



December 8, 2014

David J. Collins
Executive Secretary
Maryland Public Service Commission
William Donald Schaefer Tower
6 St. Paul Street, 16th Floor
Baltimore, MD 21202-6906

Re: Case No. 9361

Dear Executive Secretary Collins,

Enclosed for filing in the above reference matter are the original and seventeen (17) copies of the **PUBLIC** Direct Testimony of Paul Alvarez on behalf of the Coalition for Utility Reform. The City of Gaithersburg is jointly sponsoring this testimony. The Coalition's response to Joint Applicants' Data Request 1 is provided in an exhibit following Mr. Alvarez's testimony.

Please feel free to contact our offices should you have any questions regarding this filing.

Respectfully submitted,

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Environment Maryland

Energy Future Coalition

Maryland Municipal League
Montgomery Chapter

City of Rockville

City of Takoma Park

Town of Garrett Park

Town of Somerset

City of Greenbelt

City of College Park

NextGen LED, LLC

Wattlots LLC

Wired Group

Galvin Electricity Institute

Mayor Bruce R. Williams
City of Takoma Park

Mayor Jeffrey Z. Slavin
Town of Somerset

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Councilmember Hans Riemer
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Councilmember Terry Seamens
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Councilmember Jarrett Smith
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Councilmember Fred Schultz
City of Takoma Park

BEFORE THE
PUBLIC SERVICE COMMISSION
OF MARYLAND

IN THE MATTER OF THE MERGER
OF EXELON CORPORATION AND
PEPCO HOLDINGS, INC.

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CASE NO. 9361

DIRECT TESTIMONY
OF
PAUL J. ALVAREZ
FOR THE COALITION FOR UTILITY REFORM

I. INTRODUCTION AND PURPOSE

1 **Q. PLEASE STATE YOUR FULL NAME AND BUSINESS ADDRESS.**

2 A. My name is Paul J. Alvarez. My business is served by post office box 150963,
3 Lakewood, Colorado, 80215.

4
5 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

6 A. I am the President of Alvarez and Associates LLC, which does business as the Wired
7 Group.

8
9 **Q. WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

10 A. I am testifying on behalf of the Coalition for Utility Reform (“The Coalition”) regarding
11 Exelon Corporation’s proposed acquisition of distribution utilities serving the citizens of
12 Maryland. My testimony will support the Coalition’s assertion that the merged entity’s
13 return on equity should be based in significant part on the achievement of outcomes-
14 based performance metrics if the proposed merger is to be in the public interest.

15
16 **Q. PLEASE DESCRIBE YOUR PROFESSIONAL AND EDUCATIONAL
17 BACKGROUND.**

18 A. My career began in 1984 in a series of finance and marketing roles of progressive
19 responsibility for large corporations, including Motorola’s Communications Division
20 (now owned by Google), Baxter Healthcare, Searle Pharmaceuticals (now owned by

21 Pfizer), and Option Care (now owned by Walgreens). My combined aptitude for finance
22 and marketing were well-suited for innovation and product development, leading to my
23 first job in the utility industry in 2001 with Xcel Energy, one of the largest investor-
24 owned utilities in the U.S. At Xcel Energy I served as product development manager,
25 overseeing the development of new energy efficiency and demand response programs for
26 residential and commercial and industrial customers, as well as programs in support of
27 voluntary renewable energy purchases and renewable portfolio standard compliance.
28 Here I learned the economics of traditional monopoly ratemaking and associated utility
29 economic incentives. I also learned a great deal about energy efficiency and demand
30 response program performance measurement and verification (M & V).

31
32 In 2008 I left Xcel Energy to establish a utility practice for boutique sustainability
33 consulting firm MetaVu, where I utilized my M & V experience to lead two
34 comprehensive, unbiased evaluations of smart grid deployment performance. To my
35 knowledge these are the only two comprehensive, unbiased evaluations of smart grid
36 deployment performance completed to date. The results of both were part of regulatory
37 proceedings in the public domain and include an evaluation of the SmartGridCity™
38 deployment in Boulder, Colorado for Xcel Energy in 2010 (11A-1001E), and an
39 evaluation of Duke Energy's Cincinnati deployment for the Ohio Public Utilities
40 Commission in 2011 (10-2326-GE-RDR).

41

42 In 2012 I started the Wired Group to focus exclusively on distribution utility performance
43 measurement and improvement. Wired Group clients include utilities, regulators,
44 consumer and environmental advocates, and industry associations. In addition I serve as
45 an adjunct professor at the University of Colorado's Global Energy Management
46 Program, where I teach a course on electric technologies, markets, and policy; I also
47 teach at Michigan State University's Institute for Public Utilities, where I educate new
48 regulators and staff on distribution utility performance measurement and the smart grid.

49
50 Finally, I am the author of Smart Grid Hype & Reality: A Systems Approach to
51 Maximizing Customer Return on Utility Investment, a book that makes a case for
52 performance-based compensation for distribution utilities. I received an undergraduate
53 degree from Indiana University's Kelley School of Business in 1983, and a master's
54 degree in management from the Kellogg School of Management at Northwestern
55 University in 1991.

56

57 **Q. HOW IS YOUR TESTIMONY ORGANIZED?**

58 A. I will begin by describing how the Maryland General Assembly has defined the public
59 interest as it relates to electric generation and distribution through legislation over the
60 past decade. I will then identify several aspects of Exelon's business interests that conflict
61 with many aspects of the public interest, describing how Exelon has historically (and
62 rationally) prioritized its business interests over the public interest in the past. I will also
63 cite examples indicating that the current utility compensation model has failed the public

64 interest. Finally, I will describe a performance-based compensation model that would
65 better align the interest of the merged entity with the public interest in Maryland, and
66 recommend that the Public Service Commission (MPSC) condition merger approval,
67 should it decide to grant such approval, in part on the implementation of such a
68 compensation model.

69
70 Importantly, please note that my testimony is not meant to suggest that performance-
71 based compensation should be the only requirement the MPSC must assess in order for
72 the merger to be in the public interest, nor should my testimony be construed to imply
73 that performance-based compensation alone can assure the merger is in the public
74 interest.

75

76 **II. THE MARYLAND GENERAL ASSEMBLY HAS DEFINED THE PUBLIC INTEREST**

77 **AS IT RELATES TO ELECTRIC GENERATION AND DISTRIBUTION**

78

79 **Q. WHAT ROLE DOES THE PUBLIC INTEREST PLAY IN A MERGER**

80 **APPLICATION SUBMITTED BY A REGULATED UTILITY IN MARYLAND?**

81 **A.** Public Utility Article 6-105 governs the MPSC's review of regulated utility merger
82 applications. Paragraph 3(i) of subsection g states: "If the Commission finds that the
83 acquisition is consistent with the public interest, convenience, and necessity, including
84 benefits and no harm to consumers, the Commission shall issue an order granting the
85 application." Paragraph 3(ii) continues: "The Commission may condition an order

86 authorizing the acquisition on the applicant’s satisfactory performance or adherence to
87 specific requirements.” Subsection g goes on to state the MPSC can deny such
88 applications if it does not find the acquisition is in the public interest (Paragraph 4), and
89 places the burden of proof on the applicant (Paragraph 5). My testimony will focus on the
90 public interest aspect of the MPSC’s merger application review, and recommends the
91 MPSC use its authority to make any merger approval conditional by finding
92 performance-based compensation models a requirement in the public interest.

93 **Q. HOW HAS THE MARYLAND GENERAL ASSEMBLY DEFINED THE PUBLIC**
94 **INTEREST AS IT RELATES TO ELECTIC GENERATION AND**
95 **DISTRIBUTION IN MARYLAND?**

96 **A.** The Maryland General Assembly has seen fit to pass a great deal of legislation in the
97 public interest as it relates to electric generation and distribution in Maryland in the past
98 decade:

- 99 • *Renewable Generation.* In 2004, Governor Ehrlich signed HB 1308, which
100 amended the Public Utilities Article *of the Maryland Code* to add *Sections 701-*
101 *713* that established renewable energy portfolios for public utilities. Of particular
102 value in the public interest are the favorable carbon reduction and environmental
103 stewardship characteristics of renewable generation.
- 104 • *Energy Efficiency (EmPower Maryland Energy Efficiency Act of 2008).* This
105 legislation set a statewide standard of a 15 percent reduction in per capita
106 electricity consumption and demand from 2007 to 2015. Of particular value in the

107 public interest are the favorable carbon reduction and environmental stewardship
108 attributes of energy efficiency.

- 109 • *Distributed Energy Resources (Facilitated through the addition of Chapter 9,*
110 *“Small Generator Interconnection Standards” to Title 20, Subtitle 50 of the*
111 *Maryland Code)*. In 2007, the legislature passed SB 595, which required the
112 creation of a small generator interconnection working group. The Small Generator
113 Interconnection Standards Rule (COMAR 20.50.09) became effective as of June
114 2008 and created standards for interconnection in line with other national best
115 practices. Of particular value in the public interest are the favorable customer
116 choice attributes associated with distributed energy resources, as well as carbon
117 reduction and environmental stewardship attributes (to the extent that distributed
118 energy resources are often renewable, such as with photovoltaic solar panels).
- 119 • *Greenhouse Gas Emissions Reduction Act of 2009*. The Act requires Maryland to
120 reduce greenhouse gas emissions 25 percent by 2020, relative to 2006 levels.
121 (Maryland is one of 10 states currently participating in the Regional Green House
122 Gas Initiative, a multi-state cap-and-trade program meant to reduce carbon
123 dioxide emissions from electricity generating plants.)
- 124 • *Electric Service Quality and Reliability Act of 2011*. The reliability performance
125 of PHI utilities in Maryland, and Pepco in particular, has been very poor. In fact,
126 Montgomery County and Prince George’s County have experienced some of the
127 worst reliability performance in the U.S. since 2006.¹ Pepco’s reliability on so-

¹ See Report of the Montgomery County Pepco Work Group. April 20, 2011. Pages 6-9.

128 called “sunny days” was so poor, and the consequences so severe, that it
129 prompted the Montgomery County Council and others to urge the MPSC to open
130 an investigation into the matter. The Commission did so, and discovered that
131 Pepco’s reliability was in the lowest quartile in the nation for five years in a row.
132 That finding led to the introduction and passage of the Electric Service Quality
133 and Reliability Act of 2011. The Act imposed monetary penalties on Maryland
134 utilities for failing to meet reliability performance standards, representing the first
135 use of performance-based utility compensation in Maryland. My testimony builds
136 on the existing legislation, recommending that it be applied more broadly to
137 incorporate additional performance metrics in the public interest, thereby
138 improving the alignment of public and merged entity interests.

139 In summary, the Maryland General Assembly has made it clear that renewable
140 generation, energy efficiency, distributed energy resources, greenhouse gas emission
141 reductions, and reliability are in the public interest. The public interests cited by the
142 Maryland General Assembly for these laws include long-term decreases in electric
143 generation emissions, a healthier environment, increased energy security, and decreased
144 reliance on and vulnerability from imported energy sources. And in addition, the US
145 Environmental Protection Agency’s proposed Clean Power Plan rule would require
146 Maryland to reduce greenhouse gas emissions by 36.5% from 2012 levels by 2030.² It is
147 likely renewable energy, energy efficiency, and distributed energy resources will all need
148 to be increased as part of a least-cost plan to comply with such a rule. The Clean Power

² Environmental Protection Agency, 79 Fed. Reg. 117, (proposed Wednesday, June 18, 2014) (to be codified at 40 C.F.R. pt. 60). Page 34895.

149 Plan rule would therefore confirm and increase the level of public interest associated with
150 the Maryland legislation cited above, as low-cost rule compliance would clearly be in the
151 public interest.

152

153 **III. SEVERAL ASPECTS OF EXELON’S BUSINESS INTERESTS CONFLICT WITH**
154 **THE PUBLIC INTEREST AS DEFINED BY THE MARYLAND GENERAL**
155 **ASSEMBLY**

156

157 **Q. WHY ARE EXELON’S BUSINESS INTERESTS RELEVANT TO THE MERGER**
158 **APPLICATION?**

159 **A.** It is estimated the merged entity would distribute electricity to 85% of Maryland’s
160 citizens.³ In instances in which Exelon’s business interests conflict with the public
161 interest, it is possible Exelon could use its control of Maryland distribution utilities to
162 prioritize business interests over the public interest. This problem is compounded by the
163 current utility compensation model, which (with one exception)⁴ would not penalize the
164 merged entity for poor performance in the public interest, nor reward the merged entity
165 for exceptional performance in the public interest. I’ll return to this topic later in my
166 testimony.

³ Seltzer, Rick. “Exelon-Pepco deal would hurt consumers and the environment, opponents say.” *Washington Business Journal*. October 2, 2014.

⁴ The joint merger application does anticipate performance-based compensation for reliability measures in compliance with existing legislation. Application of Exelon Corporation, Pepco Holdings, Inc., Potomac Electric Power Company, and Delmarva Power & Light Company (the Joint Application). August 19, 2014. Page 4.

167

168 **Q. CAN YOU BE MORE SPECIFIC ABOUT THE EXELON BUSINESS**
169 **INTERESTS YOU CONTEND CONFLICT WITH THE PUBLIC INTEREST AS**
170 **DEFINED BY THE MARYLAND GENERAL ASSEMBLY?**

171 **A.** Certainly. Exelon owns 24 generating plants in the mid-Atlantic region. The value of
172 these assets is dependent in large part on the market price and quantity of the electricity
173 each generates; market price and quantity are determined by the supply of and demand
174 for electricity in the region. As the public interests (as defined by the General Assembly)
175 of increased renewable energy, energy efficiency, and distributed energy resources will
176 directly reduce the demand for electricity from these plants, they reduce electric price and
177 quantity and therefore the profitability and value of generation assets owned by Exelon.
178 This conflict between public and merged entity interests can be successfully managed
179 through performance-based utility compensation models, but not through current utility
180 compensation models.

181

182 **Q. DO YOU HAVE ANY INFORMATION INDICATING THAT EXELON TAKES**
183 **ACTION TO PROTECT THE VALUE OF ITS GENERATION ASSETS IN**
184 **CONFLICT WITH THE PUBLIC INTEREST?**

185 **A.** It would be irresponsible for any company not to take action to protect the value of its
186 assets in the interest of its shareholders. As just one example, Exelon has actively
187 supported clean-air and carbon dioxide reduction legislation introduced in the US
188 Congress, as such legislation increases the value of the company's large fleet of nuclear-

189 fueled generation stations (which produce no particulate emissions or carbon dioxide).
190 Simultaneously, Exelon has opposed renewable generation subsidies such as the expired
191 Production Tax Credit,⁵ despite the fact that renewable generation also produces no
192 particulate emissions or carbon dioxide. This apparent contradiction can only be
193 explained by the fact that renewable generation threatens the value of owned nuclear
194 assets, while clean-air and carbon dioxide reduction legislation enhances the value of
195 these assets. Said company spokesman Paul Adams, “the company supports wind, but
196 federal policies, including the now expired wind PTC, subsidize billions of dollars in
197 inherently unreliable energy sources and severely distort energy markets, causing some
198 otherwise profitable clean generators to operate at a loss.”⁶ In referring to “clean
199 generators”, the spokesman was likely referring in part to Exelon’s extensive fleet of
200 nuclear generation plants, including 4,690 MW of capacity (by the Company’s estimate,
201 enough to power 3.6 million homes) it owns in Pennsylvania, New Jersey, and Delaware.
202 Exelon spokesman Adams has also argued that renewable energy standards should be
203 replaced with “clean energy standards,”⁷ which presumably would apply to the
204 company’s nuclear generating assets and thereby increase (or at least maintain) their
205 value.

206

⁵ Snyder, Jim and Johnsson, Julie. “Exelon Falls from Green Favor as Chief Fights Wind Aid.” *Bloomberg* April 1, 2013.

⁶ Nathans, Aaron. “Exelon opposes renewal of wind subsidy.” *The Delaware News-Journal*, August 29, 2014.

⁷ *Ibid.*

207 In addition, Exelon is reportedly lobbying the Illinois legislature to support the value of
208 nuclear generating plants there. According to an article in the Chicago Tribune describing
209 the aftermath of a published interview with Exelon CEO Chris Crane, "...that led to
210 speculation at the Illinois statehouse that the company was looking for a legislative fix to
211 prop up its nuclear plants. Insiders had said a deal to fix the state's renewable portfolio
212 standard was being held up until it was clear what kind of handout Exelon was seeking."⁸

213
214 Indeed, it can be deduced from public comments that Exelon's primary goal for the PHI
215 acquisition is to reduce earnings volatility from Exelon's generation business. In a
216 conference call for investors announcing the proposed acquisition, Chris Crane stated the
217 acquisition will "... add further sources of stable regulated cash to our portfolio"⁹ and "
218 ... increase Exelon's utility derived earnings and cash flows, providing a solid base for
219 the dividend."¹⁰ These sentiments were reinforced by perceptions of the investment
220 community, and the comments of Edward Jones equity analyst Andy Pusateri were
221 typical: "the added exposure to regulated utilities should add more stable earnings to a
222 company heavily exposed to non-regulated generation."¹¹ "Disruptive" technologies –
223 such as rooftop solar and microgrids and other clean energy distributed energy resources

⁸ Wernau, Julie. "Exelon CEO: 'We are not asking the state for a bailout.'" *The Chicago Tribune*. April 30, 2014

⁹ Morningstar. "Exelon Corp Q1 2014 Earnings Call Transcript." April 30, 2014. Accessed via Internet at <http://www.morningstar.com/earnings/PrintTranscript.aspx?id=66289361>

¹⁰ "Exelon Announces Acquisition of Pepco Holdings, Inc." Presentation. April 30, 2014. Slide 4.

¹¹ Tomich, Jeffery and Kuckro, Rod. "Exelon doubles down on regulated assets with Pepco buy." *Energy Wire*. Thursday, May 1, 2014.

224 -- are seen as a threat to the “stable earnings” that Exelon’s CEO has said is an important
225 motivation for this merger. Therefore it is logical to assume that the merged entity would
226 take actions that are consistent with preventing such “disruptive technologies” from
227 increasing in its service territory.

228
229 To summarize, significant Exelon business interests do conflict with the public interest in
230 Maryland, and the Company is likely to prioritize these business interests over the public
231 interest in the absence of performance-based compensation models.

232

233

234 **IV. THE CURRENT UTILITY COMPENSATION MODEL HAS FAILED THE PUBLIC**
235 **INTEREST AS DEFINED BY THE MARYLAND GENERAL ASSEMBLY**

236

237 **Q. WHY DO YOU BELIEVE THE CURRENT UTILITY COMPENSATION**
238 **MODEL HAS FAILED THE PUBLIC INTEREST AS DEFINED BY THE**
239 **MARYLAND GENERAL ASSEMBLY?**

240 **A.** As a general rule, a utility will not pursue a course of action that conflicts with its
241 economic self-interest. Indeed, it would be ill-advised for the managers of any
242 corporation to do so, as federal securities law requires managers to serve the interests of
243 shareholders. The current compensation model encourages utility managers to focus on
244 inputs, such as investment, rather than outcomes, such as performance in the public
245 interest. In my experience, even in cases in which a utility’s economic self-interest is not

246 threatened – as in reliability performance – a lack of management attention and focus on
247 outcomes can lead to poor performance. A performance-based compensation model
248 would both manage the conflict inherent in Exelon’s specific business interests and
249 improve the focus of the merged entity’s management team on outcomes and
250 performance in the public interest.

251

252 **Q. CAN YOU CITE ANY EXAMPLES OF HOW THE CURRENT**
253 **COMPENSATION MODEL HAS FAILED THE PUBLIC INTEREST IN**
254 **MARYLAND?**

255 A. Yes. If we examine the performance record of regulated Maryland utilities to date on
256 issues in which the public interest – such as for increased renewable energy and energy
257 efficiency – conflict with incumbent generation owners’ interests, we observe
258 performance deficiencies.

259 • *Renewable Generation.* Since the aforementioned renewable energy standard was
260 passed in Maryland, the renewable portion of electricity generated by renewable
261 means grew from less than six percent to slightly over eight percent.¹² This
262 represents 35% growth through the end of 2013, a pace that is woefully
263 insufficient to meet the standard of 20% by 2022. To meet the standard,
264 renewable energy will need to grow in Maryland by more than 300% from 2004
265 to 2022 (less than 6% to at least 20%). Half-way through the performance period,
266 only about 10% of the required renewable energy growth has been achieved.

¹² StateStat (Maryland state government website). “Are we meeting our goals?” Presented on the website’s renewable energy page at <https://data.maryland.gov/goals/renewable-energy>. Accessed 11/22/2014.

267 • *Energy Efficiency*. The MPSC’s most recent standard annual progress report for
268 the aforementioned EmPower Maryland Act suggests energy efficiency goals
269 will not be met. “Looking ahead to the remaining year of the 2012-2014
270 EmPOWER Maryland plan cycle and the initiation of a new cycle, the
271 Commission acknowledges the possibility that the currently approved programs
272 may fall short of the energy reduction goals for 2015.”¹³

273 **Q. ARE THERE OTHER EXAMPLES IN MARYLAND?**

274 **A.** Yes. The poor reliability performance of PHI utilities that resulted in the Electric Service
275 Quality and Reliability Act of 2011 is likely the most prominent example. Prior to the act,
276 PHI was not penalized for poor reliability performance. With no adverse consequences,
277 PHI reliability performance in Montgomery and Prince George’s Counties remained in
278 the bottom quartile of the nation for years as described earlier in my testimony.
279 Significantly, since passage of the Act, reliability has improved, demonstrating that when
280 there are financial consequences for failing to meet important aspects of utility service, a
281 utility will respond.

282

283 **Q. WHAT OTHER EVIDENCE INDICATES THE CURRENT UTILITY**
284 **COMPENSATION MODEL NEEDS TO BE MODIFIED?**

¹³ Public Service Commission. “The EmPOWER Maryland Energy Efficiency Act STANDARD REPORT of 2013.” April 2014. Page 36.

285 A. After Hurricane Sandy, Governor O’Malley recognized that further reforms were
286 necessary to ensure greater reliability, and established a Task Force on Grid Resiliency.
287 On the Task Force’s very first day of taking input from stakeholders, the Task Force
288 invited a presentation from the Energy Future Coalition, a nationally recognized, bi-
289 partisan, non-profit public policy initiative that seeks to speed the transition to a new
290 energy economy. The Energy Future Coalition argued, in part, “The electric utility
291 industry of the United States is facing a dramatic transformation over the coming two
292 decades. The lack of reliability and resiliency in Maryland’s utility services reflect some
293 of the challenges in that transformation, and Maryland’s response to these recent episodes
294 should be shaped by the longer-term foundational forces that will reinvent the nation’s
295 electric sector... Across the nation, utilities will contend in the next two decades with
296 destabilizing challenges to their current way of doing business from innovative smart
297 technologies, environmental requirements, new economic realities, and the constraints of
298 a fixed institutional structure Utilities’ economics and business models will change
299 with a new customer ability to respond to price signals, third-party entrants in utility
300 services, huge potential for additional cost-effective efficiency in electricity use,
301 consequent flat or declining overall power demand, and greater attention to (and perhaps
302 willingness to pay for) reliability and power quality Their regulatory and
303 institutional realities, other than an increased potential for utility mergers, are likely to
304 remain relatively stable and to constitute a constraint on the flexibility that would
305 otherwise be optimal.”¹⁴

¹⁴ Testimony of John W. Jimison, Managing Director of Energy Future Coalition, at the Electric Feedback Forum on

306

307 Importantly, the Governor’s Task Force concurred with this analysis. “The Task Force
308 concurs with the analysis offered by the Energy Future Coalition, that *this is a*
309 *transformative time in Maryland’s energy future, and that big, bold thinking is*
310 *required.*”¹⁵ To facilitate that process, the Task Force requested that the Energy Future
311 Coalition develop a pilot proposal for Utility 2.0 in Maryland. The Energy Future
312 Coalition did just that in a report entitled, “Utility 2.0: Piloting the Future For Maryland’s
313 Electric Utilities and Their Customers,” filed with this Commission on May 14, 2013.¹⁶
314 Among the report’s principal recommendations, which my participation helped to inform,
315 is that performance-based ratemaking be adopted for the outcomes that the Energy Future
316 Coalition posits are most important for ratepayers today.

317

318 **Q. HOW HAS PHI RESPONDED TO THESE DEVELOPMENTS?**

319 **A.** PHI has been receptive to the concept of performance-based ratemaking. In his
320 deposition to the Commission on November 3, 2013, PHI President and CEO Joseph M.
321 Rigby indicated Pepco was “open to the concept of new compensation models

Improving Maryland’s Electric Distribution System. August 21, 2012.

¹⁵ Office of Governor Martin O’Malley. “Weathering the Storm: Report of the Grid Resiliency Task Force.” September 24, 2012. Page 89.

¹⁶ See Councilmember Roger Berliner’s “The Energy Future Coalition’s Report and Recommendations in Response to the Request of the Governor’s Grid Resiliency Task Force” before the Public Service Commission of Maryland. May 14, 2013. Addendum to Maillog 145759: Councilmember Berliner’s “Petition to Open Investigation into Utility 2.0 – The Future of Maryland’s Grid.” March 5, 2013.

322 incorporating performance-based component.”¹⁷ However, the Exelon merger proposal
323 interrupted the progress that was being made. I suggest the proposed merger should not
324 be the basis upon which the advance of new utility compensation models is stalled;
325 rather, it should be the basis upon which the advance of new utility compensation models
326 is accelerated.

327 **Q. HAVE OTHER REGULATORS, STAKEHOLDERS, AND RESEARCHERS**
328 **RECOGNIZED DEFICIENCIES IN THE CURRENT UTILITY**
329 **COMPENSATION MODEL?**

330 **A.** Yes. Many regulators, stakeholders, and researchers have recognized deficiencies in the
331 current utility compensation model; some are even going about rectifying them. Farthest
332 along is the implementation of the RIIO utility compensation model by the UK regulator
333 Ofgem. The RIIO model (**R**evenues will be set using **I**ncentives to deliver **I**nnovation and
334 **O**utputs) was developed jointly by utilities, regulators, researchers, and stakeholders and
335 incorporates a significantly-sized performance-based compensation component. (In the
336 RIIO model, exceptionally poor performance can result in utility compensation below the
337 cost of its debt.)¹⁸ In the US, the New York State Department of Public Service
338 (NYSDPS) has initiated a docket, named “Reforming the Energy Vision” (14-M-0101) to
339 conduct “a fundamental reconsideration of our regulatory paradigms and markets,
340 examining how policy objectives are served both by clean energy programs and by the

¹⁷ Ibid, Maillog 160177.

¹⁸ Ofgem. “RIIO – new way to regulate energy networks.” Factsheet 93. April 10, 2010.
<https://www.ofgem.gov.uk/ofgem-publications/64031/re-wiringbritainfs.pdf>

341 regulation of distribution utilities.”¹⁹ Though the docket is in the early stages of
342 development, it appears a significantly-sized performance-based compensation
343 component will be part of the outcome.

344
345 The NYSDPS’s objectives are aggressive. In addition to modifying distribution utility
346 compensation, it seeks to establish an entirely new vision for electric generation and
347 distribution in the public interest. The NYSDPS coined the phrase “Distributed System
348 Platform Provider” to describe the new roles and capability sets that will be required to
349 enable the new vision.²⁰ While the Coalition for Utility Reform’s objectives in this
350 proceeding are more modest, it is hoped the performance-based compensation models
351 recommended in my testimony would encourage Maryland utilities to voluntarily (and
352 profitably) adopt the roles and capability sets the NYSDPS believes to be in the public
353 interest, and as confirmed in legislation passed by the Maryland General Assembly
354 described earlier in my testimony.

355
356 In addition to the aforementioned Energy Futures Coalition, many other respected
357 organizations and researchers have issued pronouncements for changes to the current

¹⁹ “Reforming the Energy Vision”. Staff Report and Proposal to the New York State Department of Public Service. April 24, 2014. Case 14-M-0101. Page 1.

²⁰ Ibid, Page 11.

358 utility compensation model, generally in favor of performance-based compensation in the
359 public interest.

360 • *The Environmental Defense Fund*: “It is time . . . to reward results, not spending.
361 Erasing the distinction between rewards for prudent capital investment and
362 effective operations will require a shift in deeply-rooted practices. Changing to a
363 performance-based model will take great care to establish optimal outcomes and
364 performance metrics. The outcomes must still be tied to traditional objectives of
365 adequacy and reliability of service, as well as new outcomes tied to clean energy,
366 customer engagement, system efficiency, and transparency that open the door to
367 energy service innovations from others. This requires fundamental changes in the
368 reward system.”²¹

369 • *The Rocky Mountain Institute*: “. . . there is a looming disconnect between the
370 rapidly evolving new world of distributed energy technologies and the old world
371 of electricity pricing, where relatively little has changed since the early 20th
372 century. By changing electricity pricing to more fully reflect the benefits and
373 costs of electricity services exchanged between customers and the grid, utilities
374 and regulators can unleash new waves of innovation in distributed energy
375 resource investment that will help to reduce costs while maintaining or increasing
376 system resilience and reliability.”²²

²¹ See Environmental Defense Fund. “Comments Re: Case 14-M-0101 – Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision” filed with the New York Public Service Commission. July 18, 2014.

²² Rocky Mountain Institute. “Rate Design for the Distribution Edge: Electricity Pricing for a Distributed Resource Future.” August 2014.

- 377 • *The Perfect Power Institute*: “. . . our research determined . . . the (specified)
378 improvements made must be held accountable to producing significant,
379 measurable improvements to reliability, efficiency, and the environment”²³
- 380 • *MIT Energy Initiative*: “Performance measures should include progress on any
381 policy goals imposed on distribution systems, as well as more traditional system
382 quality and cost measures If measurement is to have an impact, the results
383 should be made public, and regulators should provide explicit incentives for good
384 performance State regulators . . . should design mechanisms for risk
385 allocation and compensation to balance incentives for innovative, risky
386 investment with efficiency gains and ensure that the results . . . are shared with
387 customers”.²⁴
- 388 • *Utility of the Future Center, Arizona State University (America’s Power Plan)*:
389 “. . . What is the significance and urgency of these (specified) trends and their
390 possible negative impact on utilities? How will utilities adapt to these changes
391 under the current regulatory framework? What potential changes to regulatory
392 frameworks are warranted in response?”²⁵
- 393 • *The National Regulatory Research Institute*: “Utility personnel need clear,
394 consistent signals about performance expectations, which will ensure resolute

²³ Perfect Power Institute. “Investing in Grid Modernization: The Business Case for Empowering Consumers, Communities, and Utilities.” February, 2013. Page i.

²⁴ Massachusetts Institute of Technology. “The Electric Grid of the Future: An Interdisciplinary Study”. Page 194.

²⁵ Aggarwal, Sonia and Eddie Burgess. “New Regulatory Models.” America’s Power Plan, Energy Innovation, and Utility of the Future Center. March 2014.

395 focus on achieving performance goals and maintaining acceptable performance
396 over time.”²⁶

397

398 Finally, several other state legislators and regulators have required utilities to submit
399 plans to meet new requirements in the public interest (as described in my testimony
400 immediately below), though such proceedings have not yet considered new utility
401 compensation models. These include:

- 402 • California Assembly Bill 327, “Energy Utility Rate Reform”;
- 403 • Massachusetts Department of Public Utilities docket 12-76, “Investigation by the
404 DPU on its own Motion into Modernization of the Electric Grid”; and
- 405 • Hawaii Public Utilities Commission docket 2011-0206, “A proceeding to
406 investigate the implementation of reliability standards for HECO, Inc.”

407

408 **Q. YOU’VE MADE A STRONG CASE FOR PERFORMANCE-BASED UTILITY**
409 **COMPENSATION. IS THE MERGER APPLICATION THE BEST PLACE TO**
410 **ADDRESS THIS ISSUE, OR IS IT BETTER ADDRESSED IN A FUTURE RATE**
411 **CASE?**

412 **A.** As my testimony highlights, there are significant inherent conflicts between the merged
413 entity’s private financial and business interests and the broader public interest as has been
414 defined by the Maryland General Assembly. The Commission is required to find that the

²⁶ National Regulatory Research Institute. “Smart Grid Strategy: How Can State Commission Procedures Produce the Necessary Utility Performance? February, 2011. Page iv.

415 merger is in the public interest. In the absence of reconciling this conflict, I don't know
416 how the Commission could conclude that the merger meets the public interest test. In my
417 judgment, performance based rewards and penalties that address these core values are the
418 most effective means at the MPSC's disposal to more closely align the conflicting
419 interests.

420

421

422
423 **V. A PERFORMANCE-BASED DISTRIBUTION UTILITY COMPENSATION MODEL**
424 **WILL ALIGN THE INTERESTS OF THE MERGED ENETITY AND**
425 **MARYLAND PUBLIC AND SHOULD BE A CONDITION OF MERGER**
426 **APPROVAL**

427
428 **Q. YOUR TESTIMONY REFERENCES PERFORMANCE-BASED UTILITY**
429 **COMPENSATION MODELS MANY TIMES. PLEASE DESCRIBE A**
430 **COMPENSATION MODEL THAT WOULD ALIGN THE INTERESTS OF THE**
431 **MERGED ENTITY AND MARYLAND PUBLIC**

432 **A.** I would like to begin by describing the public interests I believe should be measured as
433 part of a performance-based compensation model. In addition to those already recognized
434 by the Maryland General Assembly, I concur with the suggestions found in the Coalition
435 for Utility Reform's petition to intervene in this docket:

- 436 • Cost Minimization
- 437 • Reliability
- 438 • Customer Satisfaction
- 439 • Carbon Reduction & Environmental Stewardship
- 440 • Distributed Energy Resources
- 441 • Customer Control
- 442 • Innovation
- 443 • Safety

444 I'll describe the public interest supported by each of these performance metrics
445 individually.

446

447 *Cost Minimization.* While cost minimization in electric distribution is clearly in the
448 public interest, today's compensation model predisposes investor-owned utilities to find
449 capital-intensive solutions to operating challenges. This bias can result in higher prices
450 (and/or sub-optimal performance) for customers, as distribution utilities are encouraged
451 to select over-engineered and/or proprietary solutions over simpler solutions and/or
452 outsourcing to qualified, non-utility service providers. I have also seen this bias, when
453 combined with other deficiencies of today's compensation model described in my
454 testimony, result in utility failure to deliver the full potential value of grid modernization
455 benefits to customers.

456

457 Today's compensation model also discourages utilities from initiating rate cases when
458 costs are falling, as rate cases transfer cost reduction benefits from shareholders (in the
459 form of higher profits) to customers (in the form of lower rates). And finally, "cost
460 minimization" could be defined to include distribution efficiency, another key
461 performance indicator today's compensation model fails to address. (Distribution
462 efficiency includes reducing grid losses and optimizing grid voltage and power factor, all
463 of which reduce customer costs.)

464

465 *Reliability*. While utility customers in Maryland affected by poor utility performance on
466 this metric can describe its impact clearly, poor reliability is associated with a broader
467 public interest impact that extends well beyond the experience of affected customers.
468 Community economic impact was a key motivation behind the Electric Reliability and
469 Service Quality Act and the Governor’s Task Force on Grid Resiliency, but its’
470 importance to the public interest is confirmed by experts. In a landmark study conducted
471 for the U.S. Department of Energy, Lawrence Berkeley National Labs found significant
472 community-wide economic impacts from electric service interruptions. Consider the
473 community-wide economic impacts the study estimated from a single service outage on a
474 summer weekday afternoon *per customer* (based on outages ranging from momentary to
475 8 hours):

- 476 • Average medium-to-large commercial or industrial customer: \$11,756-\$93,890;
- 477 • Average small commercial or industrial customer: \$439-\$4,768;
- 478 • Average residential customer: \$2.70 to \$10.70.²⁷

479 Of course longer outages entail larger economic impacts. Further, the Perfect Power
480 Institute cites the economic disadvantages to which the U.S. economy is subjected
481 through utility reliability that is substandard relative to that of other nations:²⁸

²⁷ Lawrence Berkeley National Laboratory. “Estimated value of Service Reliability or Electric Utility Customers in the United States”. June, 2009. Page xxi.

²⁸ Perfect Power Institute. “Investing in Grid Modernization: The Business Case for Empowering Consumers, Communities, and Utilities.” February, 2013. Page 19.

482

Country	System Average Interruption Duration Index (minutes/year)
Germany	23
Denmark	24
Netherlands	33
Italy	58
France	62
Austria	72
United Kingdom	90
Spain	104
United States	240

483

484 In fact, reliability is so critical to Maryland quality of life, economic productivity, and the
485 public interest, the Coalition for Utility Reform recommended a performance objective of
486 top quartile reliability performance (i.e., better than 75% of utilities) within 3 years in its
487 petition to intervene in this proceeding. Given that Exelon cites reliability improvement
488 as a post-merger public interest benefit in its Application,²⁹ I recommend the Coalition's
489 objective and timeframe be incorporated into any performance-based compensation
490 model the MPSC orders.

491

492 *Customer Satisfaction.* In my experience, the effectiveness with which utilities translate
493 new capabilities (such as those from the so-called "smart grid") into an improved
494 customer experience varies widely. Some customers will identify good service as an
495 informed and empowered telephone agent, while others will cite strong self-service

²⁹ Application of Exelon Corporation, Pepco Holdings, Inc., Potomac Electric Power Company, and Delmarva Power & Light Company (the Joint Application). August 19, 2014. Page 3.

496 options. But regardless of how individual customers define good customer service, the
497 performance variability exhibited by utilities make customer satisfaction an important
498 metric to measure. Just a few examples of how utilities are using new capabilities to
499 enhance customer satisfaction include:

- 500 • Weekly, e-mailed exception reports that alert a customer when predetermined
501 monthly bill targets are likely to be exceeded based on month-to-date usage;
- 502 • Smart phone applications that allow customers to monitor the status of an outage
503 affecting their homes or businesses;
- 504 • Usage data access that allows commercial and industrial customers the ability to
505 manage peak demand (and reduce peak demand charges) in real time;
- 506 • (Secure, private) analysis of detailed customer usage data for the purpose of
507 targeting energy efficiency and demand-response program offers;
- 508 • Analyzing detailed meter data by asset (transformer, lateral, circuit, etc.) to better
509 understand reliability performance and proactively identify potential reliability
510 issues before they arise.

511 *Carbon Reduction and Environmental Stewardship.* The General Assembly has already
512 passed legislation indicating that clean energy is in the public interest, including the
513 aforementioned legislation to promote renewable energy, energy efficiency, and
514 distributed energy resources (much of which is clean, such as PV Solar).

515 *Distributed Energy Resources.* The General Assembly has already determined that
516 distributed energy resources are to be encouraged in the public interest, citing relief of a

517 strained Maryland transmission system and a potential cure for the dearth of in-state
518 generation facilities.³⁰

519
520 *Customer Control.* As the Energy Future Coalition observed in its report to the
521 Governor’s task force, “...customers will, over time, seek to avail themselves of the latest
522 “smart” equipment to optimize and minimize their use of electricity, and will make
523 appropriate judgments on using those characteristics to achieve greater savings and
524 convenience.”³¹ The merged entity’s performance should be judged in part on the degree
525 to which its decisions and actions empower consumers to take control of their electric
526 service, and enabling the use of 3rd parties to deliver unregulated services.

527
528 *Innovation.* Innovation certainly applies to a utility’s own organization, as innovative
529 approaches will be required if performance in the public interest as described in this
530 testimony is to be optimized. In addition, there will be instances in which a utility’s
531 innovation capability will be insufficient to support the public interest, or below the level
532 that might be available from that exhibited by a competitive market. Ideally, a utility’s
533 innovation performance should be judged not only in its own right, but to the extent the
534 technologies chosen and services provided by a distribution utility enable other

³⁰ Maryland General Assembly, Department of Legislative Services. “Senate Bill 595, 2007 Session”. Fiscal and Policy note, Page 2.

³¹ Energy Future Coalition. “Utility 2.0: Piloting the Future for Maryland’s Electric Utilities and their Customers”. March 15, 2013. Page 10.

535 companies and industries to innovate and deliver services in the public interest. Care
536 should be taken to ensure services best delivered by a competitive market are not
537 reserved exclusively for the merged entity to deliver.

538 *Safety.* Electricity can maim and kill. Employee and public safety is important, and must
539 be considered while pursuing the other objectives. For example, without a safety
540 performance metric, actions taken in pursuit of cost minimization or distributed energy
541 resource objectives could adversely impact employee and public safety.

542

543 **Q. IS OTHER INFORMATION AVAILABLE TO CONFIRM THAT THESE ARE**
544 **THE TYPES OF METRICS WHICH SHOULD BE INCLUDED IN A**
545 **PERFORMANCE-BASED COMPENSATION MODEL DEVELOPED IN THE**
546 **PUBLIC INTEREST?**

547 A. Experience with utility compensation models incorporating significantly-sized,
548 performance-based components is limited. However in a presentation at a symposium
549 that was part of the aforementioned NYSDPS distribution utility reform docket, the
550 Advanced Energy Economy (AEE) described an independently-developed, performance-
551 based distribution utility compensation framework³² highly consistent with the list above.

552 The AEE's list includes:

553

- Advancement of clean energy goals;

³² Frantzis, Lisa. "Creating a 21st Century Electricity System." Advanced Energy Economy. Presentation at the Symposium on Reforming the Energy Vision, May 22, 2014. Slide 11.

- 554 • Customer engagement;
- 555 • Operational Efficiency;
- 556 • Operating Safe, Reliable, and Resilient Systems;
- 557 • Innovation.

558 The RIIO utility compensation model being implemented in the U.K. also offers a highly
559 consistent list of metrics:

- 560 • Customer Satisfaction
- 561 • Reliability and availability
- 562 • Safety
- 563 • Connection terms (universal access to services)
- 564 • Environmental impact
- 565 • Social obligations³³

566 **Q. DO YOU HAVE SUGGESTIONS AS TO DESIRABLE CHARACTERISTICS OF**
567 **A PERFORMANCE-BASED DISTRIBUTION UTILITY COMPENSATION**
568 **MODEL?**

569 **A.** Yes. My experience in the distribution utility industry, combined with best-demonstrated
570 performance measurement practices in other industries, suggest a number of desirable
571 characteristics and considerations for a performance-based compensation model that
572 would align the interests of the merged entity with the public interest in Maryland. I will

³³ Ofgem. "RIIO: A new way to regulate energy networks. Final Decision. October, 2010. Page 21.

573 describe each to assist the MPSC in its deliberations related to the Coalition for Utility
574 Reform's petition in this case.

- 575 • The size of the performance component of the compensation model must be
576 appropriate.
- 577 • The performance component of the compensation model should feature
578 symmetrical risks and rewards.
- 579 • Performance metrics should reflect broadly-held public interests.
- 580 • Performance metrics should incorporate measureable objectives, with pre-
581 established target values and timeframes.
- 582 • Performance metrics should relate to levers within the merged utility's span of
583 control.
- 584 • A performance-based compensation model should eliminate utility bias towards
585 proprietary, capital-intensive solutions
- 586 • A performance-based compensation model should create value for all customers,
587 including low-income customers.

588
589 *The size of the performance component of the compensation model must be appropriate.*

590 The compensation model must achieve a delicate balance, incorporating a performance-
591 based component large enough to impact management decisions but not so large as to
592 discourage utility investment in Maryland. To manage the risk of lenders purchasing the
593 merged entity's debt, the performance component should not be so large that a worst-case

594 performance scenario results in a return on equity that is less than the interest rate on any
595 new debt the merged entity needs to issue to make investments in Maryland's grid.
596
597 The Coalition for Utility Reform believes 50% of a utility's compensation should be
598 performance based. I concur, but not simply because 50% is a convenient figure. Utility
599 debt interest rates are based on credit ratings such as those established by companies like
600 Moody's. The most common (78%) Moody's credit rating for U.S. investor-owned
601 utilities is Baa;³⁴ between January 1, 2012, and December 1, 2014, the yield on corporate
602 bonds with a Baa rating has averaged between 4.4 and 5.6%³⁵ (effectively, 5% over the
603 time period). According to SNL Financial, the average authorized return on equity for
604 U.S. investor-owned utilities has ranged from 10.20% (2011) to 10.07% (2012) over a
605 similar time period.³⁶ Therefore, if a performance-based compensation component is to
606 be large enough to encourage strong performance (for example, the utility earns the target
607 rate of return -- about 10% currently -- for meeting all its performance metrics), but not
608 so large that it inhibits the utility's ability to borrow for grid investment (anything below
609 the rate it must pay on new debt -- about 5% currently -- for missing all its performance
610 metrics), a 50% performance component is appropriately sized (5% divided by 10%).
611

³⁴ Moody's Investors Service. "US Regulated Utilities: Regulatory Support, Low Natural Gas Prices Maintains Stability". Industry Outlook. February 6, 2013. Page 12.

³⁵ Federal Reserve Bank of St. Louis. "Moody's Seasoned Baa Corporate Bond Yield". H.15, Selected Interest Rates, January 1, 2012 through December 1, 2014. Accessed via internet on December 2, 2014 at <http://research.stlouisfed.org/fred2/series/DBAA/>.

³⁶ Moody's Investors Service. "US Regulated Utilities: Regulatory Support, Low Natural Gas Prices Maintains Stability". Industry Outlook. February 6, 2013. Page 3.

612 *The performance component of the compensation model should feature symmetrical risks*
613 *and rewards.* It seems equitable that a utility subject to performance-based penalties for
614 poor performance should also be offered opportunities for rewards for excellent
615 performance. Rewards encourage utilities to take the prudent risks sometimes required in
616 pursuit of exceptional performance. If the lower limit for worst case performance is the
617 rate the merged entity must pay on new debt, perhaps traditional methods used to
618 determine appropriate rates of return on equity could be used to establish a target rate of
619 return awarded when all performance metric objectives are met. The difference between
620 the lower limit and the target rate of return could be added to the target rate to represent
621 an upper limit on the merged entity's rate of return in the event all performance metrics
622 are exceeded. In a simplified example:

	Earned by Utility When	Rate based on recent experience
Lower ROE Limit	No performance objectives met	5% (interest rate on new debt)
Target ROE	All performance objectives met	10% (as determined using traditional regulatory practices)
Upper ROE Limit	All performance objectives exceeded	15% (symmetrical reward)

623

624 *Performance metrics should reflect broadly-held public interests.* Organizations, like
625 people, can only focus on a limited number of priorities simultaneously. Accordingly, a
626 performance-based compensation model should consist of a limited number of metrics

627 reflecting broadly held public interests. The eight metrics recommended by the Coalition
628 for Utility Reform described above are appropriate and consistent with public interest as
629 defined by the Maryland General Assembly.

630

631 *Performance metrics should incorporate measurable objectives, with pre-established*
632 *target values and timeframes.* Though this recommendation is self-explanatory, it is
633 important. A sound example is “Achieve average annual distribution voltage of 114 or
634 less by 2018 with no material increase in power quality complaints.” In addition, like the
635 metrics to include in a performance-based compensation model, the objectives, target
636 values, and timeframes used to evaluate performance on each metric are best determined
637 through a stakeholder engagement process.

638

639 *Performance metrics should relate to levers within the merged utility’s span of control.*
640 Some well-meaning regulators have established performance objectives for public
641 interests outside a utility’s ability to control. For example, the California Public Utilities
642 Commission ordered IOUs in that state to report the magnitude of total load served by
643 grid-connected distributed generation, implying that utilities could control the outcome.
644 Though interconnection standards and application processing do influence such a
645 measure, the benefit-cost ratio of distributed generation technologies and the price of grid
646 electricity to which it is compared are much greater drivers of distributed generation
647 adoption. As these determinants are beyond a distribution utility’s control, a better metric

648 might be the level of distributed generation capacity, measured as a percent of total
649 capacity, a utility commits to reliably accommodate.

650

651 *A performance-based compensation model should eliminate utility bias towards*
652 *proprietary, capital-intensive solutions.* As described above in my testimony on cost
653 minimization, today's compensation model skews utility decision-making in favor of
654 proprietary capital investment. This bias can result in higher costs and/or sub-optimal
655 performance and discourage outsourcing and/or open market solutions. Some utility
656 compensation models used in Europe have effectively neutralized this bias, making such
657 models worthy of MPSC consideration.

658

659 *A performance-based compensation model should create value for all customers,*
660 *including low-income customers.* Low-income customers can be difficult to engage in the
661 pursuit of public interests such as increased energy efficiency and distributed energy
662 resources, as these efforts often require capital and involve circumstances (multifamily
663 and rental housing) that inhibit participation. As low income customers have
664 disproportionate needs, and present largely untapped opportunities for energy efficiency
665 and distributed energy resources, it makes sense to incorporate concerted efforts on their
666 behalves as part of performance-based compensation model and metric development.

667

668 **Q. IN CONCLUSION, DO YOU HAVE ANY SUMMARY REMARKS?**

669 A. Yes. Performance-based compensation represents the MPSC's best opportunity to align
670 the interests of the merged entity's shareholders with the public interest. Performance-
671 based compensation can be thought of as a means to an end: a utility motivated to
672 perform in the interest of the public it serves, rather than a utility that is discouraged from
673 performing in the public interest by proprietary business interests and today's
674 compensation model.

675
676 As my testimony makes clear, the current compensation model – one that rewards input
677 (investment) rather than outputs (performance) – discourages distribution utilities from
678 performing in the public interest. This is particularly true in this case, in which the
679 merged entity would own significant generating assets in the region whose value is
680 jeopardized by the public interest as defined by the General Assembly (increased
681 renewable generation, energy efficiency, and distributed energy resources). The joint
682 merger application already anticipates performance-based compensation for reliability
683 measures;³⁷ it makes sense to expand the concept to other public interests.

684 The Maryland Public Service Commission has demonstrated a capability to lead
685 important regulatory policy development in the past, and I hope it can continue its track
686 record in these merger proceedings.

³⁷ Application of Exelon Corporation, Pepco Holdings, Inc., Potomac Electric Power Company, and Delmarva Power & Light Company (the Joint Application). August 19, 2014. Page 4.

EXHIBIT PJA-1

Materials Related to Paul Alvarez, Witness for the Coalition for Utility Reform

On November 19, the Joint Applicants sent Data Request 1 (hereafter “DR-1”) to the Coalition for Utility Reform (hereafter “Coalition”). On December 1, Ryan Spiegel, acting as counsel for the Coalition for Utility Reform, objected to DR-1, while agreeing to provide certain information in response to JA-I-1, JA-I-2, and JA-I-4 contained therein. As stated in the objection, the Coalition agreed to provide the testimony itself in response to JA-I-2, which is provided above. Below, find the information requested in JA-I-1 and JA-I-4 that the Coalition agreed to provide, related to the Coalition’s witness, Mr. Paul J. Alvarez.

Re: JA-I-1.

Curriculum Vitae of Mr. Paul J. Alvarez:

Paul J. Alvarez MM, NPDP

3667 Evergreen Pkwy, Ste. E, Evergreen, CO 80439 palvarez@wiredgroup.net 720.308.2407

Professional Experiences

- 2012-Present **President, Wired Group**
As the leader of this distribution utility consulting firm:
- Business development and marketing
 - Business strategy and product development
 - Team leadership and personnel development
 - Project management
- Also:
- Adjunct professor, Global Energy Management Program, University of Colorado
 - Adjunct professor, Institute for Public Utilities, Michigan State University
- 2007-2011 **Principal and Utility Practice Leader, MetaVu, Inc.**
Increased revenues and profits for this boutique consulting firm by establishing and leading the Utility and Smart Grid Practices:
- Smart grid deployment evaluation project management
 - Smart grid thought leadership (speaking, trade pub articles, trade group participation)
 - Utility/smart grid team recruiting, development, and resource management
 - Utility/smart grid business development, practice development, and marketing
- Results:
- Closed and led delivery of smart grid evaluation projects for Duke Energy, Xcel Energy
 - Conducted RPS compliance performance benchmark/workshop of 10 leading IOUs

- Grew utility practice from zero to \$2 million in revenues in 3 years
- Awarded New Product Development Professional designation by the PDMA.

2005-2007

Area Vice President. Option Care, Buffalo Grove, Illinois (acquired by Walgreens)

Increased revenues and profits in the Southwest Area for this home healthcare company:

- P&L responsibility for 8 offices with \$48 million in annual revenue and 175 employees
- Sales, sales management, and customer relations (physicians, hospitals, insurers)
- Operations management (pharmacy, nursing, distribution, billing, etc.)
- JV and Acquisition prospecting, due diligence, negotiation, and implementation

Results:

- Increased quarterly revenues 11% first year (22% growth in higher margined services)
- Increased quarterly profits 89% in first year
- Turned over underperforming General and Operations managers and sales people
- Maintained high levels of customer service and increased employee engagement
- Reduced bad debt rate 2% and maximized billed \$ per patient

2001-2004

Product Development Manager; Product Developer. Xcel Energy, Denver, CO.

Increased revenues and helped maintain customer satisfaction by developing new products and services for this utility with 500,000 commercial customers and 2.5 million consumers:

- Development process and schedule management
- Unregulated business strategy
- Cross-functional operations development and implementation for new products

Results:

- Developed and managed several new energy efficiency, demand response, and renewable energy products for commercial and residential markets, including InfoWise, Savers' Switch, Interruptible Service Option Credit, FixedBill, and WindSource.
- Implemented website enhancements including new content and self-service options
- Increased revenues \$9 million annually from new commercial & consumer products
- Promoted to Product Development Manager; staff of 7; \$1.5 million annual budget.

1998-2001

Vice President, West Area; Director, West Area. Patient Infosystems, Rochester, NY.

Improved corporate profitability for this healthcare consumer support and software outsourcer with annual revenues of \$10 million:

- Sales and sales management; channel management
- Product Development and Launch

Results:

- Developed software designed for internal operations into a successful, licensed ASP software application and associated product and service line
- Launched and managed the new software offering, including positioning, sales training and support, collateral development, promotions and pricing/licensing
- Implemented distribution channel program and negotiated key alliances with high profile clients such as PCS Health Systems and Rx America
- Generated annual revenue increases of \$2.5 million
- Promoted from sales to sales management.

1994-1998 **Finance Director; Market Development Manager. Searle Pharmaceuticals, Skokie, IL.**
Increased market share for this pharmaceutical manufacturer (now Pfizer) with \$1 billion in annual revenues. Also led the finance and marketing functions for a JV with **Health Decisions, Inc. in Golden, CO**, a healthcare consumer support and software provider:

- Target market strategy, positioning, branding, advertising, business development
- Product management, including value-added service development, implementation
- Financial analysis, reporting, and control implementation
- Operational process assessment and improvement

Results (Searle):

- Negotiated exclusive distribution rights, debt, and equity investments in various service and software suppliers for private labeled value added services
- Implemented value added services for various product lines, including cardiovascular, GI, pain/inflammation, and other markets
- Increased product share from 3.5% to 5% (\$8 M revenue growth) in target market

Results (Health Decisions JV)

- Developed and Launched internal operations software into a successful, licensed WAN application with \$500,000 in year 1 revenues
- Successfully shifted corporate market position, perception for new delivery model
- Sales efforts resulted in \$1 million in annual revenues to high-profile clients including Microsoft, Great West/One Health Plan, and Ceridian.
- Led service delivery modifications, reducing operating costs \$1 million annually

1992-1994 **Marketing Director. Option Care, Buffalo Grove, IL.**

Improved corporate and franchisee profitability while minimizing federal antitrust risk:

- Target Market strategy, positioning, branding, and advertising
- Product and Market Management
- Customer Service and Experience Management

Results:

- Negotiated innovative agreements with franchise network that fostered competition yet presented single set of rates to national customers
- Established and managed a customer service call center and contact application to improve contract profitability tracking, contract administration, and direct marketing
- Launched target market identity and position through sales collateral, communication planning and execution, promotions, and events
- Improved share from 5% to 7% in two years (\$11.5 M revenue growth)
- Simultaneously improved target market profitability from 15% to 30%.

1987-1992 **District Mgr; Area Finance Mgr; Sr Financial Analyst. Caremark, Lincolnshire, IL.**

Improved financial performance in a series of financial, sales support, and sales roles for subsidiary of Baxter International with \$600 Million in annual sales

- 1986-1987 **Accounting Projects Manager. Addison/Wesley Publishing, Chicago, IL.**
Corporate budgeting/forecasting and accounting automation projects
Economic modeling to evaluate operations options and acquisition candidates.
- 1984-1986 **Financial Analyst; Contract Analyst. Motorola Communication, Schaumburg, IL.**
Arranged financing for equipment purchases; A/R ledger maintenance
Promoted to Contract Analyst for cellular telephone and service business.

Education

Master of Management, 1991, Kellogg School of Management, Northwestern University. Concentrations: Accounting, Finance, Information Systems, and International Business.

Bachelor's Degree in Business Administration, 1984, Kelley School of Business, Indiana University.
Concentrations: Marketing and Finance.

Re: JA-I-4

In two occasions, Mr. Alvarez was a member of a team whose evaluation report was used in a proceeding. In both occasions, Mr. Alvarez's personal direct testimony was not used.

1. Colorado PUC 11A-1001E: IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF THE SMARTGRIDCITY COST RECOVERY
2. Ohio PUC 10-2326-GE-RDR: IN THE MATTER OF THE APPLICATION OF DUKE ENERGY OHIO, INC. TO ADJUST RIDER DR-IM AND RIDER AU FOR 2010 SMART GRID COSTS AND MID-DEPLOYMENT REVIEW

CERTIFICATE OF SERVICE

I hereby certify that on this 8th day of December, 2014, a copy of the foregoing Direct Testimony of Paul J. Alvarez on behalf of the Coalition for Utility Reform was served electronically and mailed first-class, postage prepaid, on all parties on the Service List in Case 9361:

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