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PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

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DISTRICT OF COLUMBIA
PUBLIC SERVICE COMMISSION

ORDER

June 18, 2010

FORMAL CASE NO. 1056, IN THE MATTER OF THE APPLICATION OF POTOMAC ELECTRIC POWER COMPANY FOR AUTHORIZATION TO ESTABLISH A DEMAND SIDE MANAGEMENT SURCHARGE AND AN ADVANCE METERING INFRASTRUCTURE SURCHARGE AND TO ESTABLISH A DSM COLLABORATIVE AND AN AMI ADVISORY GROUP, Order No. 15854

I. INTRODUCTION

1. By this Order, the Public Service Commission of the District of Columbia ("Commission") approves the Potomac Electric Power Company's ("Pepco" or "Company") request for approval of the Advanced Metering Infrastructure ("AMI") meters manufactured by General Electric ("GE") and Landis+GYR for its AMI implementation in the District of Columbia.

II. BACKGROUND

2. The Potomac Electric Power Company ("Pepco" or "Company") has selected AMI meters manufactured by General Electric ("GE") and Landis+GYR for its AMI implementation in the District of Columbia.¹ On January 20, 2010, in response to a Commission directive, Pepco filed its confidential test results for the GE and Landis+GYR meters as well as a description of the software, equipment and tools.² On March 8, 2010, parties were invited to

¹ *Formal Case No. 1056, In the Matter of the Application of the Potomac Electric Power Company for Authorization to Establish a Demand Side Management Surcharge and an Advance Metering Infrastructure Surcharge and to Establish a DSM Collaborative and an AMI Advisory Group ("F.C. 1056")*, Testimony of Pepco Witness Potts, filed May 22, 2009 at 6 and 11.

² *F.C. 1056*, Potomac Electric Power Company's confidential test results for the General Electric and Landis+GYR Meters, filed January 20, 2010 ("Pepco's Meter Test Results"). In the instant matter, in Order No. 15629, the Commission directed the Company to file test results for its GE and Landis+GYR meters as well as any additional information describing the functionality of the software and communications system and meters and how they conform with any interoperability standards already established or proposed by NIST.

comment on whether Pepco's meters meet the ANSI standards.³ The parties were also invited to comment on Pepco's description of its Silver Spring networks, software, equipment and tools.⁴

3. On April 7, 2010, the Office of the People's Counsel ("OPC") filed its comments in response to the results of Pepco's meter test.⁵ In its Comments, OPC states that it does not challenge the initial results of Pepco's meter tests.⁶ However, given the scope of Pepco's implementation, OPC suggests that the Commission retain an independent third-party tester to conduct two tests of the installed network.⁷ The first test would occur after the network is initially installed, but before the system goes live.⁸ The second test would occur one year after the new AMI system goes live.⁹ OPC states that the two tests will provide the third-party tester with the opportunity to detect any possible flaws in the network before consumers are billed under the new rates and to determine the best possible way to fix them.¹⁰

4. In response, Pepco states that the testing program proposed by OPC is unnecessary and in many ways duplicative.¹¹ The Company states that Pepco Holding's Inc. ("PHI") has already completed extensive testing of the AMI system and associated IT architecture and plans more testing in the District of Columbia.¹² Specifically, the Company states that during 2009, Delmarva Power & Light Company ("DPL"), a subsidiary of PHI conducted a Field Acceptance Test ("FAT") of the AMI system in the State of Delaware.¹³ According to the Company, the two primary objectives of PHI's field acceptance test was to verify the ability of the Silver Spring Networks ("SSN") AMI system to achieve the technical, functional, performance, information, and commercial specifications defined in the PHI-SSN contract and to validate the ability of the SSN AMI System to enable the achievement of the benefits identified in the PHI AMI business case.¹⁴ The Company asserts that in July 2009,

³ F.C. 1056, Order No. 15721, rel. March 8, 2010.

⁴ *Id.*

⁵ F.C. 1056, Comments in Response to Commission Order No. 15721 Requesting Comments Regarding Pepco's Test Results of its Proposed AMI Meters, filed April 7, 2010 ("OPC's Comments"). OPC filed both confidential and public versions of its comments.

⁶ F.C. 1056, OPC's Comments at 1.

⁷ *Id.* at 5.

⁸ *Id.*

⁹ *Id.*

¹⁰ *Id.*

¹¹ F.C. 1056, Reply Comments of Potomac Electric Power Company in Response to Commission Order No. 15721, filed April 22, 2010 ("Pepco's Reply Comments").

¹² F.C. 1056, Pepco's Reply Comments at 2.

¹³ *Id.* at 6.

¹⁴ *Id.*

following the installation of the equipment and tuning of the AMI communication network, PHI began execution of the AMI System Acceptance Testing Process.¹⁵ Pepco states that PHI concluded the testing in November 2009 and determined that the results were acceptable.¹⁶

5. Pepco asserts that prior to authorizing the manufacturing of the GE and Landis+GYR electric meters, PHI conducted its standard first article testing for the electric meters.¹⁷ The Company states that these tests included verification that the proper meter program was installed, that the meter was recording usage accurately at full and light loads, that the SSN NIC could be communicated to properly and that the remote disconnect switch opened and closed as expected.¹⁸ Also, according to Pepco, GE and Landis+GYR conducted their own testing prior to shipment to PHI.¹⁹ In addition, Pepco states that as a further control for the FAT PHI tested every meter procured and installed, using the same battery of tests used in the first article testing.²⁰ Pepco submits that PHI also sent 500 Landis+GYR and 250 GE single phase meters to a third party for testing.²¹ The Company states that the third party performed the same test the PHI did and in addition pulled a sample of meters from each manufacturer and conducted additional tests that the meters passed.²² Moreover, the Company reports that PHI contracted with another independent third party testing company to conduct a series of tests designed to verify compliance of the GE and Landis+GYR watt hour meters with the limits of the ANSI C12.1-2001 standards for electric meters and that the meters conformed to the tests as well.²³

6. Pepco asserts that over the next several months it will be planning its AMI field deployment and designing, building and testing its integrated IT systems.²⁴ With regard to electric meters, Pepco states that it will test a randomly selected pallet of 96 meters from each trailer load of AMI that is received.²⁵ Pepco submits that testing this volume of meters meets or exceeds the District of Columbia regulatory required volumes.²⁶ Also, according to the

¹⁵ *Id.* at 7.

¹⁶ *Id.*

¹⁷ *Id.*

¹⁸ *Id.* at 7.

¹⁹ *Id.* at 8.

²⁰ *Id.*

²¹ *Id.*

²² *Id.*

²³ *Id.* at 9.

²⁴ *Id.* at 11.

²⁵ *Id.* at 11-12.

²⁶ *Id.* at 12.

Company, "PHI will perform comprehensive testing of the applications, enterprise service bus and interfaces that integrate the UtilityIQ™ ("UIQ") to the billing system used at Pepco."²⁷ The Company advises that IBM is working with PHI's IT team to develop a master testing strategy and plan that is comprised of integration, system and performance testing phases.²⁸ In addition, Pepco submits that communication network optimization will be conducted after meters are installed but prior to the activation of the meters and that this optimization work will test the communication network and ensure that there are reliable and redundant communication paths to the meters.²⁹ Pepco states that it plans to activate batches of meters by route, not all the meters at once, so the IT systems and business processes can be tested and modified, if needed.³⁰

7. Finally, the Company states that after all the meters are activated, it will begin to operate and maintain the AMI system in its ongoing operations.³¹ Pepco asserts that in the ongoing operations, Pepco will monitor the performance of various aspects of the integrated systems to ensure that all components are operating as expected and any required maintenance and upgrades are made in accordance with all applicable internal policies and procedures.³² Pepco states that in the event there are problems with either the electric meters or communication equipment, it has 60 month warranties with the manufacturers which is longer than the 12 to 18 month warranty that the electric meter manufacturers typically provide.³³

III. DISCUSSION

8. In considering Pepco's Meter Test Results, the Commission must determine if the accuracy of the meters meet the standards of the American National Standards Institute ("ANSI") C12.1-2001.³⁴ After reviewing the test procedures employed by the Company, as well as the results of the test, the Commission hereby determines that the accuracy of the GE and Landis+GYR meters meets ANSI standards.³⁵ Thus, inasmuch as the meters meet ANSI standards and no comments were received opposing the meter request, the Commission approves Pepco's Application seeking approval of the use of GE and Landis+GYR meters in the District of Columbia.³⁶

²⁷ *Id.*

²⁸ *Id.*

²⁹ *Id.* at 13-14.

³⁰ *Id.* at 14.

³¹ *Id.*

³² *Id.*

³³ *Id.* at 15.

³⁴ See Commission Order No. 5120 rel. February 17, 1967.

³⁵ The Commission expects that Pepco's meters will perform the functions as stated in its filing.

³⁶ The Commission notes that the meter costs will be included in Pepco's regulatory asset and the prudence of those costs will be addressed in a future proceeding.

9. OPC suggests that in order to ensure that the meters function properly, the Commission should retain an independent third-party tester to conduct two tests of the installed AMI system. However, OPC has not argued that the tests it suggests are superior to Pepco's test. In light of the significant amount of testing that has been performed to date as well as the testing work that will be performed over the next several months by Pepco, the Commission believes that potentially subjecting ratepayers to the cost for additional third party testing of the Company's AMI system is not warranted.

THEREFORE, IT IS ORDERED THAT:

10. The Commission **GRANTS** Pepco's Application seeking approval of the use of GE and Landis+GYR electric meters in the District of Columbia.

A TRUE COPY:

BY DIRECTION OF THE COMMISSION:

CHIEF CLERK:



DOROTHY WIDEMAN
COMMISSION SECRETARY