

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

COMMONWEALTH EDISON COMPANY :
: Docket No. 13-0528
Reconciliation of revenues collected :
under power procurement riders with :
actual costs associated with power :
procurement expenditures. :

Direct Testimony of

JOHN HENGTGEN

Consultant

Hengtgen Consulting LLC

On Behalf of

Commonwealth Edison Company

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1 **I. INTRODUCTION**

2 **A. Witness Identification**

3 **Q. What is your name and business address?**

4 A. My name is John Hengtgen. My business address is 1708 Freedom Court, Mount
5 Prospect, Illinois 60056.

6 **Q. By whom and in what capacity are you employed?**

7 A. I am employed by Hengtgen Consulting LLC. I am a consultant providing service to
8 Commonwealth Edison Company (“ComEd”).

9 **B. Purpose of Testimony**

10 **Q. What is the purpose of your direct testimony?**

11 A. The purpose of my direct testimony is to describe and support the reasonableness of
12 ComEd’s cash working capital (“CWC”) costs associated with the procurement of
13 electric power and energy for retail customers served under Rider PE - Purchased
14 Electricity (“Rider PE”) and under Rate BESH - Basic Electric Service Hourly
15 (“Rate BESH”) for the period June 1, 2011, through May 31, 2012 (the “reconciliation
16 period”).

17 In my testimony, I provide a description of the CWC costs and the leads and lags
18 used and explain why it is reasonable for ComEd to recover those costs under Rider PE
19 and Rate BESH.

20 **C. Summary of Conclusions**

21 **Q. In summary, what are the conclusions of your direct testimony?**

22 A. The methodology used by ComEd to calculate its CWC costs and develop the leads and
23 lags is reasonable. As such, the CWC amount included in ComEd's costs incurred under
24 Rider PE and Rate BESH is reasonable and should be approved.

25 **D. Itemized Attachments to Direct Testimony**

26 **Q. Are you sponsoring any attachments to your testimony?**

27 A. Yes, I've attached to my direct testimony ComEd Exhibit ("Ex.") 3.1, which summarizes
28 the actual CWC costs included in ComEd's costs incurred under Rider PE and
29 Rate BESH during the reconciliation period.

30 **E. Background, Qualifications and Experience**

31 **Q. What is your educational background and business experience?**

32 A. I graduated from Northern Illinois University in 1978 and received a Bachelor of Science
33 degree in Accounting. Also, in 1978, I passed the Certified Public Accounting
34 Examination. In 1985, I received a Masters of Business Administration with a
35 concentration in Finance from Loyola University. I spent my entire career with The
36 Peoples Gas Light and Coke Company ("Peoples Gas"), Peoples Energy Corp. and
37 Integrys Business Support, LLC ("IBS") where I held various regulatory, accounting and
38 financial positions. I retired from IBS on February 1, 2010, and later in 2010 began
39 providing consulting services to various utilities. In May, 2013 I formed Hengtgen
40 Consulting, LLC, which provides regulatory consulting to utilities.

41 **Q. Have you previously testified before the Commission?**

42 A. Yes, I testified on the CWC requirements of ComEd in ICC Docket Nos. 11-0721,
43 12-0321, 12-0549 ("2010/2011 Reconciliation") and 14-0312. I have also testified on

44 behalf of Peoples Gas and North Shore Gas Company (“North Shore”) as a rebuttal
45 witness in Peoples Gas’ and North Shore’s general rate proceedings in ICC
46 Docket Nos. 95-0032 and 95-0031, respectively, and in the Peoples Gas’ and North
47 Shore’s 2009, 2011, 2012, and 2014 general rate proceedings, ICC Docket
48 Nos. 09-0166/09-0167 (cons.), 11-0280/11-0281 (cons.), 12-0511/12-0512 (cons.) and
49 14-0224/14-0225 (cons.), respectively.

50 **II. CASH WORKING CAPITAL COSTS INCLUDED IN RIDER PE AND RATE**
51 **BESH**

52 **A. Overview**

53 **Q. What has ComEd asked you to perform?**

54 A. ComEd has asked me to review the CWC cost calculations included in ComEd’s costs
55 incurred under Rider PE and Rate BESH and provide an opinion on the reasonableness of
56 the CWC amounts recovered through Rider PE and Rate BESH.

57 **Q. Who performed the lead/lag calculations that were used to determine the cash**
58 **working capital costs included in Rider PE and Rate BESH for this reconciliation**
59 **period?**

60 A. ComEd personnel performed the calculations.

61 **Q. Were these calculations made in a manner similar to the lead/lag study used to**
62 **determine the CWC costs included in the 2010/2011 Reconciliation?**

63 A. Yes. Navigant Consulting (“Navigant”) was hired by ComEd to perform a lead/lag study
64 related to the CWC amounts to be recovered through Rider PE and Rate BESH in the
65 2010/2011 Reconciliation. The calculations performed by ComEd for this reconciliation

66 period have been updated and are similar to what was done by Navigant for the
67 2010/2011 Reconciliation.

68 **Q. What is a lead/lag study?**

69 A. A lead-l ag study is a specific analysis of the timing of applicable cash inflows to a utility
70 in conjunction with an analysis of the timing of applicable cash outflows from the utility.
71 The various cash inflows (lag) and the cash outflows (leads) are discussed below and
72 both are measured in days, and where appropriate, are dollar weighted to reflect the flow
73 of funds.

74 **Q. What steps did you perform in your review?**

75 A. I performed the following steps: 1) I reviewed the lead-lag study performed by Navigant
76 that was the basis for the leads and lag in the 2010/2011 Reconciliation; 2) I reviewed the
77 tariff language in Rider PE and Rate BESH as it relates to CWC; 3) I had discussions
78 with ComEd's Revenue Accounting and Energy Acquisition groups regarding the CWC
79 calculations and amounts included in ComEd's costs incurred under Rider PE and Rate
80 BESH; 4) I reviewed the Internal Audit Report (ComEd Ex. 1.1) and the Supplemental
81 Statement (ComEd Ex. 1.2); and 5) I reviewed the lead and lag calculations and the
82 calculations of actual costs of CWC provided by ComEd's Revenue Accounting group
83 (ComEd Ex. 3.1).

84 **Q. In general, how were the leads and lag calculations developed by ComEd?**

85 A. ComEd prepared the updated leads and lags based primarily on calendar year 2010 data
86 which was the latest calendar year data available prior to the reconciliation period using a

87 methodology similar to what was used for the leads and lags approved in the 2010/2011
88 Reconciliation.

89 **Q. How were the results of the lead/lag calculations converted into a cash working
90 capital requirement figure?**

91 A. The computed lead days are subtracted from the computed lag days and the resultant net
92 number of days is divided by 365 to produce a working capital factor or percentage. This
93 factor is then applied to the purchased power costs to determine the CWC requirement.
94 The CWC requirement then is multiplied by the cost of capital to produce the amount of
95 revenue to be collected.

96 **B. Revenue Lag**

97 **Q. What is a revenue lag and how was it determined?**

98 A. The revenue lag measures the number of days from the date service was rendered by
99 ComEd until the date payment was received from customers and such funds become
100 available to ComEd. The revenue lag is comprised of five distinct components:
101 (1) service lag; (2) billing lag; (3) collections lag; (4) payment processing lag; and
102 (5) bank float on collections from customers. ComEd updated the collection lag based on
103 calendar year 2010 data and kept the other 4 components of the revenue lag the same as
104 what was approved in the 2010/2011 Reconciliation. Considered together, with the
105 updated collection lag these five components totaled a weighted average of 50.50 lag
106 days. An explanation of each component of the revenue lag follows.

107 **Q. What is meant by service lag?**

108 A. The service lag refers to the period of time from when service is rendered to the time the
109 customer's meter is read. Using the mid-point methodology, the average service lag
110 associated with meter reading was 15.21 days (365 days in the year divided by 12 months
111 divided by 2). Twelve months was appropriate to use for purposes of determining the
112 service lag because ComEd bills its customers monthly.

113 Q. **What is the mid-point methodology?**

114 A. To determine the service lead or lag, it is assumed that the service was provided (or
115 received) evenly over a given period, usually a month. For example with the revenue lag,
116 it was assumed that a customer receives electric service from ComEd evenly over an
117 entire month and not just at the end of a month. Adding the one-half month to the
118 derivation of the lead or lag is referred to as the mid-point methodology.

119 Q. **What is meant by billing lag?**

120 A. Billing lag refers to the average number of days from the date on which the meter was
121 read until the date a customer is billed. Based on information received from ComEd's
122 Customer Service Department, it was determined that ComEd bills the majority of its
123 customers based on actual reads and that process takes one day. Where an estimated bill
124 is issued or an actual billing needs to be reviewed and possibly reworked the billing
125 process could take up to five days. Taking this information into account a billing lag of
126 1.49 days was determined.

127 Q. **What is meant by collections lag?**

128 A. The collections lag refers to the average amount of time from the date when ComEd
129 issues a bill to the customer to the date that it received payment from that customer.

130 Based on information from ComEd's Revenue Accounting Department and by using
131 accounts receivable aging data for calendar year 2010, it was determined the average
132 collections lag at ComEd was 32.34 days.

133 **Q. What is a payment processing lag?**

134 A. A payment processing lag is the time period between the recording of a payment as
135 having been received by ComEd from a customer and the payment being deposited into
136 ComEd's bank account. Based on interviews with ComEd's customer service
137 department, regardless of how a customer pays ComEd, i.e., check or electronic, the
138 customer's payment is in ComEd's bank account on the same day as received, therefore it
139 was determined the normal processing time to be 0.50 days. The exceptions would be if
140 the payment were to be received on a Friday, Saturday, or a public holiday in which case
141 additional time would be involved. When the exceptions are taken into account, an
142 overall payment processing lag of 0.85 days was determined.

143 **Q. What is meant by bank float?**

144 A. Bank float is the time between ComEd's deposit of the customer's payment and the time
145 ComEd has access to the cash. It was determined that data provided by ComEd's bank
146 indicated that there was a float time of about 0.61 days between aggregate deposits of
147 customer checks into ComEd's bank account and its access to the cash.

148 **Q. Can you summarize the calculation of revenue lag days and show a comparison to**
149 **what was approved in the 2010/2011 Reconciliation?**

150 A. Yes. The calculation of the overall revenue lag, by lag component, is summarized below
151 in the 2011/2012 column and totals 50.50. The revenue lag, by lag component that was
152 approved in the 2010/2011 Reconciliation is shown in the second column.

153

	2011/2012	2010/2011
Service Lag	15.21	15.21
Billing Lag	1.49	1.49
Collections Lag	32.34	36.31
Payment Processing Lag	0.85	0.85
Bank Float	0.61	0.61
Total Lag Days	50.50	54.47

154

155 Q. **Was it reasonable that ComEd only updated the collection lag component for this**
156 **reconciliation proceeding?**

157 A. In my opinion, yes. When you exclude the service lag which typically does not change,
158 the collection lag component makes up over 90% of the remaining components of the
159 revenue lag, therefore it is by far the biggest driver in measuring the revenue lag. It also
160 is the most volatile component as it measures customer payment patterns and collection
161 activity. In addition the accounts receivable aging data used to update the calculation is
162 readily available in reports used on a monthly basis by ComEd. Reflecting an updated
163 collection lag, especially given the magnitude and direction of the change appears
164 reasonable and appropriate.

165 C. **Expense Leads**

166 Q. **What is an expense lead and how is that term used in your testimony?**

167 A. An expense lead is the time difference between when a good or service is provided to
168 ComEd and when ComEd pays for that good or service.

169 Q. **How is an expense lead determined?**

170 A. An expense lead consists of a service lead and a payment lead. The service lead assumes
171 that the goods are received by or the service is provided to ComEd evenly over the
172 service period, which in most cases is a month. The payment lead represents the time
173 period from the end of the service period until the time the payment is made.

174 Q. **What expense-related leads were considered in the lead-lag calculations performed
175 by ComEd?**

176 A. Lead times associated with the following items were considered in the study:
177 (1) contracted supply based on Request for Proposals (“RFP”) and auctions; (2) payments
178 related to a swap arrangement between ComEd and Exelon Generation; (3) payments to
179 PJM Interconnection (“PJM”) for non-transmission and transmission related products and
180 services and (4) payments to suppliers for RECs. Payment data for these items during
181 calendar year 2010 was analyzed by ComEd in order to calculate and update the
182 applicable expense leads.

183 Q. **Can you provide an explanation of the leads associated with RFPs and auctions?**

184 A. Yes. During 2010, ComEd had in place a number of contracts based on RFPs and
185 auctions. The payment terms related to these contracts were such that payments were
186 made 1 business day after the 19th of the month following the month the products and
187 services were received. Taking into consideration a service lead and a payment lead and
188 using actual payments made in 2010, a weighted average expense lead of 35.71 days was
189 determined. This expense lead was used in the calculation of the cash working capital
190 requirement of Rider PE only.

191 Q. **What is the lead associated with the Swap agreement between ComEd and Exelon**
192 **Generation?**

193 A. Payments to Exelon Generation were due by the 15th calendar day of the month
194 following the month in which services were provided. Taking into consideration a
195 service lead and a payment lead and using actual payments made in 2010, a weighted
196 average expense lead of 29.35 days was determined. This expense lead was used in the
197 calculation of the cash working capital requirement of Rider PE only.

198 Q. **What were the leads associated with payments to PJM for non-transmission and**
199 **transmission related services?**

200 A. ComEd purchases energy and ancillary services from PJM and then arranges
201 transmission to deliver the products to its customers. The payments to PJM are based on
202 PJM's policies including weekly payments and including reconciliations and monthly
203 true-ups. Taking into consideration a service lead and a payment lead and using actual
204 payments made in 2010, a weighted average expense lead of 15.05 days was determined.
205 This expense lead was used in the calculation of the cash working capital requirements of
206 both Rider PE and Rate BESH.

207 Q. **What was the lead associated with payments for RECs?**

208 A. It was determined that the lead for RECs related to rider PE would be based on the
209 current plan for procuring RECs, i.e., on a quarterly basis over a 12 month period with
210 flexibility to acquire RECs beyond the 12 month period by an additional two months.
211 ComEd determined a lead time of 74.21 days was appropriate. This expense lead was
212 used in the calculation of the cash working capital requirements for Rider PE. For the

213 RECs related to the hourly customers served under Rate BESH, ComEd determined that
 214 the lead would be based on the assumption of ratable collections from customers over the
 215 June, 2011 – May, 2012 current reconciliation period and the amounts collected would be
 216 provided to the Illinois Power Agency at the beginning of the June 2012 – May 2013
 217 procurement plan year. Based on this information ComEd determined that a working
 218 capital factor of a negative 40.46% was appropriate.

219 **Q. Can you summarize the various leads that were determined for this reconciliation**
 220 **period and show a comparison to what was approved in the 2010/2011**
 221 **Reconciliation?**

222 A. Yes. The various leads are summarized below in the 2011/2012 column. The leads
 223 approved in the 2010/2011 Reconciliation are shown in the second column.

	2011/2012	2010/2011
PJM	15.05	15.84
REC-Rider PE	74.21	74.21
RFP	35.71	35.52
SWAP	29.35	30.67
Transmission - PJM	15.05	15.84
REC-Rate BESH	(40.46%)	(139.11%)

224

225 **III. REASONABLENESS OF CASH WORKING CAPITAL COSTS**

226 **Q. Are the CWC costs shown on ComEd Ex. 3.1 that ComEd incurred associated with**
 227 **the procurement of electric power and energy for retail customers served under**
 228 **Rider PE and Rate BESH for the period June 1, 2011, through May 31, 2012,**
 229 **reasonable?**

230 A. Yes they are. During the reconciliation period, ComEd incurred supply related CWC
 231 costs because ComEd pays the most of its various supply resources before it receives

232 payment from its customers, who use those resources. ComEd performed lead-lag
233 calculations in which it determined the leads and lag to be applied to the various
234 components of the supply costs and therefore calculate the cash working capital amounts
235 that should be included in ComEd's costs incurred under Rider PE and Rate BESH. The
236 methodology used by ComEd in this proceeding to calculate the leads and the lags is
237 similar to the methodology that was used for the 2010/2011 Reconciliation and is
238 reasonable and consistent with other lead-lag studies that I personally have performed
239 and studies done by others that I have reviewed. In addition, the internal audit
240 department reviewed the cost recovery process performed by Revenue Accounting and
241 determined that it is consistent with the requirements of Rider PE and Rate BESH. See
242 also the direct testimony of Gerald Kozel, ComEd Ex. 1.0.

243 Q. **Does this complete your direct testimony?**

244 A. Yes.