**BEFORE THE**

**PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Joint Petition of Metropolitan Edison :

Company, Pennsylvania Electric Company, : M-2013-2341990

Pennsylvania Power Company and West Penn : M-2013-2341991

Power Company For Approval of Their : M-2013-2341993

Smart Meter Deployment Plan : M-2013-2341994

**RECOMMENDED DECISION**

Before

Elizabeth H. Barnes

Administrative Law Judge

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This Recommended Decision recommends approval of the Joint Petition of Metropolitan Edison Company (Met-Ed), Pennsylvania Electric Company (Penelec), Pennsylvania Power Company (Penn Power), and West Penn Power Company (West Penn) for Approval of Their Smart Meter Deployment Plan with some modifications as suggested by the Office of Consumer Advocate (OCA).

I. HISTORY OF THE PROCEEDING

On December 31, 2012, Met-Ed, Penelec, Penn Power and West Penn, collectively referred to as the “Companies,” filed a Joint Petition requesting Commission approval of their Smart Meter Deployment Plan (the “Deployment Plan”).

On October 15, 2008, Act 129 was signed into law and was codified as part of the Public Utility Code, 66 Pa.C.S. § 2806.1 *et seq*. Act 129 became effective on November 14, 2008, and it required Electric Distribution Companies (EDCs) with at least 100,000 customers to present a Smart Meter Technology Procurement and Installation Plan (SMIP) to the Commission for approval. 66 Pa.C.S. § 2807(f). Specifically, Section 2807(f)(2) directs EDCs to furnish smart meter technology as follows: 1) upon request from a customer that agrees to pay the cost of the smart meter at the time of the request; 2) in new building construction; and 3) in accordance with a depreciation schedule not to exceed 15 years. 66 Pa.C.S. § 2807(f)(2).

The Commission issued an Implementation Order to establish standards and provide guidance for implementing the requirements of Act 129 on June 24, 2009.[[1]](#footnote-1) Pursuant to Section 2807(f) of the Code, 66 Pa.C.S. § 2807(f), Metropolitan Edison Company, Pennsylvania Electric Company, and Pennsylvania Power Company (FirstEnergy Companies) filed their Joint Petition for Approval of Smart Meter Technology Procurement and Installation Plan (2009 SMIP) on August 14, 2009. By Order entered on June 9, 2010, the Commission approved the 2009 SMIP with modifications. The Commission noted that these companies expected to file their full Deployment Plan by April 2012.[[2]](#footnote-2)

 Also on August 14, 2009, West Penn Power Company (West Penn) filed a Smart Meter Implementation Plan (WPP SMIP) separately from the other three FirstEnergy Companies. During the Commission’s review of the WPP SMIP, Met-Ed’s, Penelec’s and Penn Power’s ultimate corporate parent, FirstEnergy Corp., and West Penn’s corporate parent, Allegheny Energy, Inc., announced their intent to merge. As a result, the WPP SMIP filing was reassessed. On June 30, 2011, the Commission approved a Joint Petition for Settlement of All Issues (WPP Settlement) regarding the WPP SMIP. In the WPP Settlement, West Penn agreed to file its full Deployment Plan as part of its revised WPP SMIP with the Commission by June 2012.[[3]](#footnote-3) The Commission adopted the Initial Decision of the Administrative Law Judge (“ALJ”) and approved the WPP Settlement by Order entered June 30, 2011 at Docket No. M-2009-2123951.

 The four FirstEnergy Companies (including West Penn Power) on May 25, 2012, requested an extension for the filing of their Smart Meter Deployment Plan to the end of 2012, in order to evaluate new smart meter technologies. The Commission granted that request by Secretarial Letter dated June 28, 2012. The FirstEnergy Companies filed their Deployment Plan on December 31, 2012, with a Joint Petition requesting that the Commission: (1) find that their proposed Deployment Plan (Joint Petitioners’ Exhibit 2) satisfies the requirements of Act 129 and the Commission’s June 24, 2009 Implementation Order; (2) approve the Companies’ proposed procurement and deployment of approximately 2.1 million smart meters, over 98% of which should be installed by the end of 2019; (3) authorize the Companies to continue to recover smart meter costs through their previously approved Smart Meter Technologies Charge (“SMT‑C”) Riders, including $5.1 million of costs incurred by West Penn in anticipation of the installation of smart meters; and (4) authorize the Companies to create a regulatory asset for their investment in meters to be replaced by smart meters (“Legacy Meters”).

 Notice of the Companies’ December 31, 2012 Deployment Plan filing was published in the *Pennsylvania Bulletin* on January 19, 2013. On February 7, 2013, Petitions to Intervene were filed by Direct Energy Services, LLC (“Direct”) and collectively on behalf of the Met-Ed Industrial Users Group, the Penelec Industrial Customer Alliance, the Penn Power Users Group, and the West Penn Power Industrial Intervenors (collectively, the “Industrial Customer Groups”). The following day, the Office of Consumer Advocate (“OCA”) submitted Comments and an Answer to the Joint Petition and, on February 14, 2013, a Notice of Intervention was filed by the Office of Small Business Advocate (“OSBA”).

 This matter was assigned to me and I convened a Prehearing Conference in Harrisburg on February 19, 2013. At the Prehearing Conference, the four smart meter dockets assigned to the four Companies were consolidated for purposes of hearing, argument and decision. In addition, the Petitions to Intervene filed by Direct and the Industrial Customer Groups were granted; various modifications to the standard discovery deadlines were adopted; and a litigation schedule was agreed upon.

 The Companies’ case-in-chief is comprised of its proposed Deployment Plan (Joint Petitioners’ Exhibit 2) and the pre-filed written statements and related exhibits of five witnesses: John C. Dargie, David W. Iorio, Kevin A. Klein, George L. Fitzpatrick and Raymond E. Valdes, whose testimony was identified as Met-Ed/Penelec/Penn Power/West Penn Statement Nos. 1-5, respectively. Thereafter, testimony addressing issues such as those involving projected cost savings, remote disconnection, cost allocation, customer protection and information sharing was submitted by Direct and the OCA, to which the Companies responded by filing the rebuttal testimony of two witnesses (Messrs. Fitzpatrick and Valdes). Surrebuttal testimony was submitted by the OCA.[[4]](#footnote-4)

 An evidentiary hearing was held in Harrisburg on May 8, 2013, at which time the Companies’ witnesses Fitzpatrick and Valdes were presented for oral rejoinder and cross examination and OCA witness Hornby was presented and cross-examined. All remaining pre-filed testimony and exhibits were moved into the record by written verification of authenticity. Also, the Companies and Direct submitted a document entitled “Joint Stipulation of Position,” that was admitted as Direct Energy Hearing Exhibit 1, and is intended to resolve certain notification issues raised by Direct witness Frederick. Finally, and by agreement of the parties and the ALJ, the record was held open to allow the Companies to submit copies of a table that originally appeared in OCA witness Hornby’s surrebuttal testimony, but was later removed and replaced by the OCA at the May 8, 2013 hearing (Joint Petitioners’ Cross Examination Exhibit 2). The late exhibit (Joint Petitioners’ Cross Examination Exhibit 2) and a transcript of the

May 8, 2013 hearing were filed on May 13, 2013. Main Briefs were filed on May 24, 2013, and Reply Briefs were filed on June 3, 2013 by OCA and the Companies. The record closed on June 3, 2013.

II. FINDINGS OF FACT

1. FirstEnergy Corporation is a diversified energy company headquartered in Akron, Ohio.
2. Metropolitan Edison Company (Met-Ed) is a wholly owned subsidiary of FirstEnergy Corporation that provides service to approximately 555,000 customers in southern and southeastern Pennsylvania. Jt. Petition 2.
3. Pennsylvania Electric Company (Penelec) serves approximately 584,000 customers in northern, northwest and central Pennsylvania. Jt. Petition 2.
4. Pennsylvania Power (Penn Power) is a wholly owned subsidiary of Ohio Edison Company, which is itself a wholly owned subsidiary of FirstEnergy. It is based in New Castle, Pennsylvania, and serves approximately 160,000 customers in western Pennsylvania. Jt. Petition 2.
5. West Penn Power (West Penn) is a wholly owned subsidiary of Allegheny Energy, Inc., which, in turn, is a wholly owned subsidiary of FirstEnergy Corp. West Penn provides service to almost 716,000 electric utility customers in western Pennsylvania. Jt. Petition 2.
6. At the May 8, 2013 hearing, the Companies and Direct submitted a “Joint Stipulation of Position” (Direct Energy Hearing Exhibit 1) that is intended to resolve certain notification issues raised by Direct.
7. The FirstEnergy Smart Meter Implementation Plan Team (“SMIP Team”), which was responsible for developing the Companies’ proposed Deployment Plan, was comprised of FirstEnergy personnel from various departments throughout the FirstEnergy organization and subject matter experts from IBM, Black & Veatch and several technology vendors (Joint Petitioners’ Exhibit 2, p. 14).
8. The SMIP Team reviewed numerous documents; hosted sessions with various stakeholder groups; met with employees to be affected by the smart meter program; and visited several other utilities that had deployed, or were deploying, smart meter systems (*Id*. at 16‑23).
9. The SMIP Team conducted comprehensive Requests for Information (“RFIs”) and Requests for Proposals (“RFPs”) seeking additional information regarding smart meter technologies and equipment, and thoroughly scrutinizing the responses received (*Id*. at 23‑29).
10. The SMIP Team identified the technologies that met the Companies’ smart meter business, technical and functional requirements. Each major piece of equipment and technology was tested in both a test lab and in the field to ensure it interfaced properly with other infrastructure components and would provide the required functionality (*Id*. at 29-33).
11. The Companies selected Itron as their vendor for the Smart Meters, Head End and Meter Data Management Systems (“MDMS”). The Itron meters will fully support all six of the functionalities mandated by Act 129 and all nine of the additional functionalities identified by the Commission in its Implementation Order (Met-Ed/Penelec/Penn Power/West Penn St. 3, pp. 3-5).
12. The Companies’ plan to install a “mesh” Communications Network, which, because of the Companies’ vast service territories, will be less costly to construct than the alternative -- a “point-to-point” system -- which would require the construction of numerous communications towers (*Id*. at 8-9; Joint Petitioners’ Exhibit 2, p. 38).
13. The Companies propose to use public “backhaul” services provided by AT&T and Verizon rather than incur the expense of developing their own private communications network. In addition to being more cost-effective, this option will allow the Companies to install smart meters on a more expeditious basis (Met-Ed/Penelec/Penn Power/West Penn St. 3, pp. 9-10).
14. The Companies have proposed a phased deployment strategy consisting of three distinct phases. The **Post-Grace Period Stage** commenced on January 1, 2013 and will conclude with the completion of smart meter deployment. In compliance with Act 129 and the Commission’s Implementation Order, the Companies have implemented procedures to provide smart meters for new construction and for all customers who request, and are willing to pay to have access to a smart meter in advance of their scheduled installation date (Met-Ed/Penelec/Penn Power/West Penn St. 2, pp. 7-9).
15. During the **Solution Validation Stage**, which is expected to run from shortly after Commission approval of the Deployment Plan until early 2017, the Companies will build out needed infrastructure and construct a “mini version” of their proposed smart meter system, serving approximately 60,000 customers in the Penn Power service territory. This will allow the Companies to validate the “mesh” approach and the functionality of all selected equipment in a controlled environment (*Id*. at 11-12).
16. The **Full-Scale Deployment Stage** is expected to commence in early 2017 and conclude by the end of 2022. Assuming a start date in early 2017 and the installation of approximately 3,000 meters per day, five days a week, the Companies expect to install about 98.5% of all smart meters by December 31, 2019 (*Id*. at 13-14).
17. The Companies conducted a financial analysis of various smart meter deployment scenarios. The “98.5% by 2019” schedule was selected because it was deemed the most likely to facilitate the orderly deployment of a well-tested system in a reasonable timeframe and at the lowest cost after factoring in risks (Met-Ed/Penelec/Penn Power/West Penn St. 4, pp. 5-7).
18. The life cycle cost of the Companies’ proposed Deployment Plan over the twenty year period 2013-2032 and without consideration of future smart meter-related savings is projected to approximate $1.258 billion in nominal dollars and $694 million on a net present value basis (Met-Ed/Penelec/Penn Power/West Penn St. 4, p. 12).
19. The Companies projected specific dollar savings in four areas where avoided costs could be currently measured and verified and would enable the Companies to realize actual cash savings: (a) Meter Reading; (b) Meter Services; (c) Back-Office; and (d) Contact Center. Realizable savings of approximately $406 million are expected to be generated in these areas over the 20-year life of the smart meter project (Joint Petitioners’ Exhibit 2, pp. 57-64).
20. The Companies intend to track savings in other areas as well, particularly as they gain experience from the installation of the 60,000 meters in the Penn Power service territory during the Solution Validation Stage (Met-Ed/Penelec/Penn Power/West Penn St. 4-R, pp. 14-16; Tr. 97-103).
21. All smart meter-related savings realized by the Companies will be offset against smart meter costs claimed in future smart meter surcharge filings (*Id*.).
22. The Companies have proposed to continue to recover smart meter costs, and to flow-back smart meter savings in the future, through the Smart Meter Technologies Charge (“SMT-C”) Riders that were approved by the Commission at the conclusion of their respective 2009 SMIP proceedings (Met-Ed/Penelec/Penn Power/West Penn St. 5, pp. 3-7).
23. The Companies are in the process of developing Communications, Change Management and Training Plans. These plans cannot be finalized until the Deployment Plan is approved and, even then, will need to be updated and/or revised from time to time in response to customer concerns and obstacles encountered (Joint Petitioners’ Exhibit 2, pp. 71-80).
24. Virtually all of the Companies’ estimated smart meter costs are based on bids received during a RFI/RFP process (Met-Ed/Penelec/Penn Power/West Penn St. 4-R, pp. 9‑10).
25. The Companies’ $1.258 billion smart meter cost estimate translates into an all-in capital and operation and maintenance (O&M) cost per meter of approximately $375. This figure is generally comparable to the corresponding per meter costs projected by Commonwealth Edison Company, Delmarva Power & Light Company, Duquesne Light Company, PECO Energy Company and Potomac Electric Power Company (*Id*. at p. 11; Met-Ed/Penelec/Penn Power/West Penn St. 4, pp. 15-16).
26. The comparison of meter costs with three other utilities was too limited and too general because more than three utilities have received approval to deploy smart meters. OCA St. 1 at 11.
27. The Companies presented savings estimates in the four areas where they believed avoided costs were currently measurable and verifiable and would enable them to realize cash savings. However, the Companies intend to investigate and track savings in various other areas including all eight categories identified by OCA witness Hornby in OCA Exhibit 2 (Tr. 97-103).
28. No sister utility of the Companies in another jurisdiction currently has plans to deploy smart meters in any significant number. If at some point in the future non-Pennsylvania sister utilities deploy smart meter technology and utilize systems and smart meter infrastructure also used by the four Pennsylvania Companies, the Companies agree that on-going prospective costs should and will be spread amongst all such companies consistent with the principles that govern cross-jurisdictional cost allocation. The annual SMT-C Rider filings provide all parties ample time, information and opportunity to evaluate an allocation of affected costs (Met-Ed/Penelec/Penn Power/West Penn St. 5-R, pp. 5-7).
29. A methodology already exists for allocating costs charged by FirstEnergy Services Company to its affiliates, including the Companies and utilities in other states. To the extent costs cannot be directly assigned, an existing affiliate service agreement, previously approved by the Commission and utilizing a methodology originally approved by the United States Securities and Exchange Commission, automatically allocates costs across the FirstEnergy utilities in an appropriate manner. The billing determinants used by this allocation methodology are updated annually (Tr. 44-46).
30. The Companies currently use the meter count as of June 30 for SMT-C Rider filings because it is the most recent verified date available before they file their annual SMT-C Rider updates on August 1. Such an approach is akin to the Commission’s practice in base rate cases of accepting end of test year updated information for determining revenue requirements. Using the meter count at June 30 is more representative of going forward costs than the OCA’s proposal to utilize a historic annual average (Met-Ed/Penelec/Penn Power/West Penn St. 5-R, pp. 13-14).
31. West Penn’s expenditure of $5.1 million of customer information system (“CIS”) is an investment that a utility would typically make in its normal course of business, and is not specifically related to smart meter deployment. OCA St. 1 at 23-24.
32. West Penn had not substantially updated its CIS system for over thirty years. OCA St. 1 at 23-24.
33. Under the Companies’ regulatory asset approach for cost recovery of Legacy Meters, the recovery of Legacy Meters costs would continue through current base rates, where it is presently occurring. The cost recovery schedule for the Legacy Meters would be set equal to the remaining depreciable lives of the Legacy Meters with cost recovery continuing through base rates. Salvage value would also be used as an offset to the regulatory asset, amortized over the remaining depreciable lives of the asset (Met-Ed/Penelec/Penn Power/West Penn St. 5, p. 17).
34. The scope and nature of customer education issues may change and this will impact the Companies’ Communications Plan. FE Companies St. 4-R at 4; OCA St. 2-SR at 4.
35. Regular stakeholder meetings regarding smart meter deployment and the Companies’ Communications Plan will allow for flexibility in meeting the educational needs of the customers. OCA St. 2 at 9-10.
36. The cyber-security, customer privacy and remote disconnection issues addressed by Ms. Brockway are not unique to the Companies and are subject to existing guidelines that are expected to evolve over time. The Companies currently comply with all such guidelines and will monitor these issues and adjust procedures and protocols as necessary to remain in compliance with any new requirements. A global, state wide approach to these issues is appropriate to set expectations for electric distribution utilities (Met-Ed/Penelec/Penn Power/West Penn St. No. 4-R, p. 3).

By Order entered December 6, 2012 at Docket No. M-2009-2092655, the Commission established data exchange standards for current business processes. Because: (1) the Companies’ enrollment and billing system is currently programmed to accept dual billing and bill ready EDC-consolidated billing (i.e., the functions the Commission has already said present the best options for attaining real time pricing and time of use pricing capability): (2) the Companies currently have the capability to provide 12-months of historical interval usage data via EDI: and (3) the Companies currently incorporate meter-level interval usage data as directed by the Commission: the Companies are already meeting these Commission data exchange standards (Met-Ed/Penelec/Penn Power/West Penn St. 5, pp. 24-27).

1. Upon commencement of the Full-Scale Deployment Stage, which is expected to occur in early 2017, the Companies will begin to integrate installed and fully functional smart meters into the load settlement process, which is projected to occur after the second meter reading after the smart meter is installed (Met-Ed/Penelec/Penn Power/West Penn St. 5-R, p. 21). No party challenged this time frame.
2. No party opposed the Companies’ request to stop listing the SMT-C as a line item on the customer’s bill.

III. DISCUSSION

# A. OVERVIEW OF DEPLOYMENT PLAN

 The FirstEnergy Companies’ Joint Petition seeks: (1) a finding that the Deployment Plan satisfies the requirements of Act 129, 66 Pa.C.S. § 2807(f)(1)-(f)(3) and the Implementation Order; (2) approval of the Companies’ proposed procurement and deployment of approximately 2.1 million smart meters, over 98% of which will be installed by the end of 2019; (3) authorization for the Companies to continue to recover smart meter costs through their Smart Meter Technologies (SMT-C) Riders, including an additional $5.1 million for previous West Penn Customer Information System (CIS) expenditures; and (4) authorization for the Companies to create a regulatory asset for their meter stock that will be replaced by smart meters (Legacy Meters). Jt. Petitioners Exh. 1 at 1.

The FirstEnergy Companies’ Plan and their accompanying Direct Testimony provide the following:

* A description of the technical aspects of the final Plan including an analysis of: (a) the current state of meter technology; (b) technology “baselines” for the Companies; and (c) the nature of the Companies’ service territories, with respect to the density and terrain.
* A description of the Companies’ smart meter deployment timeline.
* A breakdown and explanation of the total Plan costs and anticipated savings.
* A description of the proposal to recover the costs through each of the Companies’ respective SMT-C Riders.
* A description of the proposal to recover the costs for the Companies’ Legacy Meters including the creation of a regulatory asset for the Legacy Meters.
* A description of the Companies’ proposed development of the internal and external communications plan, the change management transition plan, training plan, and the lessons learned from several other utilities in various stages of smart meter deployment.
* A description of the Companies’ proposal to develop a cyber-security plan.

 The Companies propose to deploy smart meters in three stages: (1) the Post-Grace Period, which runs from January 1, 2013, until deployment completion; (2) the Solution Validation Stage, which will begin in late 2013 and end in early 2017; and (3) the Full-Scale Deployment Stage, which is expected to commence in early 2017 and end when the Companies complete installation of all smart meters. See Jt. Petitioners Exh. 1 at 7-8. During the Post-Grace Period, the Companies will deploy smart meters to all new service applicants and to customers that request a smart meter prior to deployment to their neighborhoods. Id. at 7. The Companies will also negotiate the final terms and conditions with their vendors and engage in pre-deployment activities. Id.

 During the Solution Validation Stage, the Companies will construct network infrastructure and install up to 60,000 smart meters in Penn Power’s service territory for evaluation and trouble-shooting. Jt. Petitioners Exh. 1 at 8.

 During the Full-Scale Deployment Stage, the Companies will install all remaining smart meters. Id. The Companies anticipate installing approximately 98.5% of their smart meters between January 1, 2014, and December 31, 2019. Id.

B. Legal Standards

 The Companies seek approval of their plan to deploy smart meters; thus, they have the burden of proving that the Petition complies with the legal requirements. The proponent of a rule or order in any Commission proceeding has the burden of proof, 66 Pa.C.S. § 332, and therefore, the Applicant has the burden of proving its case by a preponderance of the evidence, or evidence which is more convincing than the evidence presented by the other parties. *Se-Ling Hosiery v. Margulies*, 364 Pa. 45, 70 A.3d 854 (1950); *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm’n*, 578 A.2d 600 (Pa.Cmwlth. 1990).

 Additionally, any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence, which is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Mill v. Comm., Pa. Pub. Util. Comm’n*, 447 A.2d 1100 (Pa. Cmwlth. Ct.1982); *Edan Transportation Corp. v. Pa. Pub. Util. Comm’n,* 623 A.2d 6 (Pa. Cmwlth. Ct.1993), 2 Pa.C.S. § 704. More is required than a mere trace of evidence or a suspicion of the existence of a fact sought to be established. *Norfolk & Western Ry. v. Pa. Pub. Util. Comm’n,* 489 Pa. 109, 413 A.2d 1037 (1980); *Erie Resistor Corp. v. Unemployment Com. Bd. Of Review*, 166 A.2d 96 (Pa. Super. Ct.1960); *Murphy v. Comm., Dept. of Public Welfare, White Haven Center,* 480 A.2d 382 (Pa. Cmwlth. Ct.1984).

 The “burden of proof” is composed of two distinct burdens: the burden of production and the burden of persuasion. *Hurley v. Hurley*, 2000 Pa.Super. 178, 754 A.2d 1283 (2000).

The burden of production, also called the burden of producing evidence or the burden of coming forward with evidence, determines which party must come forward with evidence to support a particular proposition. This burden may shift between the parties during the course of a trial. If the party (initially, this will usually be the complainant, applicant, or petitioner, as the case may be) with the burden of production fails to introduce sufficient evidence, the opposing party is entitled to receive a favorable ruling. That is, the opposing party would be entitled to a compulsory nonsuit, a directed verdict, or a judgment notwithstanding the verdict. Once the party with the initial burden of production introduces sufficient evidence to make out a prima facie case, the burden of production shifts to the opposing party. If the opposing party introduces evidence sufficient to balance the evidence introduced by the party having the initial burden of production, the burden then shifts back to the party who had the initial burden to introduce more evidence favorable to his position. The burden of production goes to the legal sufficiency of a party’s case.

Having passed the test of legal sufficiency, the party with the burden of proof must then bear the burden of persuasion to be entitled to a verdict in his favor. “[T]he burden of persuasion never leaves the party on whom it is originally cast, but the burden of production may shift during the course of the proceedings.” *Riedel v. County of Allegheny*, 159 Pa.Cmwlth. 583; 591, 633 A.2d 1325; 1328 n. 11 (1993). The burden of persuasion, usually placed on the complainant, applicant, or petitioner[[5]](#footnote-5), determines which party must produce sufficient evidence to meet the applicable standard of proof. *Hurley v. Hurley*, 2000 Pa.Super. 178, 754 A.2d 1283 (2000). It is entirely possible for a party to successfully bear the burden of production but not be entitled to a verdict in his favor because the party did not bear the burden of persuasion. Unlike the burden of production, the burden of persuasion includes determinations of credibility and acceptance or rejection of inferences. Even unrebutted evidence may be disbelieved. *Suber v. Pa. Comm’n on Crime and Delinquency*, 885 A.2d 678 (Pa.Cmwlth. 2005), app. denied, 586 Pa. 776, 895 A.2d 1264 (2006). In order to bear the burden of proof and be entitled to a decision in his favor, a party must bear both the burden of production and the burden of persuasion.

 Pennsylvania electric distribution companies (EDCs) are required to file Smart Meter installation and deployment plans:

**(f) Smart meter technology and time of use rates.—**

 (1) Within nine months after the effective date of this paragraph, electric distribution companies shall file a smart meter technology procurement and installation plan with the commission for approval. The plan shall describe the smart meter technologies the electric distribution company proposes to install in accordance with paragraph (2).

 (2) Electric distribution companies shall furnish smart meter technology as follows:

 (i) Upon request from a customer that agrees to pay the cost of the smart meter at the time of the request.

 (ii) In new building construction.

 (iii) In accordance with a depreciation schedule not to exceed 15 years.

 (3) Electric distribution companies shall, with customer consent, make available direct meter access and electronic access to customer meter data to third parties, including electric generation suppliers and providers of conservation and load management services.

 (4) In no event shall lost or decreased revenues by an electric distribution company due to reduced electricity consumption or shifting energy demand be considered any of the following:

 (i) A cost of smart meter technology recoverable under a reconcilable automatic adjustment clause under section 1307(b), except that decreased revenues and reduced energy consumption may be reflected in the revenue and sales data used to calculate rates in a distribution rate base rate proceeding filed under section 1308 (relating to voluntary changes in rates).

 (ii) A recoverable cost.

\* \* \*

 (7) An electric distribution company may recover reasonable and prudent costs of providing smart meter technology under paragraph (2)(ii) and (iii), as determined by the commission. This paragraph includes annual depreciation and capital costs over the life of the smart meter technology and the cost of any system upgrades that the electric distribution company may require to enable the use of the smart meter technology which are incurred after the effective date of this paragraph, less operating and capital cost savings realized by the electric distribution company from the installation and use of the smart meter technology. Smart meter technology shall be deemed to be a new service offered for the first time under section 2804(4)(vi). An electric distribution company may recover smart meter technology costs:

 (i) through base rates, including a deferral for future base rate recovery of current basis with carrying charge as determined by the commission; or

 (ii) on a full and current basis through a reconcilable automatic adjustment clause under section 1307.

 **(g) Definition**.—As used in this section, the term “smart meter technology” means technology, 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) a third party engaged by the customer or the customer’s utility.

Pa.C.S. §§ 2807(f) and (g) (in pertinent part).

 The Commission’s Implementation Order provides further detailed guidance for the SMIPs. The Commission has granted the EDCs a grace period of up to 30 months following plan approval, during which time the EDC is not required to install a smart meter at a customer’s premises. EDCs are required to install interval data capable meters upon customer request during this time. The EDCs must include a schedule for meeting the following milestones during this 30-month grace period: assessment of needs and technological solutions, selection of technologies and vendors, establishment of network designs, establishment of plans for training personnel, establishment of plans for installation, installation, testing and rollout of support equipment and software, establishment of plans to design, test and certify EDI transaction capability, and establishment of plans for installation of meters. Implementation Order at 7-8. The SMIP must include a plan for deployment of smart meters in new construction that is begun after the network grace period. Implementation Order at 12. Deployment of smart meters should be system-wide after fifteen years, with annual status reports. Implementation Order at 14.

 In general, the Deployment Plan addresses many of the elements described above in compliance with the Commission’s Implementation Order. On pages 14-20 of the Deployment Plan, the assessment of needs is addressed including technology needs and a schedule for deployment. Selection of vendors and technologies are described in Chapter 2 and 3 of the Plan. The Request For Proposals (RFP) Process is described in detail in Chapter 2 of the Plan. Installation Plans and network designs are described in Chapter 3 of the Plan. The deployment strategy and schedule are described in Chapters 3, 4 and 5 of the Plan.

 However, Direct Energy raised one issue and OCA raised several issues that will be discussed below regarding among other things, the treatment of legacy meters and West Penn settlement issues on page 70 of the Plan. OCA further raised issues regarding the cost benchmarking analyses as well as the communications change management and training part of the plan in Chapter 6.

 The Commission directed that the EDC’s smart meter technology support the following capabilities:

1. Bidirectional data communications capability.

2. Remote disconnection and reconnection.

3. Ability to provide 15-minute or shorter interval data to customers, EGSs, third-parties and the regional transmission organization (RTO) on a daily basis, consistent with the data availability, transfer and security standards adopted by the RTO.

4. A minimum of hourly reads delivered at least once per day.

5. On-board meter storage of meter data that complies with nationally recognized non-proprietary standards such as ANSI C12.19 and C12.22 tables.

6. Open standards and protocols that comply with nationally recognized non-proprietary standards, such as IEEE 802.15.4.

7. Ability to upgrade these minimum capabilities as technology advances and becomes economically feasible.

8. Ability to monitor voltage at each meter and report data in a manner that allows EDC to react to the information.

9. Remote programming capability.

10. Communicate outages and restorations.

11. Ability to support net metering of customer-generators.

12. Support automatic load control by EDC, customer and third-parties, with customer consent.

13. Support time-of-use and real-time pricing programs.

14. Provide customer direct access to consumption and pricing information.

Implementation Order at 1-17.

C. Providing EGSs Access to Installation Information

 During the hearing, a Joint Stipulation of Position was entered into the record as Direct Energy Hearing Exhibit 1. In consideration of Direct Energy taking immediate steps to terminate its participation in the proceeding, the Communication Plan submitted by the FirstEnergy Companies agreed to identify on a website available to the public sixty days in advance of installation of smart meters, information regarding the deployment schedule. It was stipulated that the information provided regarding communities scheduled for installation will not include dates more specific than identification of the Borough, Township, or City where deployment is scheduled “within the next sixty days.” Additionally, the FirstEnergy Companies agreed to update the website confirming deployment has been completed. Direct Energy Hearing Exhibit 1, p. 2. Thus, Direct Energy and the FirstEnergy Companies reached an agreement with regard to all outstanding issues between them in the instant proceeding.

Disposition

 The Commission stated in its Implementation Order, that all large EDCs must provide non-discriminatory, open, and non-proprietary two-way access for retail electric suppliers and third-parties, such as EGSs, and conservation and load management service providers to meter data. The Commission gave as an example an acceptable means for requesting and providing meter-level data including pass-key protected websites. Implementation Order at 24; 66 Pa.C.S. § 2807(f)(3).

 No party has objected to the Joint Stipulation. The stipulation protects customers from being identified on a public website in advance of the smart meter installation. Thus, it protects customers from being approached at their residences by persons purporting to represent the utility and attempting to gain access into their homes to access their meters. I am persuaded to find this stipulation agreement is reasonable in that it gives the competitive electric generation supplier enough marketing information so that it may make business planning decisions regarding the targeting of its potential market. This stipulation is reasonable and not in conflict with Act 129; and therefore, I recommend the Commission incorporate this requirement in its decision.

D. OCA’S ISSUES

 The OCA argues that the FirstEnergy Companies’ Smart Meter Deployment Plan does not meet the requirements of Act 129 and the Commission’s Implementation Order and may not result in just and reasonable rates. OCA requests that the Commission direct the Companies:

* To conduct proper cost benchmarking analyses of the Companies’ projected costs with those of other companies that have deployed smart meters to determine if the Companies’ projected Plan costs are reasonable and prudent. Such analyses should include the seven cost categories identified by the Companies in their Plan and sub-categories, if available. Also, the Companies should use a much larger sample size of utilities than the Companies used in the analysis presented in their Plan. The Commission should direct the Companies to complete the analyses within 120 days of the Commission’s order in this matter and submit a report with the results of such analyses and any Plan changes stemming from such results in an amended Plan.
* To provide a report with their next SMT-C filing that identifies expenditures on all components of their Plan that have the potential to benefit their sister utilities in other states when they begin deploying smart meters and that describes the method through which the Companies will receive credit from FirstEnergy Service Company for those expenditures. To the extent any system upgrades are currently being utilized by the Companies’ sister utilities, the Commission should direct that those costs be properly allocated to the sister utilities.
* To allocate joint Plan costs based on the annual average number of meters per Company as of June 30th for purposes of calculating each Company’s annual SMT-C rider.
* To hire an independent consultant with experience in identifying the potential for savings as a result of smart meter deployment to: (1) conduct a comprehensive savings potential investigation of categories of savings achieved by other companies that have deployed smart meters, including the seven categories identified by Nevada Power, and (2) prepare and submit a report to the Commission of his or her findings within 120 days of the Commission’s order in this matter. Further, OCA requests that the Commission direct the Companies to file an amended Plan detailing the potential categories and estimates of savings to be reflected in the SMT-C identified by such consultant.
* To establish baselines for measuring savings from smart meter deployment as the test year revenue requirements upon which their currently effective distribution rates are based. The Companies should be directed to provide this baseline level information with their next annual SMT-C filing so that operational cost savings can be properly recognized in the SMT-C.
* To hold stakeholder meetings by the first quarter of 2014 in order to discuss the final Communications Plan (Comm Plan) and to file the final Comm Plan with the Commission after the stakeholders have sufficiently reviewed and discussed the Comm Plan in the stakeholder meetings.
* To include information in the Comm Plan related to early education for customers about time-varying prices and the functionalities of smart meters.
* To provide to individual consumers educational safety information including, but not be limited to, the following:, (1) that installers for FirstEnergy will have redundant identification, i.e. trucks with logo, uniform, identification badges to enable customers to distinguish between genuine FirstEnergy installers and others; (2) that pictures or descriptions of the uniforms for installers for FirstEnergy will be provided, such that a consumer can readily identify the FirstEnergy installers; (3) that such FirstEnergy installers do not need to enter the household in order to install the smart meters; (4) that customers should check the identification of installers if the customer has any doubt; and (5) that the phone number to call to verify any given installer’s identification is provided.
* To work with the stakeholder group to develop a stand-alone Customer Privacy Policy specifically related to the protection of smart meter information before any wide scale deployment of smart meters and to modify the Companies’ proposed customer privacy principles for clarity.
* To memorialize in the Commission’s Order the Companies’ proposal that the Companies do not intend to use involuntary remote termination for non-payment as part of their Plan.
* To first work with the stakeholder group and then file any future proposal to pursue involuntary remote termination for non-payment as an amendment to their Plan with the Commission for review and approval.
* To work with the stakeholder group to develop protocols for voluntary remote disconnection for move in/move out situations.
* To continue to discuss and address cyber-security issues with the stakeholder group on a going-forward basis.
* To report to the Commission on a regular basis regarding the status of cyber-security.
* Not to collect $5.1 million for expenditures related to West Penn’s abandoned Customer Information System (CIS) system.
* To charge the incremental cost of removal to the regulatory asset account containing the remaining cost of the retired Legacy Meters and to amortize the cost over the remaining depreciable lives of the metering assets along with the remaining costs of those retired meters. The cost of removal would then be recovered as part of the next base rate revenue requirement for electric distribution service when the regulatory asset is reflected in rates.

1. Plan Cost Estimates

a. Whether The Companies Have Performed A Proper Benchmarking Analysis Of Plan Costs To Determine If Their Deployment Costs Are Reasonable.

 The Companies contend they performed a proper benchmarking analysis of a plan costs. In the Implementation Order, the Commission provided the following guidance on determining the reasonable and prudent costs that an EDC may recover for deployment of smart meter technology:

In order to determine what these costs are, each EDC will document all costs relating to its smart meter deployment and installation plan. These costs will include both capital and expense items relating to all plan elements, equipment and facilities, as well as an analysis of all related administrative costs. More specifically, these costs would include, but not be limited to, capital expenditures for any equipment and facilities that may be required to implement the smart meter plan, as well as depreciation, operating and maintenance expenses, a return component based on the EDC’s weighted cost of capital, and taxes. Administrative costs would include, but not be limited to, incremental costs relating to plan development, cost analysis, measurement and verification, and reporting. In addition, the plan should include cost estimates for testing, upgrades, maintenance and personnel training.

Implementation Order at 29. The Commission went on to state that the EDC has the burden to provide sufficient support to demonstrate that all such costs incurred with respect to its smart meter plan are reasonable and prudent. Id. See also 66 Pa.C.S. § 315(a).

 The Companies estimate that the total costs of the Plan will be $1.258 billion, which are comprised of (1) Meter and Local Area Network; (2) Network and Network Management; (3) Information Technology; (4) Program Management; (5) Systems Integration; (6) Change Management; and (7) Business Staffing Requirements. Jt. Petitioners Exh. 1 at 9; Jt. Petitioners Exh. 2 at 51-56. Of the estimated $1.258 billion in total costs, approximately $676 million will be capital costs, and approximately $582 million will be operation and maintenance (O&M) expenses. Jt. Petitioners Exh. 2 at 52-53.

 According to FirstEnergy witness Fitzpatrick, in order to determine the reasonableness of the Companies’ estimated Plan costs, the Companies performed a benchmark comparison of costs per meter with comparable smart meter installations of other utilities. FE Companies St. 4 at 9. Mr. Fitzpatrick testified that the Companies’ all-in cost per meter is approximately $375, which is reasonable compared to the estimated costs per meter for: (1) Delmarva of $343 per meter; (2) PEPCO Maryland of $327 per meter; and (3) Com Ed of $357 per meter. Id. at 15-16.

 In his Direct Testimony, OCA witness Hornby stated that Mr. Fitzpatrick’s comparison of meter costs with three other utilities was too limited and too general. OCA St. 1 at 11. Mr. Hornby noted that there are many more than just three utilities that have received approval to deploy smart meters that the Companies could have included in their cost comparison. Id. Additionally, Mr. Hornby testified:

Mr. Fitzpatrick’s comparison is limited to the total cost of each company’s AMI [Advanced Metering Infrastructure] plan despite the fact that the total cost of the FirstEnergy Companies’ Deployment Plan is composed of seven categories of expenditures: Meter & Local Network, Information Technology, Systems Integration, Network & Network Management, Program Management, Business Staffing Requirements and Communications/Change Management. The comparison Mr. Fitzpatrick presents does not provide a comparison of costs for each of these categories, or even for the two largest categories of Meter & Local Network and Information Technology. Exhibit (JRH-5) presents the FirstEnergy Companies’ Deployment Plan capital costs per installed meter through 2022 for each of those seven categories, as well as its O&M cost per installed meter through that period for the seven categories.

OCA St. 1 at 11-12. Mr. Hornby, therefore, concluded that without a cost comparison by category, the Companies’ cost comparison study did not provide the useful information as to the reasonableness of the estimated expenditures that a properly conducted comparison could have provided. Id. at 12. The OCA contends that it is essential that the Companies conduct proper cost benchmarking analyses to investigate the reasonableness of Plan costs before the deployment of smart meters. Further, proper cost benchmarking analyses are required so that the parties and the Commission can determine whether the Companies’ deployment expenditures are on track with the Companies’ estimates and similar to the expenditures of other companies for similar deployment costs and activities as deployment continues for the FirstEnergy Companies.

 In his Rebuttal Testimony, Companies witness Fitzpatrick testified that Mr. Hornby “overstate[d] the relevance and importance of the cost benchmarking analysis,” as most of the Companies’ cost estimates were determined from bids received through the RFI/RFP process. FE Companies St. 4-R at 9. Mr. Fitzpatrick concluded that these bids “are a far better validation of costs than any benchmark comparison with other utilities,” and comparing costs with other utilities would not provide any further insight than obtained through the cost benchmarking analysis already conducted. Id. at 10, 12. Mr. Fitzpatrick further concluded that even if he sought to conduct additional cost benchmarking analyses with more companies, it would be too difficult to obtain the necessary data for the comparisons. Id. at 12-13.

 In his Surrebuttal Testimony, OCA witness Hornby testified that it is possible to obtain adequate cost information from other utilities for adequate cost benchmarking analyses, and that he had provided the smart meter plan filings of twelve utilities in response to a Companies’ discovery request. OCA St. 1-SR at 4. These twelve utilities reported various categories of costs in their filings, including Meter & Local Area Network, Information Technology, System Integration, Network and Network Management, Program Management, Business Staffing Requirements and Communication Change Management. Id. at 4, Table 1.[[6]](#footnote-6) Specifically, Mr. Hornby testified that a properly conducted cost benchmarking analysis:

[W]ould have helped demonstrate whether the Companies’ Deployment Plan costs in each of those categories were, or were not, within the same range as those of other utilities. By using that approach in West Penn’s Smart Meter proceeding at Docket M-2009-2123951, I was able to demonstrate that the projected capital cost of West Penn’s proposed Smart Meter Plan was more than twice as high as AMI projects of other utilities primarily due to its costs for Information Technology, in-home devices and Customer Information Service (“CIS”).

OCA St. 1-SR at 3.

Disposition

 I am persuaded by OCA’s argument to find that the Companies could have conducted a better cost benchmarking analysis; thus, I am not persuaded to find that the Companies met their burden of proof that the costs they incur for smart meter deployment, as detailed in their annual reconciliation filings, are reasonable and prudent. Given the significant estimated cost of the Companies’ Plan, $1.258 billion, and the fact that the cost/benefit ratio of smart meter deployment is 0.3,[[7]](#footnote-7) the Companies have a responsibility to adequately investigate the reasonableness of the costs they expect to incur to fully deploy smart meters before the Companies incur such costs. Thus, an adequate investigation would include a properly conducted cost benchmarking analysis, as described by OCA witness Hornby in his Direct and Surrebuttal Testimonies.

 Accordingly, the Companies shall be directed to conduct a proper cost benchmarking analysis using the seven cost categories identified by the Companies in their Plan and sub-categories, if available, and using a much larger sample size of utilities. The Companies will further be directed to submit a report with the results of such analysis and any Plan changes stemming from such results in an amended Plan. The cost benchmarking analysis should be completed within 120 days of the Commission’s order in this matter, with a report of the results and an amended Smart Meter Deployment Plan, if necessary.

b. Whether The Companies Have Appropriately Addressed Cross-Jurisdictional Allocation of Plan Costs Among Their Sister Utilities In Other States

 FirstEnergy Companies witness Dargie testified that the Companies developed their Plan with the goal that it could be expanded to serve other FirstEnergy companies in other states. FE Companies St. 1 at 9. As noted by OCA witness Hornby, however, the Companies do not provide the magnitude to which the Plan could benefit the Companies’ sister utilities or the method by which the Companies would seek credit for such benefits to their sister utilities. OCA St. 1 at 13.

 OCA witness Hornby testified that the Companies’ Plan will require upgrades to two of the major back-office systems the Companies utilize from FirstEnergy Service Company, specifically SAP and Meter Reading/Meter Services. The Companies acknowledge that these upgrades would benefit the Companies’ sister utilities in other states when those utilities begin deploying smart meters. OCA St. 1 at 12-13. Additionally, Mr. Hornby testified that indirect costs of the Plan, or those costs not incurred in direct proportion to the number of meters installed, also have the potential to benefit the Companies’ sister utilities in other states. OCA St. 1 at 13. Based on the foregoing, Mr. Hornby recommended that:

[T]he Commission require the Companies to prepare a report that identifies expenditures on all components of the Deployment Plan that have the potential to benefit their sister utilities when they begin deploying AMI and that describes the method through which they will receive credit from FirstEnergy Service Company for those expenditures once their sister utilities begin to deploy AMI. The Commission should require the Companies to present this report with its 2014 SMT-C Rider filing and provide intervenors to review and challenge it.

OCA St. 1 at 14.

 In his Rebuttal Testimony, Companies witness Valdes opposed OCA witness Hornby’s recommendation, testifying that it is premature to speculate about expenditures that might benefit the Companies’ sister utilities because at present, none of the Companies’ sister utilities have plans to deploy a significant number of smart meters. FE Companies St. 5-R at 2-3. Mr. Valdes goes on to provide the current status, or lack thereof, of smart meter deployment for the Companies’ sister utilities. Id. at 3. Mr. Valdes agrees with Mr. Hornby that if the Companies’ sister utilities begin deploying smart meters, the Companies will have to acknowledge allocation of certain costs expended here that also benefit the Companies’ sister utilities. FE Companies St. 5-R at 4. Mr. Valdes, however, asserted that submitting an update on sister utilities’ deployment of smart meters with the Companies’ 2014 SMT-C filing, as recommended by OCA witness Hornby, would be purely speculative and is unnecessary. Id. at 5, 6-7. In the alternative, Mr. Valdes, suggested that the Companies reflect any reallocation of costs to sister utilities in the Companies’ annual SMT-C filings, and the Commission and parties would have time to evaluate such reallocation of costs then. Id. at 5, 7.

 The OCA agreed that FirstEnergy witness Valdes’ alternate recommendation that the Companies reflect any reallocation of costs to sister utilities in their annual SMT-C filings has merit. The OCA contends, however, that the Companies should also provide an update on the smart meter deployment activities of their sister utilities, as Mr. Valdes provided in his Rebuttal Testimony on page 3, with the annual SMT-C filings.

Disposition

 If and when the Companies’ sister utilities begin planning deployment of smart meters, the Companies should provide with their next annual SMT-C filing the report recommended by OCA witness Hornby, wherein expenditures on all components of the Companies’ Plan that have the potential to benefit their sister utilities when they begin deploying smart meters are identified, and a description of the method through which the Companies will receive credit from FirstEnergy Service Company for those expenditures is provided.

 I find it premature to recommend the Commission direct the Companies provide annual updates on the smart meter deployment activities of their sister utilities with each annual SMT-C filing because there is no deployment yet. I find this reporting requirement to be unnecessary until deployment happens with the sister utilities.

 Should any of the sister utilities deploy smart meters, the Commission should direct that the Companies provide a report with their next SMT-C filing that identifies expenditures on all components of their Plan that have the potential to benefit their sister utilities when they begin deploying smart meters and that describes the method through which the Companies will receive credit from FirstEnergy Service Company for those expenditures. To the extent any system upgrades are currently being utilized by the Companies’ sister utilities, the Commission should direct that those costs be properly allocated now.

c. Whether the Companies Improperly Allocated Joint Plan Costs

 In their Plan, the Companies propose to allocate joint Plan costs by each Company’s number of meters as of June of the year prior. Jt. Petitioners Exh. 2 at 66. OCA witness Hornby described the background and his concern with using the number of meters as of June of the year prior to allocate joint Plan costs as follows:

In its Orders in prior proceedings for West Penn and for what were then the three FirstEnergy utilities, the Commission approved allocation of each Company’s smart meter plan costs among its rate classes according to number of meters. However, the Commission Order in the prior proceeding for what were then the three FirstEnergy utilities is silent regarding the allocation of joint smart meter plan costs among the three utilities. In this proceeding the Companies appear to be proposing to allocate those costs according to each Company’s number of meters as of June each year, which is consistent with the allocation of costs within each Company approved by the Commission. I agree that the method of allocating the costs among the four Companies should be consistent with the Commission-approved method of allocating costs within each Company.

. . . In this proceeding, the Companies are proposing to use the number of meters as of June each year. Rather than relying on the number of meters for only one month, I recommend the each Company use its annual average number of meters for the year ending June 30.

OCA St. 1 at 20.

 In Rebuttal, Companies witness Valdes explained that the Companies use the number of meters as of June 30th because that is the most recent number of meters available prior to the Companies’ annual SMT-C filing due August 1st. FE Companies St. 5-R at 13-14. Mr. Valdes did not oppose OCA witness Hornby’s recommendation to use the annual average number of meters for the year ending June 30th in allocating joint Plan costs. Id. Mr. Valdes, however, requested that if Mr. Hornby’s recommendation is accepted by the Commission that it be on a prospective basis. Id. at 14.

Disposition

 Joint Plan costs should be allocated based on the annual average number of meters per Company as of June 30th consistent with how the Companies allocate costs within the Companies. As such, the Companies should be directed to allocate joint Plan costs based on the annual average number of meters per Company as of June 30th.

2. Plan Savings Estimates

1. Whether the Companies Have Adequately Identified Potential Savings From Smart Meter Deployment.

 In its Implementation Order, the Commission identified some of the savings that EDCs should expect to enjoy with the deployment of smart meters. Specifically, the Commission stated:

Smart meters have the ability to support maintenance and repair functions, theft detection, system security, consumer assistance programs, customer‑generator net metering, and other programs that increase an EDC’s efficiencies and reduce operating costs.

Implementation Order at 16.

 The Companies estimated that potential operational cost savings over the Plan period would be approximately $406 million on a nominal cost basis. FE Companies St. 4 at 17. Companies witness Fitzpatrick identified four categories of operational cost savings: (1) meter reading; (2) meter services; (3) back-office; and (4) contact center. FE Companies Exh. GLF-4.

 OCA witness Hornby calculated the Companies’ cost/benefit ratio to be 0.3, which is less than the 0.5 or higher cost/benefit ratio of other smart meter deployment plans. OCA St. 1 at 15-16. Mr. Hornby testified that other utilities and industry studies on this issue included areas of savings from deployment of smart meters in addition to those identified by the Companies. Id. at 17. For instance, other utilities have identified potential savings in theft reduction, revenue enhancement, avoided capital costs and distribution operations. Id. The Companies did not compare their projected Plan savings to those of other utilities. Id. at 18.

 Further, Mr. Hornby noted that as part of the WPP Settlement, West Penn was required to conduct an analysis of potential savings similar to that conducted by Nevada Power at Nevada Docket No. 09-07003. As Mr. Hornby described:

Nevada Power projected potential savings in seven areas of its operations – meter reading, revenue protection, load research, distribution planning, credit & collections, billing, and meter operations. Under its settlement, West Penn was required to prepare a similar analysis to identify its potential savings from deployment of a smart meter system. In this proceeding, the Companies have projected potential savings in four areas corresponding to the Nevada Power estimates, specifically meter reading, meter services, back-office systems and contact center. However, the Companies have not projected potential savings in other areas examined by Nevada Power, particularly revenue protection. In addition, the Companies have not included potential savings from improved cash flow within their estimate of back office savings. Nor have they estimated savings from avoided capital costs, such as future purchases of traditional meters. For example, the Companies current rates are recovering revenue requirements for routine capital investments in new traditional meters. Once the Companies start installing smart meters, they will be avoiding capacity investments in new traditional meters.

OCA St. 1 at 16-17. (Internal footnote omitted).

 Based on the foregoing, OCA witness Hornby concluded that the Companies did not develop a reasonable projection of potential savings associated with their Plan. OCA St. 1 at 18. Mr. Hornby recommended that the Companies be directed to retain an independent consultant with experience in identifying savings associated with smart meter deployment to prepare a comprehensive report assessing the potential savings the Companies will achieve from deploying smart meters. Id. The OCA contends that a proper savings analysis is crucial to complying with Act 129’s requirement to offset the costs of smart meter deployment with all savings realized from the installation and use of smart meter technology. See 66 Pa.C.S. § 2807(f)(7).

 In his Rebuttal Testimony, Companies witness Valdes testified that while he did not agree with OCA witness Hornby that the Companies should have estimated potential savings in other areas, the four categories identified in the Companies’ Plan were not necessarily an exhaustive list. FE Companies St. 5-R at 8. Mr. Valdes went on to state that if savings occur in areas not identified in the Plan, the Companies will reflect such savings in their annual SMT-C filings. Id. Mr. Valdes pointed to these annual reconciliation filings as the proper time to address actual measurable savings and noted that parties would have an opportunity to evaluate potential for savings after the Solution Validation Phase.[[8]](#footnote-8) Id. at 9. In his Rebuttal Testimony, Companies witness Fitzpatrick echoed Mr. Valdes’ testimony. See FE Companies St. 4-R at 14‑16.

Disposition

 It is unclear how the Companies will know if there are savings in categories other than the four they have identified in the Plan if the Companies do not properly analyze all potential categories of savings now. As OCA witness Hornby testified:

If the Companies do not develop an approach for estimating the potential for savings in these other areas now, in this proceeding, it is reasonable to conclude that they will not find any savings to report and to credit to ratepayers.

OCA St. 1-SR at 9. As such, the Companies shall be directed to hire an independent consultant with experience in identifying the potential for savings as a result of smart meter deployment to: (1) conduct a comprehensive savings potential investigation of categories of savings achieved by other companies that have deployed smart meters, including the seven categories identified by Nevada Power described above, and (2) prepare and submit a report to the Commission of his or her findings within 90 days of the Commission’s order in this matter. Further, the Commission should direct the Companies to file an amended Plan detailing the potential categories and estimates of savings identified by such consultant within 30 days thereafter.

2. Whether the Companies Have Proposed Improper Baselines for Calculating Savings

 Act 129 permits EDCs to recover the costs of smart meter deployment either through base rates or on a full and current basis through a § 1307 rider. See 66 Pa.C.S. § 2807(f)(7). If an EDC chooses recovery of costs through a rider mechanism, the EDC must also offset costs achieved from the deployment of smart meters through the rider. Id. In order to determine the amount of savings achieved, the EDC must establish accurate baseline levels upon which to measure savings achieved from the deployment of smart meters. OCA witness Hornby explained the importance of establishing proper baseline levels for measuring savings as follows:

Given the magnitude of the Deployment Plan costs the Companies are seeking to collect, it is particularly critical that the Companies establish a method for measuring the savings accurately and for crediting the actual savings against the actual costs of their Deployment Plan each year. The actual savings that the Companies report each year should be included as credits in the calculation of their respective SMT-C rates each year. Under the statute, and to ensure just and reasonable rates, it is essential that the Companies measure all savings accurately each year and report those measured savings.

OCA St. 1 at 21. The OCA argues that in order to properly reflect all offsetting savings in the rider mechanism, the Companies must properly identify the categories where savings will occur, as discussed above, and properly identify what the Companies’ current rates are based on. This will ensure that moving these costs and savings to a rider mechanism will achieve revenue neutrality.

 In their Plan, the Companies propose to establish the baseline employee levels, costs and other metric levels as of the date on which deployment begins, December 31, 2013. FE Companies St. 4 at 17. The Companies intend to adjust for anomalies in the 2013 baseline levels. Id.

 Mr. Hornby testified that the Companies’ proposal to use their cost levels as of December 31, 2013, may not produce just and reasonable rates because these costs are not the revenue requirements upon which the Companies’ currently effective rates are based. Id. at 22. Met-Ed’s and Penelec’s currently effective rates are based on test year revenue requirements from their most recent 2006 base rate case. Id. Penn Power’s and West Penn’s currently effective distribution rates are based on the test year revenue requirements from 1996 used during their restructuring cases, where their distribution rates were unbundled. Id.

 In his Rebuttal Testimony, Companies’ witness Valdes testified that it is unrealistic to assume that the costs the Companies incur for a particular utility function in 2013 are the same as the test year costs presented in the Companies’ last base rate cases. FE Companies St. 5-R at 12.

 The OCA contends that Companies’ witness Valdes is improperly focused on the costs the Companies incur for certain expenses; instead, the focus should be on the revenue requirements used to establish the rates customers are currently paying. These rates were developed in rate cases using test year revenue requirements based on the Companies’ then existing costs and expenses. The costs and expenses the Companies currently incur do not change the distribution base rates that customers pay each month. By way of example, Companies’ witness Fitzpatrick notes in his Rebuttal Testimony that Met-Ed, Penelec and West Penn currently read meters bi-monthly, which culminates in $164 million less in savings[[9]](#footnote-9) to flow through the SMT-C riders to offset Plan costs than if the Companies read meters monthly. See FE Companies St. 4-R at 17. The OCA contends, however, that Met-Ed, Penelec and West Penn ratepayers are currently paying rates that include expenses for monthly meter reading. In Mr. Fitzpatrick’s scenario, the Companies are keeping the $164 million for their own use (assuming they do not file a base rate case) because the Companies’ current rates reflect monthly meter reading expense.[[10]](#footnote-10) Indeed, if the Companies reflected the additional $164 million in savings in their SMT-C riders, the cost/benefit ratio of the Plan would increase from 0.3 to 0.45 on a 20-year life cycle basis. FE Companies St. 4-R at 17.

Disposition

 EDCs are permitted to collect smart meter costs on a full and current basis, net of any cost savings achieved from smart meter deployment, through a § 1307 rider. Those riders are submitted each year and should reflect the most current expected costs for the effective year of the rider. Cost savings achieved should also be based on current information, including an accurate baseline level to determine achieved savings. The Companies propose a date of December 31, 2013, subject to certain adjustments, to establish baseline metrics to measure cost savings achieved throughout deployment. This method will most accurately reflect the actual cost savings achieved on a current basis, consistent with the intent of Act 129.

 The OCA’s contention that the baseline level should be from the Companies’ test year revenue requirements upon which their currently effective distribution rates are based would not match current deployment costs to current cost savings achieved. The OCA’s methodology may become a disincentive for efficiencies (less frequent meter reads, etc.) the Companies have incorporated in order to maintain profitability and rate levels with revenue requirements from several years ago[[11]](#footnote-11). Rate payers may have benefited from those efficiencies by the Companies avoiding rate increases over the several years since their last rate cases. If the Companies chose to recover the deployment costs through base rates as allowed in Act 129, it would be on a current basis as would be the cost savings baseline. In such a case, the Companies would not be expected to lessen their current deployment cost recovery by efficiencies implemented related to meter reading during the years between rate cases. The deployment costs would be reduced by the current savings realized on a current baseline.

 Therefore, I agree with the Companies’ proposed baseline methodology. In their next annual SMT-C filing, and in all subsequent annual SMT-C filings, the Companies shall provide detailed information on the cost saving baseline measures, including the actual baseline employees’ levels, costs and other metric levels as well as any adjustments. Also, the annual SMT-C filings shall detail how any cost savings are calculated for each baseline measure. If other cost saving categories other than what the Companies have proposed are identified by the independent consultant retained as directed above, the baseline measures associated with those categories shall be included in the annual SMT-C filings.

 3 Communications Plan.

 The Communications Plan (Comm Plan) is a plan designed to coordinate the Companies’ internal and external communications regarding its Smart Meter Deployment Plan. The Comm Plan will encompass the several different areas, including the Change Management Plan (including four phases (i) strategy development; (ii) planning; (iii) pre-deployment; and (iv) deployment) and the training plan in which the “organizational readiness team will partner with appropriate work streams and business units to facilitate the flow of information to all audiences impacted by the implementation of the Deployment Plan.” Jt. Petitioners Exh. 1 at ¶¶ 25-29. The Companies set forth the primary goals of the Comm Plan as follows:

(i) keep customers, city officials and employees updated on Deployment Plan progress; (ii) manage expectations, both as to installation and potential for customer savings; and (iii) alleviate concerns regarding privacy, access to customer information and other smart meter related issues.

Jt. Petitioners Exh. 1 at ¶ 26; OCA St. 2 at 9. The Comm Plan remains under development.

 OCA witness Brockway reviewed the Companies’ Petition and testimonies regarding the Comm Plan. OCA witness Brockway first testified:

The Companies’ Communication Plan has not yet been approved by senior management, and has not been submitted to stakeholders or the Commission for review; for this reason, it is not yet possible to analyze the Comm Plan. The Company has committed to share the draft Comm Plan with stakeholders and obtain input before it is filed with the Commission.

OCA St. 2 at 3. While the Comm Plan was not yet complete, Ms. Brockway was able to make several recommendations regarding areas that should be included in the Plan to assure that communications more fully inform and educate consumers.

 OCA witness Brockway and Companies’ witness Fitzpatrick agree that the Comm Plan will need to remain flexible as time goes by because the scope and nature of customer educational issues may change. FE Companies St. 4–R at 4; OCA St. 2-SR at 4. As OCA witness Brockway testified:

As time goes on, it will be necessary to expand the scope of education, to include information on a number of issues. These include how to decide if a program or rate would be helpful to the customer, how to take advantage of the program or rate, techniques for safely and conveniently reducing electricity requirements, and the ties between smart metering programs and rates and other demand management programs offered by the Companies or by the retail market, among other topics.

OCA St. 2 at 9-10. As such, OCA witness Brockway recommended that the FirstEnergy Companies continue their regular stakeholder meetings regarding their smart meter deployment and specifically discuss the Comm Plan at these meetings. The Companies have also stated that they intend to seek the input of stakeholders before deploying their final Comm Plan with the Commission. Id. at 12. The OCA supports this approach and intends to participate in the stakeholder meetings.

 The OCA contends it will be important for the stakeholders to have the opportunity to review the final Comm Plan and to provide input into the final Comm Plan before it is filed with the Commission. The Companies anticipate completion of the Comm Plan “before the beginning of the Solution Validation Stage, which currently is anticipated to start during the fourth quarter of 2013.” OCA St. 2 at 9. The OCA recommended that the Companies commence holding stakeholder meetings on a quarterly basis by the first quarter of 2014 in order to discuss the final Comm Plan. As the Comm Plan is an essential part of the Smart Deployment Plan, the OCA recommended that the Comm Plan be filed with the Commission after the stakeholders have sufficiently reviewed and discussed the Comm Plan in the stakeholder meetings.

 As discussed below, OCA witness Brockway identified several areas of the Comm Plan that required additional attention and made recommendations in these areas.

 a. Early Education About The New Functionalities of Smart Meters

 OCA witness Brockway recommended that the Companies broaden the scope of their education planning. OCA St. 2 at 23. Specifically, the OCA contends that the Companies should begin educating customers about the new functionalities of smart meters early in the process even before customers have access to the smart meters or programs enabled by the meters. Customers should understand the options that they will have and how to exercise them even before large numbers of meters are deployed. This early education will pave the way for the later introduction of specific time-varying rates and programs by helping customers to understand early the capabilities of the new smart meters. Id. at 10.

 Early education is important for customers so that the groundwork is laid for the capabilities of smart meters prior to and in the early days of their installation.[[12]](#footnote-12) OCA witness Brockway testified about the importance of this education:

Early education will help first-adopters become familiar with the capabilities of the new meters and networks in time for them to play their societal role of breaking new ground and being able to explain the technologies to others more risk-averse. In addition, adult learners require a variety of methods of education, and exposure to the information from a number of perspectives, in order to make best use of it. There are also groups of customers who will require concerted communications efforts tailored to their situations, such as those who have little formal education, those for whom English is a second language, those with special needs (e.g. those with a medical need to maintain a certain temperature in their dwelling, or preserve medications through constant refrigeration), and other groups who would benefit from tailoring the messages and the message delivery.

The Companies likely will also make usage information available to the customers via third-party products and services before it offers rates or programs. Even before the EDC provides its own tools for customers to access their usage information, energy generation suppliers and others (such as “third-party load management providers”) will want to arrange customers’ access to their interval usage data, through customer- or third-party-provided devices connected to the meter.

OCA St. 2 at 10-11.

 Further, not only will this early education benefit customers, but it will also benefit the Companies. As OCA witness Brockway testified, this early education will help the Companies to better design the rates and programs that will eventually be offered through smart meter technology. Ms. Brockway stated:

It will be helpful to determine if a given program or rate design will present difficulties from a customer education or acceptance perspective. The design of the specific rates and programs is symbiotic with the design of the communications necessary to assure a successful launch of such rates and programs.

Id. at 12.

Disposition

 I am persuaded by OCA to find that the FirstEnergy Companies should broaden the scope of their education planning before customers gain access to a larger set of programs and rates made possible through smart metering and include information in the Comm Plan related to early education for customers about time-varying prices and the functionalities of smart meters. The specifics on how this should be accomplished may be decided through the stakeholder group meetings. Id. at 3, 9-12.

b. Safety Educational Materials

 The FirstEnergy Companies and Direct Energy entered into a Joint Stipulation of Position (Joint Stipulation) at the hearings which provided that the Comm Plan:

will also include information regarding the smart meter deployment schedule indicating that the communities scheduled for installation of fully functional smart meters will be identified on a website available to the public sixty days in advance of installation. The information provided regarding communities scheduled for installation will not include specific addresses or neighborhoods where the smart meters are to be deployed and will not include dates more specific than “within the next sixty days.” The information will be limited to identification of the Borough, Township, or City where deployment is scheduled within the next sixty days. In addition, the Companies will update the aforementioned website to confirm that a community’s deployment has been completed and that smart meters capable of transmitting usage data on an hourly basis to third parties have been installed.

Joint Stipulation of Position at ¶ 1.

 The OCA contends that the proposed Joint Stipulation, while addressing general information about deployment schedules in the Comm Plan, does not address a related, and critical aspect of such communications. The OCA contends that if installation zones are to be publically identified to a wide audience, safety educational information must be provided to each individual customer in the deployment area in order to avoid the risk of fraudulent individuals attempting to gain access to homes during the smart meter deployment period. OCA witness Brockway testified:

On the question of disclosing installation zones, in addition to the risk of fraud cited by Mr. Fitzpatrick, I would add the need to protect the safety of customers from entry by unauthorized persons purporting to represent the utility. Redundant identification by installers (e.g. badges, uniforms, truck logos, etc.) will help to enable customers to distinguish between genuine FirstEnergy installers and others. If and to the extent FirstEnergy uses contractors to perform installation, it should likewise ensure that the contractors have multiple forms of identification, making it harder for unauthorized persons to present themselves as FirstEnergy representatives. In the education materials for Maryland utilities rolling out smart meters, for example, customers are shown pictures of the uniforms and truck logos of contractors, to provide one level of security against unauthorized personnel gaining entry. Customers are also given explicit advice to check the identification of installers if they have any doubt, and given a number to call to verify any given installer’s identification, which provides a further defense against safety risks and fraud.

OCA St. 2-SR at 2-3. On cross-examination, the Companies witness Fitzpatrick agreed that each of these recommendations was generally a good idea. Tr. 122-124. Mr. Fitzpatrick specifically stated: “I think generally the companies are going to be very cautious to make sure the contractors that are installing meters have the right identification that’s sufficient and redundant.” Tr. 123.

Disposition

 In order to ensure the safety of consumers against potential fraudulent individuals or thieves, the Companies shall be directed to provide safety-related educational materials to individual consumers at the same time as their public website announcement of the areas where smart meters are to be deployed. The education information should include, but not be limited to, the following:, (1) that installers for the FirstEnergy Companies will have redundant identification, i.e. trucks with logo, uniform, identification badges to enable customers to distinguish between genuine FirstEnergy installers and others; (2) that pictures or descriptions of the uniforms for installers for the FirstEnergy Companies will be provided, such that a consumer can readily identify the FirstEnergy installers; (3) that such FirstEnergy Companies installers do not need to enter the household in order to install the smart meters; (4) that customer should check the identification of installers if the customerconsumer has any doubt; and (5) that the phone to call to verify any given installer’s identification is provided. See OCA St. 2-SR at 2-3.

While the Companies will consider in good faith all input received from the Settlement Parties, nothing in this Agreement shall require the Companies to adopt any suggestions submitted by any of the Settlement Parties beyond those requirements as established either by the Pennsylvania Public Utility Commission (“Commission”) or Federal or Pennsylvania law. The Companies will provide an explanation underlying rejection of any material suggestions made regarding the Comm Plan. Resolution of issues for which consensus cannot be reached shall be addressed as outlined in Section III. OCA SOcaSe

 c. Customer Privacy

 i. Introduction

 Smart meters have the capacity to provide information about a customer’s interval usage on a very granular level. This information can provide a great deal of information about a customer’s life and habits or about a business operation. The OCA contends that the protection of customers’ granular interval usage data is a critical component of the Smart Meter Deployment Plan. Currently, the Companies do not have a specific privacy policy in place that relates to how this data will be protected. The Companies provide only a general Privacy and Legal Statement and a Know Your Rights booklet which includes a page called the “Right to Restrict Your Personal Information.” OCA St. 2 at 18-19; OCA St. 2 at Exh. NB-3 and NB-4. These statements do not address the unique challenges of customer privacy resulting from the deployment of smart meters.

Disposition

 In light of the proposed deployment, customer privacy needs must be considered before wide scale deployment is initiated. I am persuaded by OCA witness Brockway who testified:

Privacy should be built into the design of its smart grid implementation. The Companies should not go forward with the creation and collection of such granular data until a fully-developed privacy policy is in place.

Id. at 20-21. These privacy concerns were highlighted in the recent survey work conducted by the Companies to better understand customers’ awareness of and attitudes towards smart meters. OCA witness Brockway testified:

The survey firm asked respondents whether they would want their data to be provided to various entities without their consent. See Attachment E to OCA I-2, page 31. The respondents to the survey were asked the following question: “Who do you believe should be authorized to access your detailed electricity usage besides yourself?” The customers could pick more than one of the options. Exhibit NB-4 is a reproduction of the page from the FirstEnergy presentation sharing the survey results with stakeholders. Less than 5% of respondents agreed that third-party vendors of electricity or electricity-related goods and services should be authorized to access their detailed electricity usage besides themselves. The only entity that received less support for access to customer usage information was the government, at less than 2%. Almost half the respondents answered that no one other than themselves should have access to this information, not even the utility billing system or utility customer service agents.

Id. at 20. The Companies’ Comm Plan will need to further address these privacy concerns as they specifically relate to the smart meter deployment.

 OCA witness Brockway proposed that the companies have both appropriate principles and protocols in place to protect the privacy of customers’ usage and other personally-identifying information before installing data-creating technologies that might be subject to unauthorized access. OCA St. 2 at 24. Therefore, I find that the Companies should be directed to work with the stakeholder group to develop a stand-alone Customer Privacy Policy specifically related to the protection of smart meter information before any wide scale deployment of smart meters.

 ii. Principles for Release of Smart Meter Information

 The Companies have identified and acknowledged privacy concerns and developed principles for release of smart meter information. Mr. Fitzpatrick stated that the Companies’ policies will be guided by the following principles:

(i) any information released must be in compliance with all Commission regulations and directives, and Federal and Pennsylvania law;

(ii) except as authorized by the Commission or a Federal or Pennsylvania law, the Companies will not release any individual customer information without the express written consent of the customer;

(iii) any advance public notice of the smart meter installation “zones” must be weighed against the potential for fraud by imposters, armed with this scheduling information, posing as utility workers; and

(iv) electric generation suppliers, such as Direct Energy should have access to information in a time frame that allows them reasonable time to develop marketing plans.

FE Companies St. 4-R at 8. The OCA agrees with the concepts that Mr. Fitzpatrick proposed.

 OCA witness Brockway was in general agreement with these broad principles, but recommended a specific edit to the Companies’ language regarding the second principle. Mr. Fitzpatrick stated in his second principle that private data would not be released “except as authorized by the Commission or a Federal or Pennsylvania law…without the express written consent of the customer.” OCA St. 2-SR at 3. OCA witness Brockway found this principle to be too vague which would “impede the achievement of the purposes of the principles: customer choice about release of customer information.” OCA St. 2-SR at 3. OCA witness Brockway expressed concern that the formulation of the principle, particularly the use of the phrase “except as authorized” reduces the principle to one in which the discretion to release or not release private information is given to the Companies, and their interpretation of the law. OCA St. 2-SR at 3. In other words, the principle as written allows the Companies to determine what is authorized and even whether to seek such authorization. OCA witness Brockway recommended that:

One way to clarify the second principle would be to remove the initial clause, that now reads “except as authorized by the Commission or a Federal or Pennsylvania law.” What remains is a simple statement of the Companies’ assurance to customers that they can control the information gathered about their usage by smart meters.

Id. at 3-4.

Disposition

 At this time, I am persuaded to agree with the OCA’s position that the language “except as authorized by the Commission or a Federal or Pennsylvania law” be removed from the principles. This is because the phrase is overly vague and broad. It is not specific with regards to whether a court order is sufficient authorization, or whether a search warrant is sufficient or something else. Therefore, since the phrase seems open to non-consumer protection interpretation, I will direct it be removed from the principles.

 4. Remote Disconnection

 a. Introduction

 One of the functionalities of smart meters will be the ability to use remote disconnection either as a voluntary disconnection tool, such as at the customer request for a move-in or move-out, or as an involuntary remote termination tool, to incent payment of past-due bills. OCA St. 2 at 14. The Companies have clearly stated that they intend at this time to utilize smart meters for remote voluntary disconnection for move-in/move-out situations. Id. at 15. The OCA agrees with this determination but contends that the Companies must develop protocols to ensure the safety of the property and residents.

 In the event that the Companies seek to implement an involuntary termination program at some point in the future, the Companies should work with the stakeholder group to develop protocols and then file an amended plan with the Commission for review and approval.

 b. Voluntary Remote Disconnection For Move-In/Move-Out

 The Companies have acknowledged the possibility of using the voluntary remote disconnections for move-ins or move-outs of service properties. OCA witness Brockway testified that there are potential customer risks to the use of voluntary remote disconnection even at a customer’s request:

Remote disconnection can be done at the customer’s request, or without the customer’s agreement as a tool to incent payment of past-due bills. In the case of disconnection at the customer’s request, property damage could occur following a service disconnection. In the event of extreme weather or due to loss of electronically-wired fire protection equipment, the dwelling may be at risk. A customer may also be subject to a malicious fraudulent termination request, or an incident related to landlord-tenant disputes.

OCA St. 2 at 14.

Disposition

 Before the Companies use voluntary remote disconnection at the customer’s request, the Companies should work with the stakeholder group to develop protocols that implement already existing consumer protection regulations in the Pennsylvania Code, Chapter 56 and statutory provisions of Title 66, Pa.C.S.A., Chapter 14. The Companies should also work with the stakeholders to develop protocols to prevent mistaken or unintended remote disconnection.

 c. Involuntary Termination For Non-Payment

 The Companies have left open the possibility that they could seek to use remote termination for non-payment in the future. OCA witness Brockway testified about her concerns with the potential harms from remote involuntary termination for non-payment:

Remote involuntary disconnection could, if conducted without sufficient protocols, put customers at risk of disconnection in situations where termination could have been avoided. In addition, it causes dislocation and potentially danger to the customer. Disconnection of customers during the winter months (especially for customer who heat with electricity, or whose heating system requires electricity to run), or in summer months when air conditioning is necessary for health and safety, and any time when the customer requires electricity for health and safety reasons, could produce adverse effects for customers.

OCA St. 2 at 14.

 The Companies stated that they will engage in the stakeholder process if the Companies propose to develop policies with regard to involuntary remote termination for non-payment as was set forth in WPP Settlement. Id. at 15. Under the terms of that agreement, West Penn will not seek to use the remote disconnect feature for involuntary terminations for non-payment and will work with the interested parties “to address compliance with Chapter 14 and Chapter 56 and to address the issues presented by use of the technology for remote disconnection.” Id. at 15-16. The Companies are willing to not use this feature at this time and to engage with stakeholders to address further identified issues in the event that the Companies decide to pursue involuntary remote termination for non-payment in the future. As OCA witness Brockway testified:

The safe and effective use of remote disconnection capability requires the kind of thoughtful and collaborative approach to which the Companies agree. Such an approach can produce a better understanding of the costs and benefits of using this smart meter functionality for non-payment disconnections. It also provides a means to develop useful protocols to protect households from unnecessary and imprudent disconnections.

Id. at 16.

Disposition

 The Companies are reminded that the requirements of Chapter 56 regarding termination continue to apply regardless of the new capabilities of the smart meters for remote activation and termination of service. The Companies shall be directed to not use remote termination for non-payment as part of their Plan until such time as the Companies bring any future proposal to pursue remote involuntary remote termination for non-payment to the stakeholder group for further discussion. Further, due to the potential implications of Chapter 56 and Chapter 14, any proposal to pursue involuntary remote termination for non-payment in the future should be considered an amendment to the instant Plan and should be filed with the Commission for review and approval.

5. Cyber-Security

 OCA witness Nancy Brockway reviewed the Companies’ cyber-security program in this proceeding. OCA St. 2 at 4-8. The OCA asked a series of discovery questions that were based on the National Association of Regulatory Utility Commissioners’ recommended questions to ask utilities engaged in smart grid deployment. Id. at 4. As OCA witness Brockway testified, the Companies have an extensive cyber-security program under senior management that is reported to the Board and is audited annually. Id. at 3. While no system is ironclad, OCA witness Brockway found that “the Companies recognize the importance of cyber-security and are working towards maximizing security.” Id. at 6. The OCA recommends that this issue continue to be regularly monitored, that the Companies should be aware of emerging issues, and that these issues should be addressed, as needed, at the state level. Id. at 8. OCA witness Brockway recommended that the FirstEnergy Companies develop sufficient policies and practices for application by the Companies as they implement smart metering. OCA St. 1-SR at 2.

 Additionally, OCA witness Brockway recommended that the Companies have a Chief Security Offer with a corresponding set of responsibilities covering both the operational and information technology (IT) systems who reports to the Board. OCA witness Brockway testified:

In the view of some cyber-experts, it would be the better practice to place responsibility for all security issues, including both IT and operations management, and responsibility for both physical and electronic security, in one organization within the firm. The Companies do however have senior corporate security and IT officers reporting up to the Board through one executive vice president, whose responsibility covers both areas IT and operations cyber-security. OCA I-13. The Companies expressly recognize the risks associated with logical and physical connections between interconnected parts of their networks, so they are aware of the risks caused when firms allow the various cyber-security approaches to be cut off from one another in their own silos. OCA I-17(iv).

OCA St. 2 at 7-8.

Disposition

 The Companies shall be directed to continue to discuss and address cyber-security issues with the stakeholder group on a going-forward basis and to report to the Commission on a regular semi-annual basis regarding the status of cyber-security at the Companies.

6. West Penn CIS Costs

 As part of its SMIP filing at Docket No. M-2009-2123951, West Penn included approximately $45.1 million for costs related to smart meter activities, including amounts for modernizing West Penn’s Customer Information System (CIS). OCA St. 1 at 23. The parties to the proceeding ultimately entered an Amended Joint Petition for Settlement (WPP Settlement) in that proceeding, which stated:

The Joint Petitioners recognize that the Company made expenditures between 2009 and 2010 in support of the development of a smart meter deployment plan. These costs are related to activities defined as Phase 1 and Phase 2 activities in the accompanying Appendix A. To date, the Company has expended $45.1 million, of which the parties agree that $40 million can be recovered in the smart meter surcharge…The additional $5.1 million represents certain costs related to the CIS system that the Joint Petitioners dispute should be recovered through the smart meter surcharge. The Company may file for recovery of these disputed amounts in its next distribution base rate case and/or as part of the smart meter surcharge in connection with its Revised SMIP filing. All parties reserve all rights to continue to dispute the reasonableness of recovery of the $5.1 million in disputed charges and to oppose any recovery of those costs.

WPP Settlement at ¶ 19. West Penn seeks recovery of the remaining $5.1 million in this proceeding. OCA St. 1 at 23-25.

 In West Penn’s prior SMIP proceeding, OCA witness Hornby opposed the inclusion of the CIS costs because the investment was one that a utility would typically make in its normal course of business. In this proceeding, OCA witness Hornby recounted his position as follows:

My position in that proceeding was based upon, and supported by, various admissions made by West Penn. First, West Penn stated that the CIS, which is its billing system, was installed in the 1970s and that prior to the Company’s 2009 modernization investment, the Company had not made any major investments to upgrade that system since 1999. West Penn also acknowledged that the CIS was used by all of its parent corporation’s distribution operating companies, including West Penn’s sister companies operating in Maryland and West Virginia. West Penn further acknowledged that 52 percent of the CIS costs would be allocated to its sister companies in Maryland and West Virginia, and those sister companies would seek to collect those allocated costs through distribution base rate proceeding in their respective states.

In rebuttal, West Penn witnesses Heasley and Arthur each stated that the Company needs to modernize its CIS in order to support the deployment of smart meter technology and the rate offerings enabled by that technology. However, neither Mr. Heasley nor Mr. Arthur explicitly denied that modernizing the CIS was an investment that West Penn would make in its normal course of business. Instead, both Company witnesses simply stated that they understood Act 129 to allow recovery of those capital costs as part of the implementation of smart meter technology.

OCA St. 1 at 23-24.

 The Company was seeking to recover these CIS costs through its SMT-C Rider when the Company had not updated its CIS system for over thirty years. While the Company has argued that the system was “a home-grown, customized system that was specifically tailored to meet the needs of West Penn,” most every other Pennsylvania utility had made modernization investments to upgrade their customer information systems between 1970 and 2008 as part of the normal course of business. FE Companies St. 5-R at 16. As OCA witness Hornby testified, those costs are typically incurred in the normal course of business and are recovered through a base rate proceeding. OCA St. 1 at 23. In fact, as Mr. Hornby testified, this was exactly how West Penn Power’s sister companies recovered it. Id. at 24.

Disposition

 There is substantial evidence of record to show that the West Penn CIS upgrade was a normal business expense and was not solely for the purposes of Act 129. Importantly, the Company allocated 52 percent of the costs of that system to its sister utilities Potomac Edison Company in Maryland and Monongahela Power in West Virginia. OCA St. 1 at 24; Tr. 52. Neither of the two sister utilities had a requirement to deploy smart meters or AMI, nor were either engaged in any smart meter deployment. OCA St. 2 at 24; Tr. 53. Both of these companies chose to include the cost recovery for the customer information system in distribution base rates and not through surcharges. OCA St. 1 at 24.

 Since the initial WPP SMIP, much has also changed. FirstEnergy acquired West Penn’s parent Company in 2011. Joint Application of West Penn Power Company d/b/a Allegheny Power, Trans-Allegheny Interstate Line Company and FirstEnergy Corp. for a Certificate of Public Convenience under Section 1102(a)(3) of the Public Utility Code approving a Change of Control of West Penn Power Company and Trans-Allegheny Interstate Line Company, Docket Nos. A-2010-2176520, A-2010-2176732, Order (March 8, 2011). West Penn has now “retired” its CIS system and transitioned to using the CIS system of the FirstEnergy Companies. Companies’ witness Valdes testified “[s]o even though the merger occurred, yes, the merger occurred, therefore the CIS system merged with FirstEnergy’s billing system.” Tr. 53. West Penn is no longer using the system for which it expended the $5.1 million. Tr. 53.

 The timeline for this case is particularly compelling. West Penn filed its initial plan for approval of its SMIP on August 14, 2009. Companies witness Valdes stated in cross-examination that due to the Energy Efficiency and Conservation Plan, West Penn planned to roll-out smart meters in 2010 and “because of that, West Penn needed to proceed with its smart metering plan which includes the CIS upgrades during 2009 prior to actually formally receiving Commission approval.” Tr. 42. On May 14, 2010, FirstEnergy filed for its proposed merger with West Penn’s parent company, Allegheny Power. The merger was subsequently consummated on March 8, 2011. West Penn expended the $5.1 million for a CIS system, which was ultimately abandoned and is not used or useful to ratepayers for smart metering purposes. See Barasch v. Pa. PUC, 516 Pa. 142, 532 A.2d 325 (1987), aff’d Duquesne Light Co. v. Barasch, 488 U.S. 299 (1989).

 The Companies’ proposal to recover $5.1 million for expenditures related to West Penn’s abandoned CIS system shall be denied.

 7. Legacy Meters

 The FirstEnergy Companies have requested regulatory asset treatment for their unrecovered investment in their meters currently in place (also referred to as the Legacy Meters) that will be replaced by smart meters. OCA witness David Effron explained the Companies’ proposal:

The Companies are seeking authorization to create regulatory assets for the Legacy Meters being retired. The regulatory assets would then be amortized over the remaining depreciable lives of the meters, with recovery of that depreciation expense continuing through base rates (Met-Ed/Penelec/Penn Power/West Penn Statement No. 5, page 17).

Any salvage value realized from the disposition of the Legacy Meters will be credited to the regulatory asset. The Companies are proposing to treat the cost of removal for Legacy Meters as operation and maintenance (“O&M”) expense and to recover that cost as a component of the Smart Grid rider.

OCA St. 3 at 3. The Companies propose to separately account for the cost of removal of the meters and the salvage value of the meters.

 OCA witness David Effron recommended that the Companies’ proposed treatment of the cost of removal should be modified such that the cost of removal of the meters and the salvage value of the meters are handled together as a part of the regulatory asset. The Companies have historically dealt with the cost of removal and/or salvage value of Legacy Meters through its base rates and the existing base rates have costs of removal and salvage value embedded in them. Mr. Effron testified how West Penn, Penelec, Met-Ed and Penn Power have historically handled this issue:

In response to OCA Interrogatory IV-6, the Companies explained that Met-Ed, Penelec, and West Penn presently treat the cost of removal as O&M expense, with Penn Power accruing for the cost of removal as part of its depreciation rate. (The Companies subsequently clarified that Met-Ed, Penelec, and West Penn actually charge the cost of removal to Account 403, which is depreciation expense, not technically an O&M account; however, the cost of removal for those companies is treated as if it were an O&M expense, that is to say as a cash expense.)

If Met-Ed, Penelec, and West Penn have historically treated the cost of removal of meters as O&M and that cost is being recovered in base rates, then inclusion of the cost of removal of the Legacy Meters as a current O&M expense in the Smart Grid rider would constitute a double recovery. That is, the Companies would be recovering the cost of removal in base rates and also recovering that cost of removal in the Smart Grid rider. Therefore, Met-Ed, Penelec and West Penn should be allowed to recover the cost of removal of Legacy Meters only to the extent that such costs exceed the cost of removal presently being recovered as O&M in base rates. (Alternatively, the cost of removal being recovered as O&M in base rates by those companies could be credited directly to the regulatory asset account.)

For Penn Power, the cost of removal of the Legacy Meters does not present the same double recovery problem because the full amount of the depreciation expense (including any implicit cost of removal allowance) will, in effect, be treated as an ongoing credit to the regulatory asset.

OCA St. 3 at 4-5.

 Mr. Effron recommended the following modification to the Companies’ proposed accounting for the cost of removal of the Legacy Meters in order to prevent this double-recovery through base rates and through the SMT-C:

I recommend that rather than being treated as O&M and being recovered as a current component of the Smart Grid rider, the cost of removal incurred by Penn Power and the incremental cost of removal incurred by Met-Ed, Penelec, and West Penn should be charged to the regulatory asset account containing the remaining cost of the retired Legacy Meters and be amortized over the remaining depreciable lives of the metering assets along with the remaining costs of those meters. This will result in the cost of removal being treated symmetrically with salvage value. In addition, charging the cost of removal to the regulatory asset and amortizing those costs accordingly will tend to smooth year-to-year variations in those costs.

OCA St. 3 at 5.

Disposition

 The Commission addressed how these costs should be handled in its Implementation Order. The Implementation Order stated:

The Commission believes the EDCs should install smart meters in a manner that coincides with the full depreciation of existing meters, so as to minimize the stranded costs. However, in the event that that there are stranded costs that need to be recovered the Commission agrees with EA, PECO and Duquesne that EDCs should be allowed to seek recovery of those costs through an accelerated depreciation schedule, to be included in the EDC’s cost recovery plan.

Implementation Order at 33.

 The Commission’s language anticipates that the stranded costs will be minimized to the extent possible and coincide with the Companies’ proposed depreciation schedule. Separating out the cost of removal from the salvage value and depreciation does not minimize the cost to consumers. The cost of removal and the salvage value are two halves of the same whole. Customers should not have the delayed impact of the credit for the salvage value recovered through the regulatory asset and the cost of removal of the Legacy Meters charged immediately through the SMT-C riders.

 Therefore, the incremental cost of removal should be charged to the regulatory asset account containing the remaining cost of the retired Legacy Meters and be amortized over the remaining depreciable lives of the metering assets along with the remaining costs of those retired meters. The cost of removal would then be recovered as part of the next base rate revenue requirement for electric distribution service when the regulatory asset is reflected in base rates.

IV. CONCLUSION

 The Smart Meter Deployment Plan filed by the Companies is adopted as modified by this Recommended Decision.

V. CONCLUSIONS OF LAW

 1. The Companies’ Smart Meter Deployment Plan as modified by this Recommended Decision satisfies the requirements of 66 Pa.C.S. §§ 2807(f)(1) through 2807(f)(3) of Act 129 and the terms of the Commission’s Implementation Order at Docket No. M-2009-2092655 in part.

 2. Act 129 mandates the deployment of smart meters to all customers over a 15-year period, without regard to whether individual customers will or will not be able to save money by shifting consumption off-peak. 66 Pa.C.S. § 2807(f).

 3. The costs of the smart meters themselves must be assigned to the rate class groups for which FirstEnergy incurs those costs. Implementation Order at 32.

 4. Common costs related to smart meters must be assigned to the rate class groups based upon standard cost causation principles. Implementation Order, at 32.

 5. Allocation of the common costs among the rate class groups on the basis of the relative number of customers in each group would result in just, reasonable, and not unduly discriminatory rates for Commercial customers, thereby complying with Sections 1301 and 1304 of the Public Utility Code, 66 Pa.C.S. §§ 1301 and 1304.

 6. Act 129 requires that the Companies reflect savings in their chosen rate mechanism for the collection of smart meter costs. 66 Pa.C.S. § 2807(f)(7).

 7. The proponent of a rule or order in any Commission proceeding has the burden of proof, 66 Pa.C.S. § 332, and therefore, the Petitioner has the burden of proving its case by a preponderance of the evidence, or evidence which is more convincing than the evidence presented by the other parties. *Se-Ling Hosiery v. Margulies*, 364 Pa. 45, 70 A.3d 854 (1950); *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm’n*, 578 A.2d 600 (Pa. Cmwlth. 1990).

 8. Any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence, which is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Mill v. Pa. Pub. Util. Comm’n*, 447 A.2d 1100 (Pa. Cmwlth. Ct.1982); *Edan Transportation Corp. v. Pa. Pub. Util. Comm’n,* 623 A.2d 6 (Pa. Cmwlth. Ct.1993), 2 Pa.C.S. § 704. More is required than a mere trace of evidence or a suspicion of the existence of a fact sought to be established. *Norfolk & Western Ry. V. Pa. Publ. Util. Comm’n,* 489 Pa. 109, 413 A.2d 1037 (1980); *Erie Resistor Corp. v. Unemployment Com. Bd. Of Review*, 166 A.2d 96 (Pa. Super. Ct.1960); *Murphy v. Comm., Dept. of Public Welfare, White Haven Center,* 480 A.2d 382 (Pa. Cmwlth. Ct.1984).

 9. The “burden of proof” is composed of two distinct burdens: the burden of production and the burden of persuasion. *Hurley v. Hurley*, 2000 Pa.Super. 178, 754 A.2d 1283 (2000).

10. The burden of production, also called the burden of producing evidence or the burden of coming forward with evidence, determines which party must come forward with evidence to support a particular proposition. This burden may shift between the parties during the course of a trial. If the party (initially, this will usually be the complainant, applicant, or petitioner, as the case may be) with the burden of production fails to introduce sufficient evidence the opposing party is entitled to receive a favorable ruling. That is, the opposing party would be entitled to a compulsory nonsuit, a directed verdict, or a judgment notwithstanding the verdict. Once the party with the initial burden of production introduces sufficient evidence to make out a prima facie case, the burden of production shifts to the opposing party. If the opposing party introduces evidence sufficient to balance the evidence introduced by the party having the initial burden of production, the burden then shifts back to the party who had the initial burden to introduce more evidence favorable to his position. The burden of production goes to the legal sufficiency of a party’s case.

11. Having passed the test of legal sufficiency, the party with the burden of proof must then bear the burden of persuasion to be entitled to a verdict in his favor. “[T]he burden of persuasion never leaves the party on whom it is originally cast, but the burden of production may shift during the course of the proceedings.” *Riedel v. County of Allegheny*, 159 Pa.Cmwlth. 583; 591, 633 A.2d 1325; 1328 n. 11 (1993). The burden of persuasion, usually placed on the complainant, applicant, or petitioner[[13]](#footnote-13), determines which party must produce sufficient evidence to meet the applicable standard of proof. *Hurley v. Hurley*, 2000 Pa.Super. 178, 754 A.2d 1283 (2000). It is entirely possible for a party to successfully bear the burden of production but not be entitled to a verdict in his favor because the party did not bear the burden of persuasion. Unlike the burden of production, the burden of persuasion includes determinations of credibility and acceptance or rejection of inferences. Even unrebutted evidence may be disbelieved. *Suber v. Pa. Comm’n on Crime and Delinquency*, 885 A.2d 678 (Pa.Cmwlth. 2005), app. denied, 586 Pa. 776, 895 A.2d 1264 (2006). In order to bear the burden of proof and be entitled to a decision in his favor, a party must bear both the burden of production and the burden of persuasion.

 12. FirstEnergy filed the subject Joint Petition and has the burden of proving that the Petition complies with the legal requirements.

 13. An electric distribution company may recover smart meter technology costs: (i) through base rates, including a deferral for future base rate recovery of current basis with carrying charge as determined by the commission; or (ii) on a full and current basis through a reconcilable automatic adjustment clause under section 1307. 66 Pa.C.S. § 2807(7).

 14. Section 1307(e) does not provide for interest on over or under collections. 66 Pa.C.S. § 1307(e).

 15. An EDC may recover reasonable and prudent costs of providing smart meter technology including annual depreciation and capital costs over the life of the smart meter technology and the cost of any system upgrades that the electric distribution company may require to enable the use of the smart meter technology which are incurred, less operating and capital cost savings realized by the EDC from the installation and use of the smart meter technology. 66 Pa.C.S. § 2807(f)(7).

 16. The Companies should hire an independent consultant with experience in identifying the potential for savings as a result of smart meter deployment to: (1) conduct a comprehensive savings potential investigation of categories of savings achieved by other companies that have deployed smart meters, including seven categories identified by Nevada Power; and (2) prepare and submit a report to the Commission of the findings within 90 days of the Commission’s order in this matter.

 17. The incremental cost of the removal of Legacy Meters should be charged to the regulatory asset account containing the remaining cost of the retired Legacy Meters and be amortized over the remaining depreciable lives of the metering assets along with the remaining costs of those retired meters. The cost of removal would then be recovered as part of the next base rate revenue requirement for electric distribution service.

VI. ORDER

 THEREFORE,

 IT IS RECOMMENDED:

 1. That the Smart Meter Deployment Plan as proposed by the Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company, and West Penn Power Company for Approval of their Smart Meter Deployment Plan filed on December 31, 2012, in the above-captioned matter be adopted as modified by this Recommended Decision.

 2. That the Smart Meter Deployment Plan be adopted as modified as follows.

 3. That the FirstEnergy Companies identify on a website available to the public sixty days in advance of installation of smart meters, information regarding the deployment schedule in accordance with the terms of stipulation in Direct Energy Hearing Exhibit 1, p. 2.

 4. That the Smart Meters to be deployed pursuant to this Smart Meter Implementation Plan include the capabilities listed on pages 16 and 17 of the Implementation Order entered June 24, 2009.

 5. That the Companies are directed to conduct another cost benchmarking analysis of the Companies’ projected costs with those of other companies that have deployed smart meters to determine if the Companies’ projected Plan costs are reasonable and prudent. Such analyses should include the seven cost categories identified by the Companies in their Plan and sub-categories, if available, and a much larger sample size of utilities than the Companies used in the analysis presented in their Plan.

 6. That the Companies are directed to complete said cost benchmarking analysis within 120 days of the Commission’s order in this matter and submit a report with the results of such analysis and any Plan changes stemming from such results in an amended Plan with the Commission and to serve a copy upon the Reliability and Emergency Preparedness Section of the Bureau of Technical Utility Services.

 7. That the Companies are directed to provide a report with their next SMT-C filing that identifies expenditures on all components of their Plan that have the potential to benefit their sister utilities in other states when they begin deploying smart meters and that describes the method through which the Companies will receive credit from FirstEnergy Service Company for those expenditures.

 8. That to the extent any system upgrades are currently being utilized by the Companies’ sister utilities, the Companies are directed to properly allocate those costs to the sister utilities.

 9. That joint Plan costs are directed to be allocated based on the annual average number of meters per Company as of June 30th prospectively for purposes of calculating each Company’s annual SMT-C rider.

 10. That the Companies are directed to hire an independent consultant with experience in identifying the potential for savings as a result of smart meter deployment to: (1) conduct a comprehensive savings potential investigation of categories of savings achieved by other companies that have deployed smart meters, including the seven categories identified herein and (2) prepare and submit a report to the Commission of his or her findings within 90 days of the Commission’s order in this matter and to serve a copy upon the Reliability and Emergency Preparedness Section of the Bureau of Technical Utility Services.

 11. That the Companies are permitted to use the date of December 31, 2013, subject to certain adjustments, to establish baseline metrics to measure cost savings achieved throughout deployment.

 12. That in the next annual SMT-C filing, and in all subsequent annual SMT-C filings, the Companies shall provide detailed information on the cost saving baseline measures, including the actual baseline employees’ levels, costs and other metric levels as well as any adjustments. Also, the annual SMT-C filings shall detail how any cost savings are calculated for each baseline measure.

 13. That if other cost saving categories other than what the Companies have proposed are identified by the independent consultant retained as directed above, the baseline measures associated with those categories shall be included in the annual SMT-C filings.

 14. That the Companies are directed to hold stakeholder meetings by the first quarter of 2014 in order to discuss the final Communications Plan (Comm Plan) and to file the final Comm Plan with the Commission and to serve a copy upon the Reliability and Emergency Preparedness Section of the Bureau of Technical Utility Services after the stakeholders have sufficiently reviewed and discussed the Comm Plan in the stakeholder meetings.

 15. That the Companies are directed to include information in the Comm Plan related to early education for customers about time-varying prices and the functionalities of smart meters.

 16. That the Companies are directed to provide to individual consumers educational safety information including, but not be limited to, the following:, (1) that installers for FirstEnergy will have redundant identification, i.e. trucks with logo, uniform, identification badges to enable customers to distinguish between genuine FirstEnergy installers and others; (2) that pictures or descriptions of the uniforms for installers for FirstEnergy will be provided, such that a consumer can readily identify the FirstEnergy installers; (3) that such FirstEnergy installers do not need to enter the household in order to install the smart meters; (4) that customers should check the identification of installers if the customer has any doubt; and (5) that the phone number to call to verify any given installer’s identification is provided.

 17. That the Companies are directed to work with the stakeholder group to develop a stand-alone Customer Privacy Policy specifically related to the protection of smart meter information before any wide scale deployment of smart meters and to modify the Companies’ proposed customer privacy principles for clarity.

 18. That the Companies are directed to not use involuntary remote termination for non-payment as part of their Plan until first working with a stakeholder group, and filing for approval any future proposal to pursue involuntary remote termination for non-payment.

 19. That the Companies are directed to work with the stakeholder group to develop protocols for voluntary remote disconnection for move in/move out situations.

 20. That the Companies are directed to continue to discuss and address cyber-security issues with the stakeholder group on a going-forward basis.

 21. That the Companies are directed to report to the Commission on a semi-annual basis regarding the status of cyber-security with the Commission and to serve a copy upon the Reliability and Emergency Preparedness Section of the Bureau of Technical Utility Services.

 22. That the Companies are directed not to collect $5.1 million for expenditures related to West Penn Power Company’s abandoned Customer Information System (CIS) system.

 23. That the Companies are directed to charge the incremental cost of removal of Legacy Meters to the regulatory asset account containing the remaining cost of the retired Legacy Meters and to amortize the cost over the remaining depreciable lives of the metering assets along with the remaining costs of those retired meters.

 24. That the Companies are directed to file an amended Plan within 120 days of the Commission’s Order in this matter that shall reflect any changes incorporated from the benchmarking analysis required in ordering paragraph 6 above, as well as detailing the potential categories and estimates of savings to be reflected in the SMT-C as identified by the consultant’s

study required in ordering paragraph 10, above. The amended Plan shall also be served upon the Reliability and Emergency Preparedness Section of the Bureau of Technical Utility Services.

Dated: November 8, 2013 /s/

 Elizabeth H. Barnes

 Administrative Law Judge

1. *In Re: Smart Meter Procurement and Installation*, Docket No. M-2009-2092655, Implementation Order (June 24, 2009). *(Implementation Order).* [↑](#footnote-ref-1)
2. *Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company and Pennsylvania Power Company for Approval of Smart Meter Technology Procurement and Installation Plan,* Docket Nos. M-2009-2123950 *et al.*, Order (June 9, 2010). [↑](#footnote-ref-2)
3. *Petition of West Penn Power Company for Expedited Approval of its Smart Meter Technology Procurement and Installation Plan*, Docket No. M-2009-2123951, Joint Settlement (March 9, 2011). [↑](#footnote-ref-3)
4. Neither the OSBA nor the Industrial Customer Groups submitted testimony or exhibits. [↑](#footnote-ref-4)
5. See, 66 Pa.C.S. §§ 332(a), 315. [↑](#footnote-ref-5)
6. In addition, Mr. Hornby testified that the identification of major categories of costs assists in determining which categories have the most potential to benefit the Companies’ sister utilities in other states. OCA St. 1-SR at 5. The topic of cross-jurisdictional allocation of costs is discussed in more detail in Section III.D.2. [↑](#footnote-ref-6)
7. Mr. Hornby testified that a cost/benefit ratio in excess of one, indicating the benefits outweigh the costs, would be ideal. Tr. 63. Mr. Hornby acknowledged that Act 129 does not require the Companies to demonstrate in their Plan that benefits exceed costs. Tr. 63. As discussed below in Section III.B., however, the Companies are required to show their Plan is cost effective. [↑](#footnote-ref-7)
8. It is assumed that parties’ opportunity to challenge potentials for savings would be in an annual reconciliation filing after the Solution Validation Stage, as there does not appear to be an updated Plan filing contemplated after the Solution Validation Stage. [↑](#footnote-ref-8)
9. $570 million (total Plan savings if assume that meters are read monthly) - $406 million (total Plan savings if assume that meters are read every other month) = $164 million. FE Companies St. 4-R at 17. [↑](#footnote-ref-9)
10. The OCA submits that its position is not intended to create inefficiency in determining savings to flow through the SMT-C riders. However, the FirstEnergy Companies chose to utilize a § 1307 rider to collect costs on a full and current basis rather than in a later base rate case, where all of the Companies’ costs and revenues would be trued up. Ratemaking principles require that the expense savings flowed through a rider be based on the current level that ratepayers are paying in their rates for that expense. It just happens that the Companies’ current rates are based on expense levels from many years ago because the Companies have not filed base rate cases in many years. [↑](#footnote-ref-10)
11. For example, utilities that implement efficiencies in the years between rate cases to reduce costs are not required to reimburse customers when filing a new rate case because customers paid rates based on test year revenues from some time in the past. [↑](#footnote-ref-11)
12. The FirstEnergy Companies will be making time-of-use programs available to any customer with a smart meter beginning June 1, 2013, in compliance with its Default Service Plan. Joint Petition of Metropolitan Edison Company, Pennsylvania Electric Company, Pennsylvania Power Company and West Penn Power Company For Approval of Their Default Service Programs, Docket Nos. P-2011-2273650, P-2011-2273668, P-2011-2273669, and P-2011-2273670 (Orders Entered August 16, 2012 and February 15, 2013); OCA St. 2-SR at 5. Smart meters have already begun to be rolled out, and Penn Power will begin installing up to 60,000 meters later this year. [↑](#footnote-ref-12)
13. See, 66 Pa.C.S. §§ 332(a), 315. [↑](#footnote-ref-13)