

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

Admitted
8/20/09
ChS

COMMONWEALTH EDISON COMPANY :
 :
 :
Petition to approve an Advanced Metering : No. 09-0263
Infrastructure Pilot Program and associated tariffs :

OFFICIAL FILE

I.C.C. DOCKET NO. 09-0263
ComEd Exhibit No. 14.0

Witness: _____
Date 8/20/09 Reporter AS

Rebuttal Testimony of
DAVID B. DOHERTY
Manager, AMI Program Implementation
Commonwealth Edison Company

1 Q. Please state your name and business address.

2 A. My name is David B. Doherty. My business address is 1919 Swift Drive, Oak Brook,
3 Illinois 60523.

4 Q. Have you previously testified in this proceeding?

5 A. Yes. My direct testimony is identified as ComEd Ex. 6.0.

6 Q. What is the purpose of your rebuttal testimony?

7 A. The purpose of my rebuttal testimony is to respond to certain issues raised in the direct
8 testimony of Illinois Attorney General and AARP (“AG/AARP”) witness Barbara R.
9 Alexander. In particular, I respond to Ms. Alexander’s recommendation that the Illinois
10 Commerce Commission (“Commission” or “ICC”) order Commonwealth Edison
11 Company (“ComEd”) to provide an evaluation plan that identifies what technologies are
12 being tested compared to other utility Advanced Metering Infrastructure (“AMI”)
13 installation and testing experiments. Further, I address Ms. Alexander’s recommendation
14 that the Commission order ComEd to provide an evaluation of what investments could be
15 considered to upgrade existing automated meter reading systems to achieve some if not
16 all of the functionalities of the proposed AMI system. Ms. Alexander believes that based
17 on pilot programs either completed or underway at other utilities, it should be possible to
18 conduct a test of the operational characteristics of AMI technologies for 5,000 to 10,000
19 meters.

20 Q. How do you respond to Ms. Alexander’s suggestion that ComEd provide an evaluation
21 plan that identifies what technologies are being tested compared to other utility AMI
22 installation and testing experiments?

23 A. Such an evaluation is already completed. As presented and discussed in the AMI
24 workshops, ComEd and the ICC-appointed workshop facilitator, R.W. Beck / Plexus
25 Research, identified, for Workshop participants, which technologies and testing
26 experiments are being conducted at other utilities as part of other AMI implementations.
27 The evaluation was thorough and thoughtful. Workshop participants engaged in a
28 discussion regarding the evaluation and, as a result, became particularly involved with the
29 technology selection itself. An ordered evaluation plan by the Commission to identify
30 technologies and tests conducted elsewhere would duplicate the hard work already
31 engaged in by Workshop participants and unnecessarily delay the AMI Pilot and the
32 related potential benefits of the pilot.

33 Q. With respect to Ms. Alexander's direct testimony regarding the number of meters to be
34 installed as part of the AMI Pilot, is it possible to conduct a test of the operational
35 characteristics of AMI technologies with 5,000 to 10,000 meters?

36 A. Such a deployment would severely impact the data received from the AMI Pilot and the
37 conclusions drawn regarding full deployment in ComEd's service territory. The
38 Commission in ordering the AMI workshops and the AMI Pilot program, stated:

39 While the Commission understands how the proposed Phase 0 will allow ComEd to
40 quantify the costs of a full AMI deployment, the process by which ComEd quantifies
41 the benefits remains unclear. The AMI Workshops, described below, shall fully
42 investigate the measure of benefits from the utility side of the meter. ... Therefore,
43 following the deployment of AMI and a period of analysis that is extensive enough to
44 enable ComEd to evaluate Phase 0, ComEd is directed to prepare a report assessing
45 the results of Phase 0.

46 (ICC Docket No. 07-0566, Order dated September 10, 2008 at 139) (footnote omitted)
47 ComEd's proposal reflects the number of meters needed in order to provide such a
48 Commission ordered analysis.

49 Further, the pilot was designed to allow ComEd to clearly describe not only
50 operational characteristics but evaluate the full suite of benefits that customers may
51 realize through a large AMI deployment. As proposed, the Pilot will allow ComEd to
52 only directly realize a portion of the benefits that will translate in reduced costs and lower
53 rates over time. Customers, however, should directly receive the benefits of reduced
54 energy losses, experience improvements in reliability, and be empowered with daily
55 information to better manage their electric usage; not to mention a cleaner environment if
56 usage is curtailed as a result of the technology. See ComEd Ex. 12.0 and 12.01, the
57 rebuttal testimony of Mr. Richard O'Toole for further analysis on the required number of
58 meters to support the operational analysis as requested by the ICC and confirmed through
59 the AMI workshops.

60 Q. Has ComEd previously conducted an AMI experiment?

61 A. Yes, In 2004, ComEd did conduct an AMI experiment with less than 1,000 meters to
62 evaluate the technology and operational characteristics. While the technology evaluation
63 was successful, due to the size of the experiment, only limited information was extracted
64 with regard to the operational impacts. Such information did not provided the data
65 required to assess the operational benefits or costs of full deployment of AMI meters in
66 ComEd's entire service territory. ComEd did not invest in the necessary IT integration to
67 fully evaluate the robust functionality planned for the proposed 2010 AMI Pilot. This

68 particular pilot focused only on the value of the remote service switch; the meters were
69 not read remotely for billing, nor were meter events such as tamper and theft evaluated.

70 Q. Could ComEd simply, as Ms. Alexander suggests, upgrade existing automated meter
71 reading systems to achieve some, if not all, of the functionalities of the proposed AMI
72 system?

73 A. No.

74 Q. Can you explain exactly what existing systems that ComEd has in place?

75 A. In addition to the AMI pilot described above which was not fully integrated for billing
76 purposes, ComEd has three meter reading systems in place: 1) nearly all of the 4 million
77 ComEd meters are read monthly by meter readers who either enter the dial reads of the
78 mechanical meters into an Itron handheld or use the handhelds to probe electronic meters
79 for time-of-use information; 2) approximately 3,000 AMR meters are read monthly or
80 weekly over phone lines and cellular modems by Itron's MV90 system; and 3) another
81 3,000 AMR meters are read daily over a paging network with SmartSynch's TMS
82 system.

83 Q. Why is it not possible to simply upgrade these existing systems to achieve the
84 functionalities of the proposed AMI Pilot?

85 A. First, AMI is not just the next step in these current systems. AMI represents a
86 transformational change of ComEd's grid. Further, to simply upgrade the current
87 systems would mean ComEd would not be in compliance with national requirements
88 concerning AMI. Second, the existing systems are in place to meet niche needs such as
89 hard to access or hard to read meters, or provide commercial customers, for an additional

90 monthly fee, with timely information to control their costs. These systems cost ComEd
91 approximately \$10 per month to read and process the meter data. ComEd's current
92 average price to read a meter is less than \$1 per month. As discussed in the AMI
93 workshops, if ComEd chose to leverage these systems to demonstrate the goals of the
94 Pilot, it is unlikely that an economic justification to implement AMI would ever be found.
95 The proposed AMI system will have to cost less than the current monthly expense of
96 meter reading and/or provide additional value. A clear outcome of the AMI Workshops
97 was a desire to use this AMI Pilot to make those determinations and assertions.
98 Furthermore, such determinations and assertions would be needed in accordance with the
99 Commission's Order in ICC Docket No. 07-0566.

100 Q. Ms. Alexander requests that ComEd provide costs of full deployment of AMI. Has
101 ComEd provided such information to the Commission?

102 A. ComEd presented such information in its last rate case, ICC Docket No. 07-0566 (see,
103 ComEd Ex. 23.0, the rebuttal testimony of ComEd witness Sally T. Clair). Based upon
104 this and other evidence in the record in that proceeding, the Commission ordered order
105 ComEd to conduct the AMI Pilot, noting that "Our hope is to have a better grasp of costs
106 and benefits once [the AMI Pilot] is implemented and analyzed..." (ICC Docket No. 07-
107 0566, Order date September 10, 2008 at 138).

108 Q. Does this complete your rebuttal testimony?

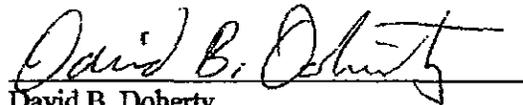
109 A. Yes.

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY	:	
	:	
Petition to approve an Advanced Metering	:	No. 09-0263
Infrastructure Pilot Program and associated tariffs	:	

VERIFICATION

I, David B. Doherty, being first duly sworn, states that he is Manager, AMI Program Implementation for Commonwealth Edison Company ("ComEd") and has provided rebuttal testimony, identified as ComEd Ex. 14.0, on behalf ComEd. ComEd Ex. 14.0 was prepared by Mr. Doherty or under his direction and control. Under penalties as provided by law pursuant to Section 1-109 of the Code of Civil Procedure, the undersigned certifies that the statements set forth in this instrument are true and correct, except as to matters therein stated to be on information and belief and as to such matters the undersigned certifies as aforesaid that he verily believes the same to be true.



David B. Doherty