

STATE OF MARYLAND  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of the Application of )  
Baltimore Gas and Electric Company for )  
Adjustments to its Electric and Gas Base Rates )

Case No. 9406

DIRECT TESTIMONY OF  
JONATHAN WALLACH  
ON BEHALF OF  
THE OFFICE OF PEOPLE'S COUNSEL

Resource Insight, Inc.

FEBRUARY 8, 2016

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1 **I. Introduction and Summary**

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

3 A: My name is Jonathan F. Wallach. I am Vice President of Resource Insight, Inc.,  
4 5 Water Street, Arlington, Massachusetts.

5 **Q: Please summarize your professional experience.**

6 A: I have worked as a consultant to the electric-power industry since 1981. From  
7 1981 to 1986, I was a research associate at Energy Systems Research Group. In  
8 1987 and 1988, I was an independent consultant. From 1989 to 1990, I was a  
9 senior analyst at Komanoff Energy Associates. I have been in my current  
10 position at Resource Insight since September of 1990.

11 Over the past thirty years, I have advised and testified on behalf of clients  
12 on a wide range of economic, planning, and policy issues relating to the  
13 regulation of electric utilities, including: electric-utility restructuring; wholesale-  
14 power market design and operations; transmission pricing and policy; market-  
15 price forecasting; market valuation of generating assets and purchase contracts;  
16 power-procurement strategies; risk assessment and mitigation; integrated  
17 resource planning; mergers and acquisitions; cost allocation and rate design; and  
18 energy-efficiency program design and planning.

19 My resume is attached as Exhibit JFW-1.

20 **Q: Have you testified previously in utility regulatory proceedings?**

21 A: Yes. I have sponsored expert testimony in more than seventy state, provincial,  
22 or federal proceedings in the U.S. and Canada, including in more than thirty  
23 proceedings in Maryland. Exhibit JFW-1 includes a detailed list of my previous  
24 testimony.

1 **Q: On whose behalf are you testifying?**

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

3 **Q: What is the purpose of your testimony?**

4 A: On November 6, 2015, Baltimore Gas and Electric Company ("BGE" or "the  
5 Company") filed an application to increase electric and gas distribution rates.  
6 This application was based on nine months of actual data and three months of  
7 forecasted data for the 12-month test year ending November 30, 2015. On  
8 January 5, 2016, BGE filed supplemental testimony supporting an updated  
9 request for a revenue increase based on twelve months of actual cost data for the  
10 test year.

11 This testimony addresses the following aspects of the Company's  
12 application:

- 13 • The Company's proposal for allocating the requested electric revenue  
14 increase to the residential class, as described in testimony by John C.  
15 Frain.
- 16 • The electric cost of service study of 2014 actual costs ("2014 ECOSS")  
17 that serves as the basis for Mr. Frain's proposed allocation of the test-year  
18 electric revenue deficiency, as described in testimony by David E.  
19 Greenberg.
- 20 • The Company's proposal to increase customer charges for electric  
21 Schedule R customers, as described in Mr. Frain's testimony.
- 22 • The Company's proposal to recover increased Baltimore City conduit fees  
23 through a new surcharge, as described in testimony by Mark D. Case,  
24 David M. Vahos, and Mr. Frain.

25 **Q: Please summarize your findings and recommendations with regard to**  
26 **allocation of the requested electric revenue increase.**

1 A: The Company requests an increase in distribution revenue requirements of about  
2 \$121 million, or about 11% of test-year base rate distribution revenues under  
3 current rates. About 85% of the requested increase is due to the recovery of  
4 Smart Grid Initiative costs. Based on the results of its 2014 ECOSS, BGE  
5 proposes to allocate about \$86 million of the \$121 million requested increase to  
6 the residential class, representing a 15% increase in residential base distribution  
7 revenues under current rates.

8 The 2014 ECOSS does not provide a reasonable basis for the Company's  
9 proposed allocation of the requested revenue increase. Contrary to cost-  
10 causation principles, the 2014 ECOSS does not allocate Smart Grid Initiative  
11 costs to customer classes commensurate with the allocation of Smart Grid  
12 benefits to those classes. Consequently, the 2014 ECOSS over-allocates Smart  
13 Grid costs to the R and RL rate classes. Given that Smart Grid costs represent  
14 the bulk of the Company's requested increase, it would not be reasonable to  
15 allocate the requested increase on the basis of the 2014 ECOSS.

16 Accordingly, the Commission should reject the Company's proposed  
17 allocation of the requested revenue increase to the residential class. Instead, I  
18 recommend that the revenue increase authorized by the Commission be  
19 allocated among all rate classes except for the Schedule T and PL classes in  
20 proportion to each class's base distribution revenues under current rates.

21 **Q: Please summarize your findings and recommendations with regard to the**  
22 **Company's proposals to increase electric Schedule R customer charges.**

23 A: The Company lacks a reasonable basis for its proposal to dramatically increase  
24 Schedule R customer charges. The increase proposed by BGE would dampen  
25 price signals to consumers for reducing energy usage, disproportionately and  
26 inequitably increase bills for the Company's smallest residential customers, and

1 exacerbate the subsidization of larger residential customers' costs by these low-  
2 usage customers. Consequently, the Commission should reject the Company's  
3 proposal to increase the Schedule R customer charge from \$7.50 per month to  
4 \$12 per month. Instead, the Schedule R customer charge should be increased by  
5 the same percentage as the percentage increase to Schedule R base distribution  
6 revenues authorized by the Commission.

7 **Q: Please summarize your findings and recommendations with regard to the**  
8 **recovery of Baltimore City conduit fees.**

9 A: The Company has filed suit against Baltimore City, challenging an increase in  
10 Baltimore City conduit fees on the grounds that the new conduit fee is set at a  
11 level that exceeds the cost to maintain and upgrade the conduit system and that  
12 revenues from the fee increase are being used for purposes other than  
13 maintaining the conduit. Given that the outcome of litigation is uncertain, BGE  
14 proposes to recover incremental expenses from the fee increase in a separate  
15 surcharge and to continue to recover expenses attributable to the old fee through  
16 base distribution rates.

17 Given the unique circumstances in this instance, the Company's proposal  
18 to collect the increase in conduit fees through a separate surcharge appears  
19 reasonable. However, it would not be reasonable to recover such incremental  
20 fees solely from Baltimore City residents. The claim regarding how Baltimore  
21 City plans to use the revenues from the increased conduit fees is simply an  
22 allegation in a lawsuit, and does not form a sufficient basis for changing the  
23 manner in which conduit fees are currently allocated among customers. Conduit  
24 fees therefore should continue to be recovered from all ratepayers. Moreover,  
25 incremental conduit fees should be recovered through a per-kWh charge, rather  
26 than through a fixed per-bill charge as proposed by BGE.

1           Finally, surcharge recovery should be temporary, pending the final  
2 outcome of litigation. The Commission should direct BGE to terminate the  
3 surcharge rider and recover all conduit fee expenses through base rates as part of  
4 the Company's first application to adjust electric base rates to follow final  
5 resolution of litigation.

## 6   **II. Electric Revenue Allocation**

7   **Q: How much of an increase in electric distribution revenue requirements is**  
8   **BGE requesting at this time?**

9   A: Based on actual costs for the test year ending November 31, 2015, BGE requests  
10 an increase in distribution revenue requirements of about \$121 million, or about  
11 11% of test-year base rate distribution revenues under current rates. About \$103  
12 million, or 85%, of the requested increase is due to the recovery of Smart Grid  
13 Initiative costs.<sup>1</sup>

14 **Q: How much of the requested increase does BGE propose to recover from**  
15 **residential customers?**

16 A: Company witness Frain recommends that about \$86 million of the \$121 million  
17 requested increase be recovered from Schedule R and RL customers,  
18 representing a 15% increase in residential base rate distribution revenues under  
19 current rates.<sup>2</sup>

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<sup>1</sup> Prepared Supplemental Direct Testimony of David M. Vahos on behalf of Baltimore Gas and Electric Company, Case No. 9406, January 5, 2016, Chart 1.

<sup>2</sup> Company Exhibit JCF-2 Actual, Supplement 570. See Sheet E-1 for the allocated revenue increase and Sheet E-2 for base rate distribution revenues under current rates.

1 **Q: What is the basis for the Company’s proposed allocation of the requested**  
2 **revenue increase to the residential class?**

3 A: According to Mr. Frain, the proposed allocation of the requested revenue  
4 increase is “based primarily” on the results of the 2014 ECOSS.<sup>3</sup>

5 Specifically, Mr. Frain proposes a two-step procedure for allocating the  
6 requested revenue increase to the residential class. First, Mr. Frain allocates to  
7 the residential class that portion of the requested revenue increase that would  
8 increase the residential class’s rate of return to 90% of the system-average rate  
9 of return under the 2014 ECOSS.<sup>4</sup> Second, Mr. Frain allocates the remainder of  
10 the requested revenue increase among all rate classes except for the Schedule T  
11 and PL classes in proportion to each class’s base distribution revenues (as  
12 determined after the first allocation step.)

13 The 2014 ECOSS indicates rates of return relative to system-average of  
14 0.69 for the Schedule R rate class and 0.85 for the Schedule RL rate class. In the  
15 first step of his two-step allocation process, Mr. Frain allocates \$38.5 million of  
16 the total \$120.9 million requested revenue increase to the residential customer  
17 class in order to bring the R and RL rates of return to 90% of system-average.<sup>5</sup>  
18 In the second step, Mr. Frain allocates an additional \$47.1 million to the  
19 residential class, for a total allocation of \$85.5 million.<sup>6</sup> Thus, Mr. Frain  
20 allocates 71% of the requested revenue increase to the residential class, with

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<sup>3</sup> Prepared Direct Testimony of John C. Frain on behalf of Baltimore Gas and Electric Company, Case No. 9406, November 6, 2015, p. 2.

<sup>4</sup> Mr. Frain also reduces Schedule T distribution revenues by about \$750 thousand in this first step.

<sup>5</sup> Company Exhibit JCF-2 Actual, Case No. 9406, Supplement 570, Sheet E-2.

<sup>6</sup> *Id.*



1 45% of that allocated amount attributable to the first step of Mr. Frain's two-  
2 step allocation procedure.

3 **Q: Is it reasonable to allocate the requested revenue increase based on the**  
4 **relative rates of return in the 2014 ECOSS?**

5 A: No. The 2014 ECOSS allocates more Smart Grid Initiative costs to the  
6 residential class than would be the case if such costs were allocated on the basis  
7 of cost-causation, i.e., in proportion to the residential class's share of the drivers  
8 of such costs. Consequently, the 2014 ECOSS understates the residential class's  
9 rate of return relative to system-average.

10 **Q: What drove BGE to incur Smart Grid Initiative costs?**

11 A: In its July 13, 2009 application in Case No. 9208, BGE justified its spending on  
12 the Smart Grid Initiative primarily on the basis of the economic benefits that  
13 would result from its Smart Grid investment:

14 The Smart Grid Initiative represents a very large additional investment on  
15 the Company's behalf with cost recovery occurring over a subsequent 15  
16 year period. The cost of Smart Grid is estimated to be on the order of \$482  
17 million during the 4 – 5 year deployment period, with several hundred  
18 million more of ongoing operating costs post deployment completion. Yet,  
19 despite the very significant cost of this proposed initiative, the benefits to  
20 customers are several times greater, conservatively estimated by BGE to be  
21 in excess of \$2.6 billion over the life of the project, along with considerable  
22 additional benefits to reliability, service quality, and environmental  
23 objectives.<sup>7</sup>

24 In Order No. 83531, the Commission affirmed that rate recovery of the  
25 Company's Smart Grid investment depended on the economic benefits  
26 generated by that investment:

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<sup>7</sup> *Application of Baltimore Gas and Electric Company for Authorization to Deploy a Smart Grid Initiative and to Establish a Tracker Mechanism for the Recovery of Costs*, Case No. 9208, July 13, 2009, pp. 1-2.

1 We find it reasonable to expect that BGE will deliver a cost-effective AMI  
2 system before cost recovery will be incorporated into rates, and the  
3 Company's customers should not be required to pay in full, with a return, if  
4 the system does not meet that essential standard.<sup>8</sup>

5 **Q: What is the Company's estimate for the economic benefits attributable to**  
6 **the Smart Grid Initiative?**

7 A: According to testimony by Michael B. Butts, BGE forecasts economic benefits  
8 of about \$1.7 billion (nominal dollars) over the life of its Smart Grid  
9 investment.<sup>9</sup>

10 **Q: What is the residential class's share of the forecasted economic benefits?**

11 A: According to the Company's response to OPC Data Request No. 21-3, BGE  
12 estimated the residential class's share of the total economic benefits as part of a  
13 bill-impact analysis provided in response to Staff Data Request No. 8-4.<sup>10</sup>  
14 However, this bill-impact analysis overstates the residential class's share of  
15 benefits by simply and unrealistically assuming that Smart Grid benefits flow to  
16 residential customers in the same proportion as the allocation of Smart Grid  
17 costs in the 2014 ECOSS.<sup>11</sup> For example, the Company's bill-impact analysis  
18 estimates that 82% of the energy-price mitigation benefits would flow to  
19 residential customers, since the 2014 ECOSS allocates Smart Grid costs to  
20 residential customers in that proportion. Realistically, however, the savings from

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<sup>8</sup> Order No. 83531, Case No. 9208, pp. 38-39.

<sup>9</sup> *Prepared Supplemental Direct Testimony of Michael B. Butts on behalf of Baltimore Gas and Electric Company*, Case No. 9406, January 5, 2016, Table 1.

<sup>10</sup> Copies of all responses to data requests cited herein are provided as Attachment JFW-1.

<sup>11</sup> On the other hand, the bill-impact analysis understates the residential class's share of Smart Grid costs by assuming that Smart Grid costs are allocated to the residential class in proportion to distribution revenues (54% of total costs) rather than in the same proportion as the allocation of Smart Grid costs in the 2014 ECOSS (82% of total costs.)

1 a reduction in wholesale energy prices would be shared among customer classes  
2 in proportion to each class's contribution to system energy sales. Based on data  
3 on energy sales in the 2014 ECOSS, only 43% of the total benefit from energy-  
4 price mitigation would be expected to flow to residential customers.

5 In lieu of a reasonable analysis by BGE, I have developed a simplified  
6 allocation to the residential class of the operational and market benefits claimed  
7 by the Company for 2014. The Company provides its 2014 savings estimate for  
8 each type of operational or market benefit (e.g., meter reading O&M savings,  
9 avoided distribution capital cost) in its response to Staff Data Request No. 6-2.<sup>12</sup>  
10 I allocate all of the claimed capacity-revenue, energy-revenue, and energy-  
11 conservation benefits to the residential class.<sup>13</sup> For all other operational or  
12 market benefits, I estimate the residential class's share of 2014 savings using  
13 appropriate allocators from the 2014 ECOSS.<sup>14</sup>

14 As indicated in Confidential Exhibit JFW-2, I estimate that about 66% of  
15 2014 operational and market benefits will flow to residential customers.

16 **Q: How does the residential class's share of 2014 benefits compare to the**  
17 **residential allocation of Smart Grid revenue requirements in the 2014**  
18 **ECOSS?**

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<sup>12</sup> Specifically, the Company's estimates of operational and market savings in 2014 are provided in the spreadsheet model 'StaffDR06\_02-CONFAtt01-CostEffectivenessModel-UpdateforActuals-Final.xlsx'. This spreadsheet model was provided as Confidential Attachment 1 to Staff Data Request No. 6-2.

<sup>13</sup> I also pro-rate the claimed capacity-price and energy-price mitigation benefits so that the analysis includes only the share of those benefits attributable to BGE load.

<sup>14</sup> In addition, I estimate the 2014 revenue requirements for avoided capital costs by applying a 15% capital-recovery factor to the Company's estimate of cumulative reductions in capital expenditures from 2012 through 2014.

1 A: The 2014 ECOSS calculates a total Smart Grid revenue requirement of about  
2 \$43.0 million. Of that total, the 2014 ECOSS allocates about \$34.9 million, or  
3 about 81%, to the Schedule R and RL rate classes.<sup>15</sup> Thus, as indicated by my  
4 illustrative analysis, the share of Smart Grid costs allocated to the residential  
5 class in the 2014 ECOSS is substantially larger than that class's share of the  
6 2014 benefits.

7 **Q: Are you recommending that the allocation of Smart Grid costs in the 2014**  
8 **ECOSS be revised in order to reflect your estimate of the allocation of 2014**  
9 **operational and market benefits?**

10 A: No. As noted above, my estimate is based on an illustrative analysis of claimed  
11 benefits for a single year. A more comprehensive analysis would consider the  
12 allocation of operational and market benefits over the life of the Smart Grid  
13 asset.<sup>16</sup>

14 Moreover, in his direct testimony in this proceeding, OPC witness  
15 Maximillian Chang finds that the Company's investment in the Smart Grid  
16 Initiative is not cost-effective. Consequently, Mr. Chang recommends  
17 disallowance of a portion of that investment. Thus, even with a more-reasonable  
18 allocation of Smart Grid revenue requirements, the 2014 ECOSS would  
19 overstate the allocation of cost-effective Smart Grid costs and understate the  
20 residential class's return relative to system-average.

21 **Q: What do you recommend with regard to the Company's proposal for**  
22 **allocating the requested revenue increase?**

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<sup>15</sup> Based on data provided in the 'UNBUNDLED' worksheet of the Company's spreadsheet model 'BGE 2014 ECOSS SUPPLEMENTAL V\_CASE 9406 PRO.xls'.

<sup>16</sup> A more comprehensive analysis would also estimate the share of benefits that flow to all other rate classes.

1 A: The Commission should reject the Company's proposal for allocating the  
2 requested revenue increase based on the results of the 2014 ECOSS. Contrary to  
3 cost-causation principles, the 2014 ECOSS does not allocate Smart Grid  
4 Initiative costs to customer classes commensurate with the allocation of Smart  
5 Grid benefits to those classes. Consequently, the 2014 ECOSS over-allocates  
6 Smart Grid costs to the R and RL rate classes. Given that Smart Grid costs  
7 represent the bulk of the Company's requested increase, it would not be  
8 reasonable to allocate the requested increase on the basis of the 2014 ECOSS.  
9 Instead, I recommend that the revenue increase authorized by the  
10 Commission be allocated among all rate classes except for the Schedule T and  
11 PL classes in proportion to each class's base distribution revenues under current  
12 rates.

### 13 **III. Schedule R Customer Charge**

14 **Q: What is the Company's proposal with respect to the customer charge for**  
15 **the electric Schedule R rate class?**

16 A: Company witness Frain proposes to sharply increase the Schedule R monthly  
17 customer charge from its current rate of \$7.50 to the Schedule RL rate of \$12, or  
18 by 60%. Mr. Frain proposes this increase in order to shift recovery of allegedly  
19 fixed distribution costs from the Schedule R energy charge to the customer  
20 charge.<sup>17</sup> As indicated in Company Exhibit DEG-4, fixed distribution costs  
21 consist of those costs classified as customer-related in the 2014 ECOSS,  
22 including the costs of services, meters, meter reading, billing, collections, and  
23 other customer services.

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<sup>17</sup> By "fixed distribution cost", Mr. Frain means those distribution costs that do not vary with customer demand or energy usage.

1 **Q: Is the Company proposing to shift recovery of costs other than customer-**  
2 **related costs from the Schedule R energy charge?**

3 A: Not at this time. However, Mr. Frain clearly indicates that BGE will be  
4 proposing in a future proceeding to shift recovery of demand-related costs from  
5 the energy charge to a new demand charge:

6 I do believe that it would be appropriate to reflect demand costs in a  
7 demand charge for residential and small commercial customers, consistent  
8 with the use of a demand charge for larger commercial and industrial  
9 electric and gas customers, once BGE has sufficient smart meter data to  
10 support such a proposal.<sup>18</sup>

11 **Q: Would it be appropriate to shift recovery of demand-related costs from the**  
12 **energy charge to a demand charge?**

13 A: No. Recovery of demand-related costs through a demand charge would dampen  
14 price signals for conservation and promote inefficient customer behavior.

15 Shifting demand-related costs to a demand charge would undermine  
16 customers' ability to control electricity costs. Demand charges on a customer's  
17 bill are typically determined based on the customer's individual maximum  
18 demand, whenever that maximum occurs. This means that demand charges  
19 would be difficult to avoid, since even a single failure to control load would  
20 result in the same demand charge as if the same demand had been reached in  
21 every day or every hour.

22 A demand charge would also provide little or no incentive to take actions  
23 that reduce demand-related distribution costs. As reflected in the 2014 ECOSS,  
24 distribution equipment costs are driven primarily by the coincident peak load for  
25 all customers sharing the equipment. An individual customer is unlikely to reach  
26 her maximum demand at the same time as when coincident peak on the

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<sup>18</sup> Frain Direct, p. 10.

1 distribution system occurs. Thus, a demand charge will provide an incentive to a  
2 customer to control load at the time that customer reaches maximum demand,  
3 not necessarily at the time of peak load on the distribution system. In fact,  
4 customers could avoid demand charges merely by redistributing load within the  
5 peak period. Some of those customers might shift loads from their own peak to  
6 the peak hour on the local distribution system, thereby increasing their  
7 contribution to maximum or critical loads on the local distribution system.

8 Finally, by lowering the energy rate, shifting recovery of demand-related  
9 costs to a demand charge would perversely encourage increased energy  
10 consumption, some of which would likely occur at times of peak loading on the  
11 distribution system. Shifting costs from the energy charge to a demand charge  
12 could therefore increase distribution system costs and offset anticipated benefits  
13 from a demand charge.

14 **Q: What is Mr. Frain's rationale for his proposal to increase the Schedule R**  
15 **customer charge?**

16 A: Mr. Frain offers three arguments for his proposal. First, he alleges that the  
17 higher rate better reflects the fixed distribution cost to serve a Schedule R  
18 customer, as indicated by the results of the 2014 ECOSS. Second, Mr. Frain  
19 argues that it is reasonable to set the Schedule R and RL customer charges at the  
20 same rate since the fixed cost to serve a customer in each of these classes is  
21 essentially the same. Finally, Mr. Frain contends that increasing the customer  
22 charge would appropriately shift recovery of fixed distribution costs from the  
23 energy rate to the customer charge and thereby reduce subsidization of low-  
24 usage customers' fixed costs by larger Schedule R customers.

25 I address each of these arguments in turn.

1 **Q: Does the 2014 ECOSS reasonably estimate the fixed cost to serve a**  
2 **residential customer?**

3 A: No. As I discussed above in Section II, the 2014 ECOSS over-allocates Smart  
4 Grid costs to the R and RL rate classes. Thus, the 2014 ECOSS overstates the  
5 contribution of Smart Grid costs to the fixed cost to serve the residential class.

6 **Q: Does the 2014 ECOSS reasonably estimate the difference in the fixed cost to**  
7 **serve a Schedule R and a Schedule RL customer?**

8 A: No. Contrary to Mr. Frain's assertion, the results of the 2014 ECOSS do not  
9 indicate that the actual fixed cost to serve a Schedule R and a Schedule RL  
10 customer is essentially the same. Instead, the results are an artifact of the study  
11 assumption that such costs are customer-related and therefore do not vary with  
12 customer size. In other words, even though the average Schedule RL customer is  
13 much larger than the average Schedule R customer, the 2014 ECOSS finds no  
14 material difference in the fixed cost to serve these two customers simply  
15 because the study assumes that there is no significant difference.<sup>19</sup>

16 It may be reasonable to classify certain costs as customer-related for the  
17 purposes of allocating such costs among customer classes in a cost of service  
18 study. However, a number of customer-classified costs – such as services or  
19 uncollectible accounts and collection expense – are likely to vary with the size  
20 of the customer (in revenues, sales, or demand). In other words, the fixed cost to  
21 serve a Schedule R customer is likely to be less than that to serve a larger  
22 Schedule RL customer. It would therefore be inappropriate to set the Schedule R  
23 and RL customer charges at the same rate.

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<sup>19</sup> Based on data provided in the 2014 ECOSS, I estimate that energy usage and contribution to class non-coincident peak for an average Schedule RL customer exceeds that for an average Schedule R customer by about 55%.



1 **Q: Do you agree with Mr. Frain’s contention that increasing the Schedule R**  
2 **customer charge would reduce subsidization of low-usage customers’ fixed**  
3 **costs by larger Schedule R customers?**

4 A: No. To the contrary, shifting recovery of certain customer-related costs from the  
5 energy rate to the customer charge could exacerbate subsidization of larger  
6 Schedule R customers’ costs by low-usage customers. As noted above, some  
7 customer-classified costs are likely to vary with the size of the customer. If such  
8 costs were recovered through the fixed charge, then the smallest Schedule R  
9 customers (with the lowest cost to connect and service) would be required to  
10 pay the average of customer-related costs attributable to all sizes of Schedule R  
11 customers. In this case, if all customers were to pay the same customer charge  
12 regardless of size, small customers would subsidize larger customers’ fixed  
13 costs.

14 **Q: How does the Company’s proposal to increase the Schedule R customer**  
15 **charge from \$7.50 to \$12 per month affect the distribution energy rate?**

16 A: With the customer charge set at \$12, BGE proposes to increase the distribution  
17 energy charge to 4.519¢/kWh in order to recover the proposed allocation of test  
18 year revenue requirement to the Schedule R rate class.<sup>20</sup> If, instead, the customer  
19 charge remained at its current rate of \$7.50, the distribution energy rate would  
20 have to be increased to 4.969¢/kWh to recover the same allocated revenue  
21 requirement.<sup>21</sup> Thus, the distribution energy rate under the Company’s proposal  
22 to increase the customer charge by \$4.50 would be 0.45¢/kWh, or about 9%,  
23 less than the energy rate without the proposed increase to the customer charge.

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<sup>20</sup> Company Exhibit JCF-1 Actual, Supplement 570, p. 1.

<sup>21</sup> *Id.*

1 **Q: How does the Company's proposal to increase the Schedule R customer**  
2 **charge affect the total energy rate paid by a Schedule R SOS customer?**

3 A: By Mr. Frain's estimate, a Schedule R customer on Standard Offer Service  
4 would pay a combined distribution and SOS energy rate of 13.591¢/kWh under  
5 the Company's proposal and a combined rate of 14.041¢/kWh if the customer  
6 charge remained at its current rate.<sup>22</sup> Thus, the Company's proposal would  
7 reduce the total energy rate for a Schedule R SOS customer by 3.2%.

8 **Q: To what extent would the lower distribution energy rate under the**  
9 **Company's proposal for the customer charge dampen price signals for**  
10 **conservation?**

11 A: Residential customers respond to the price incentives created by the electrical  
12 rate structure. Those responses are generally measured as price elasticities, i.e.,  
13 the ratio of the percentage change in consumption to the percentage change in  
14 price. Price elasticities are generally low in the short term and rise over several  
15 years, because customers have more options for increasing or reducing energy  
16 usage in the medium to long term.

17 Most studies of electric price response have estimated the change in  
18 consumption that results from a change in the customer's average rate. For  
19 example, a review by Espey and Espey (2004) of 36 articles on residential  
20 electricity demand published between 1971 and 2000 reports short-run average-  
21 rate elasticity estimates of about -0.35 on average across studies and long-run  
22 average-rate elasticity estimates of about -0.85 on average across studies.<sup>23</sup>

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<sup>22</sup> Company Exhibit JCF-1 Actual, Supplement 570, p. 1.

<sup>23</sup> In other words, on average across these studies, consumption decreased by 0.35% in the short term and by 0.85% in the long term for every 1% increase in average rates.

1 In contrast, some studies have examined the change in usage as a function  
 2 of changes in the marginal rate paid by the customer.<sup>24</sup> The response to marginal  
 3 price incentives is typically lower than the response to average rates, but not  
 4 insubstantial. Table 3 lists the results of seven studies of marginal-price  
 5 elasticity over the last forty years.<sup>25</sup>

6 **Table 3: Summary of Marginal-Price Elasticities**

Authors	Date	Elasticity Estimates
Acton, Bridger, and Mowill	1976	-0.35 to -0.7
McFadden, Puig, and Kirshner	1977	-0.25 electric space heat and -0.52 with space heat
Barnes, Gillingham, and Hageman	1981	-0.55
Henson	1984	-0.27 to -0.30
Reiss and White	2005	-0.39
Xcel Energy Colorado	2012	-0.3 (at years 2 and 3)
Orans et al, on BC Hydro inclining-block rate	2014	-0.13 in 3 <sup>rd</sup> year of phased-in rate

7 **Q: What would be a reasonable estimate of the marginal-price elasticity for**  
 8 **changes in the residential energy rate?**

9 A: From Table 3, it appears that -0.3 would be a reasonable mid-range estimate of  
 10 the effect over a few years.

11 **Q: What would be a reasonable estimate of the effect on energy use from a**  
 12 **3.2% reduction to the total energy rate under the Company's proposal to**  
 13 **increase the customer charge?**

14 A: An elasticity of -0.3 and a 3.2% reduction in marginal energy price would result  
 15 in about a 1% increase in energy consumption. Assuming that all Schedule R  
 16 customers pay the same energy rate for power supply, this means that all else

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<sup>24</sup> For a Schedule R customer on Standard Offer Service, that would be the sum of the distribution energy rate and the SOS rate.

<sup>25</sup> The citations for these studies are provided in Exhibit JFW-3.

1 equal, residential load would be expected to increase by almost 1% over a  
2 several-year period as a result of implementing the Company's proposed  
3 customer charge increase.

4 For comparison, I estimate that the Company's forecast of energy savings  
5 in 2015 from Empower residential programs amounts to about 1% of residential  
6 sales.<sup>26</sup> Thus, the consumption increase due to the Company's proposed increase  
7 to the Schedule R customer charge (and the resulting decrease in the energy  
8 charge) would undo about a year's worth of residential energy-efficiency  
9 savings in the Company's service territory.

10 **Q: What do you recommend with regard to the Company's proposal to**  
11 **increase the Schedule R customer charge?**

12 A: The Commission should reject the Company's proposal to increase the Schedule  
13 R customer charge from \$7.50 to \$12 per month. The Company's proposal  
14 would unreasonably shift costs to the customer charge that are more  
15 appropriately recovered through energy charges. As the Commission found in  
16 Case No. 9192 when it rejected a smaller proposed percentage increase to the  
17 customer charge, such a shift would distort price signals, frustrate investments  
18 in energy efficiency and distributed resources, and inequitably burden low-usage  
19 customers:

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<sup>26</sup> This estimate is derived based on savings forecast data provided in an errata to the Company's 2015-17 EmPOWER Maryland Program Plan, filed on September 12, 2014 in Case No. 9154.

1           Whether or not the customer charge captures the “fixed” portion of each  
2           class's costs, we decline to increase that charge at this time. We start from  
3           the fact that customer charges were increased by 25% just two years ago,  
4           and we find that another 25% increase now is too steep, too fast. Even more  
5           to the point, however, recovery through fixed customer charges is  
6           inconsistent as a matter of policy with the aggressive energy efficiency and  
7           conservation goals established by the General Assembly in the EmPOWER  
8           Maryland Energy Efficiency Act of 2008 and with the comprehensive  
9           programs we approved just this summer for Delmarva's customers.  
10          Capturing this incremental revenue in volumetric charges leaves customers  
11          entirely in control of their usage and charges, and thus leaves each  
12          individual customer in control of the extent (if any) to which this modest  
13          rate increase affects him or her. Accordingly, we reject the Company's  
14          request to increase customer charges and direct it to recover all incremental  
15          revenue through volumetric charges.<sup>27</sup>

16           Instead, the Schedule R customer charge should be increased by the same  
17          percentage as the percentage increase to Schedule R base distribution revenues  
18          authorized by the Commission. The Commission found this approach to be  
19          reasonable in Case No. 9285:

20           Based upon the record in this case, we find that Company's proposal strikes  
21          a reasonable balance between the principle of cost causation and the goal of  
22          promoting energy conservation and efficiency. Furthermore, based upon  
23          our rate determinations the various rate elements will be increased  
24          gradually. Therefore, the Company is directed to file tariffs that increase  
25          the customer, volumetric and demand charges by the same percentage as  
26          the class percentage increases in rates.<sup>28</sup>

#### 27   **IV. Baltimore City Conduit Fee**

28   **Q: What does BGE propose with regard to recovery of Baltimore City conduit**  
29   **fees?**

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<sup>27</sup> Order No. 83085, Case No. 9192, pp. 53-54.

<sup>28</sup> Order No. 85029, Case No. 9285, pp. 91-92.

1 A: According to Company witness Case, Baltimore City increased its conduit fees  
2 on November 1, 2015 from \$0.9785 per linear foot to \$3.33 per linear foot. The  
3 Company has filed suit against Baltimore City, challenging the fee increase on  
4 the grounds that the new conduit fee is set at a level that exceeds the cost of  
5 maintaining and upgrading Baltimore City’s conduit system and that Baltimore  
6 City is using the revenues from the fee increase to fund “services and programs  
7 unrelated to the conduit system.”<sup>29</sup>

8           Given that the outcome of litigation is uncertain, Mr. Case recommends  
9 that the additional expense associated with the fee increase be recovered through  
10 a separate surcharge.<sup>30</sup> Mr. Case further suggests two options for recovering  
11 surcharge costs from BGE ratepayers. If the Commission finds that revenues  
12 from the fee increase will be used for something other than maintaining the  
13 conduit system, Mr. Case recommends that the fee increase be recovered solely  
14 from Baltimore City ratepayers. On the other hand, if the Commission finds that  
15 the fee increase will be used solely to maintain and upgrade Baltimore City’s  
16 conduit system, then Mr. Case recommends that the fee increase be recovered  
17 from all distribution customers.

18           Under either option, Company witness Frain proposes to allocate  
19 incremental fee expenses to customer classes on the basis of each class’s  
20 contribution to class non-coincident peak and to recover allocated costs through  
21 a fixed per-bill charge.

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<sup>29</sup> *Prepared Direct Testimony of Mark D. Case on behalf of Baltimore Gas and Electric Company, Case No. 9406, November 6, 2015, p. 30.*

<sup>30</sup> Conduit fee expenses under the old fee would continue to be recovered through base distribution rates.

1 **Q: How do you respond to the Company’s proposal to recover incremental**  
2 **conduit fees through a separate surcharge?**

3 A: Given the unique circumstances in this case, specifically uncertainty with regard  
4 to the outcome of litigation, the Company’s proposal appears reasonable.  
5 However, BGE has not offered any justification for why exceptional treatment  
6 of incremental conduit fees should continue once litigation has been finally  
7 resolved. Surcharge recovery should therefore be temporary, pending the final  
8 outcome of the Company’s lawsuit. However the courts rule, the conduit fee  
9 allowed by the courts should be recovered in its entirety through base rates.

10 **Q: Would it be reasonable to recover the increased conduit fees solely from**  
11 **Baltimore City ratepayers?**

12 A: No. The claim that Baltimore City plans to use the revenues generated from the  
13 increased conduit fee for purposes other than maintaining the conduit system is  
14 simply an allegation that the Company has made in its lawsuit against the City.  
15 The City disputes the Company’s contention in this regard, arguing that “the  
16 new lease fee is designed to fund future maintenance on the conduit system.”<sup>31</sup>  
17 At this point in time, there has been no factual finding by the Circuit Court for  
18 Baltimore City as to whether or not the fee is or is not based on the costs of  
19 maintaining the conduit system. Therefore, it would not be appropriate at this  
20 time to allocate the increase in the conduit fee any differently than the way the  
21 old conduit fee is currently allocated.

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<sup>31</sup> Memorandum of Grounds and Authorities in Support of Defendants’ Motion to Dismiss at p. 5 in Case No. 24-C-15-005258 OG in the Circuit Court for Baltimore City (included as attachment to Mayor and City Council Response to Staff Data Request No. 1-2).

1           The Company currently recovers conduit fees from all ratepayers.<sup>32</sup> The  
2 Company has not offered a reasonable basis for recovering incremental conduit  
3 fees differently. In the event that the Circuit Court finds (1) that the conduit fee  
4 increase will be used for purposes other than conduit maintenance, and (2) that it  
5 is nonetheless permissible, the Commission will have an opportunity to consider  
6 the proper treatment of the fee in the Company’s first rate case filed after final  
7 resolution of the litigation.

8   **Q: Why does Mr. Frain propose to recover allocated conduit fee expenses**  
9   **through a fixed per-bill charge?**

10 A: According to the Company’s response to Staff Data Request No. 4-25, BGE  
11 proposes to recover these demand-related expenses through a per-bill charge  
12 because “not all customer classes that were allocated a portion of the  
13 [incremental conduit expenses] currently have demand charges as part of their  
14 electric bill.”

15   **Q: Is this a reasonable basis for recovering allocated conduit fee expenses**  
16   **through a fixed per-bill charge?**

17 A: No. In contrast with the proposed rate treatment of incremental conduit fees,  
18 demand-related expenses attributable to the old conduit fee are currently  
19 recovered and will continue to be recovered through energy charges for those  
20 rate classes that do not have a demand charge. There is no good reason why  
21 incremental conduit expenses should be recovered in a different fashion.

22           In fact, recovering these demand-related expenses through a fixed charge  
23 would be contrary to cost-causation, since a fixed charge would recover the  
24 same amount from all customers within a rate class regardless of a customer’s

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<sup>32</sup> BGE Response to Staff Data Request No. 4-17.



1 demand on the conduit system. In contrast, costs would be recovered from  
2 customers in proportion to their cost responsibility if allocated conduit expenses  
3 were recovered through a per-kWh charge.

4 **Q: What do you conclude with regard to the Company's proposal for**  
5 **recovering incremental conduit expenses?**

6 A: Given the unique circumstances in this instance, the Company's proposal to  
7 collect the increase in conduit fees through a separate surcharge appears  
8 reasonable. However, it would not be reasonable to recover such incremental  
9 fees solely from Baltimore City residents. Instead, conduit fees should continue  
10 to be recovered from all ratepayers. Moreover, incremental conduit fees should  
11 be recovered through a per-kWh charge, rather than through a fixed per-bill  
12 charge as proposed by BGE.

13 Finally, surcharge recovery should be temporary, pending the final  
14 outcome of litigation. The Commission should direct BGE to terminate the  
15 surcharge rider and recover all conduit fee expenses through base rates as part of  
16 the Company's first application to adjust electric base rates to follow final  
17 resolution of litigation.

18 **Q: Does this conclude your direct testimony?**

19 A: Yes.