

BEFORE THE
COMMITTEE ON
PUBLIC SERVICES AND CONSUMER AFFAIRS
of the
COUNCIL OF THE DISTRICT OF COLUMBIA

PUBLIC ROUNDTABLE
on the
**“Deployment of Advanced Metering Infrastructure
in the District of Columbia”**

TESTIMONY
of
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I. INTRODUCTION

Good afternoon Chairperson Bowser and members of the Committee on Public Services and Consumer Affairs (“Committee”). I am Brenda K. Pennington, Esq. I serve as the Interim People’s Counsel for the District of Columbia.¹

Thank you for inviting the Office of the People’s Counsel (“OPC” or “Office”) to appear before the Committee today to discuss the deployment of the advanced metering infrastructure (“AMI”) in the District of Columbia. The Office appreciates the opportunity to provide testimony on this very timely subject and

¹ D.C. Code § 34-804 (2010).

hopes the Committee will consider the recommendations the Office provides to ensure the public interest is adequately served.

In this testimony, OPC will address two fundamental questions being raised by consumers, detail the efforts the Office has made to ensure District consumers are aware of AMI deployment, and outline the challenges many consumers are and will face as the deployment continues. OPC will provide recommendations for the Committee to consider going forward.

The deployment of over 200,000 new meters to PEPCO's customers to enable the operation of a multi-million dollar technical communications system is a tremendous transformation with significant risks and concerns for District of Columbia consumers. Like the recent nationwide conversion of televisions from analog to digital signal, this massive change requires more advanced consumer knowledge so consumers know what is occurring and what they are expected to do. With the advent of the restructuring of the District's retail electric market, the District Council held public hearings before the approval of the Retail Electric Competition and Consumer Protection Act of 1999. However, AMI deployment in the District is occurring without the public having had any opportunity to express their views and opinions prior to the District Council's approval of AMI implementation and cost recovery in D.C. Law 18-111. The Office hopes the District Council will convene future hearings in order to hear from the public and

OPC will work with this Committee to ensure public participation on this very critical issue.

To only provide the public with less than one week to prepare testimony on this very important matter is disappointing. OPC hopes the Committee will keep the record open for at least 60 days from today to receive additional testimony from the public to ensure the views and opinions of the public are not only shared, but considered.

II. OPC SUPPORTS ADVANCED METERING INFRASTRUCTURE AND COMPREHENSIVE CONSUMER EDUCATION

Make no mistake – the Office is very clear in its support for AMI deployment in the District which was authorized by the District Council on an emergency basis in 2009 and permanently in 2010. OPC understands that the electric grid is the single most important infrastructure in this country which enables all sectors of our society and newly emerging digital economy ranging from education, manufacturing, government, entertainment and housing, to grow and prosper. Moreover, it is important to understand that OPC was the first agency to introduce the concept of smart meter technology in settlement discussions which led to the approval of the PEPCO-Conectiv merger and the creation of the smart meter pilot program known as *PowerCentsDC*. AMI will demonstrably change the human experience with electricity once fully deployed. Therefore, the Office seeks

to ensure its deployment implementation is done correctly and with little to no negative residual effects on consumers.

However, what concerns OPC and many consumers is the perceived insensitivity of some public officials to fully appreciate the need for a comprehensive education initiative designed to provide each and every consumer with essential information needed to understand how AMI will be deployed, the benefits consumers can expect in exchange for the cost each consumer will bear for AMI deployment, and to address any problems consumers should anticipate with the deployment. Therefore, OPC advocates that AMI deployment not be hastily undertaken in an effort to get it done quickly without taking deliberate steps to ensure it is done with little adverse impact on the public.

Indeed, it is important for this Committee and the public to know the Office first raised the issue for the development of a comprehensive AMI consumer education program in a request made before the Public Service Commission of the District of Columbia (“Commission”) on May 3, 2010.² Given the experience of the *PowerCentsDC* smart meter pilot program, it became obvious a comprehensive consumer education program was critical to the success of the AMI. OPC believes

² 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 Advanced Metering Infrastructure Surcharge and to Establish a DSM Collaborative and an AMI Advisory Group, Motion of the Office of the People’s Counsel Requesting the Commission Establish an Advanced Metering Infrastructure Task Force to Develop a Comprehensive Educational Program for Consumers, filed May 3, 2010.

the development of the AMI consumer education program in a collaborative task force is an effective way for stakeholders to provide meaningful suggestions toward a program that meets measurable goals by educating consumers on all aspects of the AMI from deployment to utilization. Moreover, PEPCO echoed OPC's concerns in support of OPC's request to use a collaborative process to develop an AMI consumer education program.

It was not until 77 days later on July 19, 2010 that the Commission granted the Office's request and established the AMI Task Force. In the interim, PEPCO announced plans to begin deploying smart meters in September 2010. Prior to PEPCO's announcement, very little, if anything, had been done to apprise consumers of what was coming and how they should be prepared for it.

Much has been said about how OPC lauds the success of a collaborative process yet requested the Commission to direct PEPCO to submit a detailed consumer education and outreach plan prior to smart meter deployment. OPC made this request because while meeting with PEPCO in the AMI Task Force meetings in August and September 2010, the Office determined that PEPCO's approach to educating consumers about its AMI deployment was inadequate to educate the masses of District residents about why the smart grid is being deployed, how it will impact them and the benefits consumers will derive. This prompted the filing of the Motion on September 27, 2010, requesting the

Commission, the agency with plenary authority to ensure the delivery of safe, adequate and reliable service and to ensure public utilities are operating in a manner that serves the public interest, to require PEPCO to delay its deployment until an adequate consumer education plan was produced. OPC is disappointed with the Commission's position that because the District Council legislated the implementation of AMI, the Commission, the regulator, lost all plenary authority to ensure the public interest is served by having consumer education in place before the start of smart meter deployment. If the public interest is best served by delaying deployment until consumers are equipped with the information needed to fully understand what is about to take place, there is nothing in the District Code that would prevent the Commission from acting to do so. Indeed, there is nothing in the District Code that prevented the Commission from establishing the AMI Task Force. And the AMI Task Force does not prevent the Commission from acting, in response to OPC's request, to delay the deployment schedule for smart meters.

Ironically, it was not until OPC requested the Commission delay AMI deployment in September 2010 that PEPCO unveiled its smart meter deployment Web page, complete with a fact sheet entitled, "Preparing for the new Smart

Meter.”³ It appears District consumers are now receiving information informing them of the deployment process.

While the Commission chose not to heed OPC’s alarm for the need to delay deployment until PEPCO presented a customer education and media outreach proposal regarding AMI deployment, OPC is committed to fulfilling its statutory obligation to provide such education in order to address public concerns. The Office will continue to work within the AMI Task Force to develop the AMI consumer education program and looks forward to developing a program that is effective in educating consumers about this new transformation in electric energy distribution.

III. FUNDAMENTAL QUESTIONS

As the Committee will learn from OPC and the public, the fundamental questions many consumers have about the AMI deployment are: (1) what is AMI? and (2) why do I need this? As evidenced by the feedback received at the OPC Smart Meter Education Forum on October 14, 2010, and at a number of ANC and civic association meetings held the past few months, many consumers are in need of meaningful and sensible answers to important questions about AMI and its intended benefits for consumers. Some answers have been provided. Some

³ Found at http://www.pepco.com/_res/documents/DC_smartmeter_preparing_sheet.pdf.

answers have yet to be provided. OPC hopes this roundtable will be a forum in which the public will be provided with the answers to these fundamental questions.

A. Historical Backdrop

Over ten years ago, the District agreed to the restructuring of the retail electric market. PEPCO was allowed to divest its electric generation assets. The market was opened for competitive electric suppliers to provide electric generation services in the District with the expectation of competitive electric generation service rates for consumers. Rate caps were put in place on the Standard Offer Service (“SOS”) provided by PEPCO to protect consumers from the volatility to which they would be exposed in their bills because of volatile wholesale electric generation rates.

Unfortunately, as we have learned, the District’s electric retail markets have yet to be competitive and District consumers have seen electric generation service rates increase in the five years since the cap on these rates were lifted. What consumers were promised—competitive rates—never materialized. Why consumers were promised this—because with more competition their electric generation service rates would decrease—never occurred.

Additionally, PEPCO promised, in exchange for being allowed to divest its generation assets, to keep a laser-like focus on distribution service as a wires only company. In return, District consumers have seen little to no enhancements to the

District's distribution system over the past ten years, despite \$47 million rate increases approved by the Commission over the last two years.

Fast forward to 2010 – we are again seeing a multitude of promises that consumers will benefit now from AMI. Given the failed experiment in restructuring the District's retail electric market, one can appreciate the growing concern with the advent of AMI to move with caution to ensure the deployment is done correctly. We do not want to have a major problem that takes months or years to fix that could have been avoided if only more time and caution had been taken to ensure potential problems were identified and resolved.

B. What is AMI?

So, what is AMI? The Committee's announcement of this public roundtable, states: *The buildout has recently begun, and is expected to be completed in late 2011. At that time all District residents will have a smart meter. Smart meters will enable utilities to measure how much and where energy is being consumed and be able to locate blackouts and problems within the network. Homeowners will also be able to see how much energy they are consuming and be able to make adjustments accordingly.*

In its April 2007 Blueprint for the Future, PEPCO indicates

AMI will provide customers and the utility with more detailed and timely information on energy use. . . These advanced meters will ultimately allow the Company to collect and transmit customer information such as billing data, usage

patterns, voltage levels and outage information, and ultimately send information to PEPCO's computer systems, where the Company can process it and use it to better serve customers. This system can also be used to communicate directly to customers' thermostats and appliances and control the operation of this equipment based on energy prices. In the future, this system will permit PEPCO to send information to customers, through display in the customer's homes or to an internet site, the price of electricity – either real time prices or day ahead pricing. Eventually appliances will be in homes and businesses that are able to directly respond to energy prices. In addition to the direct customer benefits, the Company expects several service quality improvements from AMI technology, such as the ability to remotely turn customers on/off (an advantage in areas with high turnovers in occupancy), theft detection, and, as the Company will be able to monitor (as opposed to estimate) actual load, more accurate service transformer and wire sizing.⁴

Many consumers are questioning whether AMI is even necessary at this point because their focus is more on the reliability of the current electric distribution system, not additional technology that appears to benefit only PEPCO. Despite the assertions being publicly touted about consumer benefits to be realized with the AMI, there has been little demonstrated evidence of any benefits District consumers will actually obtain from AMI. Indeed, District consumers will be paying more for technology that many know nothing about and may not

⁴ 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 Advanced Metering Infrastructure Surcharge and to Establish a DSM Collaborative and an AMI Advisory Group, Application of Potomac Electric Power Company for Authorization to Establish a Demand Side Management Surcharge and Advanced Metering Infrastructure Surcharge and to Establish a DSM Collaborative and an AMI Advisory Group at p. 8, filed Apr. 4, 2007.

necessarily want. The central reason for this has been the lack of a comprehensive plan to provide information to consumers.

We are learning AMI is a socially transformational, advanced technology system designed to integrate automation systems within and between electricity delivery infrastructure, distributed resources and end use systems. This system enables two-way communication between PEPCO and its customers. AMI will not enhance the reliability of the District's electric distribution system, nor significantly improve the ability of PEPCO to adequately provide such service.

While AMI is now becoming the new wave in the electric industry and purports to provide benefits to consumers, in actuality, PEPCO is the true beneficiary of benefits from AMI. PEPCO has been rewarded \$44.6 million in funds from the federal government. PEPCO will receive enhanced meter data management and customer information systems. PEPCO will acquire over 200,000 smart meters to be installed in consumer residences. PEPCO will recover the cost of retiring over 200,000 existing meters. In return, District consumers will pay at least \$44.6 million in matching funds in subsequent rate proceedings and will receive uncertain and unquantifiable benefits.

C. Why do I need AMI?

The second fundamental question consumers have is, "Why do I need AMI?" Interestingly, with many consumers unaware of what AMI is, they are

equally unaware of why they need it. With the mass deployment of a new device with uncertain and unknown consumer benefits, it is quite reasonable for consumers to question why they need AMI, just like many questioned why they needed to have retail electric markets restructured. In its Blueprint for the Future, PEPCO indicates the cost for full AMI deployment will be “offset by energy cost reductions, utility cost reductions and service quality improvements.”⁵

What PEPCO fails to acknowledge is none of these benefits are known and certain. But there are many things which are known and certain. The District is undergoing a massive effort to reduce city-wide energy consumption and peak demand which is hoped to be achieved by the efforts of the Sustainable Energy Utility (“SEU”), paid for by District consumers at a price tag as high as \$20 million annually. This raises serious questions about whether AMI or SEU will impact energy consumption, given the very high costs being passed on to consumers. Consumers have seen distribution service rates increase by \$47 million over the last two years. PEPCO was authorized to receive a guaranteed revenue stream with the approval of its proposed Bill Stabilization Adjustment. PEPCO recently released its six-point \$318 million reliability enhancement plan. A distribution service rate increase request is certain to be made soon. Therefore, what the Committee and the public should know is that ten years later, District

⁵ Id. at 13.

consumers will realize increasing energy costs, reduced service quality, and more risk with no real expectation of cost savings in the near future. That is not a benefit of PEPCO's electric restructuring. And now consumers are being asked to accept AMI. So, again, consumers ask, with unknown and uncertain benefits and rising energy costs on the horizon, why do I need AMI?

IV. OPC'S EFFORTS TO EDUCATE CONSUMERS ABOUT AMI DEPLOYMENT

In addition to efforts undertaken before the Commission to ensure consumers receive adequate education about the AMI, the Office has been proactive in its education and outreach efforts. Specifically, OPC is using a variety of means to inform consumers about PEPCO's deployment of its AMI network. First, OPC has sent out a number of messages detailing the status of PEPCO's smart meter deployment through its e-mail distribution network which reaches approximately 10,000 consumers throughout the city. Second, OPC has produced two flyers that define AMI, outlines the need for the new network, and details the benefits consumers will receive as purported by PEPCO. Third, OPC has conducted a number of educational outreach throughout the city to inform consumers about the deployment of the AMI. Fourth, OPC and PEPCO have agreed to conduct a number of joint education forums with consumers. The first of these joint educational meetings was conducted on October 14, 2010 at the Sumner School. Additional forums will be conducted this year and throughout 2011, as the

Company deploys the AMI network. Fifth, OPC recently completed a section of its Web site dedicated to educating consumers about AMI.

The Office will continue to embark on a consumer education effort, in furtherance of its statutory mandate to provide outreach and education to District consumers. We look forward to the active participation of all stakeholders and hope consumers will receive the information needed in order to make informed decisions in this AMI era.

V. CHALLENGES FOR THE FUTURE

As the District moves forward with AMI deployment, consumers will face a number of challenges. Not only will consumers see their energy costs increase significantly, a number of very serious concerns emerge.

First and foremost is reliability. While PEPCO claims a number of benefits AMI will provide, we cannot lose focus on the fact that reliability of the AMI system is the number one priority. In April of this year, OPC recommended the Commission hire an independent third party to conduct an end-to-end test of the AMI network prior to residential consumers using the network. The purpose of this request was to provide the Commission with an initial benchmark of the readiness of the AMI network and to provide all stakeholders with confidence that an impartial entity found the network capable of providing safe, adequate and reliable service. Unfortunately, the Commission denied this request.

Second, benchmarks need to be established to ensure consumers benefit from the deployment of AMI technology, that only prudently incurred expenses are recovered and that consumers will not be responsible for paying for faulty programs and products that do not meet national standards for interoperability and cyber-security.

Third, rules need to be in place to ensure consumers' interests are adequately protected in this new era of AMI technology. While the Commission has established a docket to evaluate the policies that will serve as the basis for these rules, no procedural schedule has been established to accomplish this important task. OPC remains concerned about the need for adequate consumer protections. The Office supported the smart grid resolution adopted by the National Association of State Consumer Advocates ("NASUCA") in June 2009, supporting a number of smart grid principles. Among the many principles adopted was the principle of precluding states and utilities from using smart grid deployment to reduce consumer protections regarding electric service in general and termination procedures in particular. The Office is committed to ensuring essential consumer protections and will aggressively seek what is necessary to achieve this.

Fourth, net metering rules need to be in place to ensure that those who are investing in distributed generation facilities, namely solar arrays, fully receive the value of their generation efforts. Specifically, that they receive a meter capable of

measuring their renewable generation in a timely fashion and that their bills accurately detail the amount of energy they generate and send back to the grid.

V. RECOMMENDATIONS

Based upon the aforementioned concerns, OPC proposes the following recommendations:

First, regarding AMI system reliability – the Commission needs to focus its attention on conducting a thorough review of PEPCO’s performance using AMI. Therefore, OPC recommends the District Council amend D.C. Code § 34-1562, the statute that authorized AMI deployment, to require the Commission to select a third party to conduct an end-to-end test of the AMI network prior to all residential consumers being placed on the new rates in 2013. This will ensure the meters being deployed are accurate and will not present problems once full deployment is complete. The meters are the single source of all consumption data used to bill consumers. If the meters are not functioning properly, consumer bills are impacted and the integrity of the AMI system is compromised.

Second, regarding cost recovery, the Commission needs to establish a proceeding to set benchmarks to evaluate the costs and benefits associated with the deployment of AMI. Moreover, the Commission must make it clear to PEPCO that the Company will not receive cost recovery for (1) failing to meet pre-established benefit benchmarks, (2) implementing faulty project designs, and (3)

using technology and protocols that do not adhere to soon-to-be established interoperability and cyber-security standards. This was another important principle included in the NASUCA smart grid resolution. This was not contemplated when the District Council authorized the implementation of AMI. However, the District Council did specifically direct the Commission to adopt appropriate regulations or issue orders in general areas of concern when it authorized the restructuring of the District's retail electric markets (see D.C. Code § 34-1504).

Third, regarding consumer protections, the Commission needs to develop the adoption of enhanced consumer protections prior to all residential consumers being placed on the proposed rate structure in 2013. Again, while this was not contemplated when the District Council authorized the implementation of AMI, there is precedent for the District Council to take steps to direct the Commission, accordingly (see D.C. Code §34-1504).

Fourth, regarding consumers investing in distributed generation products and services, the Commission needs to review the net metering rules in light of the changing circumstances AMI presents to consumers who are investing in distributed generation facilities. D.C. Code § 34-1518 specifically directs the Commission to establish a net metering program “which affords eligible customer-generators the opportunity to participate in net energy metering.”⁶ To the extent the

⁶ D.C. Code §34-1518(a).

existing rules adopted pursuant to this statute impeded the ability of consumers desiring to undertake measures to invest in distributed generation resources, all efforts should be made to remove such impediments.

In conclusion, I thank the Committee for convening this roundtable to discuss this important issue and am prepared to answer any questions.