

**STATE OF NEW JERSEY  
OFFICE OF ADMINISTRATIVE LAW  
BEFORE THE HONORABLE JACOB S. GERTSMAN**

<b>IN THE MATTER OF THE PETITION</b>	)	
<b>OF ATLANTIC CITY ELECTRIC</b>	)	
<b>COMPANY FOR APPROVAL OF</b>	)	
<b>AMENDMENTS TO ITS TARIFF TO</b>	)	
<b>PROVIDE FOR AN INCREASE IN</b>	)	<b>BPU DOCKET No. ER17030308</b>
<b>RATES AND CHARGES FOR</b>	)	
<b>ELECTRIC SERVICE PURSUANT TO</b>	)	<b>OAL DOCKET No. PUC 04989-17</b>
<b><u>N.J.S.A. 48:2-21</u> AND <u>N.J.S.A. 48:2-21.1</u></b>	)	
<b>AND FOR OTHER APPROPRIATE</b>	)	
<b>RELIEF (2017)</b>	)	
	)	

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**DIRECT TESTIMONY OF SUSAN BALDWIN  
ON BEHALF OF THE  
DIVISION OF RATE COUNSEL**

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1 **I. INTRODUCTION**

2 ***Qualifications***

3 **Q: Please state your name, position, and business address.**

4 A: My name is Susan M. Baldwin. My business address is 13 Church Hill Street,  
5 Watertown, Massachusetts, 02472. Since 1984, I have been specializing in the  
6 economics, regulation, and public policy of utilities, with a long-standing focus on  
7 telecommunications and with a more recent focus on consumer issues in electric and gas  
8 markets. Since 2001, I have been consulting to public sector agencies and consumer  
9 advocates as an independent consultant.

10 **Q: Please summarize your educational background and professional experience.**

11 A: I have prepared a Statement of Qualifications, which is included as Attachment A.

12 **Q: Have you testified previously before the New Jersey Board of Public Utilities**  
13 **(“Board”)?**

14 A: Yes, as Attachment A shows, I have testified many times before the Board, primarily on  
15 behalf of the Division of Rate Counsel (“Rate Counsel”).

16 **Q: Have you analyzed customer issues in electric and gas markets previously?**

17 A: Yes. In the past I analyzed customer service issues on behalf of Rate Counsel in Docket  
18 No. GR15111304 (New Jersey Natural Gas), Docket No. ER16040383 (Jersey Central  
19 Power & Light Company), Docket No. ER16030252 (Atlantic City Electric Company),  
20 and Docket No. GR16090826I (Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas). I  
21 am also currently assisting Rate Counsel in Docket No. GR17010071 (South Jersey Gas  
22 Company) with customer service issues.

23  
24 In 2014, I submitted testimony on behalf of the Connecticut Office of Consumer Counsel

1 regarding suppliers' rates and customer complaints in the electric retail supplier market,  
2 and, in 2015, I provided technical assistance to the Massachusetts Office of the Attorney  
3 General regarding the development of consumer protection measures in the retail electric  
4 supplier market. As Attachment A shows, between 1978 and 1983, I analyzed energy  
5 policy for, among others, several government agencies in New England.  
6

### 7 **Assignment**

8 **Q: On whose behalf is this testimony being submitted?**

9 A: This testimony, which concerns customer service matters relating to Atlantic City  
10 Electric Company ("ACE" or "Company"), is being submitted on behalf of Rate Counsel.  
11

### 12 **Summary of Testimony**

13 **Q: Please summarize your findings.**

14 A: The Board has issued directives to the Company to improve its customer service in three  
15 separate Orders, each of which I discuss briefly in my testimony.<sup>1</sup> Despite these  
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<sup>1</sup> *Petition of ACE, Connectiv Communications, Inc. and New RC, Inc. for Approval under N.J.S.A. 48:2-51.1 and N.J.S.A. 48:3-10 of a Change in Ownership and Control*, BPU Docket No. EM01050308, BPU Order of Approval, June 19, 2002 (PHI acquisition of all common stock of Connectiv, the corporate parent that owned all the common stock of ACE), 2002 N.J. PUC LEXIS 291, 219 P.U.R. 4th 235 ("2002 Connectiv-Pepco Merger Order"); *I/M/O the Petition of ACE for Approval of Amendments to its Tariff to Provide for an Increase in Rates and Charges for Electric Service pursuant to N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1 and for other Appropriate Relief and I/M/O an Audit of the Affiliated Transactions between ACE and Pepco and Management Audit of ACE*, ("2009 ACE Base Rate Case Order"), BPU Docket Nos. ER09080664 and EA07100794, Phase 2 Order Approving Stipulation (May 16, 2011) ("ACE Rate Case Order, Phase 2"); *I/M/O the Merger of Exelon Corp. and Pepco Holdings, Inc.*, BPU Docket No. EM14060581, Order Approving Stipulation of Settlement, March 16, 2015 ("2015

1 unambiguous directives, and despite ACE's agreement to implement them, the  
2 Company's customer service, as measured by several important metrics, has been  
3 deteriorating. Most importantly, the Company admits that its customers are having a  
4 hard time paying their bills,<sup>2</sup> and the vast majority (an increasing number) of customer  
5 complaints concern deferred payment arrangements ("DPAs") and disconnections.<sup>3</sup>

6 From reviewing the data provided by the Company, I conclude the following:

- 7 • Customer complaints increased 33% between 2012 and 2016, and are now over 1,000  
8 complaints higher than the maximum of 1,500 per year set by the Board.<sup>4</sup> During this  
9 same time period, customer satisfaction with respect to interactions with the call  
10 center declined and the number of missed service appointments increased.<sup>5</sup>
- 11 • The number of delinquent DPAs more than doubled from approximately 33,000 in  
12 2012 to approximately 78,000 in 2016 such that, in 2016, the number of defaulted  
13 DPAs was almost two-thirds the number of newly established DPAs;<sup>6</sup>
- 14 • Customers with payment difficulties today must pay on average \$16 per month more  
15 than they did four years ago, on average \$90 per month under DPAs, approximately

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Exelon-Pepco Merger Order").

<sup>2</sup> Response to RCR-CI-142.

<sup>3</sup> Response to RCR-CI-1, Attachment 1.

<sup>4</sup> Response to RCR-CI-1, Attachment 1.

<sup>5</sup> See Table 1, below.

<sup>6</sup> See Table 2, below.

1           22% more than they paid in 2012;<sup>7</sup> and

- 2           • Participation by the Company’s customers in the three major low-income assistance  
3           programs has been steadily declining.<sup>8</sup>

4           The Company’s performance on each of these metrics is not consistent with ACE’s  
5           commitments to the Board.

6

7           Moreover, the Company’s commitment to outreach for low-income programs appears  
8           sporadic and limited. In its June 7, 2016 “Plan to Implement its Root Cause Analysis,”  
9           ACE acknowledges that the Board’s 2015 Exelon-Pepco Merger Order requires ACE to  
10          institute measures and devote additional resources to comply with the Board’s directive  
11          to have no more than 1,500 customer complaints to the Board per year.<sup>9</sup>

12          The Company’s customer service efforts that I discuss in more detail in my testimony  
13          demonstrate that the Company’s attempts to improve its customer service are inadequate.  
14          I also have concluded that the Company’s failure to improve certain aspects of its  
15          customer service has exacerbated problems for customers in their other dealings with the  
16          Company, leading to yet more customer dissatisfaction.<sup>10</sup>

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<sup>7</sup> See Table 2, below.

<sup>8</sup> See Table 3, below.

<sup>9</sup> Response to CI-6, Attachment 3, p. 10 of 129.

<sup>10</sup> For example, the Company’s inadequate performance with respect to the administration of its low-income programs increases the likelihood that low-income customers will never enroll in those programs and will end up in arrears on their billing and have to enter into a deferred

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2 **II. CUSTOMER SERVICE**

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**Q: Please provide a summary of the major elements of the three Board Orders that you mention above regarding customer service.**

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A: During the past fifteen years, the Board has issued three different orders (in 2002, in 2011, and then again in 2015) that direct the Company to improve its customer service:<sup>11</sup>

7

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- In 2002, the Board Order approving the Connectiv/Pepco merger stipulation, among other things, established an annual target for ACE of no more than 1,500 customer complaints per year to the Board.<sup>12</sup>

9

10

11

- In 2011, in response to ACE’s poor customer service, the Board approved a base rate case Phase II stipulation for ACE to implement a five-year “Customer Service Improvement Plan” (“CSIP”)<sup>13</sup> to address various areas of concern.<sup>14</sup>

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payment arrangement (another area in which the Company’s performance has been inadequate).

<sup>11</sup> My testimony does not address the storm communications aspect of ACE’s customer service. See *I/M/O the Board’s Review of New Jersey’s Utilities’ Response to Hurricane Irene*, Docket No. EO11090543, Order Accepting Staff’s Report and Requiring Electric Utilities to Implement Recommendations, Dec. 14, 2011; *I/M/O the Board’s Review of the Utilities’ Response to Hurricane Irene*, Docket No. EO11090543, Order Accepting Consultant’s Report and Additional Staff Recommendations and Requiring Electric Utilities to Implement Recommendations, Jan. 23, 2013; *I/M/O the Board’s Review of the Utilities’ Response to Hurricane Sandy*, Order Requiring Electric Utilities to Implement Recommendations, Docket No. EO12111050, May 29, 2013; *I/M/O the June 23, 2015 Bow Echo Weather Event: Review of the Response and Restoration of Electric Utility Outages*, Docket No EO15080984, Order Accepting Staff’s Report Requiring Electric Utilities to Implement Recommendations, September 11, 2015.

<sup>12</sup> *2002 Connectiv-Pepco Merger Order*, (see page \*99 to \*100). See also *id.*, pages \*97 to \*111 regarding other Board directives about safe and adequate service.

<sup>13</sup> *ACE Rate Case Order, Phase 2*. See especially March 2011 Customer Service Improvement

1           The Board ordered ACE to improve each of these areas of customer service. In  
2           that Order, the Board also renewed the limit of 1,500 customer complaints to the  
3           Board per year.<sup>15</sup>

- 4           • In 2015, as an integral part of its approval of the Exelon/Pepco merger, the Board  
5           ordered ACE to renew and improve the CSIP, requiring ACE to “institute  
6           measures and devote additional resources” so that ACE could meet the Board’s  
7           directive to have no more than 1,500 customer complaints per year to the Board  
8           by its customers.<sup>16</sup> The Board also directed ACE to “maintain, enhance and  
9           promote programs that provide assistance to low-income customers,” and to  
10          review its policies and processes for establishing DPAs.<sup>17</sup>

11   **Q:    In those three Orders, the Board directed the Company to show improvement in**  
12    **certain areas of customer service. Did the Company show improvement?**

13    A:    No. As Table 1 below shows, the Company’s own data amply demonstrates that, of

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Plan, Exhibit B to the April 19, 2011 Stipulation of Settlement, included with the May 16, 2011 Phase 2 Board Order (“CSIP, March 2011”). See also Company responses to RCR-CI-6, Attachments 1 through 4 and RCR-CI-149, Attachment 1, which include CSIPs submitted by ACE since March 2011.

<sup>14</sup> *ACE Rate Case Order, Phase 2*, at 3. The Board also directed the Company to improve its customer service in four additional areas: deferred payment arrangements, disconnection for nonpayment, service appointments and its winter termination program. *Id.*, at 3-5.

<sup>15</sup> *Id.*, at 3.

<sup>16</sup> *I/M/O the Merger of Exelon Corp. and Pepco Holdings, Inc.* (see page 13, stating that in 2016, “ACE will institute measures and devote additional resources to comply with the Board’s directive to have ‘no more than 1,500 customer complaints per year reported to the Board by its customers’”).

<sup>17</sup> *Id.*, at 14.

1           seventeen metrics concerning the main customer service areas where the Board directed  
2           ACE to show improvement, twelve did not show improvement. These areas are key to  
3           customer complaints since these are points where the customer interacts directly with  
4           ACE and affect the customer complaint level.

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**Table 1**  
**ACE’s Customer Service Has Deteriorated in Many Important Aspects**

Customer Service	Metric	2012	2016	Change since 2012	
<b>Complaints to the Board</b> <sup>18</sup>	Benchmark: 1,500/year since 2002	1,908	2,540	Worse	33% decline in service
<b>Participation in Low-Income Programs</b> <sup>19</sup>	USF	30,843	25,993	Worse	16% decline
	Lifeline	14,273	13,424	Worse	6% decline
	LIHEAP	30,623	28,055	Worse	8% decline
<b>Deferred Payment Arrangements</b> <sup>20</sup>	New Established DPAs	51,900	125,822	Better	142% increase
	Average Monthly Payment	\$74.00	\$90.00	Worse	22% increase
	Amount Subject to DPA	\$684.00	\$1,297.00	Worse	90% increase
	Number of Defaults	32,856	78,065	Worse	Increase of 45,209
	Number of Successes	2,449	15,389	Better	Increase of 12,940
<b>Calls to Call Center</b> <sup>21</sup>	Overall satisfaction with call center	84%	76%	Worse	decline of 8 points
	Satisfaction with IVR/VRU	87%	58%	Worse	decline of 29 points
	Satisfaction with customer service representative	84%	82%	Worse	decline of 2 points
	Percent of calls answered within 30 seconds (as measured by “TSF 30”)	89.8%	91.7%	Better	improvement of 1.8 points
	Total percent abandoned	5.0%	1.5%	Better	improvement of 1.5 points
<b>Service Appointments and Service Restoration</b> <sup>22</sup>	Missed Service Appointments	144	284	Worse	97% decline in service
	# of SLG Credits for missed appointments	103	192	Worse	86% decline in service
	Failure to restore service (credit given)	88	81	Better	6% improvement

<sup>18</sup> 2002 *Connectiv-Pepco Merger Order*, (see page \*99 to \*100); 2009 *ACE Rate Case Order Phase 2*, at 10; and 2015 *Exelon-Pepco Merger Order*, at 13.

<sup>19</sup> 2015 *Exelon-Pepco Merger Order*, at 14.

<sup>20</sup> 2015 *Exelon-Pepco Merger Order*, at 14.

<sup>21</sup> 2015 *Exelon-Pepco Merger Order*, at 13.

<sup>22</sup> *ACE Rate Case Order, Phase 2*, at 4-5.

1  
2 **Q: Recognizing that the Board’s three Orders include many directives relating to the**  
3 **Company’s customer service, do you have any observations?**

4 A: Yes. As shown on Table 1, although customer service improved relative to a few of the  
5 seventeen metrics that I analyzed, it deteriorated significantly relative to areas of the  
6 Company’s customer service that have led to the vast majority of customer complaints.  
7 In fact, even if the Board had received zero customer complaints in the areas where ACE  
8 improved, the Company would still have exceeded its commitment of no more than 1,500  
9 customer complaints per year. While the number of criteria with deteriorating  
10 performance is troubling, I focus on just a few areas of the Company’s performance that  
11 cause the vast majority of customer complaints. These involve practices that make it  
12 more likely that customers will be exposed to termination because of the Company’s  
13 inadequate administration of its low-income program and inadequate support for  
14 customers who require bill payment arrangements.

15 **Q: Please describe your summary of ACE’s performance in these areas.**

16 A: Table 1 summarizes my comparison of ACE’s performance in 2016, based on seventeen  
17 customer service metrics relative to its performance in 2012, which was a year after the  
18 CSIP reporting and the commitment to improve began.<sup>23</sup> The Board Order directed ACE  
19 to improve on each of these criteria. Performance fell with respect to key aspects of

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<sup>23</sup> Footnotes 24 through 31 provide the sources for the numbers shown in Table 1.

1 customer service such as complaint levels,<sup>24</sup> enrollment in low-income assistance  
2 programs,<sup>25</sup> total number of defaults on payment arrangements,<sup>26</sup> satisfaction with calls  
3 to the call centers<sup>27</sup> and service appointments missed,<sup>28</sup> and performance increased  
4 relative to a few metrics such as the speed of answer by call centers,<sup>29</sup> call abandonment  
5 rate<sup>30</sup> and restoration of service.<sup>31</sup>

6 **Q: What does your analysis of customer complaints show?**

7 A: First, viewed at an aggregate level, the Company has failed abysmally to meet the long-  
8 established benchmark of 1,500 complaints per year and, instead, as measured by this  
9 metric its performance has deteriorated significantly despite three separate Board  
10 directives (as Table 1 shows, complaints increased by a third from 1,908 in 2012 to 2,540  
11 in 2016). Moreover, as Figure 1 below shows, the total number of complaints relating to  
12 the “top two” categories – payment arrangements and disconnections – increased from  
13 1,280 in 2012 to 1,504 in 2016. Figure 1 below shows that complaints in all categories  
14 relating to credit and billing increased significantly between 2012 and 2016. As I discuss

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<sup>24</sup> Response to RCR-CI-1, Attachment 1.

<sup>25</sup> Response to RCR-CI-55.

<sup>26</sup> Response to RCR-CI-6, Attachment 4 (3/10/17 CSIP), pp. 19-20.

<sup>27</sup> Response to RCR-CI-6, Attachment 2 (8/30/12 CSIP), p. 14; Attachment 3 (2/13/13 CSIP), p. 120; Attachment 4 (3/10//17 CSIP), p. 14. No single CSIP report provided comprehensive call center data for 2012 and so Table 1 includes data from the 2/13/13 CSIP and the 8/30/12 CSIP.

<sup>28</sup> Response to RCR-CI-110. The Company states that the higher number of missed appointments is due to the increase in the volume of appointments. Response to RCR-CI-27.

<sup>29</sup> Response to RCR-CI-21, Attachment 1.

<sup>30</sup> Response to RCR-CI-7.

<sup>31</sup> Response to RCR-CI-24.

1 below, the high and increasing numbers of customer complaints in these categories are a  
2 direct reflection of the Company's inadequate efforts to expand outreach and enrollment  
3 for its low-income programs and provide customers with reasonable DPAs.

4 **Q: What is the benchmark for assessing the number of complaints about the Company**  
5 **that customers report to the Board?**

6 A: As stated earlier, the Board set an annual benchmark of 1,500 customer complaints to the  
7 Board in 2002 (and reconfirmed this benchmark in two subsequent Orders).<sup>32</sup> Since at  
8 least 2009, ACE has never met the benchmark,<sup>33</sup> and despite a directive to address  
9 customer service deficiencies, complaints have increased. In 2016, the Board received  
10 2,540 complaints regarding ACE; this number is up 33% from the baseline at the start of  
11 the CSIP in 2012 and more than 1,000 above the Company's maximum.<sup>34</sup> Clearly the  
12 Company has yet to address customers' concerns.

13 **Q: Are you concerned that ACE is unable to meet the benchmark of 1,500 customer**  
14 **complaints per year?**

15 A: Yes. To be clear, ACE made the 1,500 or lower commitment in a stipulation that it  
16 entered into as recently as 2015. It is unclear to me why ACE is unable to meet

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<sup>32</sup> 2002 *Connectiv-Pepco Merger Order*, (see page \*99 to \*100); 2009 *ACE Rate Case Order Phase 2*, at 10; and 2015 *Exelon-Pepco Merger Order*, at 13.

<sup>33</sup> Responses to RCR-CI-6, Attachments 1 through 4, and CI-149, Attachment 1. For example, the Board received 2,000 complaints about ACE in 2009. Response to RCR-CI-6, Attachment 1, p. 5 of 41. The lowest number was 1,908 complaints in 2012. Response to RCR-CI-6, Attachment 3, p. 117 of 129.

<sup>34</sup> Response to RCR-CI-1, Attachment 1.

1 commitments that were entered into after the recent decline of the economy in ACE's  
2 territory. Clearly, as recently as 2015, the Company felt it could meet this benchmark.

3 **Q: Can you discuss why you believe the Company cannot meet the 1,500 benchmark?**

4 A: Yes. Although several elements of ACE's customer service performance are troubling,  
5 two separate areas seem to be driving most of the complaints to the Board: DPAs and  
6 disconnections for non-payment. If these two areas are addressed properly, it should go a  
7 long way toward helping the Company reach the 1,500 Board complaint mark since the  
8 complaints for those two areas alone totaled 1,604 in 2016.

9 **Q: Are these complaint categories interrelated?**

10 A: Most certainly, and they show systemic problems in how ACE deals with its customer  
11 base, including customers facing economic distress. Offering reasonable terms for DPAs,  
12 and making sure that all eligible customers are given adequate support for enrolling in  
13 low-income programs are ways ACE may be able to decrease customer complaints to the  
14 Board, as mandated in several Board Orders.

15 **Q: Have you depicted graphically the quantities of complaints in the six billing and  
16 credit categories that the Company uses for tracking?**

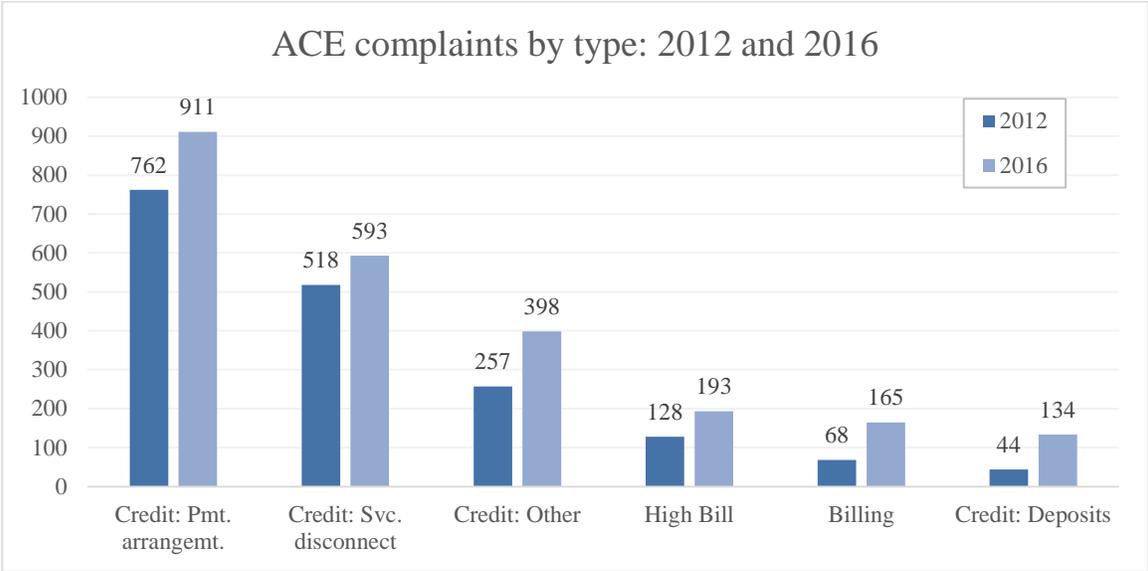
17 A: Yes. Figure 1, which compares complaint quantities between 2012 and 2016 for the  
18 areas of customer service that are associated with the majority of customers' complaints  
19 to the Board (and omitting the categories that generate a relatively minor portion of  
20 customer complaints), shows that total complaints about credit and billing increased by

1 35% between 2012 and 2016.<sup>35</sup>

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**Figure 1**<sup>36</sup>



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7 ***Deferred Payment Arrangements (“DPAs”)***

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9 **Q: What is the significance of DPAs to customers?**

10 A: When customers owe significant sums of money to the Company, DPAs allow them to  
11 spread the amount due over a period of time in monthly installments, which, in turn,  
12 increases the chance that these customers will make their payments and avoid

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<sup>35</sup> Adding the complaints in the six categories relating to billing and credit issues during 2016 shown in Figure 1 yields a subtotal of 2,394 complaints, or 617 more than the 1,777 complaints in these categories in 2012. See RCR-CI-1, Attachment 1.

<sup>36</sup> Response to RCR-CI-1, Attachment 1.

1 disconnection.

2 **Q: Did you analyze trends in customers' DPAs?**

3 A: Yes. As Table 2, below, shows, the number of defaulted DPAs *doubled* between 2012  
4 and 2016 and yet during the same time period, when customers clearly have been having  
5 a hard time paying their bills,<sup>37</sup> the average monthly installment that customers must pay  
6 *increased* by 22%.<sup>38</sup> Additionally, the average amount in arrears made subject to a DPA  
7 increased by \$613 during that same time period.

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<sup>37</sup> Response to RCR-CI-142.

<sup>38</sup> Put differently, precisely at a time of *increasing* defaults (from approximately 33,000 in 2012 to approximately 78,000 in 2016) and during a challenging economy, the Company *raised the monthly installment by a fifth*.

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**Table 2**  
**Deferred Payment Arrangements<sup>39</sup>**

	2012	2016	Change from 2012 to 2016	
			Absolute	Percent
New Established DPAs	51,900	125,822	73,922	142%
Average Down Payment	\$225	\$187	-\$38	-17%
Average Term (months)	10	12	2	20%
Average amount of arrears made subject to DPA	\$684	\$1,297	\$613	90%
Average monthly installments	\$74	\$90	\$16	22%
Number of defaulted DPAs	32,856	78,065	45,209	138%
Number of completed (successful) DPAs	2,449	15,389	12,940	528%
Success rate	5%	12%		

**Q: What else do you conclude based on the information ACE provided about DPAs?**

**A:** Table 2, above, shows that customers’ average down payment decreased by \$38 between 2012 and 2016. Decreasing the initial down payment may have allowed more customers to defray arrearages by entering into DPAs to spread out their payments. Increasing the payment each month, however, may have the opposite effect: increasing the monthly payment may make the payment unaffordable or unsustainable and increase the

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<sup>39</sup> Response to RCR-CI-6, Attachment 4, pages 19-20. I computed the success rate for 2012 by dividing the number of completed DPAs by the number of newly established DPAs. This calculation is consistent with the implied methodology used by the Company to derive the success rate for 2016 that it provides in its response to RCR-CI-118 (the success rate indicated by the Company for 2016 similarly corresponds with the result derived by dividing the number of completed DPAs by the number of newly established DPAs).

1 likelihood of defaulted DPAs. It is therefore not surprising that the vast majority of  
2 customers are unable to successfully complete their DPAs. The persistently high level of  
3 defaults shows that there is substantial room for improvement by the Company relative to  
4 DPAs. As a related matter, those customers who try to catch up on overdue bills through  
5 a monthly installment plan also overlap with those customers who are eligible to  
6 participate in low-income energy efficiency programs, an aspect of the Company's  
7 customer service that I discuss later in my testimony.

8 **Q: Please recap your findings on DPAs.**

9 A: The doubling of the number of defaults from approximately 33,000 in 2012 to  
10 approximately 78,000 last year combined with the steeply declining participation in low-  
11 income programs (see discussion later in my testimony) shows that the Company is not  
12 complying with the directive in several Board Orders including the 2015 Exelon-Pepco  
13 Merger Board Order to improve its DPA policies and practices. ACE should be taking  
14 immediate steps to comply with that Board Order by improving vastly the success of its  
15 DPAs and should work with its customers, employees, and community organizations to  
16 achieve that objective. Improving the DPA rate should not be some tangential part-time  
17 effort of the Company, but rather should be front and center as a key focus of customer  
18 service at all levels of the Company's operations.

19  
20 Ultimately it is the Company's responsibility to take ownership of this serious issue, to  
21 communicate the importance of DPAs to all of its employees and vendors who work on  
22 behalf of the Company, and to provide the resources and options necessary to help

1 customers pay their bills and thereby minimize the number of defaulted DPAs. Also,  
2 high DPA defaults (78,065 during 2016)<sup>40</sup> lead to expenses that all of ACE's customers  
3 must pay through ACE's rates, which include the Social Benefit Charge.<sup>41</sup> Therefore,  
4 progress in reducing defaults benefits all customers.

5 **Q: Hasn't the Board previously addressed ACE's DPA policies?**

6 A: Yes. In its *2015 Exelon-Pepco Merger Order*, the Board directed ACE to "review its  
7 policies and processes for establishing deferred payment arrangements" and to "provide  
8 reasonable and accommodating policies to negotiate terms with customers on a case-by-  
9 case basis, permitting extended payment periods, and reducing initial down payment  
10 requirements."<sup>42</sup> Based on the continued increase in customers' complaints about  
11 payment issues, the steep increase in defaulted DPAs, and the continuing importance of  
12 DPAs to the Company's payment-challenged customers, the measures that the Company  
13 has taken thus far are not sufficient. ACE previously conducted a Root Cause Analysis,  
14 which also found that payment and disconnection issues, including DPAs, were the cause  
15 of most customer complaints to the Board.<sup>43</sup> It is my understanding that the periodic and  
16 statutorily required management audit of ACE may be started shortly. I recommend that  
17 Board Staff include an analysis of ACE's DPA statistics and policies (as well as  
18 disconnection statistics) in that Management Audit to identify the causes of this poor

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<sup>40</sup> See Table 2, above.

<sup>41</sup> See N.J.S.A. 48:3-60.

<sup>42</sup> *2015 Exelon-Pepco Merger Order*, at 14.

<sup>43</sup> ACE Sept. 7, 2016 Root Cause Analysis report, Response to CI-6, Attachment 4, pp. 48-64.

1 performance and to ensure that the Company makes a truly concerted effort to improve  
2 customers' ability to complete their DPAs successfully.<sup>44</sup>

3 ***Participation in low-income programs has been declining.***

4  
5 **Q: Did you examine participation by ACE customers in low-income assistance  
6 programs, and if so, why?**

7 A: Yes because I am concerned that the Company's failure to stem the steeply declining  
8 enrollment in low-income assistance program makes it more likely that eligible but  
9 unenrolled customers will fall behind on their payments, requiring DPAs, and eventually  
10 being exposed to disconnection – the very problems reported in the increasing customer  
11 complaints. More than 60% of ACE's customer complaints concern payment  
12 arrangements and disconnections,<sup>45</sup> typically resulting from a failure of payment. Low-  
13 income assistance programs help cash-strapped customers pay their utility bills. It is  
14 critically important that the Company undertake comprehensive efforts to ensure that  
15 customers who are eligible to participate in these programs do so. Eligible customers  
16 must be educated about these programs in their native language and receive assistance  
17 from the Company in program enrollment. This aspect of the Company's customer  
18 service is essential because:

- 19
- As Table 3 below, shows, participation in low-income programs has declined  
20 significantly since 2012 (for example, by 16% from 30,843 USF participants in

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<sup>44</sup> See N.J.S.A. 48:2-16.4.

<sup>45</sup> See Table 1 and Figure 1.

1 2012 to 25,993 USF participants in 2016);

- 2 • During 2016, for every DPA that was completed successfully, there were five
- 3 defaulted DPAs (see Table 1, above); and
- 4 • Complaints about DPAs, disconnections and other billing and credit issues are
- 5 high and increasing (see Figure 1, above).

6

7 The Company’s outreach efforts are clearly insufficient and cannot be explained away by

8 short-term events. The Company posits, without adequate explanation, that because USF

9 program eligibility requirement relates usage to income, a milder winter (resulting in

10 lower usage) “may have contributed to the decrease” in the number of customers eligible

11 to receive energy assistance from the Universal Service Fund.<sup>46</sup> This speculative

12 response, based on a single milder winter, does not explain the four-year trend, shown in

13 Table 3, below, of steadily declining enrollment of ACE customers in the USF, Lifeline

14 and LIHEAP energy assistance programs, resulting in an overall decline in customers

15 being helped with these forms of assistance.<sup>47</sup> Rather, responsibility for this downward

16 trend rests squarely with the Company and must be addressed as part of the Company’s

17 efforts to reverse the increasing complaints related to customers’ difficulties with

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<sup>46</sup> Response to RCR-CI-149, Attachment 1, p. 11.

<sup>47</sup> The USF participation levels for the years 2012 through 2017 have been 30,843 (2012); 29,242 (2013); 26,625 (2014); 25,758 (2015); 25,993 (2016); and 23,957 (2017), meaning that participation levels decreased each year (except in 2016, when the level increased by less than one percent). Response to RCR-CI-55, Attachment 1. The response provided by ACE does not convey information about overlapping participation by the same customers among different assistance programs and therefore one cannot readily estimate the total number of ACE customers receiving financial assistance from one or more programs. See id.

1 successfully completing their DPAs and the resulting payment-related service  
 2 disconnections.

3 **Table 3**

4 **ACE**

5 **Energy Assistance Receipts – Number of accounts<sup>48</sup>**  
 6  
 7

	Year	USF	LIHEAP	Lifeline	NJ Other	True Grant	NJ Shares	NJ Page
	2012	30,843	30,623	14,273	5,749	417	183	
	2013	29,242	13,530	14,181	5,562	523	151	
	2014	26,625	15,947	12,705	4,890	330	32	
	2015	25,758	24,576	24,951	3,120	39	126	310
	2016	25,993	28,055	13,424	1,767	694	230	123
<b>Change 2012 to 2016</b>	Absolute	-4,850	-2,568	-849	-3,982	+277	+47	N/A
	Percent	-16%	-8%	-6%	-69%	+66%	+26%	N/A

8  
 9 **Q: Has the Company demonstrated that its efforts to assist customers with applications**  
 10 **for financial assistance are adequate?**

11 A: No. Although the Company has assisted customers with completing applications for  
 12 financial assistance at certain of its outreach events and has found that “promotion of  
 13 these programs raises awareness and participation,”<sup>49</sup> the Company has failed to  
 14 demonstrate a comprehensive, sustained commitment to helping its customers enroll in

<sup>48</sup> Response to RCR-CI-55, Attachment 1. The Company shows an average of 302 customers being helped between January and April 2017 through the new “Helping Hands” program, through which customers with incomes up to 400% of poverty level are given grants of up to \$200 within a 12-month period and four outreach agencies are each given up to one million dollars over four years. Responses to RCR-CI-119 and CI-55, Attachment 1.

<sup>49</sup> See Responses to RCR-CI-104(a), CI-104(b) and CI-123, Attachment 1.

1 low-income programs throughout its day-to-day operations. In June 2016, the Company  
2 indicated that it had “[t]emporarily reassigned six full-time employees to support  
3 community outreach activities in New Jersey.”<sup>50</sup> A year later, in June 2017, the  
4 Company stated that “two Community Outreach Customer Service Representatives  
5 (CSRs) were assigned to staff the busiest New Jersey Customer Courtesy Centers *two*  
6 *days a week.*”<sup>51</sup>

7  
8 Not only does the Company fail to explain why it does not staff all Customer Courtesy  
9 Centers during all hours of operation, it also does not explain why it does not commit to  
10 an expanded level of resources for its “Customer Advocate” team. The Company has  
11 recently employed a third outreach employee, whom it describes as “temporary,”<sup>52</sup>  
12 despite the steadily declining enrollment levels. These efforts are ill-matched to the  
13 challenge of helping customers pay their bills, a problem that clearly is persisting. Indeed,  
14 despite a long-running trend of low enrollment and increasing levels of DPA defaults, the  
15 Company has assigned a meager amount of mostly temporary staffing assistance to its  
16 most vulnerable customers.

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<sup>50</sup> Response to RCR-CI-6, Attachment 3, p. 14 of 129 (excerpt from “Atlantic City Electric Company’s Plan to Implement Its Root Cause Analysis,” filed in compliance with BPU Docket No. EM14060581, June 7, 2016).

<sup>51</sup> Response to RCR-CI-149 (June 2, 2017 CSIP Report), Attachment 1, p. 9 (emphasis added).

<sup>52</sup> See id.

1 Similarly, the Company has a contract with two bilingual representatives who help with  
2 outreach, but the contract is scheduled to expire at the end of 2017.<sup>53</sup> In response to an  
3 apparently permanent change in the demographics of the Company's customer base, ACE  
4 decided to retain these two staff members. However, it appears that low-income, non-  
5 English-speaking customers may warrant more than temporary assistance in learning  
6 about and filling out forms for low-income assistance programs, since enrollment in these  
7 programs has continued to fall and customer complaints continue to rise.

8  
9 Precisely because the Company's customers are confronting challenging economic  
10 times,<sup>54</sup> as is also partly evidenced by the approximate 125,000 newly established DPAs  
11 in 2016 (see Table 2, above), the Company agreed to take action to increase enrollment in  
12 low-income programs. The Company is falling woefully short of this challenge,  
13 however, having chosen instead to rely on "temporary" assignments and the soon-  
14 expiring contract with bilingual representatives. These measures have been clearly  
15 inadequate to reduce the number of customer complaints.

16 **Q: Is there other evidence of incomplete or half-hearted outreach attempts by the**  
17 **Company to enroll customers in low-income assistance programs?**

18 A: Yes. ACE describes a six-month automated call pilot program to be undertaken in 2017  
19 in which it will make outgoing calls to educate consumers about energy assistance

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<sup>53</sup> See RCR-CI-149, Attachment 1, p. 9 of 27 (June 2, 2017 CSIP report).

<sup>54</sup> In response to RCR-CI-142, the Company refers to a high unemployment rate in its service territory and to the closure of five casinos within the last few years.

1 programs.<sup>55</sup> In light of four years of steadily declining enrollment in energy assistance  
2 programs, a six-month “pilot” is a meager commitment. Nonetheless, with appropriate  
3 follow-up, it could form the basis for important improvements in customer service.  
4 Therefore, the Company should be prepared to expand and make the temporary outreach  
5 permanent, with minimal delay, if the six-month pilot results so warrant. The Board  
6 should require ACE to report the effectiveness of its outreach efforts. Toward this end,  
7 the Company should report back to Board Staff and Rate Counsel on the numbers of calls  
8 made, lessons learned, the impact of the pilot program on enrollment in low-income  
9 programs and reasons, if any, that ACE will not make the pilot program permanent.

10 **Q: Is the role of the Company’s walk-in centers in facilitating enrollment in low-income**  
11 **programs clear?**

12 A: No. In response to discovery, the Company provided seemingly contradictory  
13 information about the role of walk-in centers in helping customers fill out applications for  
14 assistance and about the role of walk-in centers in educating consumers about relevant  
15 programs.<sup>56</sup> On one hand, the Company points to walk-in centers as being one of the  
16 ways of informing people about programs, yet elsewhere the Company implies that the  
17 major purpose of the walk-in center is simply bill payment.<sup>57</sup>

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<sup>55</sup> See Response to RCR-CI-149, Attachment 1, p. 15.

<sup>56</sup> The Company uses the term “Customer Courtesy Center” to refer to Company owned walk-in centers. Response to RCR-CI-125.

<sup>57</sup> See, e.g., response to RCR-CI-104. ACE provides assistance in completing energy assistance applications at outreach events but it seems that such assistance occurs infrequently at walk-in centers because the Company explains that “[t]he primary function of the cashiers in the walk-in centers is for payment processing.” Yet see also reference to two community outreach customer

1 **Q: Why does this ambiguity about the Company’s intentions regarding walk-in centers**  
2 **matter?**

3 A: There is untapped opportunity for the Company’s walk-in centers to take a more hands-  
4 on role in education and enrollment. It is also important to make walk-in centers more  
5 accessible to low-income customers. The current hours of operation of the Company’s  
6 Courtesy Call Centers are Monday through Friday from 9 a.m. to 4:30 p.m., with the  
7 exception of the Egg Harbor Township Office, which has walk-in hours of 8 a.m. to 4:30  
8 p.m.<sup>58</sup> These centers do not accommodate customers with limited or no flexibility in  
9 their work hours.

10  
11 Customers who are having a hard time making ends meet may not be able to use the  
12 walk-in centers during the centers’ existing hours of operation if they have constraints  
13 relating to work obligations, child care, or elderly care. By contrast, in the 1980s, ACE  
14 had hours at walk-in centers until 8 p.m. on Fridays and walk-in centers offered “full  
15 service.”<sup>59</sup> ACE should report back to Board Staff and Rate Counsel on the feasibility  
16 and cost (one-time and ongoing) of adding evening and Saturday morning walk-in hours.

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service representatives working (albeit less than half-time) at some of the Customer Courtesy Centers. Response to RCR-CI-149 (June 2, 2017 CSIP), Attachment 1, p. 9.

<sup>58</sup> Response to RCR-CI-18. The Company states that call center staff “periodically” are “made available at the Egg Harbor Township, Turnersville and Millville Customer Courtesy Center (walk-in) to assist customers needing payment arrangements.” Response to RCR-CI-123(d). Within the last five years, neither the Company nor any entity on behalf of the Company has assessed whether ACE’s walk-in centers serve its low-income customers and its customers with regular daytime (M-F, 9-to-5) jobs adequately. Response to RCR-CI-123(c).

<sup>59</sup> Response to RCR-CI-104.

1 Also, even if not all customer service representatives at walk-in centers have been trained  
2 to help with education and assistance on low-income program enrollment, the Company  
3 should provide that training to at least one such representative at each walk-in center, and  
4 all employees should be instructed to re-direct walk-in customers to the designated  
5 representatives when so warranted. Moreover, the help should be available not just two  
6 days a week at the busiest centers but during all open hours of all walk-in centers.

7 **Q: Do you have any other recommendations to assist payment-troubled customers?**

8 A: Yes. The Company also committed, as one of the conditions of the Board's approval of  
9 the Exelon merger, to provide funding over four years to four community agencies to  
10 assist with outreach to ACE customers facing payment difficulties.<sup>60</sup> I recommend that  
11 ACE leverage the effectiveness of the funding by working with those community  
12 agencies to train their staff and coordinate their services to assist ACE customers in  
13 applying for bill payment assistance.

14 **Q: In summary, has the Company demonstrated that it is doing enough to lower the  
15 number of complaints by helping customers enroll in low-income programs?**

16 A: No. As I demonstrate above, the Company has failed to demonstrate that its outreach  
17 programs are adequate for its customers. The Company's meager outreach efforts have  
18 failed to address adequately a prolonged period of high DPA default rates, declining  
19 enrollment levels for low-income programs, and increasing complaints regarding DPAs  
20 and disconnections. As I demonstrated above, the Company has allocated sporadic and

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<sup>60</sup> Responses to RCR-CI-119 and CI-55, Attachment 1.

1 inadequate resources that it acknowledges to be temporary. In summary, the Company is  
2 missing the boat on developing and sustaining sufficient resources for outreach to the  
3 Company's customers who have difficulty affording their bills. Helping more customers  
4 obtain financial assistance and having reasonable DPA policies should go a long way to  
5 decreasing complaints to the Board from over 2,500 now to below 1,500, as a series of  
6 Board Orders has directed. Furthermore, high DPA defaults (78,065 during 2016)<sup>61</sup> lead  
7 to expenses that all of ACE's customers must pay through their rates, which include the  
8 Social Benefit Charge.<sup>62</sup> I recommend that the Board examine the Company's DPA  
9 policies, its payment assistance programs, and the underlying causes of ACE's  
10 chronically high number of complaints to the Board, as part of its Management Audit of  
11 the Company.

12

13 **Conclusion**

14

15 **Q: Does this conclude your testimony?**

16 **A: Yes.**

17

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<sup>61</sup> See Table 2, above.

<sup>62</sup> N.J.S.A. 48:3-60.

# **ATTACHMENT A**

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Susan M. Baldwin specializes in utility economics, regulation, and public policy. Since 2001, Ms. Baldwin has been an independent consultant. Ms. Baldwin has been actively involved in public policy for thirty-eight years, more than thirty of which have been in telecommunications policy and regulation. Ms. Baldwin received her Master of Economics from Boston University, her Master of Public Policy from Harvard University's John F. Kennedy School of Government, and her Bachelor of Arts degree in Mathematics and English from Wellesley College. Ms. Baldwin has extensive experience both in government and in the private sector.

Ms. Baldwin has testified before 21 public utility commissions, including: the Arkansas Public Service Commission, California Public Utilities Commission, Colorado Public Utilities Commission, Connecticut Department of Public Utility Control, District of Columbia Public Service Commission, Idaho Public Utilities Commission, Illinois Commerce Commission, Indiana Utility Regulatory Commission, Iowa Utilities Board, Maryland Public Service Commission, Massachusetts Department of Telecommunications and Cable, Nevada Public Service Commission, New Hampshire Public Utilities Commission, New Jersey Board of Public Utilities, Public Utilities Commission of Ohio, Pennsylvania Public Utility Commission, Rhode Island Public Utilities Commission, Tennessee Public Service Commission, Vermont Public Service Board, Washington Utilities and Transportation Commission, and the Public Service Commission of West Virginia. Ms. Baldwin has also authored numerous comments and declarations submitted in various Federal Communications Commission proceedings.

Ms. Baldwin has also participated in projects in Delaware, Hawaii, Illinois, New York, South Dakota, and Canada on behalf of consumer advocates, public utility commissions, and competitive local exchange carriers. Ms. Baldwin has served in a direct advisory capacity to public utility commissions in the District of Columbia, Massachusetts, New Mexico, Utah and Vermont. Ms. Baldwin has also testified on behalf of public utility commission staff in Idaho and Rhode Island. Ms. Baldwin has testified before state legislative committees in Maryland, Massachusetts, Ohio, and Pennsylvania.

Ms. Baldwin has sponsored expert reports in state taxation proceedings. Also, in her capacity as an independent consultant, Ms. Baldwin has consulted to and testified on behalf of consumer advocates on diverse matters including the electric retail market, consumer protection and consumer services issues in telecommunications, electric, and gas proceedings, broadband deployment, numbering resources, unbundled network element (UNE) cost studies, incumbent local exchange carriers' requests for competitive classification of services, mergers and spin-offs, rate cases, universal service, service quality, and state *Triennial Review Order* (TRO) proceedings. She co-sponsored testimony on behalf of the Connecticut Office of Consumer

Counsel regarding the electric retail market. She prepared comprehensive testimony analyzing mass market impairment on behalf of the New Jersey Division of Rate Counsel, the Arkansas Office of the Attorney General, and the Utah Committee of Consumer Services.

Ms. Baldwin has contributed to numerous comments submitted to the FCC on diverse aspects of broadband in various proceedings on topics such as data collection, mapping, deployment, universal service, affordability, consumer protection, and network management. Also, in state regulatory proceedings that have examined carriers' proposals for spin-offs and for mergers, she has recommended conditions concerning broadband deployment.

Ms. Baldwin served as a direct advisor to the Massachusetts Department of Telecommunications and Energy (DTE) between August 2001 and July 2003, in Massachusetts DTE Docket 01-20, an investigation of Verizon's total element long run incremental cost (TELRIC) studies for recurring and nonrecurring unbundled network elements (UNEs). She assisted with all aspects of this comprehensive case in Massachusetts. Ms. Baldwin analyzed recurring and nonrecurring cost studies; ran cost models; reviewed parties' testimony, cross-examined witnesses, trained staff, met with the members of the Commission, assisted with substantial portions of the major orders issued by the DTE; and also assisted with the compliance phase of the proceeding.

Ms. Baldwin has also contributed to numerous comments and declarations submitted to the Federal Communications Commission on issues such as broadband; intercarrier compensation reform; the Comcast-NBCU merger, price cap regulation; universal service; carriers' petitions for forbearance; separations reform; special access services, relay services; numbering optimization, and the Internet Protocol transition.

Ms. Baldwin worked with Economics and Technology, Inc. for twelve years (1984 to 1988 and 1992-2000), most recently as a Senior Vice President. Among her numerous projects were the responsibility of advising the Vermont Public Service Board in matters relating to a comprehensive investigation of NYNEX's revenue requirement and proposed alternative regulation plan. She participated in all phases of the docket, encompassing review of testimony, issuance of discovery, cross-examination of witnesses, drafting memoranda and decisions, and reviewing compliance filings. Another year-long project managed by Ms. Baldwin was the in-depth analysis and evaluation of the cost proxy models submitted in the FCC's universal service proceeding. Also, on behalf of the staff of the Idaho Public Utilities Commission, Ms. Baldwin testified on the proper allocation of US West's costs between regulated and non-regulated services. On behalf of AT&T Communications of California, Inc. and MCI Telecommunications Corporation, Ms. Baldwin comprehensively analyzed the non-recurring cost studies submitted by California's incumbent local exchange carriers. Ms. Baldwin has participated in more than twenty state and federal regulatory investigations of the impact of proposed transfers of control of wireline, wireless and cable companies.

Ms. Baldwin has contributed to the development of state and federal policy on numbering matters. On behalf of the Ad Hoc Telecommunications Users Committee, Ms. Baldwin

participated in the Numbering Resource Optimization Working Group (NRO-WG), and in that capacity, served as a co-chair of the Analysis Task Force of the NRO-WG. She has also provided technical assistance to consumer advocates in the District of Columbia, Illinois, Iowa, Massachusetts, and Pennsylvania on area code relief and numbering optimization measures. Ms. Baldwin also co-authored comments on behalf of the National Association of State Utility Consumer Advocates in the FCC's proceeding on numbering resource optimization.

During her first years at ETI, Ms. Baldwin was the Director of Publications and Tariff Research, and, in that capacity, she trained and supervised staff in the analysis of telecommunications rate structures, services, and regulation.

Ms. Baldwin served four years (1988-1992) as the Director of the Telecommunications Division for the Massachusetts Department of Public Utilities (now the Department of Telecommunications & Cable), where she directed a staff of nine, and acted in a direct advisory capacity to the DPU Commissioners. (The Massachusetts DTC maintains a non-separated staff, which directly interacts with the Commission, rather than taking an advocacy role of its own in proceedings). Ms. Baldwin advised and drafted decisions for the Commission in numerous DPU proceedings including investigations of a comprehensive restructuring of New England Telephone Company's rates, an audit of NET's transactions with its NYNEX affiliates, collocation, ISDN, Caller ID, 900-type services, AT&T's request for a change in regulatory treatment, pay telephone and alternative operator services, increased accessibility to the network by disabled persons, conduit rates charged by NET to cable companies, and quality of service. Under her supervision, staff analyzed all telecommunications matters relating to the regulation of the then \$1.7-billion telecommunications industry in Massachusetts, including the review of all telecommunications tariff filings; petitions; cost, revenue, and quality of service data; and certification applications. As a member of the Telecommunications Staff Committees of the New England Conference of Public Utility Commissioners (NECPUC) and the National Association of Regulatory Utility Commissioners (NARUC), she contributed to the development of telecommunications policy on state, regional, and national levels.

Ms. Baldwin has worked with local, state, and federal officials on energy, environmental, budget, welfare, and telecommunications issues. As a policy analyst for the New England Regional Commission (NERCOM), Massachusetts Department of Public Welfare (DPW), and Massachusetts Office of Energy Resources (MOER), she acquired extensive experience working with governors' offices, state legislatures, congressional offices, and industry and advocacy groups. As an energy analyst for NERCOM, Ms. Baldwin coordinated New England's first regional seminar on low-level radioactive waste, analyzed federal and state energy policies, and wrote several reports on regional energy issues. As a budget analyst for the DPW, she forecast expenditures, developed low-income policy, negotiated contracts, prepared and defended budget requests, and monitored expenditures of over \$100 million. While working with the MOER, Ms. Baldwin conducted a statewide survey of the solar industry and analyzed federal solar legislation.

Ms. Baldwin received Boston University's Dean's Fellowship. While attending the

Kennedy School of Government, Ms. Baldwin served as a teaching assistant for a graduate course in microeconomics and as a research assistant for the school's Energy and Environmental Policy Center, and at Wellesley College was a Rhodes Scholar nominee. She has also studied in Ghent, Belgium.

### **Record of Prior Testimony**

In the matter of the Application of the New Jersey Bell Telephone Company for Approval of its Plan for an Alternative Form of Regulation, New Jersey Board of Regulatory Commissioners Docket No. T092030358, on behalf of the New Jersey Cable Television Association, filed September 21, 1992, cross-examined October 2, 1992.

DPUC review and management audit of construction programs of Connecticut's telecommunications local exchange carriers, Connecticut Department of Public Utility Control Docket No. 91-10-06, on behalf of the Connecticut Office of the Consumer Counsel, filed October 30, 1992, cross-examined November 4, 1992.

Joint petition of New England Telephone and Telegraph Company and Department of Public Service seeking a second extension of the Vermont Telecommunications Agreement, Vermont Public Service Board 5614, Public Contract Advocate, filed December 15, 1992, cross-examined December 21, 1992.

Application of the Southern New England Telephone Company to amend its rates and rate structure, Connecticut Department of Public Utility Control Docket No. 92-09-19, on behalf of the Connecticut Office of Consumer Counsel, filed March 26, 1993 and May 19, 1993, cross-examined May 25, 1993.

In the matter of the Application of Cincinnati Bell Telephone Company for Approval of an Alternative Form of Regulation and for a Threshold Increase in Rates, Public Utilities Commission of Ohio Case No. 93-432-TP-ALT, on behalf of Time Warner AxS, filed March 2, 1994.

Matters relating to IntraLATA Toll Competition and Access Rate Structure, Rhode Island Public Utilities Commission Docket 1995, on behalf of the Rhode Island Public Utilities Commission Staff, filed March 28, 1994 and June 9, 1994, cross-examined August 1, 1994.

In the Matter of the Application of The Ohio Bell Telephone Company for Approval of an Alternative Form of Regulation, Public Utilities Commission of Ohio Case No. 93-487-TP-ALT, on behalf of Time Warner AxS, filed May 5, 1994, cross-examined August 11, 1994.

In Re: Universal Service Proceeding: The Cost of Universal Service and Current Sources of Universal Service Support, Tennessee Public Service Commission Docket No. 95-02499, on behalf of Time Warner AxS of Tennessee, L.P., filed October 18, 1995 and October 25, 1995, cross-examined October 27, 1995.

In Re: Universal Service Proceeding: Alternative Universal Service Support Mechanisms, Tennessee Public Service Commission Docket No. 95-02499, on behalf of Time Warner AxS of Tennessee, L.P., filed October 30, 1995 and November 3, 1995, cross-examined November 7, 1995.

In the Matter of the Application of US West Communications, Inc. for Authority to Increase its Rates and Charge for Regulated Title 61 Services, Idaho Public Utilities Commission Case No. USW-S-96-5, on behalf of the Staff of the Idaho Public Utilities Commission, filed November 26, 1996 and February 25, 1997, cross-examined March 19, 1997.

A Petition by the Regulatory Operations Staff to Open an Investigation into the Procedures and Methodologies that Should Be Used to Develop Costs for Bundled or Unbundled Telephone Services or Service Elements in the State of Nevada, Nevada Public Service Commission Docket No. 96-9035, on

behalf of AT&T Communications of Nevada, Inc., filed May 23, 1997, cross-examined June 6, 1997.

Rulemaking on the Commission's Own Motion to Govern Open Access to Bottleneck Services and Establish a Framework for Network Architecture; Investigation on the Commission's Own Motion into Open Access and Network Architecture Development of Dominant Carrier Networks, California Public Utilities Commission R.93-04-003 and I.93-04-002, co-authored a declaration on behalf of AT&T Communications of California, Inc., and MCI Telecommunications Corporation, filed on December 15, 1997 and on February 11, 1998.

Consolidated Petitions for Arbitration of Interconnection Agreements, Massachusetts Department of Telecommunications and Energy, DPU 96-73/74, 96-75, 96-80/81, 96-83, and 96-84, on behalf of AT&T Communications of New England, Inc. and MCI Telecommunications Corporation, filed February 3, 1998.

In the Matter of the Application of US West Communications, Inc. for Specific Forms of Price Regulation, Colorado Public Utilities Commission Docket No. 97-A-540T, on behalf of the Colorado Office of Consumer Counsel, filed on April 16, 1998, May 14, 1998 and May 27, 1998, cross-examined June 2, 1998.

Joint Application of SBC Communications and Southern New England Telecommunications Corporation for Approval of a Change of Control, Connecticut Department of Public Utility Control Docket No. 98-02-20, on behalf of the Connecticut Office of Consumer Counsel, filed May 7, 1998 and June 12, 1998, cross-examined June 15-16, 1998.

Fourth Annual Price Cap Filing of Bell Atlantic-Massachusetts, Massachusetts Department of Telecommunications and Energy Docket DTE 98-67, on behalf of MCI Telecommunications Corporation, filed September 11, 1998 and September 25, 1998, cross-examined October 22, 1998.

Applications of Ameritech Corp., Transferor, and SBC Communications, Inc., Transferee, For Consent to Transfer Control, Federal Communications Commission CC Docket No. 98-141, co-sponsored affidavit on behalf of Indiana Utility Consumer Counselor, Michigan Attorney General, Missouri Public Counsel, Ohio Consumers' Counsel, Texas Public Utility Counsel and Utility Reform Network, filed on October 13, 1998.

In the Matter of the Joint Application of SBC Communications Inc., SBC Delaware, Inc., Ameritech Corporation and Ameritech Ohio for Consent and Approval of a Change of Control, Public Utilities Commission of Ohio Case No.98-1082-TP-AMT, on behalf of Ohio Consumers' Counsel, filed on December 10, 1998, cross-examined on January 22, 1999.

GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer Control, Federal Communications Commission CC Docket No. 98-184, co-sponsored an affidavit on behalf of a coalition of consumer advocates from Delaware, Hawaii, Maine, Maryland, Missouri, Ohio, Oregon, West Virginia, and Michigan, filed on December 18, 1998.

In the Matter of the Joint Application of GTE and Bell Atlantic to Transfer Control of GTE's California Utility Subsidiaries to Bell Atlantic, Which Will Occur Indirectly as a Result of GTE's Merger with Bell Atlantic, California Public Utilities Commission A. 98-12-005, on behalf of the California Office of Ratepayer Advocate, filed on June 7, 1999.

In the Matter of the Investigation on the Commission's Own Motion Into All Matters Relating to the Merger of Ameritech Corporation and SBC Communications Inc., Indiana Utility Regulatory Commission Cause No. 41255, on behalf of the Indiana Office of Utility Consumer Counselor, filed on June 22, 1999 and July 12, 1999, cross-examined July 20, 1999.

In re Application of Bell Atlantic Corporation and GTE Corporation for Approval of the GTE Corporation - Bell Atlantic Corporation Merger, Washington Utilities and Transportation Commission UT-981367, on behalf of the Washington Attorney General Public Counsel Section, filed on August 2, 1999.

Application of New York Telephone Company for Alternative Rate Regulation, Connecticut Department of Public Utility Control Docket No. 99-03-06, on behalf of the Connecticut Office of Consumer Counsel, filed October 22, 1999.

In re: Area Code 515 Relief Plan, Iowa Utilities Board Docket No. SPU-99-22, on behalf of Iowa Office of Consumer Advocate, filed November 8, 1999, and December 3, 1999, cross-examined December 14, 1999.

In re Application of MCI WorldCom, Inc. and Central Telephone Company - Nevada, d/b/a Sprint of Nevada, and other Sprint entities for Approval of Transfer of Control pursuant to NRS 704.329, Nevada Public Utilities Commission Application No. 99-12029, on behalf of the Nevada Office of the Attorney General, Bureau of Consumer Protection, filed April 20, 2000.

In re: Area Code 319 Relief Plan, Iowa Utilities Board Docket No. SPU-99-30, on behalf of Iowa Office of Consumer Advocate, filed June 26, 2000 and July 24, 2000.

In re: Sprint Communications Company, L.P. & Level 3 Communications, L.L.C., Iowa Utilities Board Docket Nos. SPU-02-11 & SPU-02-13, on behalf of Iowa Office of Consumer Advocate, filed October 14, 2002 and January 6, 2003, cross-examined February 5, 2003.

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Qwest Petition for Competitive Classification of Business Services, Washington Utilities and Transportation Commission Docket No. 030614, on behalf of Public Counsel, filed August 13, 2003 and August 29, 2003, cross-examined September 18, 2003.

In the Matter of the Application of CenturyTel of Northwest Arkansas, LLC for Approval of a General Change in Rates and Tariffs, Arkansas Public Service Commission Docket No. 03-041-U, on behalf of the Attorney General, filed October 9, 2003 and November 20, 2003.

In the Matter of the Board's Review of Unbundled Network Elements, Rates, Terms and Conditions of Bell Atlantic New Jersey, Inc., New Jersey Board of Public Utilities Docket No. TO00060356, on behalf of the New Jersey Division of the Ratepayer Advocate, filed January 23, 2004.

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Unbundled Access to Network Elements, Review of the Section 251 Unbundling Obligations of Local Exchange Carriers, Federal Communications Commission WC Docket No. 04-313, CC Docket No. 01-338, sponsored affidavit on behalf of the New Jersey Division of the Ratepayer Advocate, filed October 4, 2004.

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In the Matter of Verizon New Jersey, Inc. For a Revision of Tariff B.P.U.-N.J. – No. 2 Providing for a

Revenue Neutral Rate Restructure Including a Restructure of Residence and Business Basic Exchange Service and Elimination of \$.65 Credit, New Jersey Board of Public Utilities Docket No. TT04060442, on behalf of the New Jersey Division of the Ratepayer Advocate, filed December 22, 2004 and January 18, 2005.

In the Matter of the Application of Verizon New Jersey, Inc. for Approval (I) of a New Plan for an Alternative Form of Regulation and (II) to Reclassify Multi-Line Rate Regulated Business Services as Competitive Services, and Compliance Filing, New Jersey Board of Public Utilities Docket No. TO01020095, on behalf of the New Jersey Division of the Ratepayer Advocate, filed January 10, 2005 and February 4, 2005.

Joint Petition of SBC Communications Inc. and AT&T Corp., Together with its Certificated Subsidiaries for Approval of Merger, New Jersey Board of Public Utilities Docket No. TM05020168, on behalf of the New Jersey Division of the Ratepayer Advocate, filed May 4, 2005 and June 1, 2005.

In the Matter of Verizon Communications Inc. and MCI, Inc., Applications for Approval of Transfer of Control, Federal Communications Commission WC Docket No. 05-75, co-sponsored affidavit on behalf of the New Jersey Division of the Ratepayer Advocate, filed on May 9, 2005.

In the Matter of the Application of Southwestern Bell Telephone, L.P., d/b/a SBC Arkansas to Set Rates for Unbundled Network Elements, Arkansas Public Service Commission Docket No. 04-109-U, on behalf of the Attorney General, filed May 27, 2005.

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In the Matter of AT&T Inc. and BellSouth Corporation Applications for Approval of Transfer of Control, Federal Communications Commission WC Docket No. 06-74, sponsored declaration with Sarah M. Bosley on behalf of the New Jersey Division of the Ratepayer Advocate, filed June 5, 2006; sponsored declaration with Sarah M. Bosley and Timothy E. Howington on behalf of the New Jersey Division of Rate Counsel, October 3, 2006.

In the Matter of Jurisdictional Separations and Referral to the Federal-State Joint Board, CC Docket No. 80-286, sponsored affidavit on behalf of the National Association of State Utility Consumer Advocates and the New Jersey Division of Rate Counsel, filed August 22, 2006.

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Verizon Select Services Inc. and FairPoint Communications, Inc. Joint Petition for Authority to Transfer Assets and Franchise to FairPoint Communications, Inc., New Hampshire Public Utilities Commission Docket No. DT-07-011, on behalf of the Office of Consumer Advocate, filed August 1, 2007, cross-examined November 1, 2007.

In the Matter of the Commission's Investigation into Verizon Maryland, Inc.'s Affiliate Relationships, Maryland Public Service Commission Case No. 9120, on behalf of the Office of People's Counsel, filed October 29, 2007 and November 19, 2007, cross-examined November 28, 2007.

In the Matter of the Board Investigation Regarding the Reclassification of Incumbent Local Exchange Carrier (ILEC) Services as Competitive, New Jersey Board of Public Utilities Docket No. TX07110873, on behalf of the New Jersey Division of Rate Counsel, filed December 14, 2007, January 10, 2008.

In the Matter of Verizon Washington, DC Inc.'s Price Cap Plan 2007 for the Provision of Local Telecommunications Services in the District of Columbia, Public Service Commission of the District of Columbia Formal Case No. 1057, on behalf of the District of Columbia Office of People's Counsel, filed December 20, 2007, January 31, 2008.

In re Possible Extension of Board Jurisdiction over Single Line Flat-Rated Residential and Business Rates for Local Exchange Carriers, Iowa Utilities Board Docket No. INU-08-1, on behalf of Iowa Office of Consumer Advocate, filed March 17, 2008, April 28, 2008, cross-examined May 22, 2008.

Petition of the Office of Consumer Counsel for Enforcement of Quality of Service Standards for the Southern New England Telephone Company d/b/a AT&T Connecticut, Connecticut Department of Public Utility Control Docket No. 08-07-15, on behalf of the Communications Workers of America, Local 1298, filed January 30, 2009, cross-examined February 25, 2009.

In the Matter of the Board's Investigation and Review of Local Exchange Carrier Intrastate Exchange Access Rates, New Jersey Board of Public Utilities Docket No. TX08090830, on behalf of the New Jersey Division of Rate Counsel, filed February 13, 2009, April 20, 2009, and June 22, 2009, cross-examined October 20, 2009.

In the Matter of Appropriate Forms Of Regulating Telephone Companies, Maryland Public Service Commission, Case No. 9133, on behalf of the Communications Workers of America, filed June 1, 2009, October 16, 2009, October 30, 2009, cross-examined November 4, 2009.

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In the Matter of the Application of Frontier Communications Corporation, New Communications Holdings, Inc. and Verizon Communications Inc. for Consent and Approval of a Change in Control, Public Utilities Commission of Ohio Case No. 09-454-TP-ACO, on behalf of the Communications Workers of America and International Brotherhood of Electrical Workers, Local 986, filed October 14, 2009.

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In re Verizon Service Quality in Western Massachusetts, Massachusetts Department of Telecommunications and Cable D.T.C. 09-1, on behalf of the Office of the Attorney General, filed

November 9, 2009, February 24, 2010, cross-examined March 31, 2010, April 1, 2010, May 21, 2010.

Joint Application of Frontier Communications Corporation and Verizon West Virginia Inc. and certain affiliates for approval of the transfer of Verizon's local exchange and long distance business in West Virginia to companies to be owned and controlled by Frontier Communications Corporation, Public Service Commission of West Virginia Case No. 09-0871-T-PC, on behalf of the Communications Workers of America, AFL-CIO, filed November 16, 2009.

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Petition of the North American Numbering Plan Administrator on behalf of the Pennsylvania Telecommunications Industry for Approval of Numbering Plan Area Relief Planning for the 814 NPA, Pennsylvania Public Utility Commission Docket No. P-2009-2112925, on behalf of the Pennsylvania Office of Consumer Advocate, filed May 23, 2011, cross-examined May 24, 2011.

In re Applications of AT&T, Inc. and Deutsche Telekom AG for Consent to the Transfer of Control of the Licenses and Authorizations Held by T-Mobile USA, Inc. and its Subsidiaries to AT&T Inc., WT Docket No. 11-65, File Nos. 0004669383, *et al.*, sponsored declarations on behalf of the New Jersey Division of Rate Counsel, May 31, 2011, and June 20, 2011.

In the Matter of Application of Cellco Partnership d/b/a Verizon Wireless and SpectrumCo LLC For Consent To Assign Licenses and Application of Cellco Partnership d/b/a Verizon Wireless and Cox TMI Wireless, LLC For Consent To Assign Licenses, WT Docket No. 12-4, sponsored declarations on behalf of the New Jersey Division of Rate Counsel, filed February 17, 2012, and March 26, 2012.

In the Matter of the Board's Investigation Regarding the Reclassification of Incumbent Local Exchange Carrier (ILEC) Services as Competitive – Phase II, New Jersey Board of Public Utilities Docket No. TX11090570, on behalf of the New Jersey Division of Rate Counsel, filed February 24, 2012, April 27, 2012, and June 11, 2012, cross-examined July 17, 2012.

Petition of David K. Ebersole, Jr. and the Office of Consumer Advocate for a Declaratory Order that Verizon Pennsylvania Inc. Has Not Met Its Legal Obligation to the Greensburg Bona Fide Retail Request Group Pursuant to Its Chapter 30 Plan, Pennsylvania Public Utility Commission Docket No. P-2012-2323362, affidavit on behalf of the Pennsylvania Office of Consumer Advocate, September 6, 2012.

In the Matter of Commission Consideration Of Effective Competition Areas and the Classification of Basic Local Exchange Service, Colorado Public Utilities Commission Proceeding Number 13M-0422T, Pursuant to 4 CCR 723-2-2213, answer testimony on behalf of AARP, December 6, 2013, cross-examined January 7, 2014.

PURA Establishment of Rules for Electric Suppliers and EDCs Concerning Operations and Marketing in the Electric Retail Market, Connecticut Public Utilities Regulatory Authority Docket No. 13-07-18, testimony and supplemental testimony on behalf of the Connecticut Office of Consumer Counsel, March 10, 2014 and March 17, 2014, cross-examined March 27, 2014.

Joint Application of Frontier Communications Corporation and AT&T Inc. for Approval of a Change in Control, Connecticut Public Utilities Regulatory Authority Docket No. 14-01-46, testimony on behalf of the Connecticut Office of Consumer Counsel, May 23, 2014, cross-examined June 30, 2014.

The Utility Reform Network, Complainant vs. Pacific Bell Telephone Company D/B/A AT&T California (U1001C); AT&T Communications of California, Inc. (U5002C), Defendants, California Public Utilities Commission Case No. 13-12-005, Complaint of the Utility Reform Network Regarding Basic Service

Rates of AT&T California (Public Utilities Code Section 1702; Commission Rule of Practice and Procedure 4.1(b)), December 6, 2013, initial and rebuttal testimony on behalf of the Utility Reform Network (TURN), August 22, 2014 and October 3, 2014.

Joint Petition of Verizon Pennsylvania LLC and Verizon North LLC for Competitive Classification of all Retail Services in Certain Geographic Areas, and for a Waiver of Regulation for Competitive Services, Pennsylvania PUC Docket Nos. P-2014-2446303 and P-2014-2446304, direct and surrebuttal testimony on behalf of Communications Workers of America and the International Brotherhood of Electrical Workers, November 14, 2014, and December 12, 2014, cross-examined December 16, 2014.

Joint Application of Comcast Corporation, Time Warner Cable Inc., Time Warner Cable Information Services (California), LLC, and Bright House Networks Information Services (California), LLC for Expedited Approval of Indirect Transfer of Control of Time Warner Cable Information Services (California), LLC, (U-68740-C); and The Pro Forma Transfer of Control of Bright House Networks Information Services (California), LLC (U-6955-C) to Comcast Corporation, Pursuant to Public Utilities Code Section 854(A), Application No. 14-04-013 (filed April 11, 2014), initial and reply testimony on behalf of the Utility Reform Network (TURN), December 3, 2014 and December 10, 2014.

In the Matter of the Joint Application of Frontier Communications Corporation, Frontier Communications of America, Inc. (U 5429 C), Verizon California Inc. (U 1002 C), Verizon Long Distance, LLC (U 5732), and Newco West Holdings LLC for Approval of Transfer of Control Over Verizon California Inc. and Related Approval of Transfer of Assets and Certifications (Filed March 18, 2015), Application 15-03-005, reply and supplemental testimony on behalf of the Utility Reform Network (TURN), July 28, 2015 and September 11, 2015.

Order Instituting Investigation to Assess the State of Competition Among Telecommunications Providers in California, and to Consider and Resolve Limited Rehearing of Decision (D.) 08-09-042, California Public Utilities Commission Investigation 15-11-007 (November 5, 2015), testimony on behalf of the Utility Reform Network (TURN), March 15, 2016, June 1, 2016 and July 15, 2016; participated in Expert Panel, July 20, 2016.

Petition of Communications Workers of America for a Public, On-the-Record Commission Investigation of the Safety, Adequacy, and Reasonableness of Service Provided by Verizon Pennsylvania, LLC, Pennsylvania PUC Docket No. P-2015-2509336, direct testimony on behalf of Communications Workers of America, September 29, 2016.

Petition of the Maryland Office of People's Counsel for an Investigation into Verizon Maryland's Provision of Basic Local Phone Service Over Copper or Fiber Networks, affidavit on behalf of the Maryland Office of People's Counsel, January 13, 2017.

In re: Deregulation of Local Exchange Service, Iowa Utilities Board Docket No. INU-2016-0001, testimony on behalf of Office of Consumer Advocate, February 17, 2017 and April 21, 2017, cross-examined May 23, 2017.

Proceeding on Motion of the Commission to Consider the Adequacy of Verizon New York Inc.'s Retail Service Quality Processes and Programs, New York Public Service Commission Case 16-C-0122, testimony on behalf of the Communications Workers of America, March 24, 2017.

*In the Matter of Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment*, WC Docket No. 17-84, Notice of Proposed Rulemaking, Notice of Inquiry, and Request for Comment, FCC Rcd 3266, (rel. Apr. 21, 2017), declaration on behalf of the National Association of State Utility Consumer Advocates, Maine Office of the Public Advocate, Maryland Office of People's Counsel ("OPC"), New Jersey Division of Rate Counsel, Office of the Ohio Consumers' Counsel, Pennsylvania

Office of Consumer Advocate and The Utility Reform Network, June 15, 2017.

*Testimony before State Legislatures:*

Testified on September 24, 1997, before the Massachusetts State Legislature Joint Committee on Government Regulations regarding House Bill 4937 (concerning area codes).

Testified on March 2, 2010, before the Maryland State Legislature Senate Finance Committee regarding Senate Bill 677 (concerning Telephone Landline Sale Bill).

Testified on March 11, 2010, before the Maryland State Legislature House Economic Matters Committee regarding House Bill 937 (concerning Telephone Landline Sale Bill).

Testified on June 25, 2013, on behalf of AARP, before the Ohio Select Committee on Telecommunications Regulatory Reform (regarding SB 162).

Testified on December 12, 2013, on behalf of AARP, before the Pennsylvania House Consumer Affairs Committee (regarding House Bill 1608).

**Reports/Publications/Presentations**

Expert reports in tax matters, reports and publications on telecommunications and energy policy in trade journals, and presentations at industry associations and conferences include the following:

*Expert reports in tax matters:*

Iowa Department of Inspections and Appeals, In the Matter of Cable One, Inc. v. Iowa Department of Revenue, DIA 10DORFC014, SBTR Nos. 899 and 903, Property Tax Assessment, Expert Report, January 21, 2011 (on behalf of the Iowa Department of Revenue), deposed February 9, 2011.

Level 3 Communications, LLC. v. Arizona Department of Revenue; Coshise County; Graham County; Greenlee County; La Paz County; Maricopa County; Mohave County; Pima County, Pinal County and Yuma County, Superior Court of the State of Arizona in the Arizona Tax Court, No. TX-2007-000594, Expert Report, May 20, 2011 (on behalf of the Arizona Department of Revenue), deposed July 14, 2011; cross-examined August 24, 2012.

Bresnan Communications, LLC, Plaintiff, v. State of Montana Department of Revenue, Defendant, Cause No. DV-10-1312, July 5, 2011 (on behalf of the Montana Department of Revenue), deposed July 29, 2011.

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*Reports and Publications:*

“The Cable-Telco Duopoly’s Deployment of New Jersey’s Information Infrastructure: Establishing Accountability” (with Sarah M. Bosley and Timothy E. Howington). Prepared for the Public Advocate of New Jersey, January 19, 2007.

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“Where Have All the Numbers Gone? (Second Edition): Rescuing the North American Numbering Plan from Mismanagement and Premature Exhaust” (with Dr. Lee L. Selwyn). Prepared for the Ad Hoc Telecommunications Users Committee, June 2000.

“Price Cap Plan for USWC: Establishing Appropriate Price and Service Quality Incentives for Utah” (with Patricia D. Kravtin and Scott C. Lundquist). Prepared for the Utah Division of Public Utilities, March 22, 2000.

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“The Use of Cost Proxy Models to Make Implicit Support Explicit, Assessing the BCPM and the Hatfield Model 3.1” (with Dr. Lee L. Selwyn). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, March 1997.

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“The BCM Debate, A Further Discussion” (with Dr. Lee L. Selwyn and Helen E. Golding). Prepared for the National Cable Television Association, submitted in FCC CC Docket No. 96-45, May 1996.

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“Funding Universal Service: Maximizing Penetration and Efficiency in a Competitive Local Service Environment” (with Dr. Lee L. Selwyn). Prepared for Time Warner Communications, Inc., October 1995.

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“Analysis of Local Exchange Carrier April 1988 Bypass Data Submissions” (with William P. Montgomery and Dr. Lee L. Selwyn). Prepared for the National Association of State Utility Consumer Advocates, August 1988.

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“Analysis of Diamond State Telephone Private Line Pricing Movements: 1980-1990.” Prepared for Network Strategies, Inc., April 1985.

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*Presentations:*

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“The Three Rs: The Need for Reliable, Redundant and Resilient Telecommunications in the New Age,” 2015 National Association of State Utility Consumer Advocates Annual Meeting, Austin, Texas, November 9, 2015.

“Telecommunications in Transition: Advocating for 50+ Consumers in the Brave New World,” Presentation at AARP’s State Advocacy and Strategy Integration conference on “State Regulatory and Legislative Landscapes,” Portland, Oregon, September 16, 2014.

“What the IP Transition Means for Consumers and a Ubiquitous, Affordable, Reliable National Communications System,” 2014 National Association of State Utility Consumer Advocates Mid-Year Meeting, Santa Fe, New Mexico, June 2, 2014.

“For Sale - The National Wireline Communications System,” 2014 National Association of State Utility Consumer Advocates Mid-Year Meeting, Santa Fe, New Mexico, June 3, 2014.

“FCC Review of Verizon’s Section 214 Application and Its Implications for the IP Transition,” NASUCA Annual Meeting, Orlando, Florida, November 19, 2013.

“What gets lost in the IP Transition?” NASUCA Annual Meeting, Orlando, Florida, November 18, 2013.

“Service Outage and Restoration,” NARUC Staff panel, NARUC 125<sup>th</sup> Annual Meeting, Orlando, Florida, November 16, 2013.

“You Don’t Know What You’ve Got Til It’s Gone – Utilities Consumer Protections,” Presentation at AARP’s State Advocacy and Strategy Integration conference on “Fighting for Consumers,” Minneapolis, Minnesota, September 19, 2013.

“Protecting Consumers’ Assets and Income,” Presentation at the National Association of Latino Elected and Appointed Officials Policy Institute on “The Changing Dynamics of the Latino 50+ Population,” Albuquerque, New Mexico, August 25, 2013.

“Federalism in the 21<sup>st</sup> Century,” Presentation at the Mid-Atlantic Conference of Regulatory Utilities Commissioners 18th Annual Education Conference, Hershey, Pennsylvania, June 24, 2013.

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“Improving the Separations Process: Consumer Impact,” panelist for Federal-State Joint Board on Separations on behalf of the National Association of State Utility Consumer Advocates and the New Jersey Division of Rate Counsel, September 24, 2010, CC Docket No. 80-286, Washington, DC.

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“Telecommunications Mergers: Impact on Consumers,” AARP Legislative Council 1998 Roundtable Meeting, Washington, D.C., November 18, 1998.

“Consumer Perspectives on Incumbent Local Exchange Carrier Mergers,” National Association of Regulatory Utility Commissioners 110th Annual Convention, Orlando, Florida, November 11, 1998.

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Determining Universal Service Support,” CC Docket Nos. 96-45 and 97-160,” June 8, 1998, panelist.

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“Modeling operating and support expenses” and “Modeling capital expenses,” panelist for Federal-State Joint Board on Universal Service Staff Workshops on Proxy Cost Models, January 14-15, 1997, CC Docket 96-45.

“Evaluating the BCM2: An Assessment of Its Strengths and Weaknesses,” presentation to the AT&T Cost Team (with Michael J. DeWinter), December 4, 1996.

“Interpreting the Telecommunications Act of 1996 Mandate for the Deployment of Advanced Telecommunications Services in a Fiscally Responsible and Fully Informed Manner” (with Helen E. Golding), *Proceedings of the Tenth NARUC Biennial Regulatory Information Conference*, Volume 3, September 11-13, 1996.

“Making Adjustments to the BCM2.” Presentation to the Staff of the Federal-State Joint Board on Universal Service, September 16, 1996.

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“New Frontiers in Regulation.” Presentation to the New England Women Economists Association, December 12, 1995.

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