STATE OF MARYLAND

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of the Application of	**)**	
Baltimore Gas and Electric Company for	**)**	**Case No. 9406**
Adjustments to its Electric and Gas Base Rates	**)**	

SURREBUTTAL TESTIMONY OF

JONATHAN WALLACH

ON BEHALF OF

THE OFFICE OF PEOPLE'S COUNSEL

Resource Insight, Inc.

MARCH 21, 2016

Table of Contents

I. Introduction

Q: Please state your name, occupation, and business address.

A: My name is Jonathan F. Wallach. I am Vice President of Resource Insight, Inc., 5 Water Street, Arlington, Massachusetts.

Q: Are you the same Jonathan F. Wallach that filed direct and rebuttal testimony in this proceeding?

A: Yes.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of the Office of People's Counsel ("OPC").

Q: What is the purpose of your surrebuttal testimony?

A: This surrebuttal testimony responds to:

- Rebuttal testimony by Company witness David E. Greenberg and Staff witness C. Shelley Norman regarding the appropriate allocation of Smart Grid costs to customer classes in the 2014 ECOSS.
- Rebuttal testimony by Company witness John C. Frain regarding my recommendation for allocating the requested electric revenue increase to the residential class.
- Rebuttal testimony by Company witnesses Greenberg and Frain concerning my recommendation for increasing the Schedule R customer charge.
- Rebuttal testimony by Company witness Mark D. Case regarding Baltimore City conduit fees.

II. Smart Grid Cost Allocation

Q: Please summarize your findings and conclusions with regard to allocation of Smart Grid costs in the 2014 ECOSS.

A: In my direct testimony, I concluded that the 2014 ECOSS allocates more Smart Grid Initiative costs to the residential class than would be the case if such costs were allocated on the basis of cost-causation, i.e., in proportion to the residential class's share of the drivers of such costs. Specifically, I showed that the primary driver of the Company's spending on the Smart Grid Initiative was the expectation that economic benefits would exceed the cost of Smart Grid implementation. However, I also found that BGE had not conducted a reasonable analysis of the residential class's share of Smart Grid benefits and therefore had not shown that the benefits to the residential class exceed the costs to that class. In lieu of a reasonable analysis by BGE, I conducted an illustrative analysis of 2014 Smart Grid benefits and costs which showed that the residential class's percentage share of 2014 benefits (66%) was substantially less than that class's allocated share of Smart Grid costs in the 2014 ECOSS (81%). In other words, my analysis showed that the 2014 ECOSS does not allocate Smart Grid Initiative costs to customer classes commensurate with the allocation of Smart Grid benefits to those classes.

Q: How did other parties respond to your direct testimony regarding the allocation of Smart Grid costs in the 2014 ECOSS?

A: On rebuttal, BGE witness Greenberg asserts that allocating Smart Grid costs commensurate with Smart Grid benefits would be contrary to cost-causation principles, because such principles "require that costs should be allocated to customer classes that drive the costs being incurred."[1] His concerns notwithstanding, Mr. Greenberg states that "the Company is amenable to working with Staff and other interested stakeholders to define specific details of Smart Grid cost classification alternatives and evaluate the nature of Smart Grid costs for future studies."[2]

Staff witness Norman also allows that "one might develop an allocation approach in which all classes are responsible for the costs incurred to provide AMI capacity."[3] However, Dr. Norman claims that such an approach would not be viable in this case, because OPC witness Maximillian Chang finds that Smart Grid costs exceeds benefits and therefore there are no "surplus benefits to be subject to such an alternate allocation proposal."[4]

Q: Do you agree that allocating Smart Grid costs commensurate with the benefits would be inconsistent with cost-causation principles?

A: No. As Mr. Greenberg noted in his rebuttal testimony, the National Association of Regulatory Utility Commissioners defines cost causation as "an attempt to determine what, or who, is causing costs to be incurred by the utility."[5] In this

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[1] *Prepared Rebuttal Testimony of David E. Greenberg on behalf of Baltimore Gas and Electric Company*, Case No. 9406, March 4, 2016, pp. 10-11. Richard A. Baudino offers a similar argument in his rebuttal testimony on behalf of the Maryland Energy Group.

[2] *Id.*, p. 22.

[3] *Public Rebuttal Testimony and Exhibits of C. Shelley Norman, PhD., on behalf of the Staff of the Public Service Commission of Maryland*, Case No. 9406, March 4, 2016, p. 5. Dr. Norman also notes on page 3 of her rebuttal testimony that the Company allocated Smart Grid costs on the basis of class demand in Case No. 9299 rather than on the basis of costs incurred for each customer class.

[4] *Id.*, p. 5.

[5] National Association of Utility Regulatory Commissioners, *Electric Utility Cost Allocation Manual*, January 1992, p. 38.

case, the "what" causing BGE to make *discretionary* investments in smart grid infrastructure is the expectation that economic benefits would exceed infrastructure costs and the "who" are the customer classes who would share in those economic benefits. Thus, allocating Smart Grid costs commensurate with the benefits would be fully consistent with cost-causation principles.

On a broader level, the cost-causation process seeks to equitably allocate incurred costs among customer classes. In this case, where Smart Grid costs were incurred because of an expectation that system-wide economic benefits would exceed costs, the equitable allocation would be one where each customer class's allocation of Smart Grid costs would be no more than that class's share of the system-wide benefits.[6] In other words, an equitable allocation would be one where Smart Grid costs are allocated to each customer class commensurate with that class's share of the economic benefits.

Q: Do you agree with Dr. Norman that it would not be viable to allocate Smart Grid costs commensurate with Smart Grid benefits because OPC witness Chang finds that costs exceed benefits?

A: No. As I discussed in my direct testimony, Mr. Chang recommends disallowing recovery of any Smart Grid costs in excess of total economic benefits. There is no reason why the allowed, cost-effective portion of the Smart Grid investment could not be allocated to each customer class in proportion to that class's share of Mr. Chang's estimate of system-wide benefits.

[6] Otherwise, a class's contribution to Smart Grid costs would not be cost-effective. As noted above, BGE has not shown that residential smart meters represent a cost-effective investment for the residential class.

Q: Did Mr. Greenberg comment on the assumptions or calculations in your illustrative analysis of the allocation of Smart Grid benefits to the residential class?

A: Yes. On rebuttal, Mr. Greenberg alleges that I "subjectively eliminated almost half of the 2014 total Smart Grid operational and market benefits determined by Company Witnesses Pino and Butts."[7]

Q: How do you respond?

A: This allegation is unfounded and mischaracterizes my analysis. As I discussed in my direct testimony, I made two adjustments to the Company's claimed benefits. First, the Company's estimate of capacity-price and energy-price mitigation benefits included price-mitigation benefits attributable to all Maryland load. I therefore pro-rated the Company's estimate in order to reflect only the price-mitigation benefits to BGE ratepayers in my illustrative analysis.[8] Second, the Company estimated the reductions in meter, T&D, and Conservation Voltage Reduction ("CVR") *capital expenditures* in each year from Smart Grid implementation. In order to estimate the reduction in 2014 meter, T&D, and CVR *revenue requirements*, I applied a 15% capital-recovery factor to the Company's estimate of cumulative reductions in capital expenditures from 2012 through 2014.

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[7] Greenberg Rebuttal, p. 13.

[8] I then estimated the residential share of those BGE-specific price-mitigation benefits based on the residential class's share of BGE-system peak demand or energy requirements. The result would have been the same if I had used the Company's estimate of price-mitigation benefits attributable to all Maryland load and then applied the BGE residential class's share of total Maryland peak demand or energy requirements.

Contrary to Mr. Greenberg's claim, neither of these adjustments were subjective. Instead, I applied these adjustments in order to estimate the annual, BGE-specific value of the Company's claimed benefits.

The reasonableness of these adjustments notwithstanding, the residential class's percentage share of claimed economic benefits would have been smaller than estimated by my illustrative analysis if I had not made these adjustments. Specifically, my illustrative analysis estimates that 66% of the claimed benefits flows to the residential class. Without the two adjustments in my illustrative analysis, the residential class's share would be only 57%. Consequently, if I had not made these adjustments, my illustrative analysis would have indicated that the residential class should be allocated a smaller share of Smart Grid costs than indicated by my analysis with the adjustments.

III. Electric Revenue Allocation

Q: In your direct testimony, did you recommend revising the allocation of Smart Grid costs in the 2014 ECOSS based on the results of your illustrative analysis?

A: No. To the contrary, I recommended against using the results of my analysis to reallocate Smart Grid Costs in the 2014 ECOSS for two reasons. First, my analysis was only meant to be illustrative and therefore relied on the Company's estimates of costs and benefits estimates for a single year, instead of for all years in the Company's cost-benefit analysis. Second, because OPC witness Chang had found that a substantial portion of Smart Grid costs should be disallowed as not cost-effective, I concluded that even with a more-reasonable allocator the 2014 ECOSS would continue to overstate the amount of Smart Grid costs reasonably borne by residential customers and thus would understate the residential class's return relative to system-average.

Q: How did BGE respond to your recommendation to not revise the 2014 ECOSS based on the results of your illustrative analysis?

A: Mr. Greenberg disregarded my arguments and re-ran the 2014 ECOSS using the results of my illustrative analysis. Company witness Frain then reallocated the requested revenue increase based on the results of the revised 2014 ECOSS. Based on this revenue reallocation, Mr. Frain concluded that the residential revenues would need to be increased by more than system average (as I had recommended) in order to bring the residential class return within 10% of system-average return.

Q: Is there any merit to Mr. Frain's findings?

A: No. For the reasons enumerated above, Mr. Greenberg's revised 2014 ECOSS understates the residential class's return relative to system-average. Thus, the revised 2014 ECOSS does not provide a reasonable basis for allocating the requested revenue increase to the residential class.

In order to provide a more-reasonable basis for allocating the requested revenue increase, OPC Data Request No. 35-3 asked BGE revise the 2014 ECOSS to reflect OPC witness Chang's recommended disallowance of Smart Grid costs and his estimate of Smart Grid benefits for all years in the cost-benefit analysis. The Company refused People Counsel's request.[9]

Q: Are you revising your recommendation for allocating the electric revenue increase among customer classes in light of Mr. Frain's findings?

[9] A copy of this response is provided as Exhibit JFW-5.

A: No. Neither the 2014 ECOSS nor Mr. Greenberg's revised 2014 ECOSS provides a reasonable basis for allocating the requested revenue increase. I therefore continue to recommend that the revenue increase authorized by the Commission be allocated among all rate classes except for the Schedule T and PL classes in proportion to each class's base distribution revenues under current rates.

IV. Schedule R Customer Charge

Q: Please summarize your findings and conclusions with regard to the Company's proposal to increase electric Schedule R customer charges.

A: In my direct testimony, I concluded that it would be inappropriate to set the Schedule R and RL customer charges at the same rate, as proposed by the Company, because the customer-related costs to serve an average R customer are likely to be less that those to serve a much larger average RL customer.[10] I also explained that the reason that the 2014 ECOSS shows little difference between the fixed costs to serve R and RL customers is simply that the 2014 ECOSS assumes that such costs do not vary with customer size. Finally, I found that the Company's proposal increase the Schedule R customer charge would dampen price signals to consumers for reducing energy usage, and estimated based on the results from studies of marginal-price elasticity that the Company's proposed increase would result in about a 1% increase in residential load over a period of several years.

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[10] Since certain customer-related costs are likely to vary with the size of the customer, I further argued that the Company's proposal to shift recovery of customer costs from the energy rate to the customer charge could exacerbate subsidization of larger Schedule R customers' costs by low-usage customers.

Q: How does BGE respond to your arguments regarding the difference in the costs to serve Schedule R and RL customers?

A: On rebuttal, Company witness Greenberg simply refers back to the results of the 2014 ECOSS as evidence that customer-related costs are about the same for average R and RL customers. However, as I showed in my direct testimony, the 2014 ECOSS results are an artifact of the study assumption that such costs are customer-related and therefore do not vary with customer size. Thus, even though the average Schedule RL customer is much larger than the average Schedule R customer, the 2014 ECOSS finds no material difference in the fixed cost to serve these two customers simply because the study assumes that there is no significant difference.

Mr. Greenberg further argues there should be no difference in the cost to serve R and RL customers because the difference in average usage between these two rate classes is due to self-selection of RL service by larger residential customers. That the difference in usage is due to self-selection is irrelevant. As I discussed in my direct testimony, a number of customer-related costs – such as services or uncollectible accounts and collection expense – are likely to vary with the size of the customer (in revenues, sales, or demand). Consequently, the fixed cost to serve a Schedule R customer is likely to be less than that to serve a larger Schedule RL customer. It does not matter in this case whether the size difference is due to self-selection or prescribed by tariff rules.

Q: How does BGE respond to your estimate of the elasticity effect from the Company's proposal to increase the Schedule R customer charge?

A: On rebuttal, Company witness Frain selectively and misleadingly quotes from one of the elasticity studies referenced in Exhibit JFW-3 to support his claim that my findings are contradicted by the studies I relied on for my elasticity analysis. Specifically, Mr. Frain implies that the various elasticity estimates I used are not applicable to the Company's proposal because the one study he cites measured elasticity for an inclining block energy rate, not a flat rate like the Company's.[11] Notwithstanding the fact that I did not actually rely on the results of this particular study for my analysis, Mr. Frain fails to offer any reason why this study's estimate of marginal-price elasticity under an inclining-block rate would not also be applicable under a flat-rate structure. To the contrary, one of the studies I relied on for my analysis estimated marginal-price elasticity under both flat and inclining-block rate structures and concluded that there was "no evidence that consumer behavior differs across rate type."[12]

Mr. Frain also cites Staff witness Norman's testimony in Case No. 9355 to argue that residential customers react to changes in average, not marginal prices.[13] However, Dr. Norman's testimony in Case No. 9355 relied on a single study to support the proposition that customers react to average price, when numerous studies have shown that customers react to marginal or expected marginal price. Moreover, the study cited by Dr. Norman is not relevant in this

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[11] The Schedule R energy rate is "flat" in the sense that a customer pays the same per-kWh rate regardless of the amount of monthly usage. An inclining-block energy rate, in contrast, charges one rate for monthly usage up to a particular threshold amount (i.e., the "initial block" rate) and then a higher rate for all monthly usage in excess of the threshold amount (i.e., the "tail block" rate.) For example, a customer on a two-tier inclining-block rate with monthly usage of 1,000 kWh might pay 8¢/kWh for the first 800 kWh and 10¢/kWh for the remaining 200 kWh. Inclining-block energy rates might have anywhere from two to four tiers.

[12] Steven Henson, "Electricity Demand Estimates under Increasing-Block Rates", Southern Economic Journal 51(July 1984): 1, p. 155. A copy of this article was provided in OPC Response to BGE Data Request No. 1-18.

[13] If so, the Company's proposal to increase the Schedule R customer charge would not affect customer usage, since an increase in the customer charge would decrease the marginal price (i.e., the energy rate) but not the average price.

case. The study finds that customers react to average price when the rate structure (i.e, an inclining-block energy rate) creates uncertainty as to what marginal price these customers are paying at any point in time.[14] Schedule R customers do not face such uncertainty, since they pay a flat energy rate which provides a known and constant marginal-price signal.

Q: Are you revising your recommendations regarding the Schedule R customer charge in light of the Company's rebuttal testimony?

A: No. Neither Mr. Greenberg nor Mr. Frain have offered any compelling arguments in support of the Company's proposed increase to the Schedule R customer charge. I therefore continue to recommend that the Commission reject the Company's proposal to increase the Schedule R customer charge from $7.50 to $12 per month. I also continue to recommend that the Schedule R customer charge be increased by the same percentage as the percentage increase to Schedule R base distribution revenues authorized by the Commission.

V. Baltimore City Conduit Fee

Q: Please summarize the Company's proposal with regard to the recovery of Baltimore City conduit fees.

A: The Company has filed suit against Baltimore City, challenging an increase in Baltimore City conduit fees on the grounds that the new conduit fee is set at a level that exceeds the cost to maintain and upgrade the conduit system and that revenues from the fee increase are being used for purposes other than maintaining the conduit. Given that the outcome of litigation is uncertain, BGE

[14] Customers are uncertain because the marginal price depends on which usage block they fall into each month.

proposes to recover incremental expenses from the fee increase in a separate surcharge and to continue to recover expenses attributable to the old fee through base distribution rates. The Company further suggests two options for recovering surcharge costs from BGE ratepayers. If the Commission finds that revenues from the fee increase will be used for something other than maintaining the conduit system, BGE recommends that the fee increase be recovered solely from Baltimore City ratepayers. On the other hand, if the Commission finds that the fee increase will be used solely to maintain and upgrade Baltimore City's conduit system, then BGE recommends that the fee increase be recovered from all distribution customers.

Q: Have there been any developments in the dispute between BGE and Baltimore City since the Company's direct filing?

A: Yes. In his rebuttal testimony, Company witness Case states that Baltimore City has confirmed that it will apply all conduit fee revenues to maintaining the City's conduit system.

Given this development, recovering the fee increase solely from Baltimore City ratepayers is no longer a tenable option. As I concluded in my direct testimony, conduit fees should continue to be recovered from all distribution customers.

Q: Did Mr. Case respond to your direct testimony regarding Baltimore City conduit fees?

A: Yes. In my direct testimony, I noted that while surcharge recovery of the fee increase may be appropriate at this time because of the uncertainty regarding the outcome of the Company's suit, such exceptional treatment was not warranted once litigation was finally resolved. On rebuttal, Mr. Case argues that permanent surcharge recovery is warranted because BGE is seeking to establish through litigation a permanent process for monitoring Baltimore City's spending on the conduit system and for trueing up conduit fees to actual costs.

Q: Do you agree with Mr. Case in this regard?

A: No. As I discussed in my direct testimony, surcharge recovery of the fee increase is warranted in this case only because of the uncertainty surrounding the litigation. The Company is free to petition the Commission for continuation of the conduit fee surcharge after the litigation is finally resolved, if BGE believes that circumstances at that time warrant it.

Q: Does this conclude your surrebuttal testimony?

A: Yes.