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December 8, 2009

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Honorable James McNulty
Secretary, Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

RE: Petition of Duquesne Light Company for Approval of its
Smart Meter Procurement and Installation Program
PUC Docket No. M-2009-2123948

Dear Secretary McNulty:

Please find for electronic filing the Main Brief of the Commonwealth of Pennsylvania, Department of Environmental Protection in the above referenced matter. Copies have been served on all parties listed on the enclosed Certificate of Service.

Sincerely,

/s/ Scott Perry

Scott Perry
Assistant Counsel

cc: Service List

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Duquesne Light Company :
for Approval of its Smart Meter : **Docket No. M-2009-2123948**
Procurement and Installation Program :

**MAIN BRIEF OF THE
COMMONWEALTH OF PENNSYLVANIA,
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

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Dated: December 8, 2009

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STATEMENT OF THE CASE

I. Introduction

Pursuant to the October 7, 2009 Prehearing Order of Administrative Law Judge Robert P. Meehan, the Commonwealth of Pennsylvania, Department of Environmental Protection (“Department”) files this main brief in the above captioned matter.

Act 129 of 2008 became effective November 14, 2008 and requires electric distribution companies (“EDCs”) with more than 100,000 customers to, in relevant part, develop smart meter technology procurement and installation plans. 66 Pa. C.S. § 2807 (f)(1). Act 129 further requires EDCs to furnish smart meters upon request from a customer, in new building construction, and in accordance with a distribution schedule not to exceed 15 years. 66 Pa. C.S. § 2807 (f)(2).

Act 129 also specifies the functions smart meters must provide. In order to be considered a smart meter, the meter and supporting infrastructure must 1) be capable of bidirectional communication, 2) record electricity usage on at least an hourly basis, 3) provide customers with direct access to and use of price and consumption information, 4) directly provide customers with information on their hourly consumption, 5) enable time-of-use rates and real-time-price programs and 6) effectively support the automatic control of the customer’s electricity consumption by one of the following as selected by the customer: the customer, the EDC, or a third party engaged by the customer or the EDC. 66 Pa. C.S. § 2807 (g).

Through its Smart Meter Procurement and Installation Order (“Installation Order”) at Docket No. M-2009-2092655, the Pennsylvania Public Utility Commission’s (“Commission”) established the process by which the Smart Meter Plans will be

approved, the schedule under which smart meters are to be deployed, the minimum functions the meters are to provide, and the method by which the EDC may recover its costs.

Significantly, the Installation Order established a 30 month network and installation grace period during which EDCs are not required to deploy smart meters. Installation Order at 7. Equally significant, the Installation Order also required smart meters to provide nine additional functions unless the Commission determines that the function is not cost effective. Installation Order, 30-31. Finally, the Installation Order clarified that smart meters are to be deployed throughout the EDC's service territory in less than 15 years from the date the EDC's Smart Meter Plan is approved. *Id.* at 14-15.

II. Procedural History

Pursuant to Act 129 and the Commission's Installation Order, on August 14, 2009, Duquesne Light Company ("Duquesne") filed its Petition for Approval of its Smart Meter Procurement and Installation Plan ("Smart Meter Plan").

On August 29, 2009 the Commission published a notice of Duquesne's petition in the *Pennsylvania Bulletin* which required Petitions to Intervene and comments to the Smart Meter Plan to be filed by September 25, 2009. 39 *Pa. Bulletin* 35. The Department filed its petition to intervene on September 18, 2009. On September 25, 2009, and in compliance with the Commission's *Bulletin* notice, the Department filed comments to Duquesne's Smart Meter Plan. On October 7, 2009 a prehearing conference was held in this matter and the Department's petition to intervene was granted.

III. Description of Duquesne's Smart Meter Plan

Duquesne's Smart Meter Plan can best be described as a plan to develop a smart meter plan. The filed plan describes the activities Duquesne will undertake during the 30 month grace to choose the smart meter technology it will deploy throughout its service territory. Based on the milestones specified in the Installation Order, these activities include the following assessments and proposed completion dates:

- 1) Smart meter capability cost benefit analysis – July 1, 2010.

Duquesne notes that the majority of the “additional” capabilities required by the Installation Order are included in the base meter.

- 2) Assessment of needs and technological solutions and selection of technologies and vendors – December 31, 2010.

Of importance to the Department, Duquesne will evaluate Home Area Network devices.

- 3) Establishment of network designs – March 31, 2011.
- 4) Establishment of plans to design, test and certify EDI transactions, Web Access and Direct Access capability – June 30, 2011.
- 5) Installation, testing and rollout of support equipment and software – September 30, 2011.
- 6) Establishment of plans for installation of meters, outside communications and training personnel – November 1, 2011.

Duquesne plans to deploy 8,000 meters by December 31, 2013 and the remaining 600,000 meters by December 31, 2018.

Smart Meter Plan pages 10-13.

Duquesne's Smart Meter Plan (as modified by testimony) also set forth three supplemental filings and annual reports the company will present to the Commission to document the progress of the Smart Meter Plan and requesting Commission approval for continued courses of action. These filings include: 1) Annual reports filed March 1 each year in compliance with the Installation Order. 2) On July 1, 2010, file a breakdown of the incremental costs and savings for deployment and operating costs of the additional smart meter functions mandated by the Commission. This filing will determine which of the nine additional functions listed in the Installation Order will be deployed. Smart Meter Plan at 10. 3) On December 31, 2010, request Commission approval of the technology and vendor selected. Duquesne exhibit C-R Page 9. 4) On December 31, 2011, file an updated Smart Meter Procurement and Installation Plan with added details and costs. Smart Meter Plan at 14.

During the grace period, Duquesne will supply customers requesting smart meters with an interval data-capable meter that is currently in use by its large commercial and industrial customers. Plan Exhibit C, Testimony of Ruth Ann DeLost at 11.

Finally, Duquesne proposes to recover its costs through a reconcilable automatic adjustment clause under Section 1307 of the Public Utility Code. Smart meter Plan at 37. Duquesne's Smart Meter Charge will recover applicable capital costs and operating expenses on a forward-looking basis, with quarterly filings and an annual reconciliation. Id.

IV. Summary of Argument

The Department's primary interests in this matter relate to the timeframe in which the smart meter network will be developed, the timeframe in which smart meters will be

deployed system-wide, and the functions the proposed smart meters and infrastructure will perform and support. Overall, Duquesne's Smart Meter Plan presents a logical process for analyzing, selecting and implementing a smart meter system. However, Duquesne's Smart Meter Plan does not specify the technology it will deploy to meet the functionality requirements mandated by 66 Pa. C.S. § 2807 (g).

In order to provide these functions, the Commission has specified that EDCs must deploy meters that have the "capability to provide raw near real-time consumption data through a [Home Area Network] or similarly capable method of open protocols." Installation Order at 23. The Commission's Order approving Duquesne's plan should specifically require Duquesne to deploy Home Area Network ("HAN") enabled meters.

The Department also believes that rapid deployment of smart meters is in the public interest. Duquesne has committed itself to completing the installation of the smart meter network by the end of the grace period, as required by the Installation Order, and to completing system wide deployment of smart meters by January 1, 2019. The Department request that the Commission's Order approving Duquesne's plan specifically require Duquesne to maintain compliance with these dates.

VI. Argument

The Department's primary interests in this matter relate to the timeframe in which the smart meter network will be developed, the timeframe in which smart meters will be deployed system-wide, and the functions the proposed smart meters and infrastructure will perform and support. Overall, Duquesne's Smart Meter Plan presents a logical process for analyzing, selecting and implementing a smart meter and infrastructure

system. However, Duquesne's Smart Meter Plan does not specify the technology it will deploy to meet the functionality requirements mandated by 66 Pa. C.S. § 2807 (g).

The Department also believes that rapid deployment of smart meters is in the public interest. While Duquesne's plan presents the dates by which the smart meter network will be installed and when system wide deployment will be achieved, it is not clear that these dates are "set in stone".

As set forth below, the Commission's Order approving Duquesne's plan should specifically require Duquesne to satisfy the functionality requirements of Act 129 and deploy smart meters in the timeframe specified in the plan.

1. Duquesne's Smart Meters Must Meet the Definition of "Smart Meter Technology" in 66 Pa. C.S. § 2807 (g) and the Installation Order.

Act 129 of 2008 requires EDCs with more than 100,000 customers to, in relevant part, develop smart meter technology procurement and installation plans. 66 Pa. C.S. § 2807 (f)(1). Act 129 further requires EDCs to furnish smart meters upon request from a customer, in new building construction, and in accordance with a distribution schedule not to exceed 15 years. 66 Pa. C.S. § 2807 (f)(2). In order to meet these statutory requirements, the EDC's Smart Meter Plan must provide for the deployment of smart meters that meet the definition of "smart meter technology".

66 Pa. C.S. § 2807 (g) defines "smart meter technology" as follows:

[T]echnology, including metering technology and network communications technology capable of bidirectional communication, that records electricity usage on at least an hourly basis, including related electric distribution system upgrades to enable the technology. The technology shall provide customers with direct access to and use of price and consumption information. The technology *shall* also:

- 1) Directly provide customers with information on their hourly consumption.
- 2) Enable time-of-use rates and real-time price programs.

3) Effectively support the automatic control of the customer's electricity consumption by one or more of the following *as selected by the customer*:

- (i) the customer;
- (ii) the customer's utility; or
- (iii) or a third party engaged by the customer or the customer's utility. (Emphasis added)

With regard to the enumerated functions mandated by Act 129, the critical element of the definition is allowing *the customer* to be in control of establishing the automatic control of their electricity consumption through the smart meter – whether it be on their own, through a conservation service provider, or through the EDC. Accord, 66 Pa. C.S. § 2807 (g). The Installation Order directly addresses these mandated functionalities as follows:

[T]he Commission will require EDC smart meters to have a capability to provide raw near real-time consumption data through a HAN or similarly capable method of open protocols. This delivery method should also be capable of providing pricing signals to support real-time and time-of use pricing programs, as well as energy efficiency and demand response programs. Smart meters should support EDC and EGS time-of-use and real-time-pricing programs. Similarly, smart meters should support EDC, EGS and CSP energy efficiency and demand response programs.

Installation Order at 23.

As made clear by the Installation Order, the purpose of these functions is to effectively enable customers to control their energy consumption by responding to price signals sent directly to them through the meter system.

Given the clear benefits of these functions and the equally clear direction of the legislature and the Commission, it is critical that Duquesne deploy smart meters that enable HAN devices. While Duquesne's Smart Meter Plan does indicate that Duquesne will evaluate HANs, Duquesne has not expressly stated it will deploy smart meters with this device. Because the functions listed in Act 129 are mandatory and the Commission's

Installation Order specifies how those requirements will be met, the Commission's Order approving Duquesne's Smart Meter Plan must require Duquesne to deploy smart meters that enable a HAN.

2. Smart Meters Must be Deployed System Wide in a Timely Fashion

The Pennsylvania legislature recognized the clear benefits of smart meters and the benefits of an educated energy consumer when it required Electric Distribution Companies to provide smart meters throughout their service territory and offer all customers the option of enrolling in real time or time of use pricing programs. 66 Pa. C.S. § 2806(f). However, and most importantly, none of the benefits that smart meters provide can be realized if the meters and the functions they support are not in the hands of the consumer.

Act 129 requires EDCs to furnish smart meters upon request from a customer who agrees to pay the incremental cost of the meter, in new building construction, and in accordance with a distribution schedule not to exceed 15 years. 66 Pa. C.S. § 2807 (f)(2). The Commission's Installation Order appropriately gives EDCs a 30 month grace period in which to complete an evaluation of smart meter technology and install the smart meter infrastructure network. Installation Order at 7. As such, at the conclusion of the grace period, the network *must* be fully installed so that smart meters (that provide all the functions listed in Act 129 and those functions that have not been waived by the Commission) can be provided. Absent the network, the meters will not provide the functions that make them "smart". Accord, Installation Order at 6 ("A fully functional smart meter that supports the capabilities required by Act 129 and as outlined below, involves an entire network...").

Duquesne's Smart Meter Plan and Petition for Approval states that Duquesne will complete the installation of the smart meter network by October 1, 2012, complete the roll out of 8,000 smart meters by December 31, 2013 and complete system-wide deployment of smart meters by December 31, 2018. See Petition at 12 and Plan at 13. However, Duquesne's Smart Meter Plan also states that the "dates are approximate" and that it is simply Duquesne's "intent" to meet the 15 year deployment schedule provided by Act 129. Petition at 10, Plan at 37.

While these statements are not necessarily inconsistent, they do create some confusion. Therefore, the Department requests that the Commission Order approving Duquesne's Smart Meter Plan explicitly require Duquesne to complete the installation of the smart meter network by the end of the 30 month grace period, as required by the Installation Order, and to completing system wide deployment of smart meters by January 1, 2019.

VII. Conclusion

For the foregoing reasons, the Department respectfully requests that the Commission approve Duquesne's Smart Meter Plan subject to the following conditions.

1) Every smart meter installed by PPL shall enable a Home Area Network that meets nationally recognized open standards and protocols. 2) complete the installation of the smart meter network within 30 months of the date of the Commission's Order, complete the deployment 8,000 smart meters by December 31, 2013 and complete system-wide deployment of smart meters by December 31, 2018.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true copy of the foregoing document, the Main Brief of the Commonwealth of Pennsylvania, Department of Environmental Protection, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code Section 1.54 (relating to service by a participant), in the manner upon the persons listed below:

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