

**STATE OF ILLINOIS**  
**ILLINOIS COMMERCE COMMISSION**

COMMONWEALTH EDISON COMPANY	:	
	:	
Reconciliation of revenues collected under	:	
power procurement riders with actual costs	:	No. 12-0549
associated with power procurement	:	
expenditures.	:	

Direct Testimony of  
**JOHN HENGTGEN**  
Consultant,  
SFIO Consulting, Inc.  
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 SFIO Consulting, Inc. (“SFIO”). I am a consultant providing service  
8 to 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 (“Rate  
15 BESH”) for the period June 1, 2010, through May 31, 2011 (the “reconciliation period”).

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

19 **C. Summary of Conclusions**

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

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

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

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

26 **A.** Yes, the attachments to my direct testimony are:

- 27 1. ComEd Exhibit (“Ex.”) 3.1, which consists of Navigant Consulting’s  
28 (“Navigant”) lead-lag analysis.
- 29 2. ComEd Ex. 3.2, which is ComEd’s calculation of the cash working capital  
30 factor for Renewable Energy Credits (RECs) related to Rate BESH.
- 31 3. ComEd Ex. 3.3, which summarizes the actual CWC costs included in  
32 ComEd’s costs incurred under Rider PE and Rate BESH during the  
33 reconciliation period.

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

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

36 **A.** I graduated from Northern Illinois University in 1978 and received a Bachelor of Science  
37 degree in Accounting. Also, in 1978, I passed the Certified Public Accounting  
38 Examination. In 1985, I received a Masters of Business Administration with a  
39 concentration in Finance from Loyola University. I spent my entire career with The  
40 Peoples Gas Light and Coke Company (“Peoples Gas”), Peoples Energy Corp. and  
41 Integrys Business Support, LLC (“IBS”) where I held various regulatory, accounting and  
42 financial positions including Superintendent of the State Regulatory Affairs Department,  
43 Manger of Tax Administration, Chief Auditor, Director of Accounting, Director of  
44 Business Services, Manager, Performance Analysis and Business Performance and Rate  
45 Case Consultant. I retired from IBS on February 1, 2010, and later in 2010 began

46 consulting work for both Stafflogix Corporation and SFIO. In May 2013, I also formed  
47 Hengtgen Consulting, LLC which provides regulatory consulting to utilities.

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

49 A. Yes, I testified on the CWC requirements of ComEd in ICC Docket Nos. 11-0721 and  
50 12-0321. I have also testified on behalf of Peoples Gas and North Shore Gas Company  
51 (“North Shore”) as a rebuttal witness in Peoples Gas’ and North Shore’s general rate  
52 proceedings in ICC Docket Nos. 95-0032 and 95-0031, respectively, and in the Peoples  
53 Gas’ and North Shore’s 2009, 2011 and 2012 general rate proceedings, ICC Docket Nos.  
54 09-0166/09-0167 (cons.), 11-0280/11-0281 (cons.) and 12-0511/12-0512 (cons.),  
55 respectively.

56 **II. CASH WORKING CAPITAL COSTS INCLUDED**  
57 **IN RIDER PE AND RATE BESH**

58 **A. Overview**

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

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

63 **Q. Was a lead/lag study performed in conjunction with the cash working capital costs**  
64 **included in Rider PE and Rate BESH?**

65 A. Yes. It is my understanding that Navigant was hired by ComEd to perform a lead/lag  
66 study related to the CWC amounts to be recovered through Rider PE and Rate BESH.  
67 That document has been included as ComEd Ex. 3.1. Navigant also prepared a lead/lag  
68 study that ComEd filed in its distribution rate case, ICC Docket No. 10-0467 in order to  
69 support its cash working capital requirement in that proceeding.

70 **Q. Page 1 of Ex. 3.1 appears to relate just to Rider PE. Has ComEd also used the**  
71 **results of this study for Rate BESH?**

72 A. Yes, the results of the study were also used for Rate BESH as the lags and leads are also  
73 applicable to the CWC requirements of Rate BESH.

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

75 A. A lead-lag study is a specific analysis of the timing of applicable cash inflows to a utility  
76 in conjunction with an analysis of the timing of applicable cash outflows from the utility.  
77 The various cash inflows (lag) and the cash outflows (leads) are discussed below and  
78 both are measured in days, and where appropriate, are dollar weighted to reflect the flow  
79 of funds.

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

81 A. I performed the following steps: 1) I reviewed the lead-lag study performed by Navigant  
82 (ComEd Ex. 3.1) and the testimony submitted by the Navigant witness regarding the  
83 revenue lag in Docket No. 10-0467; 2) I reviewed the tariff language in Rider PE and  
84 Rate BESH as it relates to CWC; 3) I had discussions with ComEd's Energy Acquisition  
85 group regarding CWC cost calculations included in ComEd's costs incurred under Rider  
86 PE and Rate BESH; 4) I reviewed the Internal Audit Report (ComEd Ex. 1.1) and the  
87 Supplemental Statement (ComEd Ex. 1.2); 5) I had discussions with the Internal Audit  
88 personnel of Exelon Corporation, ComEd's parent company, regarding their Internal  
89 Audit report, specifically as it related to their work regarding CWC; 6) I reviewed  
90 Internal Audit workpapers related to their work regarding CWC; and 7) I reviewed  
91 calculations of actual costs of CWC provided by ComEd's Revenue Accounting group  
92 (ComEd Ex. 3.3).

93 Q. **In general, how were the leads and lags developed in the study?**

94 A. Navigant primarily used data for calendar year 2009 which was the latest calendar year  
95 data available prior to the reconciliation period.

96 Q. **How were the results of the lead/lag study converted into a cash working capital  
97 requirement figure?**

98 A. In Navigant's study, the computed lag days are subtracted from the computed lead days  
99 and the resultant net number of days is divided by 365 to produce a working capital factor  
100 or percentage. This factor is then applied to the purchased power costs to determine the  
101 CWC requirement. The CWC requirement then is multiplied by the cost of capital to  
102 produce the amount of revenue to be collected.

103 **B. Revenue Lag**

104 Q. **What is a revenue lag and how was it determined in Navigant's study?**

105 A. The revenue lag measures the number of days from the date service was rendered by  
106 ComEd until the date payment was received from customers and such funds become  
107 available to ComEd. In the study, the revenue lag was divided into five distinct  
108 components: (1) service lag; (2) billing lag; (3) collections lag; (4) payment processing  
109 lag; and (5) bank float on collections from customers. Considered together, these five  
110 components totaled a weighted average of 57.32 lag days. An explanation of each  
111 component of the revenue lag follows.

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

113 A. The service lag refers to the period of time from when service is rendered to the time the  
114 customer's meter is read. Using the mid-point methodology, the average service lag  
115 associated with meter reading was 15.21 days (365 days in the year divided by 12 months

116 divided by 2). Twelve months was appropriate to use for purposes of determining the  
117 service lag because ComEd bills its customers monthly.

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

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

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

125 A. Billing lag refers to the average number of days from the date on which the meter was  
126 read until the date a customer is billed. Based on information received from ComEd's  
127 Customer Service Department, Navigant determined that ComEd bills the majority of its  
128 customers based on actual reads and that process takes one day. Where an estimated bill  
129 is issued or an actual billing needs to be reviewed and possibly reworked the billing  
130 process could take up to five days. Taking this information into account and using the  
131 data for calendar year 2009, a billing lag of 1.49 days was determined.

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

133 A. The collections lag refers to the average amount of time from the date when ComEd  
134 issues a bill to the customer to the date that it received payment from that customer.  
135 Based on information from ComEd's Revenue Accounting Department and by using  
136 accounts receivable aging data for calendar year 2009, Navigant determined the average  
137 collections lag at ComEd was 39.16 days. During the reconciliation period, the 39.16 day  
138 collection lag was used to compute the cash working capital requirement under Rider PE.

139 A lower collection lag (37.51) was used to compute the CWC requirement under Rate  
140 BESH.

141 **Q. Why was a lower collections lag used under Rate BESH?**

142 A. ComEd determined that the majority of its customers that are served under Rate BESH  
143 are small commercial and industrial customers (“SCI”) and large commercial and  
144 industrial customers (“LCI”). ComEd also determined that the breakdown between SCI  
145 and LCI under Rate BESH is approximately 96% SCI and 4% LCI. As a result, ComEd  
146 used the weighted average collection time for only the SCI customers and LCI customers,  
147 as shown on page 4 of ComEd Ex. 3.1, page 4, multiplied by the applicable percentages  
148 above to reduce the revenue lag to reflect 37.51 days ( $38.38 * 96\% + 16.61 * 4\% =$   
149  $37.51$ ).

150 **Q. What is a payment processing Lag?**

151 A. A payment processing lag is the time period between the recording of a payment as  
152 having been received by ComEd from a customer and the payment being deposited into  
153 ComEd’s bank account. Based on interviews with ComEd’s customer service  
154 department, regardless of how a customer pays ComEd, *i.e.*, check or electronic, the  
155 customer’s payment is in ComEd’s bank account on the same day as received, therefore  
156 Navigant determined the normal processing time to be 0.50 days. The exceptions would  
157 be if the payment were to be received on a Friday, Saturday, or a public holiday in which  
158 case additional time would be involved. When the exceptions are taken into account, an  
159 overall payment processing lag of 0.85 days was determined to be used by Navigant.

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

161 A. Bank float is the time between ComEd's deposit of the customer's payment and the time  
 162 ComEd has access to the cash. Navigant determined that data provided by ComEd's  
 163 bank indicated that there was a float time of about 0.61 days between aggregate deposits  
 164 of customer checks into ComEd's bank account and its access to the cash.

165 Q. **Can you summarize the calculation of revenue lag days?**

166 A. Yes. The calculation of the overall revenue lag, by lag component, is summarized below  
 167 for Rider PE and Rate BESH. The 57.32 revenue lag days is the same as the revenue lag  
 168 that ComEd proposed in its direct testimony in the delivery service rate case, ICC Docket  
 169 No. 10-0467.

	<b>Rider PE</b>	<b>Rate BESH</b>
Service Lag	<b>15.21</b>	<b>15.21</b>
Billing Lag	<b>1.49</b>	<b>1.49</b>
Collections Lag	<b>39.16</b>	<b>37.51</b>
Payment Processing Lag	<b>0.85</b>	<b>0.85</b>
Bank Float	<b>0.61</b>	<b>0.61</b>
Total Lag Days	<b>57.32</b>	<b>55.67</b>

170

171 C. **Expense Leads**

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

173 A. An Expense Lead is the time difference between when a good or service is provided to  
 174 ComEd and when ComEd pays for that good or service.

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

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

180 Q. **What expense-related leads were considered in the lead-lag analysis performed by**  
181 **Navigant?**

182 A. Lead times associated with the following items were considered in the study:  
183 (1) contracted supply based on Request for Proposals (“RFP”) and auctions; (2) payments  
184 related to a swap arrangement between ComEd and Exelon Generation; (3) payments to  
185 PJM Interconnection (“PJM”) for non-transmission and transmission related products and  
186 services and (4) payments to suppliers for RECs. Payment data for these items during  
187 calendar year 2009 was analyzed in order to calculate the appropriate leads.

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

189 A. Yes. Navigant’s study determined that during 2009, ComEd had in place a number of  
190 contracts based on RFPs and auctions. The payment terms related to these contracts were  
191 such that payments were made 1 business day after the 19<sup>th</sup> of the month following the  
192 month the products and services were received. Taking into consideration a service lead  
193 and a payment lead and using actual payments made in 2009, a weighted average expense  
194 lead of 35.52 days was determined. This expense lead was used in the calculation of the  
195 cash working capital requirement of Rider PE only.

196 Q. **What were Navigant’s findings regarding the leads associated with the Swap**  
197 **agreement between ComEd and Exelon Generation?**

198 A. Navigant’s study determined that the payments to Exelon Generation were due on the  
199 15<sup>th</sup> calendar day of the month following the month in which services were provided.  
200 Taking into consideration a service lead and a payment lead and using actual payments  
201 made in 2009, a weighted average expense lead of 30.67 days was determined. This

202 expense lead was used in the calculation of the cash working capital requirement of Rider  
203 PE only.

204 **Q. What were Navigant's findings regarding the leads associated with payments to**  
205 **PJM for non-transmission and transmission related services?**

206 A. ComEd purchases energy and ancillary services from PJM and then arranges  
207 transmission to deliver the products to its customers. Navigant's study determined that  
208 the payments to PJM are based on PJM's policies including weekly payments and  
209 including reconciliations and monthly true-ups. Taking into consideration a service lead  
210 and a payment lead and using actual payments made in 2009, a weighted average expense  
211 lead of 15.84 days was determined. This expense lead was used in the calculation of the  
212 cash working capital requirements of both Rider PE and Rate BESH.

213 **Q. What were Navigant's findings regarding the lead associated with payments for**  
214 **RECs?**

215 A. Navigant's study determined that the lead for RECs related to rider PE would be based on  
216 the current plan for procuring RECs, i.e., on a quarterly basis over a 12 month period  
217 with flexibility to acquire RECs beyond the 12 month period by an additional two  
218 months. Navigant determined a lead time of 74.21 days was appropriate. This expense  
219 lead was used in the calculation of the cash working capital requirements for Rider PE.  
220 For the RECs related to the hourly customers served under Rate BESH, ComEd  
221 determined that the lead would be based on the assumption of ratable collections from  
222 customers over the June, 2010 – May, 2011 current reconciliation period and the amounts  
223 collected would be provided to the Illinois Power Agency at the beginning of the June

224 2012 - May 2013 procurement plan year. This calculation is shown on ComEd Ex. 3.2  
225 and reflects a working capital factor of a negative 139%.

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

227 **Q. Are the CWC costs shown on ComEd Ex. 3.3 that ComEd incurred associated with**  
228 **the procurement of electric power and energy for retail customers served under**  
229 **Rider PE and Rate BESH for the period June 1, 2010 through May 31, 2011**  
230 **reasonable?**

231 **A.** Yes they are. During the reconciliation period, ComEd incurred supply related CWC  
232 costs because ComEd pays the most of its various supply resources before it receives  
233 payment from its customers, who use those resources. Navigant performed a lead-lag  
234 study in which it determined the leads and lag to be applied to the various components of  
235 the supply costs and therefore calculate the cash working capital amounts that should be  
236 included in ComEd's costs incurred under Rider PE and Rate BESH. The methodology  
237 used by Navigant in its lead-lag study to calculate the leads and the lags appears  
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.