OCA STATEMENT NO. 1S

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of West Penn Power Company	:	
d/b/a Allegheny Power For Expedited	:	DOCKET NO. M-2009-2123951
Approval of its Smart Meter Technology	:	
Procurement and Installation Plan	:	

SURREBUTTAL TESTIMONY

of

J. RICHARD HORNBY

On behalf of:

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

November 3, 2009

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, EMPLOYER, AND PRESENT POSITION.

A. My name is James Richard Hornby. I am a Senior Consultant at Synapse Energy Economics, Inc., 22 Pearl Street, Cambridge, MA 02139.

Q. ARE YOU THE SAME J. RICHARD HORNBY WHO SUBMITTED PRE-FILED DIRECT TESTIMONY IN THIS PROCEEDING?

A. Yes.

Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

A. My surrebuttal testimony responds to certain of the statements made in the rebuttal testimonies filed by Company witnesses Heasley, Ahr, Arthur, Valdes, Cohen and Graves. I also respond to certain of the statements made in the rebuttal testimony of Mr. Baudino on behalf of the West Penn Power Industrial Intervenors ('WPPII'). (The fact that I do not respond to every statement in the rebuttal testimonies of these witnesses should not be interpreted to mean I agree with those statements.)

II. REASONABLENESS OF PROPOSED SMART METER IMPLEMENTATION PLAN

Q. PLEASE SUMMARIZE THE MAJOR CONCLUSIONS AND RECOMMENDATIONS IN YOUR DIRECT TESTIMONY REGARDING ALLEGHENY POWER'S PROPOSED SMART METER IMPLEMENTATION PLAN.

A. My Direct Testimony concludes that the Company's proposed Smart Meter Implementation Plan (Smart Meter Plan or SMIP) is not reasonable. Based upon that

primary conclusion, and on my conclusion that certain of the Plan's projected benefits and projected costs were uncertain, my primary recommendation was that the Commission reject the proposed Plan and require the Company to file a modified Plan limited to activities and analyses it would complete during the remainder of the 30-month grace period. During that period the Company could identify the most cost-effective strategy for deploying smart meter technology on a system wide basis and quantify the generation service and distribution service benefits of that strategy. It could also initiate programs to achieve its projected reductions in peak load by 2012 with minimal deployment of smart meters to commercial and industrial customers, and to residential customers in a direct load control program ('DLC'). In addition I recommended that the Company be required to exclude from the SMIP cost recovery mechanism expenditures it would make as part of its normal course of business, such as the costs of modernizing its CIS, to drop its proposal to install an in-home display in every premise and provide a benefit-cost analysis to justify deployment of each type of in-home device and to provide a justification for the proposed level of expenditures on IT integration and software.

Q. DID THE REBUTTAL TESTIMONY OF THE COMPANY WITNESSES CAUSE YOU TO CHANGE YOUR POSITION REGARDING THE REASONABLENESS OF THE COMPANY'S PROPOSED SMIP?

A. No. The Company's rebuttal testimony has not caused me to change my position that the Company's proposed SMIP is not reasonable. Before I explain in detail why that rebuttal has not caused me to change my position, I will start by placing the Company's proposed SMIP in perspective relative to its EE&C Plan. The scope and cost of the proposed

SMIP are far out of proportion to the role the SMIP can play in achieving the goals of Act 129, particularly within the next five years.

Act 129 begins by emphasizing the importance of "…adequate, reliable, affordable, efficient and environmentally sustainable electricity service at the least cost, taking into account any benefits of price stability over time and the impact on the environment." Section 2806.1, the first substantive section of the Act, requires every major electric distribution company (EDCs) to file an energy efficiency and conservation ('EE&C') plan to achieve specific reductions in annual consumption and peak load by 2011 and 2013 respectively. That section also specifies the cost-effectiveness standard that the EE&C plan must meet and limits the cost of the EE&C plan to an amount equal to 2% of the EDC's revenue in 2006.

In its October 23, 2009 Order in M-2009-2093218 the Commission approved the Company's EE&C plan at a total cost of $94 million over four years, 2009 to 2012. In contrast, in this proceeding the Company is proposing a SMIP at a projected total cost of $580 million for five years, 2010 through 2014 (Valdes Direct, p.4), approximately six times more than its EE&C plan. Moreover, from 2015 onward the Company is projecting that its SMIP will have a net annual operating cost in the order of $18.7 million. (The Company projects annual operation and maintenance costs of $28.1 million in 2015 on page 129 of its SMIP with offsetting annual benefits of $9.4 million in Response OCA I-8).

The Company estimates that its EE&C plan has a benefit to cost ratio of 4.1. In contrast, the Company did not provide an estimated benefit to cost ratio for its SMIP. Based upon data in the Company filing I estimated a benefit to cost of 0.1 based upon

distribution service benefits, and 0.2 based upon distribution service benefits plus generation service benefits. Company rebuttal witness Graves has presented low and high case estimates of benefit to cost of 0.49 and 0.74 respectively (Graves rebuttal, p.16). However, the validity of the assumptions underlying those estimated ratios have not been verified through discovery and later in my surrebuttal I explain why those higher estimates are not reasonable. Moreover, the Company has not revised in its proposed Smart Meter Technology (SMT) surcharge to reflect Mr. Graves' estimates of higher distribution benefits.

The Company's proposed SMIP is far out of proportion to the role it can play in achieving the goals of Act 129 within the next five years. It is a case of the tail wagging the dog. From a policy perspective I would be extremely surprised if the General Assembly expected, or intended, any EDC to spend approximately six times more on its SMIP than on its EE&C programs in the first four to five years of those initiatives, and to spend almost the same annual amount on SMIP as on EE&C once deployment of smart meters was complete. I would be even more surprised if the General Assembly expected the SMIP to achieve benefits worth only 20% of the SMIP's projected costs and to produce SMT surcharges for residential customers in excess of $15 per month!

My position is based upon the differences in specificity in Act 129 between Section 2806.1 regarding an EE&C program and Section 2807 (f) regarding a SMIP. Section 2807 (f) does not specify the date by which smart meter technology and time-of-use rates must be available on a system-wide basis, instead it simply requires deployment according to "…a depreciation schedule not to exceed 15 years". Section 2807 (f) does not specify reductions in annual consumption and peak load that EDCs must achieve

through the deployment of smart meter technology and time-of-use rates. Instead it simply states that these rates must be offered to customers who have smart meters. Finally, Section 2807 (f) does not specify an explicit cost-effectiveness standard that the SMIP must meet nor does it set an explicit limit on the cost of the SMIP.

The Allegheny Power witnesses apparently interpret Section 2807 (f) as a mandate to deploy smart meter technology and time of use rates on a system-wide basis as fast as possible regardless of the resulting increases in customer bills, the absence of projected equal or greater offsetting savings and the absence of an explicit commitment to improvements in the quality of distribution service. My interpretation of Act 129, from a policy perspective, is quite different from that of Allegheny Power. My interpretation is that the Act requires EDCs to achieve specific reductions in annual energy use and peak load in the near-term through their EE&C programs and that it requires EDCs to deploy smart meter technology and time of use rates gradually over time in general support of its energy and environmental policy goals.

Q. DID ANY OF THE COMPANY'S REBUTTAL WITNESSES DISAGREE WITH YOUR POSITION THAT ACT 129 REQUIRES THE COMPANY TO DEMONSTRATE THAT THE PROPOSED SMIP IS THE MOST COST EFECTIVE STRATEGY FOR ITS SERVICE TERRITORY?

A. No. In my Direct Testimony I stated my belief that "Allegheny Power must demonstrate to the Commission that its proposed Smart Meter Plan is the most cost-effective approach for meeting the policy objectives of Act 129 out of the range of possible alternative approaches available to it." I also stated that "the level of benefits relative to costs is one measure of the cost-effectiveness of the proposed Plan." In fact, I am pleased to note that

rebuttal witness Graves apparently agrees with my position that the Company bears the burden of proving to the Commission that its proposed plan is the most cost-effective available, one that will result in just and reasonable rates. In his discussion of the cost-effectiveness standard applicable in this type of situation, Mr. Graves indicates that it may not be a demonstration of benefits equal to or exceeding costs but instead a demonstration that the proposed Plan is "…the most cost-effective alternative, i.e., the alternative with the lowest present value costs that satisfies the need or the obligation". (Graves rebuttal, p. 4).

Q. DOES THE REBUTTAL TESTIMONY OF THE COMPANY WITNESSES DEMONSTRATE THAT THE COMPANY'S PROPOSED SMIP IS THE MOST COST EFECTIVE STRATEGY FOR ITS SERVICE TERRITORY?

A. No. My Direct Testimony concludes that the Company's proposed SMIP is not the most cost-effective strategy for its service territory, and hence is not reasonable, based upon the following results of my analysis of the proposed SMIP:

- projected capital costs are more than twice as high as AMI projects of other utilities,
- the total projected cost of the SMIP is about six times higher than projected savings,
- the Company could achieve most if not all of the reductions in peak load projected in its EE&C without widespread deployment of smart meter technology,
- the projected savings in generation service costs are uncertain, and
- customers bear all the financial risk if the Company's actual costs prove to be higher than assumed, and/or if the actual benefits prove to be less than assumed.

The rebuttal testimony of the Company's witnesses did not change those results.

Q. BEFORE ADDRESSING THAT REBUTTAL TESTIMONY IN DETAIL, PLEASE SUMMARIZE THE IMPLICATIONS FOR CUSTOMERS IF THIS PROPOSED SMIP IS APPROVED.

A. Because the Company's proposed Plan is not the most cost-effective, if it is approved there will be serious adverse implications for customers. These implications are immediate and escalating known increases in monthly bills in exchange for limited and uncertain benefits in terms of improvements in distribution service and reductions in generation service costs.

The Company's proposed SMT increases the monthly bills of residential customers by $5.86 per month in February 2010, or $70 per year, and escalates that increase to $15.77 per month by June 2013, or $189 per year (SMIP, p. 98). If the SMIP surcharge were applied entirely as a uniform volumetric delivery charge, in cents per kWh, over the period November 2009 through May 2013 like the EE&C surcharge, it would increase the monthly bill of an average residential customer by $9.88 per month ($120 per year). That increase would be 4.6 times more than the increase in average residential monthly bills under the EE&C plan of $2.14 per month ($25 per year), as presented in Exhibit___(JRH-7). (Note that the Company has proposed an SMT through at least May 2014).

The benefits residential customers will receive in exchange for these increases in monthly bills are limited and uncertain. First, based upon the information the Company has provided to date, this increase in monthly bills already reflects savings in distribution service costs. Second, the Company has not provided customers an explicit commitment

to improve their distribution service. Third, residential customers will have the option of participating in up to four programs and rate offerings but the financial benefit details of those programs and rate offerings have not been finalized and there is no indication that those benefits will, when finalized, offset the monthly increases on average. Under these circumstances I expect that many residential customers will conclude that smart meter technology, in the words of NARUC President Fred Butler, will "…only raise their rates with no discernable benefits". That conclusion could impede not only the future success of smart meter technology and time of use rates but also energy efficiency and demand response in general.

Comparative Capital Costs of Advanced Metering Infrastructure (AMI)

Q. PLEASE RESPOND TO THE REBUTTAL BY COMPANY WITNESS COHEN REGARDING THE PROJECTED CAPITAL COST OF THE COMPANY'S PROPOSED SMIP RELATIVE TO AMI FILINGS OF OTHER EDCS.

A. My Direct Testimony presents a comparison showing that the projected capital costs of the Company's proposed SMIP are more than twice as high as AMI projects of other utilities. Mr. Knecht, testifying on behalf of the Office of Small Business Advocate (OSBA) also raises this issue (Knecht Direct, p.2).

My comparison, presented on page 15 and in Exhibit___(JRH-3), indicates that the differences between the projected capital cost of the Company's Plan and those filed by the comparison group are primarily due to higher Network and Information Technology (IT) costs, the inclusion of costs for a Customer Information System (CIS) and the inclusion of costs for In Home Devices (IHD).

Rebuttal witness Cohen criticizes my comparison for failing to consider, and adjust for, various differences between Allegheny Power's service territory and the service territories of the utilities in the comparison group (Cohen rebuttal, p. 6). His rebuttal appears to be an attempt to shift the burden of proof from the Company to me. The fact is that the Company has the burden of proof and it did not prepare such a comparison as part of the development of its SMIP. Moreover, despite Mr. Cohen's qualitative critique of my high level comparison, he did not provide a numerical comparison reflecting the adjustments from his critique in his rebuttal. The fact that the Company did not do any formal benchmarking during the development of its Plan is particularly surprising since Mr. Cohen states that he has prepared utility operation benchmarking reports for other clients (Cohen rebuttal, p. 2).

Q. PLEASE RESPOND TO THE REBUTTAL BY COMPANY WITNESSES HEASLEY AND ARTHUR REGARDING THE RELATIVELY HIGH LEVEL OF PROJECTED COSTS FOR NETWORK AND INFORMATION TECHNOLOGY IN THE COMPANY'S PROPOSED PLAN, AND THE PROPOSED INCLUSION OF COSTS FOR MODERNIZING ITS CIS.

A. As noted above, two of the three major differences between the projected capital cost of the Company's Plan and those filed by the comparison group were higher costs for Network and Information Technology (IT) and inclusion of costs for CIS. My Direct Testimony states modernizing its CIS is an investment that one would expect Allegheny Power to make in its normal course of business. The rebuttal testimony of Mr. Heasley indicates that some portion of the projected Network and Information Technology costs

also represent investments that one would expect Allegheny Power to make in its normal course of business.

Mr. Heasley explains the higher costs for Network and Information Technology by noting that the Company's SMIP includes capital costs for an Enterprise Service Bus (ESB), Upgrades to Work Management System (WMS), a Geographic Information System (GIS) and an Outage Management System (OMS) (Heasley rebuttal, p. 4). Both Mr. Heasley and Mr. Arthur state 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. Neither Mr. Heasley nor Mr. Arthur explicitly denies that modernizing the CIS is an investment that Allegheny Power would make in its normal course of business. (Heasley rebuttal, p. 5, Arthur rebuttal p. 5). Instead, both witnesses simply state that they understand that Act 129 allows for the recovery of these capital costs as part of the implementation of smart meter technology. My understanding is that the extent to which Act 129 does or does not allow for recovery of expenditures that the Company would make as part of its course of business will be the subject of legal interpretation in the briefs that the parties will file later in this proceeding.

From a policy perspective, my position is that a base rate proceeding would be the best forum in which to address the reasonableness of those proposals. In a base rate proceeding all parties would have adequate opportunity to review, in detail, the nature and merits of the various distribution service systems the Company is proposing to upgrade. Parties could examine the revenue requirements associated with those capital expenditures as well as their allocation among the Company's distribution operations in Pennsylvania, Maryland and West Virginia. This is an important issue since it appears

that the Company should be allocating a portion of its proposed Network and Information Technology costs to its operations in Maryland and West Virginia in addition to allocating a portion of its CIS system to those operations (Valdes rebuttal, p. 16). Further, by requiring the Company to recover costs associated with normal investments in operational areas such as CIS, ESB, WMS, GIS and OMS via base rates the Commission places the financial risk associated with the recovery of those costs on the Company, which is consistent with general ratemaking principles. Last, but not least, a general rate case would give all parties the opportunity to examine all components of the Company's revenue requirements. Since the Company has not had a general rate case for almost fifteen years, there may be other areas of its operations in which it has reduced costs that could and should be reflected in new base rates. Reductions in costs in those other areas would help offset the increases in rates resulting from its SMIP.

Q. PLEASE RESPOND TO THE REBUTTAL BY COMPANY WITNESSES HEASLEY, COHEN AND GRAVES REGARDING THE COMPANY"S PROPOSAL TO INCLUDE IN-HOME DEVICES (IHDs) IN ITS SMIP.

A. My Direct Testimony states that investments in IHD's account for $100 million of the projected capital cost of the Plan. The Company uses the term IHDs to cover three broad categories of devices that perform very different functions. The three categories or types of devices are in-home displays, load control devices and devices for remote connection/disconnection. Of those three categories in home displays account for the majority of the $100 million. My testimony also notes that that the Company did not present a cost justification for any or all of these three categories of devices.

Mr. Heasley notes that IHD technology is proven and easy for customers to use. He does not make any distinction between in-home displays, load control devices or devices for remote connection/disconnection (Heasley rebuttal, p. 6). He does not comment on the fact that other utilities who have filed AMI plans have not included in home displays and load control devices as part of their AMI but instead, where they have proposed them they have done so as part of program and rate offerings. He does not respond to Ms. Brockway's critique of the level of annual energy reductions one can assume based upon the literature on feedback from in home displays.

Mr. Cohen notes that utilities in my comparison group did not include in home displays and load control devices as part of their AMI filings. However he fails to provide evidence of the extent to which any other utilities are proposing universal installation of in home displays. Mr. Cohen states that IHDs are required to support the Company's EE&C programs but does not make any distinction between in-home displays, load control devices or devices for remote connection/disconnection. Mr. Cohen also does not respond to Ms. Brockway's critique of the level of annual energy reductions one can assume based upon the literature on feedback from in home displays (Cohen rebuttal, p.8).

Mr. Graves provides two projections of annual reductions in energy use from in-home displays, 5 percent for three years falling to 2.5 percent thereafter and 10% for three years falling to 5 percent thereafter (Graves rebuttal, p. 11). His projections are substantially higher than the implicit projection of zero reductions in the Company's filing (response to OCA I-32). Mr. Graves' discussion of the literature underlying his projections does not respond to Ms. Brockway's critique of that literature. He also does

not provide any evidence of the extent to which any other utilities are proposing universal installation of in home displays.

Projected Costs Relative to Projected Benefits

Q. PLEASE RESPOND TO THE REBUTTAL BY COMPANY WITNESS GRAVES REGARDING THE PROJECTED BENEFITS OF THE SMIP RELATIVE TO ITS PROJECTED COSTS.

A. My Direct Testimony states that the total projected cost of the SMIP is about six times higher than its projected savings. According to my calculations the SMIP has a benefit to cost ratio of approximately 0.2 when one considers both its generation service benefits and its distribution service benefits.

Rebuttal witness Graves agrees that, ideally, the benefits of the Company's proposed programs and investments should exceed their costs (Graves rebuttal, p.4). He then states that my analyses "understate the benefits of the SMIP" (Graves rebuttal, p.4). This statement is somewhat surprising given that the Company presented no estimate of the savings in generation service costs attributable to its SMIP and that my calculations are based upon Company projections from its SMIP and from its EE&C Plan. I'm sure that Mr. Graves realizes that it is the Company who bears the burden of proof on this issue.

In his rebuttal testimony Mr. Graves develops two estimates of benefits, a low case and a high case, which produce benefit cost ratios of 0.46 and 0.74 respectively (Graves rebuttal, p.16). Mr. Graves develops those two estimates based upon a variety of assumptions and calculations that he describes in approximately 10 pages of his rebuttal

testimony. He makes numerous assumptions regarding additional benefits and calculates the net present value of those benefits based upon his assumptions. Because the Company has sponsored the extensive new material at the rebuttal stage of this expedited proceeding without all supporting calculations and workpapers I have not been able to review and verify that material in detail. It is unfortunate that the Company did not retain Mr. Graves much earlier, to help them develop their EE&C plan as well as their SMIP. Earlier in this proceeding the Company was unable, in response to numerous data requests, to provide the types of assumptions and analyses that Mr. Graves now presents in his rebuttal testimony. The OCA requested those assumptions and analyses in data requests I-1, I-4, I-11, I-12, I-13, I-15, I-17, I-18, I-19, I-20, II-17, II-19, II-20, IV-2, IV-3 and IV-4. My general comments regarding his three major estimates of additional benefits, presented below, are therefore based solely upon the supporting material he presents in his rebuttal testimony.

Mr. Graves estimates an additional amount of distribution system operational savings ($72 million). This amount reflects his assumption that Allegheny Power could achieve almost double the level of distribution savings per meter reflected in its SMIP (Graves rebuttal, p.8.). However, in his rebuttal Company witness Valdes did not file a revised, lower surcharge to reflect a doubling in distribution service savings. Thus, the real test of whether Mr. Grave's estimate of higher distribution system operational savings is reasonable is if the Company accepts that estimate, establishes explicit baselines against which to measure and report those savings, and revises its proposed surcharge downward to reflect those higher projected savings.

Next, Mr. Graves estimates higher avoided capacity costs ($27 million) under a scenario in which the market price of capacity for the AP zone rises to $101 per kW year by 2017. That estimate of higher capacity savings is not consistent with my high-level analysis of future demand and supply fundamentals in the PJM capacity market (OCA response to Allegheny Power Data request I -14). My analysis indicates that the market price of capacity for the AP zone in 2017 will be closer to $40 per kW year than $101 per kW year. For example, a price of $101 per kW year would be more than 5 times the market price of $16 per kW year set for the 2012/ 2013 power year.

Third, Mr. Graves estimates higher annual reductions in energy due to in home displays ($109 million to $226 million) and the value of avoided carbon associated with those annual energy reductions from IHDs ($13 million to $50 million). These estimates of energy and environmental benefits from in home displays are based upon a low case with 5 percent reductions in annual use due to in home displays and a high case with 10 percent reductions. Both his low and high case estimates are unreasonable. In its EE&C filing as well as in this proceeding the Company estimated zero reduction from in-home displays. As noted earlier, Mr. Graves' discussion of the literature underlying his projections does not respond to Ms. Brockway's critique of that literature. In Maryland, Baltimore Gas and Electric and Potomac Electric Company have estimated reductions in the order of 1 to 1.5 percent in their smart meter proceedings. Dr. Ahmed Faruqui, a leading expert on this issue and a colleague of Mr. Graves at the Brattle Group, is a witness for each of those companies in those proceedings.

Finally, it is important to note that it is customers, not the Company, who will bear all the financial risk if the actual benefits from the SMIP prove to be less than those projected by Mr. Graves and the Company's other witnesses.

Q. DOES MR. GRAVES ANALYZE ALTERNATIVE APPROACHES TO DEPLOYMENT OF SMART METER TECHNOLOGY AND TIME OF USE RATES?

A. No. Mr. Graves provides an analysis of the benefits of the Company's proposed SMIP. He does not analyze the benefits and costs of alternative approaches to deployment of smart meter technology. For example, my Direct Testimony states that the Company could likely achieve its projected peak load reductions with no near-term deployment of SMIP if it enlisted curtailment service providers to enroll more Commercial and Industrial reductions and if it began offering a direct load control program to its residential customers with central air conditioning. Mr. Graves does not do a benefit cost analysis of that alternative.

Achieving Reductions in Peak Load Projected in EE&C

Q. PLEASE RESPOND TO THE REBUTTAL BY COMPANY WITNESS HEASLEY REGARDING THE FEASIBILITY OF ACHIEVING REDUCTIONS IN PEAK LOAD THROUGH 2012 WITHOUT WIDESPREAD DEPLOYMENT OF SMART METERS.

A. One of the factors apparently driving the Company's proposal for immediate, system-wide deployment of smart meter technology is the Company decision, reflected in its EE&C plan, to rely on programs and rate offerings enabled by that technology to achieve

the peak load reduction goals for 2011 and 2013 specified by Act 129. My Direct Testimony states that the Company could likely achieve its projected peak load reductions with no near-term deployment of SMIP if it enlisted curtailment service providers to enroll more Commercial and Industrial reductions and if it began offering a direct load control program to its residential customers with central air conditioning.

In his rebuttal Mr. Heasley presents several general statements regarding the need to deploy smart meter technology to all customers, including all commercial, industrial, government and non-profit customers (Heasley rebuttal, p.3). I agree with Mr. Heasley that Act 129 requires the Company to deploy smart meter technology on a system-wide basis. Where he and I seem to disagree is on the speed of that deployment.

In his rebuttal Mr. Heasley does not explain why my specific suggested alternative approach in the near-term is not feasible. In fact, proof that such an approach can work is available from New Jersey, as discussed below. Moreover, in its October 23 EE&C Plan Order the Commission suggested that the Company develop such a back-up or alternative approach (Order at 21).

Q. PLEASE DESCRIBE THE RELEVANCE OF RECENT EXPERIENCE WITH DEMAND REDUCTION IN NEW JERSEY TO THE COMPANY'S APPROACH TO ACHIEVING REDUCTIONS IN PEAK LOAD IN THE NEAR TERM.

A. Recent experience with demand reduction in New Jersey is one example of a less expensive and less uncertain approach to achieving peak load reductions in the near term.

Allegheny Power is proposing to achieve approximately 112 MW of incremental reductions in peak load by 2012. Of that quantity it expected to obtain approximately 88 MW from fewer than 400 Commercial and Industrial Customers through its Load

Response, Contracted Demand and Distributed Generation programs[1]. Allegheny Power expects to achieve the remaining 24 MW from approximately 400,000 residential and small commercial customers through its critical peak rebate, time of use with critical peak pricing and residential efficiency rewards rate offerings.

Under my suggested alternative Allegheny Power would still obtain the 88 MW of incremental reductions from C&I customers but with little or no deployment of smart meters. Many C&I customers already have the interval meters and communication systems needed for such programs. Further, the Company could deploy smart meters at the sites of C&I customers who do not have interval meters. Allegheny Power could achieve the remaining 24 MW by enlisting curtailment service providers (CSPs) to obtain additional reductions from C&I customers. In addition, Allegheny Power could place its primary emphasis on its Programmable Controllable Thermostat (PCT) program for residential customers, which it characterizes as a direct load control (DLC) program.

EDCs in New Jersey are placing primary emphasis on these two approaches. In the summer of 2009 CSPs in New Jersey achieved a 75% increase in reductions from C&I customers registered in the PJM ILR DR Program under a program that the Board of Public Utilities approved in December 2008.[2] In fact, Allegheny Power includes this type of approach in its EE&C plan as a Contracted Demand Response Program (EE&C Plan, p.116). In its October 23 Order the Commission has required that Allegheny Power develop a plan to implement this program "…as a hedge against any risk of delay in implementing its smart meter deployment plan" October Order (Order at 47).

[1] In its October 23 Order the Commission did not approve the Distributed Generation program but the Company has the option of revising the design of that Program and re-submitting it for approval.

[2] New Jersey Docket EOO8050326, Order dated December 10, 2008; Letter to Parties dated October 7, 2009.

Public Service Electric and Gas[3] and Atlantic City Electric[4] are enrolling residential customers in their DLC programs in a manner designed to allow easy transition to smart meters if, and when, they are deployed. Similarly, in Maryland, Baltimore Gas and Electric and Potomac Electric Company are each offering "smart meter compatible" DLC programs to residential customers, as described in their filings in Cases 9208 and 9207 respectively.

Uncertainty in Projected Generation Service Savings

Q. DO ANY OF THE REBUTTAL WITNESSES ADDRESS YOUR TESTIMONY REGARDING THE UNCERTAINTY ASSOCIATED WITH PROJECTED GENERATION SERVICE SAVINGS?

A. No. My Direct Testimony states that projected savings in generation service costs from the Company's proposed DR programs and rate offerings are uncertain for two main reasons. First the Company has not finalized the details of these programs and rate offerings. Until those details are finalized, customers will not know the financial benefits of enrolling in those programs and rate offerings. Second, there is limited empirical data available on which to base projections of the levels of long-term participation in many of these programs. The rebuttal witnesses did not present any new evidence that reduces this uncertainty.

[3] New Jersey Board of Public Utilities, Docket No. EOO8080544, Order dated July 31, 2009.

[4] New Jersey Board of Public Utilities, Docket No. EOO8080543, Order dated July 31, 2009.

Financial Risk

Q. DO ANY OF THE REBUTTAL WITNESSES ADDRESS YOUR TESTIMONY REGARDING THE FINANCIAL RISK IMPOSED ON CUSTOMERS UNDER THE PROPOSED SMIP?

A. No. My Direct Testimony notes that the Company's proposed SMIP will result in significant increases in the bills of residential customers, and will also impose significant financial risk on all customers. The financial risk results from the possibility that actual benefits from the Smart Meter Plan may prove to be even less than the Company's projections and actual costs may prove to be higher. Under the Company's proposed surcharge customers bear all the financial risk if the Company's actual costs prove to be higher than assumed, and/or if the actual benefits prove to be less than assumed. The rebuttal witnesses did not present any new evidence that reduces this uncertainty.

III. RATEMAKING ISSUES ARISING FROM PROPOSED SMT SURCHARGE

Q. PLEASE SUMMARIZE THE MAJOR CONCLUSIONS AND RECOMMENDATIONS IN YOUR DIRECT TESTIMONY REGARDING ALLEGHENY POWER'S PROPOSAL FOR RECOVERING THE COSTS OF ITS SMART METER PLAN.

A. My Direct Testimony concludes that the proposed surcharge was not reasonable because the revenue requirements it was set to collect are not reasonable, the allocation of those revenue requirements among rate classes was not based upon a cost of service ('COS') study and the design of the surcharge was not guided by the results of a COS study and bill analysis. Based upon that conclusion, I recommended that the Commission require

the Company to set its surcharge to collect a reasonable level of revenue requirements and to present the results of a COS study and an analysis of bill impacts to support its allocation of revenue requirements among rate classes and the recovery of the residential class revenue requirements through a fixed monthly surcharge.

Q. PLEASE RESPOND TO THE REBUTTAL BY WITNESSES HEASLEY, VALDES AND BAUDINO REGARDING THE ALLOCATION OF SMIP REVENUE REQUIREMENTS AMONG RATE CLASSES.

A. My Direct Testimony states that generally accepted ratemaking principles require that proposed revenue requirements of this magnitude and complexity be allocated according to the results of a COS study. The rebuttal testimony of Company witnesses Heasley and Valdes, the Direct Testimony of Mr. Knecht and the rebuttal testimony of Mr. Baudino all indicate the importance of having a COS study to guide the allocation of these significant revenue requirements, first among the Allegheny Power operating companies and then among the rate classes of West Penn Power.

The single largest category of the Company's proposed capital costs are what I have characterized as Network and Information Technology costs, Hornby Exhibit___(JRH-3). This category of costs is distinct from the Company's proposed CIS costs, but like the CIS costs they are "joint and common costs". In its SMIP the Company proposed to allocate a portion of its CIS costs to its sister operating companies in Maryland and West Virginia but did not propose allocating any of these Network and Information Technology costs to those sister operating companies. As noted earlier, in his rebuttal testimony Mr. Heasley explains that this category includes capital costs for an Enterprise Service Bus (ESB), Upgrades to Work Management System (WMS), a

Geographic Information System (GIS) and an Outage Management System (OMS). In his rebuttal Mr. Valdes states that the Company will allocate a portion of these Network and Information Technology costs to those sister operating companies if and when those companies begin deployment of smart meter technology (Valdes rebuttal, p.16). However, Mr. Valdes does not provide any details of the proposed amount of Network and Information Technology costs that would be subject to allocation nor the basis upon which those costs would be allocated among the companies.

In his Direct Testimony Mr. Knecht raises concerns about the Company's proposed treatment of all non-residential customers as a single rate class. He proposes that the Company use a more detailed break out of rate classes as the basis for its assignment and allocation of SMIP revenue requirements (Knecht Direct, page 5). A COS would provide this level of disaggregation by rate class.

In his rebuttal testimony Mr. Baudino disagrees with my statement that allocating joint and common costs based on number of customers does not properly reflect their benefits, since many of the benefits of the proposed SMIP relate to energy and demand savings. Again, a COS would provide all parties, including Mr. Baudino and myself, a detailed basis upon which to have an informed discussion of the appropriate allocation factor for each category of costs. For example, contrary to Mr. Baudino's assertion, the Company's proposed Network and Information Technology costs are not "clearly customer-related" (Baudino, p.6). Instead they include costs for several different distribution service systems, i.e., ESB, WMS, GIS and OMS. Also, Mr. Baudino's assertion that these costs do not depend on the level of demand or energy consumed by customers reflects a fundamental difference of perspective rather than a finding of fact.

My position is based upon the view that all of the SMIP costs are in fact being "caused" by Act 129, whose goal is to reduce annual energy consumption and peak load. Therefore all of these costs, at the highest level, do depend on the levels of demand and energy by rate class. Also, the Smart Meter Implementation Order calls for the direct assignment of costs associated with an EDC's Plan to the customer class that received the benefit of such measures (Smart Meter Implementation Order at 32). However, that Order does not address the appropriate allocation factor for SMIP costs that cannot be directly assigned to specific rate classes. My suggestion for developing allocation factors for joint and common costs based on energy and demand levels is consistent with the Order.

Q. PLEASE RESPOND TO THE REBUTTAL BY COMPANY WITNESS VALDES REGARDING THE DESIGN OF THE SMART METER TECHNOLOGY SURCHARGE.

A. My Direct Testimony states that the Company should use the results of its COS plus an analysis of bill impacts to guide its decisions regarding the portion of the rate class revenue requirement to recover via an increase in the customer charge and the portion to recover via increase in the delivery and/or demand charge components of each tariff. My position is that the Company has not justified recovering all of its SMIP costs via a customer charge.

In his rebuttal Mr. Valdes states that the Company is willing to modify the design of its SMT to recover 21% of its SMIP costs via a customer surcharge and 79% via a volumetric surcharge (Valdes rebuttal, p.10). This is an improvement in its rate design. However, the fact remains that the Company is still proposing to ultimately collect over $15 per month on average from residential customers. The portion it would collect

through a customer surcharge would still ultimately increase the customer charge by over $3, or sixty percent. The Company has not provided a bill analysis to support an increase of that amount.

Q. **DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

A. Yes.

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Petition of West Penn Power Company	:	
d/b/a Allegheny Power For Expedited	:	DOCKET NO. M-2009-2123951
Approval of its Smart Meter Technology	:	
Procurement and Installation Plan	:	

EXHIBITS TO THE

SURREBUTTAL TESTIMONY

of

J. RICHARD HORNBY

On behalf of:

PENNSYLVANIA OFFICE OF CONSUMER ADVOCATE

November 3, 2009

EE&C PLAN RESIDENTIAL SURCHARGE VERSUS ILLUSTRATIVE VOLUMETRIC SURCHARGE FOR SMIP

Levelized Surcharge - November 2009 through May 2013 (43 months)

Residential Customers - Tariff No. 39, Schedule 10

	UNITS	EE&C Plan (1)	SMIP (2)	SMIP vs EE&C
Amount to be Collected			$ 263,699,637	
43-month forecast of sales	kWh	25,745,614,415	25,745,614,415	
Total Surcharge (EE&C Plan surcharge includes GRT and PUC assessment fee)	$ / kWh	0.00222	0.01024	4.6
Forecast average month sales	kWh/customer	965	965	
Impact on bill of average customer				
	$/ month	$ 2.14	$ 9.88	4.6
	$ per Year	$ 25.68	$ 118.61	4.6

Sources

1. Allegheny Power, EE&C Plan, June 30, 2009, Appendix F, *Calculations and Supporting Cost Documentation for Cost Recovery Mechanism* , p. 2 of 31.

2. Response to OCA I-36, Workpaper to Exhibit___(JRH-7)