meters to be lower than that emitted by microwaves, cell phones and several other common household appliances.⁴⁵ The Companies also presented expert testimony that distinguished between “ionizing” radiation, which has the ability to damage human molecules, and “non-ionizing” radiation, which does not.⁴⁶ Smart meters emit “non-ionizing” radiation, which scientists have studied extensively for several decades and found no evidence of harmful effects on human beings.⁴⁷ Although we have not found convincing evidence that smart meters pose any health risks to the public at large, we acknowledge a good-faith belief on the part of some ratepayers to the contrary. If we ultimately decide to allow customers to retain their analog meter, this option will address any health concerns raised by the use of smart meters. However, if that option proves not to be feasible, we will provide customers with the option to require their utility to install their smart meter so as to minimize or eliminate RF emissions, such as by using an alternative data communications path or by locating the meter farther from the customer’s home. We received evidence from the Companies regarding several available options,⁴⁸ and our future proceedings will include a review of the costs associated with such options and how best to allow the Companies to recover those costs.

utilities allege). BGE cites the same Council’s 2011 study that concluded smart meter emissions to be lower than microwaves and far lower than cell phones. BGE April 6, 2012 Comments at 5.

⁴⁵ May 22, 2012 Tr. at 50-53 (Staff); May 22, 2012 Tr. at 96-100 (BGE).

⁴⁶ Testimony of Dr. Peter Valberg, BGE April 6, 2012 Comments, Exhibit 1 at 4; May 22, 2012 Tr. at 104-116 (Valberg).

⁴⁷ *Id.* at 7.

⁴⁸ Case No. 9207, Item No. 210 (Pepco and Delmarva); Case No. 9208, Item No. 151 (BGE).

4. Privacy/Security Issues

Several witnesses also expressed concern that the Companies would be unable to protect the privacy of personal data generated by the smart meters and relayed to the Companies. The Companies responded by describing the national privacy standards with which they are compliant as well as the third-party cyber-security firms that they have retained to test their data-protection system.⁴⁹ We have previously addressed all of these privacy and security concerns in prior Orders, and we see no need to re-visit that analysis here.⁵⁰

5. Overheating and Fires Attributable to Smart Meter Installation

Finally, through news media, we learned that PECO had suspended its AMI roll-out in Pennsylvania to evaluate the cause of several overheating incidents that had occurred. On August 28, 2012, we conducted a hearing and heard from the Companies as to whether similar concerns had or might yet materialize during the installation of smart meters in Maryland.⁵¹ At this hearing, BGE and Pepco informed us that they were installing meters manufactured by GE and Landis+Gyr, rather than the Sensor meters being installed by PECO.⁵² We also learned that the Companies had not experienced heat-related installation issues similar to PECO and that the risks of fire associated with installing smart meters were

⁴⁹ Direct Testimony of Jules Polonetsky at 5; BGE April 6, 2012 Comments at 7-8.

⁵⁰ See e.g., Order No. 83410 at 35-41.

⁵¹ Case No. 9207, Item No. 222; Case No. 9208, Item No. 165; Case No. 9294, Item No. 12. On October 9, 2012, PECO announced that it had renewed its smart meter installations, replacing the smart meters manufactured by Sensor with meters manufactured by Landis+Gyr. http://articles.philly.com/2012-10-10/business/34343946_1_sensus-meters-sensus-devices-new-generation-meters

⁵² August 28, 2012 Tr. 20-21 (BGE); August 28, 2012 Tr. 39 (Pepco). SMECO does currently intend to install Sensor meters, although it has not experienced any mechanical problems in either its pilot program (consisting of approximately 900 meters), or the Patuxent River Naval Air Station (consisting of approximately 1,040 AMI meters). August 28, 2012 Tr. 55-56.

similar to what might occur when replacing an analog meter with another analog meter.⁵³

We are therefore convinced that the use of smart meters does not pose a fire hazard to ratepayers.

6. Conclusion

For the above-stated reasons, we conclude that the current record is insufficient to allow us to quantify the associated additional costs and foregone benefits of allowing customers to retain their current analog meter. Additionally, the record does not adequately quantify the costs associated with providing the option to customers of allowing them to receive alternative AMI meters that would minimize RF emissions. We will therefore initiate proceedings to better determine which of these two options is preferable. The Companies shall continue to respect the requests of those ratepayers for a moratorium on installation following our May 25, 2012 Interim Order, and we will specify the means by which customers may permanently exercise their opt out right or retract their previous decision once we have identified which option customers will have and quantified the associated costs.

IT IS THEREFORE, this 7th day of January, in the Year Two Thousand Thirteen by the Public Service Commission of Maryland,

ORDERED (1) That we will initiate additional proceedings to determine whether we will allow customers to retain their analog meter, or whether we will instead allow customers to receive an alternatively-installed AMI meter;

⁵³ *Id.* at 11 (BGE); *Id.* at 38 (Pepco). The Companies also noted that smart meters contain an internal heat sensor - lacking in current meters - that allows the Companies to respond to any sharp temperature increase, thereby reducing the risk of harm below that posed by current meters.

(2) That we shall determine the associated costs and procedures for exercising either option following those additional proceedings;

(3) That, on or before July 1, 2013, the Companies shall submit to the Commission their proposals regarding a) the overall additional costs associated with allowing customers to retain their current analog meter, b) their proposals regarding cost recovery of these additional costs from customers, and c) their proposals for recovery of costs related to offering customers different RF-free or RF-minimizing options related to the installation of their smart meters. Additionally, we ask the Companies to provide this information scaled for different levels of customer participation; and

(4) That all requests for relief inconsistent with this Order are hereby DENIED.

/s/ Harold D. Williams

/s/ Lawrence Brenner

/s/ W. Kevin Hughes

Commissioners