

COMMONWEALTH OF PENNSYLVANIA



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March 17, 2016

Rosemary Chiavetta, Secretary
PA Public Utility Commission
Commonwealth Keystone Bldg.
400 North Street
Harrisburg, PA 17101

Re: Petition of Duquesne Light Company for
Approval to Modify its Smart Meter
Procurement and Installation Plan
Docket No. P-2015-2497267

Dear Secretary Chiavetta:

Enclosed for filing is the Office of Consumer Advocate's Main Brief in the above-referenced proceeding.

Copies have been served on the parties as indicated on the enclosed Certificate of Service.

Respectfully Submitted,

/s/ David T. Evrard
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Assistant Consumer Advocate
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Enclosure

cc: Honorable Katrina L. Dunderdale, ALJ
Certificate of Service
*218492

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of Duquesne Light Company for :
Approval to Modify its Smart Meter : Docket No. P-2015-2497267
Procurement and Installation Plan :

MAIN BRIEF
OF THE OFFICE OF CONSUMER ADVOCATE

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PUBLIC VERSION

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I. INTRODUCTION

Act 129 of 2008 (Act 129) took effect on November 14, 2008. Among its provisions, the Act required that within nine months of its effective date all electric distribution companies (EDCs) with more than 100,000 customers had to file with the Pennsylvania Public Utility Commission (Commission) a Smart Meter Technology Procurement and Installation Plan (Smart Meter Plan or Plan).

On June 24, 2009, the Commission issued its Implementation Order¹ which established the standards that the EDCs' Smart Meter Plans must meet. Among other things, the Implementation Order established standards as to the functions that smart meters must be capable of performing and provided guidance on the Commission's expectations for smart meter deployment.

Regarding smart meter functions, Act 129 defines "smart meter technology" as technology, including metering and network communications technology, capable of bidirectional communication that records electricity usage on at least an hourly basis. The technology must provide customers with direct access to and use of price and consumption information. It must also: (i) directly provide customers with information on their hourly consumption; (ii) enable time-of-use rates and real-time pricing programs; (iii) effectively support the automatic control of the customer's electricity consumption by one or more of the following as selected by the customer: the customer's utility, a third party engaged by the customer, or the customer. 66 Pa.C.S. § 2807(g).

In its Implementation Order, the Commission stated that it considered the smart meter capability requirements set out in Act 129 to be minimal requirements. The Commission

¹ Smart Meter Procurement and Installation, Docket No. M-2009-2092655 (Order entered June 24, 2009) (Implementation Order).

noted that that smart meter technology is capable of supporting “more than demand response and pricing programs.” Implementation Order at 16. Accordingly, the Commission identified nine additional smart meter functions that it directed the EDCs to support through their upgraded technology, beyond those mandated by Act 129. That said, however, the Commission recognized that some of these additional functions may prove not to be cost-effective, that is, that their costs may exceed the benefits they provide. The Commission therefore directed that the EDCs’ Smart Meter Plans identify the costs of meeting each of the nine additional functions it had specified, less any operating or capital cost savings. The Commission stated that “to the extent that an EDC or another party demonstrates that a particular Commission imposed requirement is not cost-effective, the Commission will have the option of waiving a particular requirement for that EDC or all EDCs.” *Id.* at 31.

The instant proceeding involves two of the nine additional functions specified by the Commission, *viz.*, (1) the ability to monitor voltage at each meter and report data in a manner that allows an EDC to react to the information, and (2) the ability to communicate outages and restorations.

Duquesne Light Company (Duquesne or Company) filed its Initial Smart Meter Plan with the Commission on August 14, 2009. The Plan was approved, subject to certain modifications not relevant here, on May 11, 2010.²

On July 10, 2010, Duquesne filed a Cost Benefit Analysis in which it provided data related to the nine additional smart meter functions identified in the Implementation Order. On the basis of its analysis, Duquesne tentatively recommended against pursuing four of the additional smart meter capabilities, including voltage monitoring and outage communication.

² Petition of Duquesne Light Company for Approval of Smart Meter Technology Procurement and Installation Plan, Docket No. M-2009-2123948 (Order entered May 11, 2010).

However, Duquesne suggested that the Commission defer ruling on these additional meter capabilities until after the Company submitted its Final Smart Meter Plan.

Duquesne's Final Smart Meter Plan was submitted on June 29, 2012. In that Plan, Duquesne again reviewed the costs and benefits associated with each of the nine additional meter functions identified by the Commission and determined that two of those functions were not cost-effective (the ability to provide 15-minute or shorter interval data and the ability to communicate outages and restorations) and a third (ability to monitor voltage at each meter) required new products which had not yet been developed by the Company's smart meter vendors.

Litigation ensued regarding the Final Smart Meter Plan, but a settlement was reached. In its Order reviewing the settlement,³ the Commission approved the settlement subject to certain conditions. Among those conditions, Duquesne was directed to provide specific cost effectiveness data to support its decision not to pursue the voltage monitoring and outage communication functions. This data was to be submitted by way of a compliance filing made within 90 days of the entry of the Order.

Duquesne made its compliance filing on August 2, 2013. In that filing, the Company indicated that making accurate estimates of costs and benefits would require additional detailed study and it proposed a three-phase study, the first phase of which – the Strategic Development Phase – would look at distribution operations processes and technology as well as data collection and would develop an implementation roadmap. Duquesne stated that upon the completion of the Phase I study it would petition the Commission for approval to implement specific outage communication, restoration and voltage monitoring capabilities consistent with

³ Petition of Duquesne Light Company for Approval of Smart Meter Technology Procurement and Installation Plan, Docket No. M-2009-2123948 (Order entered May 6, 2013).

the information it gathered in the Phase I study. Accordingly, Duquesne sought permission to initiate the study. By Order entered January 9, 2014, the Commission authorized Duquesne to conduct the Phase I study.⁴ It is the results of that study that form the basis of the instant proceeding.

II. PROCEDURAL HISTORY

On August 4, 2015, Duquesne filed the subject Petition to Modify its Smart Meter Plan (Petition), which included the Direct Testimony of three Company witnesses. On August 24, 2015, Duquesne filed Supplemental Direct Testimony for one of its witnesses. On the same day, the Office of Consumer Advocate (OCA) filed an Answer to Duquesne's Petition and subsequently, on September 18, 2015, filed a Notice of Intervention and Public Statement. On September 3, 2015, the Office of Small Business Advocate (OSBA) also filed a Notice of Intervention and Public Statement, and on October 13, 2015, a Petition to Intervene was filed by Citizen Power. The case was referred to the Office of Administrative Law Judge and was assigned to Judge Katrina L. Dunderdale. The judge convened a prehearing conference of the parties on October 13, 2015.

Pursuant to the procedural schedule established at the prehearing conference, Duquesne filed further Supplemental Direct Testimony on November 13, 2015. On December 17, the OCA filed the Direct Testimony of its witness, Stacy L. Sherwood.⁵ Rebuttal Testimony was filed by Duquesne on January 21, 2016. The OCA filed Surrebuttal Testimony on February

⁴ Petition of Duquesne Light Company for Approval of Smart Meter Technology Procurement and Installation Plan, Docket No. M-2009-2123948 (Order entered January 9, 2014).

⁵ Ms. Sherwood is an Economist with Exeter Associates, Inc. At Exeter, Ms. Sherwood develops utility service assessments, provides bill and rate analysis, and assesses and evaluates the effectiveness of energy conservation and efficiency programs. Prior to joining Exeter, Ms. Sherwood served as a Regulatory Economist with the Maryland Public Service Commission (PSC). At the PSC, she performed analysis on the EmPOWER Maryland energy efficiency and demand response programs, the Exelon Customer Investment Fund, and served as lead analyst for the EmPOWER Maryland limited income programs.

4, 2016. The Company responded with written Rejoinder Testimony on February 11, 2016. The OCA submits this Main Brief in accordance with the procedural schedule.

III. STATEMENT OF THE QUESTIONS INVOLVED

The questions at issue in this case are the following:

- Whether Duquesne’s proposed Advanced Distribution Management System (ADMS) is cost-effective and whether the Company should implement it?
- If ADMS is implemented, whether the costs of ADMS should be recovered through Duquesne’s Smart Meter Charge (SMC)?
- Whether the costs of implementing Bill-Ready billing should be recovered through the SMC?

IV. BURDEN OF PROOF

In this proceeding, Duquesne is seeking an order from the Commission approving the amendments it has proposed to its previously approved Final Smart Meter Plan. As such, the assignment of the burden of proof in this case falls squarely within the provisions of Section 332(a) of the Public Utility Code, 66 Pa.C.S. § 322(a), which states that the “proponent of a rule *or order* [bears] the burden of proof.” (emphasis added) As the proponent of a specific Commission order, it is Duquesne that carries the burden of proof in this proceeding.

V. SUMMARY OF ARGUMENT

Corresponding with the issues identified in Section III above, the OCA argues as follows in this brief:

- The ADMS project proposed by Duquesne in this proceeding is not cost-effective and the Commission should not approve Duquesne going forward with the project.

- If the Commission disagrees and authorizes implementation of ADMS, recovery of ADMS costs should be sought through a base rate proceeding and not through the Company's SMC.
- The costs of implementing the Bill-Ready functionality should not be recovered through the SMC; rather, these costs should be borne by Electric Generation Suppliers (EGSs).

VI. ARGUMENT

A. SUMMARY OF DUQUESNE LIGHT'S MODIFIED SMART METER PLAN AND DISPUTED ISSUES IN PROCEEDING

In its Petition, Duquesne proposes the following modifications to its Final Smart Meter Plan approved in 2013:

(1) postponement of implementation of Time Of Use/Real Time Pricing and net metering functionalities from 2015 to 2016;

(2) implementation, over a period of five years, of ADMS, which involves, in sequential order, development of an electrical model of the Duquesne system, installation of an Outage Management System (OMS) and finally installation of a Distribution Management System (DMS). Duquesne proposes to do this to meet the Implementation Order's requirement that an EDC's smart meter system have outage communication and voltage monitoring capabilities, two of the nine additional functions listed in the Implementation Order ;

(3) acceleration of the schedule to deploy smart meters such that residential meters will be fully deployed by the end of 2018 and commercial and industrial meters by the end of 2019;

(4) a projected increase in the overall cost of the Plan from \$203 million (as approved in the Commission's May 6, 2013 Order) to \$319 million. Of this increase, \$54 million earmarked for completion of the installation of smart meters and supporting technology.⁶ This additional amount includes \$7 million to implement Bill-Ready billing, a sum not previously included in the Plan's estimated cost. An additional \$51 to \$62 million is the estimated cost of installing and running the ADMS through 2020. If the top end of this range of ADMS costs is spent, the total cost of the Plan will be \$319 million.

(5) addition of a \$15 million contingency component to its Plan budget to cover changes in scope or requirements, unforeseen cost increases or implementation difficulties. The contingency is not included in the \$319 million estimated Plan cost; and

(6) a request to make repairs, when necessary, to customers' service entrance equipment to allow for safe installation of smart meters.

The issues in dispute in this proceeding arise entirely in connection with modifications (2) and (4) above. The issues are as stated in Section III above.

B. ADMS ISSUES

1. ADMS Project Approval Issues

As noted above, the Commission's Implementation Order directed that an EDC's smart meter technology should support nine functions in addition to those mandated by Act 129. Concerned that some of these additional functions or capabilities might not be cost-effective, the Commission stated as follows:

⁶ In this proceeding, the additional \$54 million of non-ADMS related costs are referred to as Advanced Metering Infrastructure or AMI project costs.

In order to ensure that these additional smart meter functions are cost-effective, we direct that each smart meter plan filing include cost data that quantifies the costs to meet the minimum requirements set forth in Act 129, ... and the individual incremental costs of each added function, less any operating and capital cost savings.

Implementation Order at 29. The Commission further stated that if an EDC or other party demonstrates that a Commission-imposed smart meter function is shown to be not cost-effective, the Commission would retain the option of waiving that particular requirement for the affected EDC. *Id.* at 31.

In this proceeding, Duquesne presents evidence which it asserts demonstrates that the proposed ADMS project is cost-effective and should be implemented. The OCA, for its part, offers evidence that the project is not cost-effective and should not move forward. The OCA submits that as a cost-ineffective project, the Commission should reject the ADMS.

Duquesne's contention that ADMS is cost-effective rests on the Cost Benefit Analysis that was performed in connection with the previously mentioned Phase I study.⁷ The Direct and first Supplemental Direct Testimonies⁸ of Duquesne witness James Karcher explain the results of the study, describe the costs and benefits of the two components of ADMS (Outage Management System – OMS and Distribution Management System – DMS) and set forth Duquesne's reasoning for the position that ADMS is cost-justified. Very specifically, Duquesne estimates the cost of implementing the OMS portion of ADMS to be between \$42.2 and \$51.6 million. Duquesne St. No. 1 at 11. The Company projects that it will experience operational efficiency benefits of \$300,000 per year once the OMS is fully implemented. *Id.* at 7. In

⁷ Duquesne retained the consulting firm DNV GL to conduct the Phase I study. The completed study consisted of four reports: (1) Current State Analysis; (2) Future State Analysis; (3) Outage Management Roadmap and Implementation Plan and (4) Cost Benefit Analysis.

⁸ Duquesne Light Statements No. 2 and 2A.

addition, based on the study, Duquesne expects that having an OMS in place will result in a five minute reduction in customer average outage duration time on an annual basis. Duquesne estimates that this reduction will lower its customers' outage-related costs by approximately \$6 million per year.⁹ Duquesne St. No. 2 at 7. Duquesne refers to these cost savings as "societal benefits." *Id.* at 10.

Regarding the DMS portion of the ADMS, the Company estimates the cost of the system to be between \$3.8 and \$4.4 million. *Id.* at 14. The Phase I study evaluated two aspects of DMS – Volt/VAR optimization and transformer loading analysis. *Id.* at 12. In terms of benefits, the Volt/VAR optimization feature is expected to yield an electric system benefit of \$2 million per year in capacity demand reduction once the DMS is fully implemented.¹⁰ *Id.* at 13. The transformer loading analysis feature is estimated to achieve an annual benefit of \$285,000 in asset management and overtime savings once fully implemented. *Id.* This yields total benefits from the DMS of \$2.285 million per year.

In evaluating the costs and benefits of the entire ADMS project, Duquesne combined the estimated costs of the OMS (\$42.2 - \$51.6 million) with those of the DMS (\$3.8 - \$4.4 million) to reach a total of \$46 - \$56 million. Duquesne St. No. 2 at 15. Duquesne also pointed out that in addition to these costs, it will incur ongoing operating costs of \$5 million to \$6 million during the implementation phase of the project. *Id.* at 15-16. Over the projected 20-year life of the ADMS system, Duquesne expects the benefits to total \$46.3 million (\$300,000 x 20 years of OMS benefits plus \$2.285 million x 20 years of DMS benefits). *Id.* at 16. It should

⁹ Duquesne St. No 2-R identifies these customer outage-related costs as, among others, lost production for industrial customers, lost sales for commercial customers, and food spoilage and alternative housing costs for residential customers. Duquesne St. No. 2-R at 4.

¹⁰ The capacity demand reduction savings would flow directly to customers in the form of lower bills for the generation portion of their electric bills. Duquesne St. No. 2 at 13.

be noted that the amount of the benefits exceeds the *lower end* of the total cost estimate by only \$300,000, and only if the \$5 million to \$6 million of ongoing operating costs associated with the implementation phase are not considered. Duquesne, however, observes that the societal benefits of \$6 million per year that were identified in the Phase I study, when combined with the other benefits, renders the ADMS project cost-effective. *Id.*

OCA witness Sherwood took issue with the Company's conclusion. She identified three concerns with Duquesne's analysis. First, she questioned whether the benefits (other than societal) would actually exceed the ADMS' costs prior to the end of the project life. Second, she identified certain ongoing Operating and Maintenance (O&M) costs which should have been included in Duquesne's analysis. Third, she expressed concern that the \$6 million in annual societal benefits are too uncertain to be utilized as part of the cost-benefit analysis. OCA St. No. 1 at 11.

Regarding Ms. Sherwood's first concern, she questioned whether the ADMS project would indeed be completed at the low end of its projected cost range (thereby allowing projected benefits to exceed the projected costs). She pointed to a statement in Duquesne witness Karcher's Direct Testimony noting that the estimate for OMS was given in a range due to uncertainty about the cost at the current stage of development and that greater accuracy won't be achieved until the project is competitively bid. *Id.*

Ms. Sherwood's second concern involved accounting for ongoing project O&M costs as part the cost-benefit analysis. Duquesne did not include these costs; rather it compared implementation costs only (not ongoing costs) to benefits. Duquesne St. No. 2-R at 8. Ms. Sherwood explained why she thought inclusion of these costs was necessary:

The *Implementation Order* requires that “the deployment and operating costs to be presented shall include a breakdown of all incremental and any associated potential operational and maintenance cost savings for each functionality and configuration.” The cost-benefit analysis should reflect the incremental ongoing O&M costs that will be incurred during the period in which benefits are derived; otherwise, the cost-benefit analysis is not accounting for the required incremental costs to achieve those benefits and does not follow the requirements of the *Implementation Order*. The Company is projecting that the ADMS will generate enough benefits to surpass costs by the conclusion of 2039; however, this comparison excludes costs that will be incurred through 2039, but are beyond the implementation period.

OCA St. No. 1 at 12. (footnotes omitted)

Ms. Sherwood observed that in discovery responses, Duquesne projected ongoing incremental O&M costs for different components of the ADMS. In one instance incremental costs were projected **BEGIN CONFIDENTIAL** [REDACTED] **END CONFIDENTIAL** Relying on the Company’s characterization of these costs as ongoing, Ms. Sherwood developed a projection of these costs going forward through the life of the ADMS project, **BEGIN CONFIDENTIAL** [REDACTED] **END CONFIDENTIAL** As part of her projection, she applied a 3 percent escalation factor to the labor portion of these incremental costs through the period. Beginning with **BEGIN CONFIDENTIAL** [REDACTED] [REDACTED] [REDACTED] [REDACTED] **END CONFIDENTIAL** As mentioned, Duquesne did not take these costs into account as part of its cost-benefit analysis. Nor did it include the \$5 million to \$6 million of

incremental O&M costs related to the implementation phase of the project (between 2017 and 2020).¹¹

When the ongoing O&M costs are included in the analysis, the cost for the ADMS project rises from the \$46 million to \$56 million estimated by the Company, to nearly **BEGIN CONFIDENTIAL** [REDACTED] **END CONFIDENTIAL** Comparing this to the projected (non-societal) benefits of \$46.3 million, one can see that the cost of the project substantially outstrips the objective benefits the Company has identified.¹²

This brings us to Ms. Sherwood’s third concern with Duquesne’s cost-benefit analysis – the question of whether the societal benefits should be relied upon at all to justify the costs of the ADMS project. Ms. Sherwood testified that, “unless the [societal benefits] can be reliably quantified, they should not be used as part of the cost-benefit analysis.” *Id.* at 14. The OCA would note that even in the Phase I study itself, reliable quantification of these benefits is subject to question. Specifically, under the heading **BEGIN CONFIDENTIAL** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

¹¹ Ms. Sherwood’s analysis included these implementation phase O&M costs.

¹² It should be noted that according to Ms. Sherwood’s analysis, even if the \$6 million of societal benefits are utilized in the evaluation, benefits will not exceed costs until the year 2034.

[REDACTED]

[REDACTED]

[REDACTED] **END CONFIDENTIAL**

In rebuttal testimony, Duquesne witness Karcher explained that the \$6 million figure was derived from an analysis performed by the Company's consultant, DNV GL, and that DNV GL employed proprietary formulas to calculate the benefit figure. Duquesne St. No. 2-R at 4-5. Because the formulas used by the consultant could not be disclosed, Duquesne presented an alternative estimate of societal benefits based on a publicly available model for calculating benefits of reduced outage time. This model is called the Interruption Cost Estimate (ICE) Calculator, developed for the U.S. Department of Energy. *Id.* at 6-7. Using the ICE calculator, Duquesne estimated societal benefits of \$4.2 million three years after OMS implementation, rising to \$5.7 million at the end of 19 years, assuming a 2% annual rate of inflation. *Id.* at 7.

In her Surrebuttal Testimony, OCA witness Sherwood commented on what she viewed as limitations of the ICE model. She stated:

Using the inputs, the model relies upon data sets from customer value of service studies conducted by ten utilities from 1989 through 2012... In particular, the model does not contain any surveys from customers in the Mid-Atlantic and Northeast regions, which is the location of the service territory. The model recognizes that this issue is "particularly troublesome because of the unique population density and economic intensity of the region."¹³ In addition, the surveys tend to focus on time periods during which interruptions were having an impact on the region studied and more than half of the surveys are from over 15 years ago. Finally, the model is

¹³ Michael J. Sullivan, Josh Schellenberg, and Marshall Blundell, *Updated Value of Service Reliability Estimates for Electric Utility Customers in the United States*, Ernest Orlando Lawrence Berkeley National Laboratory, January 2015, 48.

designed to estimate the interruption costs for outages that last up to 16 hours and should not be used for major outages. These limitations of the model are concerning, as the assumptions are used to calculate more than half of the benefits expected for the ADMS project.

OCA St. 1-S at 2.

In rejoinder testimony, Mr. Karcher acknowledged ICE's limitations, indicated that Duquesne offered the ICE calculations as a way of demonstrating "that the estimated societal benefits calculated by the proprietary DNV GL model are reasonable," and, in light of ICE's shortcomings, recommended that the Commission look to the "more sophisticated" DNV GL model. Duquesne St. No. 2-RJ at 2.

The OCA views this differently. Rather than serving as a "check" on the results of the Phase I study's calculation of societal benefits, the OCA submits that the limitations of the ICE model serve to reinforce the fact that the reliable calculation of societal benefits is quite difficult to accomplish. Accordingly, in the absence of an ability to reliably quantify these benefits, the OCA submits that they should be excluded from the cost-benefit evaluation. The OCA further notes that the Commission has traditionally not recognized claims of societal benefits in other contexts, such as the analysis of cost effectiveness of energy efficiency programs.¹⁴ *See, Energy Efficiency and Conservation Program*, Docket No. M-2008-2069887 (Order entered January 16, 2009).

As noted above, without inclusion of the societal benefits, the costs of ADMS far exceed the benefits it will produce. As such, the OCA submits that the ADMS project is clearly cost-ineffective and its implementation should be rejected by the Commission on that basis.

¹⁴ Ms. Sherwood refers to this in her Surrebuttal Testimony, OCA St. 1-S at 5.

2. ADMS Cost Recovery Issues

Should the Commission disagree with the OCA and authorize implementation of ADMS, Duquesne proposes to recover the costs of the project through its existing Smart Meter Charge. Duquesne St. No. 3 at 5-6. The OCA submits, however, that the Company should seek recovery of these costs through a base rate case. OCA witness Sherwood explained the OCA's reasoning as follows:

The Company is already receiving revenues in base rates to pay for outage and distribution management functions. This is the standard practice for recovering these costs, and any costs associated with the upgrades to these systems should remain in base rates. Additionally, any operating efficiencies and associated cost reductions that accrue as a result of the investment in the ADMS will eventually flow back to customers through base rates.

Additionally, the soft benefits have not been quantified nor has the longevity of those soft benefits been quantified. Recovering the costs of the ADMS project as part of the base rates will allow for the forecasted soft benefits to be captured through base rates, over the same time period that the costs of the project are being collected through base rates.

OCA St. No. 1 at 16. Indeed, the type of costs being incurred for ADMS are the type of normal, ongoing capital and operating expenses that are traditionally recovered through base rates. Moreover, as discussed above, if a determination of cost-effectiveness is made in this proceeding, it can only be made by incorporating the soft and difficult to quantify societal benefits into the analysis. As Ms. Sherwood points out, given the uncertainty of the societal benefits, the matching over time (via base rates) of the recovery of costs with the occurrence of the benefits, would provide a more appropriate means of recovering ADMS costs given the specific circumstances that apply here. In addition, base rates better address issues of cost responsibility.

C. RECOVERY OF BILL READY COSTS

As noted earlier, Duquesne's modified Smart Meter Plan seeks approval of an additional \$54 million in costs related to smart meters and smart meter technology that are completely separate from the ADMS project. Included in the \$54 million is \$7 million to implement Bill Ready functionality. Duquesne St. No. 1 at 6. Duquesne proposes to recover these costs from all customers through the SMC.

The essence of Bill Ready billing is that it enables EGSs to take interval data from customers' smart meters and calculate the generation and transmission charges for special pricing programs that they offer (such as Time Of Use pricing) and then forward those charges to the EDC for inclusion on the EDC bill rendered to the customer. This contrasts with Rate Ready billing under which EGSs provide their rates to the EDC and the EDC calculates customer bills using the EGS' rate multiplied by the monthly consumption. Rate Ready billing offers EGSs no opportunity to make special pricing options available to their customers. At present, Duquesne offers only Rate Ready billing. OCA St. No. 1 at 18. It is clear that being able to provide Bill Ready billing will facilitate the ability of EGSs operating in the Duquesne territory to offer a greater range of products to their customers. Based on this recognition that EGSs are the principal beneficiaries of this functionality, OCA witness Sherwood recommended that the costs of implementing Bill Ready billing be recovered not from customers, but from the EGSs. *Id.*

Seeking recovery of these costs from all Duquesne customers ignores the fact that not all customers shop for their generation supply. Further, not all customers who do shop will avail themselves of the special rates offered by the EGS. Many will prefer to remain on fixed rates that don't vary by time of use. A substantial portion of Duquesne's customer base will derive no benefit from the Bill Ready functionality.

The OCA submits that it is a matter of fundamental fairness in ratemaking that these costs should be borne by the entities that are the predominant beneficiaries of this capability.

D. INCREMENTAL AMI PROJECT COSTS

The OCA's position with respect to the \$54 million increase in AMI-related costs (unrelated to ADMS) is that with the exception of the \$7 million earmarked for the Bill Ready functionality, the increase should be approved by the Commission and recovery permitted through the SMC. OCA St. No. 1 at 16. As noted earlier, these costs will enable Duquesne to complete implementation of the original portion of its smart meter (AMI) technology program. The Direct Testimony of Duquesne witness Brian J. Novicki attributes the increase in AMI-related costs to four areas: additional hardware and software costs, higher than estimated costs for a system integrator vendor, increased internal labor costs and higher than budgeted costs for certain outside services. Duquesne St. No. 1 at 7-8.

E. MISCELLANEOUS ISSUES

One aspect of the previously mentioned ICE model for calculating societal benefits resulting from the reduction in duration of electrical outages is that ICE breaks down the customer benefits by rate class. Duquesne's presentation of the ICE results in connection with implementation of ADMS enabled OCA witness Sherwood to make observations about the wide disparity between the costs and benefits of ADMS as it relates to the residential class. Specifically, Ms. Sherwood testified:

There appears to be an imbalance between the cost recovery of [ADMS] and the expected benefits by rate class. As proposed by the Company, at the conclusion of the ADMS project life, more than half of the benefits needed to offset the cost of the ADMS will be from societal benefits. According to DLC's ICE calculator results, only 1.5 percent of the societal

benefits will be derived by the residential class.¹⁵ Conversely, based upon the Company's proposed method of cost recovery for the ADMS project, the residential class will be allocated approximately 90 percent of the ADMS costs. Due to the low societal benefits projected for residential customers, the project does not appear to be cost-effective for residential customers.

OCA St. No. 1-S at 4.

While this cost-benefit disparity for the residential class is indeed striking, the OCA does not raise this issue for the purpose of reopening the question of overall cost allocation vis-à-vis smart meter costs in this proceeding. Rather, the OCA cites this issue as a further example of the cost-ineffectiveness of the ADMS project and further reason that the Commission should not approve the project.

Moreover, the existence of this disparity also lends support to the OCA's position that recovery of these costs should be sought in a base rate proceeding, where the costs and benefits can be thoroughly examined and issues of cost allocation fully addressed. If, however, the Commission authorizes ADMS to go forward and permits recovery through the SMC, the OCA submits that cost allocation under the SMC may need to be addressed to better match costs with benefits.

¹⁵ Although the results of the ICE Calculator are not equivalent to the Company's study, the ICE Calculator's results are representative of the how the benefits will be allocated by customer class.

VII. CONCLUSION

The OCA submits that Duquesne Light Company has failed to meet its burden of proving that the ADMS project it proposes to implement is cost-effective. In its Implementation Order, the Commission reserved the right to waive the requirement for any of the nine additional smart meter capabilities it imposed if that capability was shown to be not cost-effective. In this proceeding, the ADMS project (proposed as a means of meeting two of the nine additional capabilities) has been shown to be demonstrably cost-ineffective and the Commission should reject the project. Unless the Company can return with a cost-effective alternative proposal for implementing the outage communication and voltage monitoring capabilities, the Commission should waive these requirements for Duquesne.

Should the Commission not reject the ADMS project, the OCA submits that the recovery of project's costs should be sought through a base rate case and not the Company's Smart Meter Charge.

Finally, the OCA submits that the costs of Bill Ready functionality are properly recovered from Electric Generation Suppliers who are the overwhelming beneficiaries of this capability.

Respectfully Submitted,

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March 17, 2016

Appendix A

APPENDIX A

Proposed Findings of Fact, Conclusions of Law and Ordering Paragraphs

Findings of Fact

As the party with the burden of proof, Duquesne will propose numerous Findings of Fact, many of which will be related to the aspects of its Petition for Approval to Modify its Smart Meter Plan which are not in dispute in this brief. The OCA, for its part, limits its proposals to the contested portion of the proceeding.

1. The \$6 million of societal benefits identified by Duquesne are too uncertain and speculative to be relied upon for determining the cost-effectiveness of the ADMS project.
2. The ADMS project is not cost-effective as the reliably quantifiable benefits associated with it are substantially outstripped by the project's costs.

Conclusions of Law

1. Pursuant to the Commission's Smart Meter Implementation Order, the finding of cost-ineffectiveness of the ADMS project should trigger Commission consideration of whether to waive for Duquesne Light, the Commission-imposed smart meter capabilities related to outage communication and voltage control.
2. Imposition of the costs of Bill Ready billing on Duquesne's customers would be unjust and unreasonable as the benefits they receive from this capability are limited.

Alternatively, if implementation of ADMS is authorized by the Commission, the OCA proposes the following conclusion of law:

1. Given the uncertainty surrounding the level of benefit that have been relied upon to justify the ADMS project, it would not be just and reasonable to permit the costs of the project to be recovered through a Section 1307 surcharge. Recovery should be sought through a base rate case to allow a review of the matching of the benefits as they materialize over time, with recovery of the costs of the project and to address cost allocation.

CERTIFICATE OF SERVICE

Petition of Duquesne Light Company for :
Approval to Modify its Smart Meter : Docket No. P-2015-2497267
Procurement and Installation Plan :

I hereby certify that I have this day served a true copy of the Office of Consumer Advocate's Main Brief upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code §1.54 (relating to service by a participant), in the manner and upon the persons listed below:

Dated this 17th day of March 2016.

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