

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

NORTH SHORE GAS COMPANY :
 : No. 11-____
Proposed General Increase :
In Rates For Gas Service :

Direct Testimony of

JOHN HENGTGEN

Consultant
Stafflogix Corporation

On Behalf of
North Shore Gas Company

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1 **I. INTRODUCTION AND BACKGROUND**

2 **A. Witness Introduction**

3 Q. Please state your name and business address.

4 A. My name is John Hengtgen. My business address is 130 East Randolph Drive, Chicago,
5 IL 60601.

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

7 A. I am employed by Stafflogix Corporation (“Stafflogix”). I am a consultant providing
8 service to North Shore Gas Company (“North Shore” or “NS”) in the Regulatory Affairs
9 Division.

10 **B. Purpose of Testimony**

11 Q. What is the purpose of your testimony?

12 A. The purpose of my testimony is to explain and support certain components of North
13 Shore’s request for a general increase in rates. In particular, I address the overall rate
14 base including a cash working capital requirement, which is supported by a lead-lag
15 study. North Shore witnesses Mr. Edward Doerk (NS Exhibit (“Ex.”) 8.0), Mr. John
16 Stabile (NS Ex. 10.0), and Ms. Christine Phillips (NS Ex. 11.0) also support components
17 of rate base in various respects.

18 Q. How is your testimony organized?

19 A. My testimony is divided into two parts. First, I discuss North Shore’s appropriate rate
20 base for purposes of the revenue requirement. Second, I address North Shore’s cash
21 working capital requirement that is included in rate base.

22 **C. Summary of Conclusions**

23 Q. Please summarize the conclusions of your direct testimony.

24 A. In brief, I conclude:

25 (1) North Shore's proposed and appropriate rate base is \$186,897,000. Based on my
26 testimony and the information provided in the testimony of other North Shore
27 witnesses, the proposed rate base is just and reasonable. The Illinois Commerce
28 Commission ("Commission" or "ICC") should approve \$411,643,000 as North
29 Shore's original cost of plant.

30 (2) North Shore's appropriate level of cash working capital is \$3,050,000. I
31 recommend that this amount be included in North Shore's rate base.

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

33 Q. Are you sponsoring any attachments to your direct testimony?

34 A. Yes. I am sponsoring NS Ex. 7.1, which includes the following schedules filed pursuant
35 to Part 285 of the Commission's rules (83 Ill. Admin. Code Part 285): B-1, B-1.1, B-1.2,
36 B-1.3, B-1.4, B-2, B-2.1, B-5, B-6, B-8, B-8.1, B-9, B-13, and B-14.

37 **E. Background and Experience**

38 Q. Please outline your educational background and business experience.

39 A. I graduated from Northern Illinois University in 1978 and received a Bachelor of Science
40 degree in Accounting. Also, in 1978, I passed the Certified Public Accounting
41 Examination. In 1985, I received a Masters of Business Administration with a
42 concentration in Finance from Loyola University. Immediately after graduation from
43 Northern Illinois University, I began my career with The Peoples Gas Light and Coke
44 Company ("Peoples Gas" or "PGL"), in the State Regulatory Affairs Department, where I

45 held various accounting positions. In 1985, I transferred to the Tax Administration
46 Department as a Senior Tax Accountant. In 1987, I was promoted to Tax Supervisor and,
47 in 1990, I transferred to the Budget Department as a Budget Supervisor. In March 1993,
48 I was promoted to Superintendent of the State Regulatory Affairs Department. In
49 November 1994, I returned to Tax Administration as the Manger of Tax Administration.
50 In August 1995, I became the Chief Auditor of Peoples Energy Corporation (“PEC”). In
51 April, 2000, I became Director of Accounting at Peoples Energy Resources Corp. In
52 2005, I became Director of Business Services at PEC where my primary responsibilities
53 were project management duties related to the filing of the 2007 general rate cases for
54 PGL and North Shore (ICC Docket Nos. 07-0241/07-0242 (cons.)). After the February
55 2007 merger between WPS Resources Corporation and PEC, I took the position of
56 Manager, Performance Analysis and Business Performance. In September 2007, I
57 transferred to Peoples Gas as a Rate Case Consultant, and in January 2008, I transferred
58 to Integrys Business Support, LLC’s (“IBS”) Regulatory Affairs group as a Rate Case
59 Consultant. I retired from IBS on February 1, 2010, and in May 2010 I began working
60 for Stafflogix in my current role as a consultant on behalf of North Shore.

61 Q. Have you previously testified before the Commission?

62 A. Yes, I testified on behalf of Peoples Gas and North Shore as a rebuttal witness in Peoples
63 Gas’ and North Shore’s general rate proceedings in ICC Docket Nos. 95-0032 and 95-
64 0031, respectively and in the last general rate proceeding for Peoples Gas and North
65 Shore, ICC Docket No. 09-0166/09-0167 (cons.) (“2009 Rate Case”). My testimony in
66 that proceeding covered the same topics as my testimony in this proceeding.

67 **II. RATE BASE**

68 **A. Overall Rate Base**

69 Q. Please describe Schedule B-1 in NS Ex. 7.1.

70 A. Schedule B-1 shows the components of North Shore's "average" test year 2012 rate base,
71 as adjusted, of \$186,897,000. That figure is derived from Gross Utility Plant of
72 \$422,385,000, less Accumulated Reserve for Depreciation and Amortization of
73 \$180,540,000, plus additions to rate base of \$5,603,000, less subtractions from rate base
74 of \$60,551,000. North Shore's rate base includes the investment made by North Shore in
75 utility facilities in order to provide safe, adequate, and reliable service to its customers.

76 By "average" rate base I mean that the amounts, in general (i.e., except where
77 noted), are based on the average of the balances as of December 31, 2011, and as of
78 December 31, 2012. The exception is that certain items are calculated based on
79 13-month averages consistent with past Commission decisions, as discussed further
80 below.

81 Q. Why have you proposed an average rate base for the test year?

82 A. I am proposing an "average" rate base (except for the items based on 13-month averages)
83 for the test year, calendar year 2012, because that is consistent with past Commission
84 rulings when a forecasted test year is used.

85 Q. Has North Shore included a calculation of year-end rate base?

86 A. Yes, year-end rate base is also shown on schedule B-1, Column E. Total year end rate
87 base is shown on line 17, Column E and is \$192,361,000.

88 Q. How does the approved rate base for calendar year 2010, the test year in North Shore's
89 2009 Rate Case, compare to North Shore's average rate base for 2012, the test year in this
90 proceeding?

91 A. North Shore's rate base has increased by approximately \$3.8 million since the test year in
92 the 2009 rate case. The primary reasons for this increase are (1) North Shore's additional
93 capital investment in its utility infrastructure and facilities (\$22.4 million increase in
94 gross utility plant); (2) an increase in North Shore's cash working capital requirement
95 (\$2.2 million); (3) lower retirement benefits, net (\$2.3 million) and higher budget plan
96 balances (\$1.3 million), offset in part by an increase in the accumulated depreciation
97 reserve (\$14.9 million); (4) an increase in accumulated deferred income taxes (\$7.0
98 million); (5) an increase in the injuries and damages reserve (\$1.1 million); (6) reduced
99 gas in storage (\$1.0 million); and (7) reduced materials and supplies (\$0.4 million).
100 North Shore witness Mr. Doerk provides testimony with respect to North Shore's major
101 capital projects shown on Schedule F-4 that have been placed in service since the test
102 year in the 2009 Rate Case, calendar year 2010. North Shore witness Ms. Phillips
103 provides testimony regarding North Shore's pension asset and OPEB (other post-
104 employment benefits) liability and North Shore witness Mr. Stabile provides testimony
105 regarding North Shore's deferred tax adjustment.

106 Q. What is the basis for the data presented on Schedule B-1?

107 A. The amounts in columns D and E are the projected book balances at December 31, 2011
108 and December 31, 2012, respectively except for Cash Working Capital, Materials and
109 Supplies, Net of Accounts Payable, Gas in Storage, Net of Accounts Payable and Budget
110 Plan Balances. For Cash Working Capital, the amounts in columns D, E and F represent

111 identical amounts that are supported by North Shore’s lead-lag study. The amounts in
112 column D and E for Materials and Supplies, Gas in Storage and Budget Plan Balances are
113 13-month averages for each year. For these three items, the amounts in Column F are the
114 13-month averages for the test year, calendar year 2012, which are the same as the
115 amounts shown in column E. For the remainder of the items on Schedule B-1, the
116 amounts in column F are simple averages of the amounts in columns D and E.

117 Q. Please discuss the calculation of Net Utility Plant.

118 A. Lines 1 through 3 of Schedule B-1 summarize Net Utility Plant as of December 31, 2011
119 (column D) and December 31, 2012 (column E). Gross Utility Plant consists of the
120 original cost of Gas Plant in Service (ICC Account 101), Completed Construction Not
121 Classified (ICC Account 106), Construction Work in Progress (“CWIP”) (ICC Account
122 107) (this figure does not include CWIP accruing AFUDC) and Gas Stored Underground
123 - Noncurrent (ICC Account 117, Recoverable Natural Gas), shown on line 1. Line 2
124 includes the Accumulated Provision for Depreciation of Gas Utility Plant (ICC
125 Account 108), and an amount in Other Regulatory Liabilities (ICC Account 254) related
126 to North Shore’s accrual of net dismantling costs, all of which are deducted from Line 1
127 to yield Net Utility Plant on Line 3. (References to Accounts herein are the Uniform
128 System of Accounts as established by the Federal Energy Regulatory Commission
129 (“FERC”) and modified by the Commission for Gas Utilities Operating in Illinois.)

130 Q. Please discuss the rate base components on lines 4 through 6 of Schedule B-1.

131 A. The amount of North Shore’s Investment in Cash Working Capital is shown on line 4. I
132 describe the development of North Shore’s Cash Working Capital requirement later in
133 Section III of my testimony and the amount is supported by Schedule B-8 of NS Ex. 7.1.

134 Line 5 includes Materials and Supplies (“M & S”) offset by the related Accounts
135 Payable. North Shore has offset M & S with related Accounts Payable based on
136 Commission treatment established in North Shore’s recent rate cases. This component of
137 rate base is discussed later in my testimony and is supported by Schedule B-8.1 of NS
138 Ex. 7.1.

139 Line 6 sets forth Gas in Storage offset by the related Accounts Payable. North
140 Shore has offset Gas in Storage with related Accounts Payable based on Commission
141 treatment established in North Shore’s recent rate cases. This component of rate base is
142 discussed later in my testimony and is supported by Schedule B-1.1 of NS Ex. 7.1.

143 Q. Please describe the amounts shown on line 7 of Schedule B-1.

144 A. The amounts shown on line 7 for Retirement Benefits, Net are based on projected
145 balances of North Shore’s gross pension asset net of its accrued gross post-retirement
146 health and welfare costs. This component of rate base is discussed in the testimony of
147 Ms. Phillips. Deferred taxes associated with these items are recorded in the Accumulated
148 Deferred Income Taxes shown on line 10.

149 Q. Please describe the amounts shown on line 10 of Schedule B-1.

150 A. The amounts shown on line 10 are the balances of Accumulated Deferred Income Taxes
151 and projected in a manner consistent with the requirements of the Internal Revenue Code
152 for a utility following the normalization method of accounting. This component of rate
153 base is discussed later in my testimony and is supported by Schedule B-9 of NS Ex. 7.1.

154 Q. Please describe the other rate base components shown on lines 8 and 11 through 13 of
155 Schedule B-1.

156 A. The amounts shown on lines 8, 11, 12, and 13 for Budget Plan Balances, Customer
157 Deposits, Customer Advances for Construction, and Reserve for Injuries and Damages,
158 respectively, are normal rate base components that have been approved in past
159 Commission rate case proceedings. Accordingly, North Shore has included the balances
160 of these items in its Schedule B-1, the proposed rate base in this proceeding. Each of
161 these items will be discussed in more detail later in my testimony when I discuss the
162 exhibits that I am sponsoring that support each of these components.

163 Q. Are you aware of any adjustments that will need to be made to rate base in rebuttal
164 testimony?

165 A. Yes. As described in the testimony of Peoples Gas witness Christine Gregor (PGL Ex.
166 5.0) there are several tax related changes that are not included in the forecast since they
167 occurred after the forecast was prepared. It is North Shore's intention that these changes
168 will be reflected in rebuttal.

169 **B. Exhibits Supporting Rate Base**

170 Q. Please describe Schedule B-5 of NS Ex. 7.1.

171 A. This schedule shows North Shore's Gross Additions, Retirements and Transfers to Gross
172 Utility Plant for calendar year 2009 through 2012 and supports the amounts included on
173 line 1 of Schedule B-1.

174 The schedule begins with the Gross Utility Plant balance of \$406,045,000 at
175 December 31, 2008, and ends with a projected balance of Gross Utility Plant of
176 \$448,725,000 at December 31, 2012. The amount shown through December 31, 2009
177 agrees with the amount recorded on North Shore's books of account and the remaining
178 periods are projected balances. All transactions are reported in a manner consistent with

179 that used in North Shore's annual reports submitted to the Commission on a calendar year
180 basis. I have excluded from rate base the projected amount of \$16,276,000 at both
181 December 31, 2011 and 2012, which represents the asset retirement obligation balance on
182 those two dates.

183 Q. Please explain the accounting procedures which North Shore uses in recording property
184 additions.

185 A. To account for property additions, North Shore records all expenditures in construction
186 work orders in Account 107 - Construction Work in Progress. These costs include the
187 elements of material, North Shore's labor, transportation, contractor fees, fees to open
188 public rights of way, and construction overheads. Completed work orders are then
189 cleared to Account 106 - Completed Construction Not Classified with the appropriate gas
190 plant accounts. Each completed work order is then analyzed and the costs are allocated
191 to retirement units of property and then cleared to Account 101 - Utility Plant in Service
192 setting out the year installed, units, cost, and other pertinent data.

193 Q. How does North Shore determine the amount to record for retirements of Utility Plant in
194 Service?

195 A. "Specific plant," such as structures and improvements, equipment for transmission, and
196 land, is retired at the original cost recorded in the fixed property record. "Mass plant,"
197 such as mains, services, diaphragm and line-mounted rotary meters, and all meter and
198 house regulator installations, is retired at the average cost per unit by size and kind.
199 "Mass Plant" retirements are priced at the average cost for the year of installation of the
200 property retired.

201 Q. Please explain Schedule B-6 of NS Ex. 7.1.

202 A. Schedule B-6 shows an analysis, by Plant Function, of North Shore's Depreciation
203 Reserve, and sets forth actual per book balances of Accumulated Provision for
204 Depreciation of Gas Utility Plant (ICC Account 108) and an amount in Other Regulatory
205 Liabilities (ICC Account 254) related to North Shore's accrual of net dismantling costs
206 for calendar year 2009 (page 1), and projected balances for calendar years 2010 through
207 2012 (pages 2-4). This exhibit supports the amounts included in line 2 of Schedule B-1,
208 columns D and E.

209 The schedule begins with a Reserve Balance of \$160,184,000 at December 31,
210 2008, and includes actual reserve balances of \$163,463,000 at December 31, 2009 and
211 projected balances of, \$169,701,000, \$178,411,000, and \$187,935,000 at December 31,
212 2010, 2011, and 2012, respectively. Because the corresponding gross plant amounts are
213 not included, rate base also does not include the projected balances of the reserve
214 associated with the Asset Retirement Obligation in the amount of \$2,429,000 and
215 \$2,837,000 at December 31, 2011 and December 31, 2012, respectively.

216 The provisions for depreciation for calendar years 2009 through 2012 are shown
217 as increases to the Reserve. Retirements of depreciable property, at original cost, for
218 calendar years 2009 through 2012 are shown as decreases to the Reserve. Retirement
219 amounts are also reflected in Schedule B-5.

220 Q. Please describe Schedule B-8.1, M & S, in NS Ex. 7.1.

221 A. This schedule details the calculation of the actual 13-month average balances of M & S
222 based on actual per book data for calendar year 2009, and projected data for calendar
223 years 2010, 2011, and 2012. The amount on line 30, column D (\$1,984,000) is shown on

224 line 5, column D of Schedule B-1 and the amount on line 30, column G (\$2,006,000), is
225 shown on line 5, columns E and F of Schedule B-1. Included in the balances shown on
226 this exhibit are plant materials and operating supplies, net of accounts payable. These
227 items represent continuing, permanent investments in materials and supplies that North
228 Shore must maintain in order to provide service to its customers, and therefore, upon
229 which it should be allowed to earn a return. The accounts payable offset amount
230 associated with these balances is the net increase in the monthly balance, which is
231 consistent with past Commission decisions.

232 Q. What kinds of materials and supplies are included in M & S balances shown in columns
233 B and E of Schedule B-8.1?

234 A. The amounts shown in these columns represent the cost of pipe, fittings, station supplies,
235 meter supplies, electrical supplies, auto supplies, tools and work equipment and
236 replacement parts for North Shore's facilities, which are recorded in Account 154, Plant
237 Materials and Operating Supplies. All of these items are an integral part of the
238 continuing operation, maintenance, and construction programs, which enable North Shore
239 to provide safe, adequate, and reliable utility service to its customers.

240 Q. Please describe Schedule B-1.1, Gas in Storage in NS Ex. 7.1.

241 A. This schedule details the calculation of the actual 13-month average balances of Gas in
242 Storage based on actual per book data for calendar year 2009, and projected data for
243 calendar years 2010, 2011, and 2012. The amount on line 30, column D (\$6,857,000) is
244 shown on line 6, column D of Schedule B-1 and the amount on line 30, column G
245 (\$6,894,000), is shown on line 6, columns E and F of Schedule B-1. Included in the
246 balances shown on this schedule are the investments North Shore has made in inventory

247 gas including prepaid gas that is stored by North Shore's pipeline suppliers in connection
248 with storage services supplied to North Shore under the pipeline suppliers' rate schedules
249 on file with the FERC and under a Commission approved contract with Peoples Gas.
250 These items represent continuing, permanent investments in natural gas stored that North
251 Shore must maintain in order to provide service to its customers, and therefore upon
252 which it should be allowed to earn a return. The accounts payable offset amount
253 associated with these balances is the net increase in the monthly balance which is
254 consistent with past Commission decisions.

255 Q. Please describe Schedule B-14, Budget Payment Plan Balances, of NS Ex. 7.1.

256 A. This schedule details the calculation of the actual 13-month average balances of Budget
257 Plan Balances based on actual per book data for calendar year 2009, and projected data
258 for calendar years 2010, 2011, and 2012. The amounts on line 30, column B
259 (\$2,085,000) and on line 30 column D (\$2,085,000) are shown on line 8, columns D and
260 E of Schedule B-1. Note that the projected balances for 2011 and 2012 are each a
261 positive number, meaning that customer Budget Plan payments are projected to be less
262 than the accrued customer obligations for service. This result is similar to that which
263 North Shore experienced in its 2009 Rate Case and is consistent with its most recent
264 actual 13-month period ended December 31, 2009.

265 Q. Please describe Schedule B-9, Accumulated Deferred Income Taxes, of NS Ex. 7.1.

266 A. This schedule shows the projected balances of Accumulated Deferred Income Taxes by
267 component and ICC account at December 31, 2011 and December 31, 2012 and the
268 average amount for the test year. The amounts on line 68, column E (\$55,062,000) and

269 on line 68, column F (\$56,043,000) are shown on line 10, columns D and E, respectively
270 of Schedule B-1.

271 Q. Please describe Schedule B-13, Customer Deposits, of NS Ex. 7.1.

272 A. This schedule shows the balances of Customer Deposits based on actual per book data for
273 calendar year 2009, and projected data for calendar years 2010, 2011, and 2012. The
274 amounts on line 24, column B (\$2,650,000) and on line 24, column D (\$2,650,000) are
275 shown on line 11, columns D and E of Schedule B-1.

276 Q. Please describe Schedule B-1.3, Customer Advances for Construction, of NS Ex. 7.1.

277 A. This schedule details the amount for Customer Advances for Construction. The credit
278 balance of \$631,000 is the projected balance at December 31, 2011 and December 31,
279 2012. This amount is shown on line 12, columns D and E of Schedule B-1.

280 Q. Please describe Schedule B-1.4, Reserve for Injuries and Damages, of NS Ex. 7.1.

281 A. This schedule details the amount for Reserve for Injuries and Damages. The credit
282 balance of \$2,143,000 is the projected balance at December 31, 2011 and the credit
283 balance of \$2,218,000 is the projected balance at December 31, 2012. These amounts are
284 shown on line 13, columns D and E of Schedule B-1.

285 **C. Adjustments to Rate Base**

286 Q. Please describe Schedule B-2, Summary of Utility Adjustments to Rate Base, of NS Ex.
287 7.1.

288 A. This schedule provides a summary of the ratemaking adjustments shown in column G of
289 Schedule B-1 of NS Ex. 7.1.

290 Q. Please describe Schedule B-2.1 of NS Ex. 7.1.

291 A. Schedule B-2.1 shows the rate base impact of a proposed adjustment to deferred taxes for
292 the tax planning strategy that North Shore took on its 2009 income tax returns. The
293 testimony of North Shore witness Mr. Stabile explains why this change was made for tax
294 purposes but indicates that Internal Revenue Service (“IRS”) approval is far from certain
295 and the change could be disallowed, modified or reduced by the IRS upon examination.

296 Q. Given the uncertainty of this issue what is North Shore proposing?

297 A. As explained by Mr. Stabile, North Shore Gas believes its tax filing position is
298 appropriate and consistent with the federal tax law and regulations. However, there is
299 uncertainty and risk that the IRS will deny or substantially reduce the amount therefore
300 the Company is proposing an adjustment of \$464,000 to its accumulated deferred income
301 taxes for this item. This adjustment increases rate base and is 50% of the average balance
302 that is shown on Schedule B-2.1 at December 31, 2011 and December 31, 2012.

303 Q. Why do you think a 50/50 sharing of this risk is appropriate?

304 A. The Commission should encourage utilities to take advantage of tax savings
305 opportunities, where tax savings benefit the ratepayers but also offer some protection in
306 the event that North Shore’s tax deductions are reversed or reduced by the IRS. When a
307 company takes a tax deduction and reflects the impact of the deduction in its financial
308 statements, the benefits of that deduction will inevitably affect cost of service and / or
309 rate base and the benefit is conveyed to customers through reduced rates. During the
310 time between the company taking the deduction, and the ultimate resolution of the issue
311 after federal or state audit, the customers of the utility enjoy the benefit. However, to the
312 extent there is a final determination after audit, other Treasury action or law change, etc.

313 that reverses the company's position, it usually results in the company returning the
314 benefit without the ability to recover equivalent amounts from customers. North Shore
315 simply would like to share the risks as well as the benefits with the customers. Therefore,
316 North Shore believes that a reasonable position is to include only 50% of this in rate base
317 until this issue is allowed by the IRS after examination. To the extent such sharing is not
318 allowed, North Shore may not be able to take advantage of certain tax elections in the
319 future unless they are without any risk.

320 **D. Original Cost Determination**

321 Q. When was North Shore's last original cost determination?

322 A. In North Shore's 2009 Rate Case, the Commission made a determination that the original
323 cost of plant as of December 31, 2007 was \$398,983,000.

324 Q. Is North Shore requesting an original cost determination in this filing?

325 A. Yes.

326 Q. Why?

327 A. North Shore is required to maintain and preserve certain records, such as journal
328 vouchers and journal entries based on the date of the more recent original cost
329 determination. We are therefore asking that the Commission approve the amount shown
330 on Schedule B-5, Page 1 of 2, Line 12, Column F, as the original cost of plant as of
331 December 31, 2009.

332 Q. What is North Shore asking that the Commission include in its Order?

333 A. Consistent with Part 510 of the Commission's rules, we ask that the Commission's Order
334 state as follows:

335 It is further ordered that the \$411,643,000 original cost of plant for North Shore at
336 December 31, 2009, reflected on North Shore's Schedule B-5, Page 1 of 2,
337 Line 12, Column F, is unconditionally approved as the original cost of plant.

338 **III. CASH WORKING CAPITAL**

339 Q. Have you performed a study to determine the level of cash working capital ("CWC")
340 North Shore requires to finance its day-to-day operations?

341 A. Yes, a lead-lag study was completed which included analyzing North Shore's cash
342 transactions and invoice data for the twelve months ended December 31, 2009, where
343 appropriate. Calendar year 2009 was the last actual calendar year period available.

344 Q. Please explain what you mean by "where appropriate"?

345 A. Generally, in order to perform a lead-lag study, it is necessary to analyze historical cash
346 transactions. The revenue lags and the expense leads are calculated based on the
347 historical data and then applied to projected test year cash transactions. At times,
348 however, if certain events occur or if payment or receipt processes change, using
349 historical transactions and/or data may not produce a proper lead lag study. Therefore,
350 analyzing historical data may not be an appropriate method for determining a particular
351 lag or lead.

352 Q. Have you determined that it was appropriate to deviate from use of historical data in
353 certain cases in your analysis of the proper lead-lag study for North Shore?

354 A. Yes, for the Cost of Gas lead calculation I have not used historical data. I will explain the
355 rationale for not using historical data for this lead later in my testimony.

356 Q. Please define what you mean by the phrase "cash working capital".

357 A. Cash working capital is the amount of funds required to finance the day-to-day operations
358 of North Shore.

359 Q. How should the results of the cash working capital analysis be treated for ratemaking
360 purposes?

361 A. The cash working capital requirement should be included as part of North Shore's rate
362 base for ratemaking purposes.

363 Q. What is a lead-lag study?

364 A. A lead-lag study is an analysis of the differences between the revenue and collection lags
365 and the expense leads of a utility in order to measure and quantify the impact of the
366 timing of the utility's cash flow. For purposes of this study, I employed what is
367 commonly referred to as a gross lag approach to determine North Shore's cash working
368 capital requirements.

369 Q. What are the various leads and lags that should be considered in a cash working capital
370 analysis?

371 A. Three broad categories of leads and lags should be considered: (1) lag times associated
372 with the collection of revenues owed to the utility; (2) lag times for the collection of and
373 lead times associated with the payment of what are commonly referred to as pass-through
374 taxes and energy assistance charges; and (3) lead times associated with the payments for
375 goods and services received by the utility.

376 Q. What information did you use to determine the leads and lags in your cash working
377 capital analysis for North Shore?

378 A. Data from North Shore's Accounts Payable, Customer Service, Payroll, General Ledger
379 and Tax Systems as well as records from North Shore's bank accounts were utilized. The
380 information derived from these sources, together with analyses of specific invoice data,
381 led to the determination of the appropriate number of lead-lag days for North Shore.

382 **A. Net Lag Versus Gross Lag Methodologies**

383 Q. Why did you use the Gross Lag methodology instead of the Net Lag methodology to
384 determine North Shore's cash working capital requirements?

385 A. Either method is correct and, if done properly, should produce identical results. In North
386 Shore's last two cases, ICC Docket No. 07-0241/07-0242 (Cons.) and the 2009 Rate
387 Case, the ICC approved a CWC amount based a Gross Lag methodology. Therefore I
388 have utilized the Gross Lag methodology similar to those approved in those Commission
389 Orders and what North Shore used in the 2009 Rate Case.

390 Q. Please explain what is meant by the Gross Lag methodology.

391 A. Under the Gross Lag methodology, the revenue lag is divided by 365 days to calculate a
392 CWC factor for revenues. This factor is then applied to total cash working capital
393 revenues to determine the CWC requirement for revenues. Total company revenues are
394 adjusted to remove various non-cash items and non-base rate revenues to arrive at the
395 proper level of revenues to be used for the cash working capital analysis.

396 Pass-through taxes and energy assistance charge collection lags and
397 corresponding payment leads and various expense leads are also divided by 365 days to
398 calculate a CWC factor associated with each pass-through tax, energy assistance charge
399 and expense lead. These resulting factors are applied to the appropriate pass-through

400 taxes, energy assistance charges and cash expense amounts to determine the CWC
401 requirement for these items.

402 The revenue, pass-through tax, energy assistance charges and expense CWC
403 requirements are then summed to determine the overall CWC requirement which then is
404 included in rate base.

405 **B. Revenue Lags**

406 Q. What is a revenue lag and how is it determined?

407 A. The revenue lag measures the number of days from the date service was rendered by
408 North Shore until the date payment was received from customers and such funds become
409 available to North Shore. In the study, the revenue lag was divided into four distinct
410 components: (1) service lag; (2) billing lag; (3) collections lag; and 4) bank float on
411 collections from customers. Considered together, these four components of retail
412 revenue lag totaled a weighted average of 45.99 lag days. An explanation of each
413 component of the base revenue lag follows.

414 Q. What is meant by service lag?

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

420 Q. What is the mid-point methodology?

421 A. To determine the service lead or lag, I have assumed that the service was provided (or
422 received) evenly over a given period (i.e., a month). For example with the revenue lag, I
423 assume that a customer receives gas service from North Shore evenly over an entire
424 month and not just at the end of a month. Adding the one-half month to the derivation of
425 the lead or lag is referred to as the mid-point methodology.

426 Q. What is meant by billing lag?

427 A. Billing lag refers to the average number of days from the date on which the meter was
428 read until the date a customer is billed. On average, 75 percent of bills are sent on the
429 first day after meter reading data is available; about 10 percent are sent on day 2. The
430 remaining bills are sent after day 2. Based on a review of North Shore's daily cycle
431 meter reading and billing schedule, I determined that, on average, North Shore's date for
432 customer billing occurred 2.85 days from the date of meter read. This amount of time
433 was applied to bills that were sent after day 2. Based upon the percentage weighted
434 distribution of the mailing of the bills, I determined the billing lag to be 1.38 days.

435 Q. What is meant by collections lag?

436 A. The collections lag refers to the average amount of time from the date when North Shore
437 mailed a bill to the date that it received payment from its customers. Based on
438 information from North Shore's Customer Information System and by considering actual
439 customer receipts data, the average collections lag at North Shore was determined to be
440 28.6 days.

441 Q. What is meant by bank float?

442 A. Bank float is the time between North Shore’s deposit of the customer’s check and the
443 time North Shore has access to the cash. Examination of North Shore’s bank records and
444 cash availability data indicated that there was a float time of about 0.80 days between
445 aggregate deposits of customer checks into North Shore’s bank account and its access to
446 the cash.

447 Q. Please summarize the calculation of revenue lag days.

448 A. The calculation of the overall revenue lag, by lag component is summarized as follows:

Service Lag	15.21
Billing Lag	1.38
Collections Lag	28.60
Bank Float	0.80
Total Lag Days	45.99

449

450 C. **Lags and Leads for Pass-Through Taxes and Energy Assistance Charges**

451 Q. Please explain what you mean by pass-through taxes and energy assistance charges?

452 A. Pass-through taxes and energy assistance charges are taxes and charges that North Shore
453 adds to customer bills and then is required to remit to various governmental agencies.
454 The pass-through taxes and energy assistance charges are not recorded as revenue or
455 expense on the income statement but the collection and payment of these amounts causes
456 a timing difference in North Shore’s cash flow and should be accounted for in a utility’s
457 cash working capital requirement.

458 Q. What pass-through taxes and energy assistance charges were considered in your lead-lag
459 study?

460 A. The following pass-through taxes and energy assistance charges were considered in the
461 study: (1) Illinois Commerce Commission Gas Revenue Tax; (2) Municipal Utility
462 (Gross Receipts) Tax; (3) Energy Assistance Charges; and (4) Illinois Gas Revenue Tax.

463 Q. Please explain the lag associated with the collection of pass-through taxes and energy
464 assistance charges in your analysis.

465 A. As I explained earlier, a lead-lag study should measure and quantify the impact of the
466 timing of the utility's cash flow. In order to do that properly, the collection of pass-
467 through taxes and energy assistance charges need to be considered. Other than short term
468 and long term borrowings, North Shore's primary source of cash is receipt of customer
469 payments of their monthly bills. Pass-through taxes and energy assistance charges are
470 included on the monthly bills and payments are received for these amounts by North
471 Shore at the same time as all other cash from its customers. As a result the lag for
472 collection of pass-through taxes and energy assistance charges is identical to the revenue
473 lag for revenues and is 45.99 days.

474 Q. Explain the lead effects associated with each type of pass-through tax and the energy
475 assistance charge in the analysis.

476 A. North Shore pays and remits the various pass-through taxes and energy assistance
477 charges on the basis of estimated cash receipts (calculated using an estimated percentage
478 collected over four months) regardless of whether or not the amounts are actually
479 collected or received from customers. I have utilized these percentages and the various
480 statutory due dates in order to determine the appropriate lead for each pass-through tax

481 and energy assistance charge in my lead-lag study. The various categories of pass-
482 through taxes and the energy assistance charges are described below:

483 1. Commission Gas Revenue Tax: This tax is paid in four equal installments
484 on payment dates specified by the taxing authority with a true-up payment
485 due on March 15th of the year following. Taking this information into
486 account and using statutory due dates and estimated collections, a
487 weighted lead time of negative 32.31 days was determined.

488 2. Gross Receipts/Municipal Utility Taxes: Gross receipts taxes are payable
489 to municipalities and are remitted based on estimated monthly collection
490 percentages. North Shore pays these taxes, by check, to various
491 municipalities. Based on statutory due dates and estimated collections, a
492 dollar-weighted lead time of 74.81 days was determined including float
493 time of 3.32 days. The float of 3.32 days is discussed below.

494 3. Energy Assistance Charges: North Shore pays into a fund managed by the
495 State of Illinois to assist low income customers in paying their utility bills.
496 By statute, North Shore is required to pay monthly into the fund, on the
497 20th day of the following month. Based on the statutory due dates and
498 estimated collections, an expense lead time of 61.09 days was determined
499 including 3.32 days of float time because payments were made by check.

500 4. Gas Revenue Tax & Illinois Gas Use Tax: These taxes are due and paid
501 together on an estimated basis on the 7th, 14th, 21st, and 28th of the month.
502 A true-up payment is due on the 15th of the following month. North Shore

503 pays these amounts based on estimated collections. The amounts are paid
504 by wire transfer and the true-up amounts by check. Taking this
505 information into account a weighted expense lead time of 28.15 days was
506 determined.

507 **D. Expense Leads**

508 Q. What is an expense lead?

509 A. An expense lead represents the time between when a good is received or service is
510 provided and when North Shore pays for that good or service.

511 Q. How is an expense lead determined?

512 A. An expense lead consists of a service lead, a payment lead and a bank float lead if the
513 amount is paid by check. The service lead assumes that the goods are received by or the
514 service is provided to North Shore evenly over the service period, which in most cases is
515 a month. The payment lead represents the time period from the end of the service period
516 until the time the payment is made. Bank float is the difference in time between the date
517 the payment is made and the date the cash leaves the bank account. Bank float is
518 described in more detail later in my testimony.

519 Q. What expense-related leads were considered in the lead-lag analysis?

520 A. Lead times associated with the following expense categories were considered in the
521 study: (1) Cost of Gas; (2) Payroll; (3) Inter-Company Billings; (4) Taxes Other Than
522 Income Taxes; (5) Other Operations and Maintenance Expenses; (6) Income Taxes; and
523 (7) Interest on Long-term Debt.

524 Q. Please provide an explanation for the lead for cost of gas.

525 A. For many years, North Shore contracted for procurement of its natural gas primarily by
526 using Master Firm Natural Gas Contracts. Billing and payment terms in those contracts
527 can be negotiated individually from contract to contract; therefore, North Shore had no
528 standard terms in place for the billing and payment of its invoices for natural gas. As a
529 result of the merger, and for consistency purposes, North Shore made the decision to
530 begin to contract for its natural gas purchases by using the standard North American
531 Energy Standards Board (“NAESB”) type contract which is used by many utility
532 companies in the industry including the other Integrys utility subsidiaries. North Shore
533 currently is in the process of replacing its Master Contracts with NAESB contracts.

534 Q. Please explain how this impacted the data you used in the analysis for this lead.

535 A. The basis of my lead-lag study was calendar year 2009 data. During this time period, the
536 majority of gas purchases were made under the old Master Contracts. Since the terms of
537 the contract underlying the billing and payment procedures would most likely be
538 primarily the NAESB terms during the test year, instead of using this historical payment
539 data, I used forecasted test year data and projected due dates based on the standard
540 NAESB contract to prepare the lead for this expense.

541 Q. Please explain in more detail how you developed the expense lead associated with North
542 Shore’s purchases of natural gas, including pipeline services.

543 A. The NAESB contract contains a default payment provision to be the latter of the 25th of
544 the month following the month that the service was provided or 10 days after the buyer’s
545 receipt of the seller’s invoice. North Shore is using the default in its NAESB contract
546 negotiations. Within the industry, it is common practice that commodity suppliers fax
547 invoices to their customers for payment on or before the 10th of the month. Therefore, by

548 using the default provision, North Shore would be required to pay for its commodity
549 costs by the 25th of the month. The NAESB contract also stipulates if the due date is not
550 a business day then payment is due on the next business day. In addition to commodity
551 costs, the cost of gas amounts reflected on the income statement also include charges for
552 pipeline services (storage services and transportation services). The billing and payment
553 provisions for these types of services are contained within the pipeline tariffs. The
554 pipelines that North Shore procures its services from all have tariff billing and payment
555 provisions that indicate that the pipelines are to issue their invoices on or before the 9th
556 business day and payment is due 10 days after receipt. This timing is a FERC
557 requirement applicable to all pipelines. Most pipeline tariffs do not specify a payment
558 due date when it falls on a day that is not a business day, but typical industry practice is
559 to pay on the next business day in these situations. Payments to both pipelines and
560 commodity suppliers are made by wire transfer; therefore, I have not considered bank
561 float for this lead. Using this information and considering the weighted forecasted
562 commodity and pipeline costs for the 2012 test year, I have calculated the expense lead
563 time associated with payments for North Shore's cost of gas, including pipeline storage
564 and transportation services to be 25.32 days. Consistent with the mid-point methodology,
565 I assume that the gas is received by North Shore evenly over the service month, so I have
566 also included an average service lead of 15.21 days for a total lead of 40.53 days.

567 Q. Please provide an explanation of the leads associated with North Shore's payroll and
568 withholding expenses.

569 A. North Shore's payroll records were analyzed to measure the number of lead days between
570 its receipt of services from its employees and the payment for those services. Payroll

571 lead days were calculated by: a) calculating the un-weighted (or nominal) lead time by
572 pay day and pay-cycle including a mid-point of the pay period as indicative of a service
573 lead time; b) adding to the estimate of this expense lead time an amount to cover the float
574 time where checks, rather than direct deposits, were used as the basis for compensating
575 employees; and c) weighting the resulting lead days by the amounts paid out by North
576 Shore to cover its payroll obligations. To the extent that employees were reimbursed for
577 their services by check, an additional payroll specific float time of 3.91 days was added.
578 The resulting total payroll expense lead time on a dollar-weighted basis, including float
579 time, was 13.22 days. In addition, I estimated the incremental and total lead times
580 associated with federal and state withholdings using the next business day after pay day
581 remittance rule for federal withholdings and the 3rd business day following the 7th, 15th,
582 22nd, and last day of the month rule for state withholding taxes. Using the respective
583 remittance rules, I determined an incremental federal withholding expense lead time of
584 2.93 days for federal withholdings and 7.37 days for state withholdings or, when added to
585 the payroll expense lead time, a total of 16.14 days for federal withholdings and 20.59
586 days for state withholdings. Taken together therefore, the dollar-weighted expense lead
587 time associated with payroll and withholdings was 14.14 days. Actual net payroll and
588 withholding amounts for the twelve months ended December 31, 2009, were used as the
589 basis for dollar-weighting.

590 Q. Please explain how the expense lead time associated with inter-company billings was
591 determined.

592 A. Various services are performed by affiliates of North Shore pursuant to agreements
593 approved by the Commission. These services and the docket numbers granting approval

594 for these services are shown on Schedule C-13 which is included in NS Ex. 5.1. After the
595 end of the month, North Shore is rendered a bill for services for the month just ended and
596 the amount is due for payment within 10 business days. I reviewed billing and payment
597 data for the period January 2009 through December 2009 to determine the payment lead
598 associated with the inter-company billing process. Based on this data a dollar weighted
599 expense lead time of 38.23 days was determined for inter-company billings including a
600 weighted service lead time.

601 Q. What are the lead times associated with other operations and maintenance expenses?

602 A. North Shore engages in transactions with other vendors (not associated with payroll,
603 natural gas and pipeline services, or taxes) for a variety of purposes including facility and
604 system maintenance, security, staffing, customer service, etc. Invoice data for calendar
605 year 2009 from the providers of such services were analyzed in order to estimate a lead
606 time associated with payment for services related to other operations and maintenance
607 activities. The analysis indicates that on average, invoices were paid by North Shore
608 42.44 days after receipt. The estimate of lead time relating to North Shore's other
609 operations and maintenance expenses included 15.21 days of service lead time, and
610 3.32 days of bank float.

611 Q. What does bank float mean in the context of North Shore's accounts payables?

612 A. Bank float is the difference in time between the date North Shore mailed a check to one
613 of its vendors and the date the cash left its bank account.

614 Q. Why is it necessary to consider the bank float on North Shore's accounts payables in a
615 lead-lag study?

616 A. In order to present a comprehensive analysis of North Shore’s cash working capital
617 requirements in this proceeding, the estimate of the bank float (or bank processing) time
618 was considered on both the receivables (lags) and payables (leads) side of the cash
619 working capital equation.

620 Q. How was the bank float on North Shore’s accounts payables estimated?

621 A. The float time was estimated using data from North Shore’s Accounts Payable system.
622 Using a sample of transactions for the twelve months ended December 31, 2009, the
623 analysis indicated that the average float time was 3.32 days, on a dollar weighted basis.

624 Q. What are the taxes other than income taxes you considered in the analysis of expense
625 leads?

626 A. The following taxes were considered in the study: (1) Federal Insurance Contribution Act
627 (“FICA”); (2) Federal Unemployment Taxes; (3) State Unemployment Taxes; (4) Illinois
628 Invested Capital Tax; (5) Federal Excise Tax; (6) Corporation Franchise Taxes;
629 (7) Illinois Sales & Use Tax; (8) Real Estate and Property Taxes; and (9) Unauthorized
630 Insurance Tax.

631 Q. Explain the lead effects associated with each type of taxes other than income you
632 considered in the analysis.

633 A. The treatment of each category of general taxes in the study is described below:

- 634 1. FICA: North Shore electronically transfers the dollar amounts associated
635 with the employee and employer share of Federal Insurance Contributions
636 to the appropriate federal authorities on the due date, which is the next
637 business day after payday (Friday). Taking this payment schedule into

638 account, an incremental lead time of 2.93 days was determined for social
639 security and Medicare or FICA related transactions. This lead time is
640 “incremental” because it should be added to the lead time on base payroll
641 to derive the total amount of lead time associated with North Shore’s
642 FICA contribution. When added to the base payroll lead time, the expense
643 lead time for Employer - and Employee-related FICA remittances to the
644 federal government is 16.14 days. Because FICA is remitted to the federal
645 government via wire transfer, no additional bank float time was included
646 in the analysis.

647 2. Federal Unemployment Taxes: Federal Unemployment Tax Act taxes are
648 paid quarterly by North Shore based on a schedule established by the
649 Internal Revenue Service. Using a mid-point approach, a weighted lead
650 time of 76.38 days was determined. Since payments are made by wire
651 transfer, no bank float time was included.

652 3. State Unemployment Taxes: North Shore pays unemployment taxes on
653 behalf of its employees who reside in the State of Illinois. Based on the
654 statutory schedule of payments to the State of Illinois, a dollar-weighted
655 lead of 79.70 days was determined. Payments are made by check;
656 therefore, a float time of 3.32 days was included.

657 4. Illinois Invested Capital Tax: This tax is paid on a schedule similar to the
658 Commission Gas Revenue Tax except that the actual payment dates for
659 this tax are different. The payment is made via wire transfer. Taking this

660 information into account, a weighted lead time of 30.38 days was
661 determined.

662 5. Federal Excise Tax: This tax is paid quarterly via wire transfer. Taking
663 this information into account and using actual payments made during the
664 twelve months ended December 31, 2009, a weighted lead time of 75.12
665 days was determined.

666 6. Corporation Franchise Taxes: North Shore pays a corporation franchise
667 tax to the State of Illinois. These taxes are paid once a year by check. For
668 the statutory 12-month period ending January 31, 2009, North Shore made
669 its payment on January 27, 2009, by check. Including a float time of 3.32
670 days, the expense lead time associated with Corporation Franchise Taxes
671 is 184.82 days.

672 7. Illinois Sales & Use Tax: These taxes are due monthly on the 20th of the
673 following month and are paid by check. Taking this information into
674 account and using actual payments made in calendar year 2009, a
675 weighted expense lead time of 38.74 days was determined, including float
676 time of 3.32 days.

677 8. Real Estate & Property Taxes: North Shore pays real estate and property
678 taxes to Lake County in the State of Illinois,. Using data on North Shore's
679 payments made during the calendar year 2009, a dollar-weighted expense
680 lead time of 374.82 days was determined. Because payments were made
681 by check to Lake County, an additional float time of 3.32 days was
682 included in the calculation.

683 9. Unauthorized Insurance Tax: This is also known as the surplus lines tax
684 and is a percentage of the insurance policy premiums provided by insurers
685 not authorized to do insurance business in a state. The tax is due after an
686 insurance policy is renewed. Using actual payments and considering an
687 additional 3.32 days of float time, a weighted expense lead time of
688 negative 136.91 was determined.

689 Q. How did you analyze income taxes for the lead-lag study?

690 A. Using statutory due dates and statutory amounts due, weighted expense lead times of
691 37.88 days were determined for both Federal and State Income Taxes. This lead time did
692 not include bank float because payments are made electronically.

693 Q. Provide a description of how lead times associated with North Shore's interest expense
694 on long-term debt were analyzed for the study.

695 A. North Shore generally makes interest payments on its long-term debt twice a year at
696 varying times. Using due dates in 2009 and amounts of interest payments, a dollar-
697 weighted lead of 91.25 days for was determined. Because interest payments are made
698 electronically, no additional lead time was included for float.

699 Q. Have you prepared an exhibit that summarizes the results of your analysis of North
700 Shore's cash working capital requirements?

701 A. Yes. The results of the cash working capital study are presented in Schedule B-8, pages 1
702 and 2, of NS Ex. 7.1 and indicate that the appropriate level of cash working capital
703 required by North Shore is \$3,050,000. I have included this amount in North Shore's rate
704 base.

705 Q. How does this amount of cash working capital compare to the amount in North Shore's
706 2009 Rate Case?

707 A. In its order in the 2009 Rate Case, the Commission allowed North Shores an amount of
708 \$847,000 for cash working capital. A comparison between the cash working capital
709 claim being proposed in this case to that allowed in the 2009 Rate Case is shown on
710 Schedule B-8, page 3 of 3, of NS Ex. 7.1.

711 Q. Does this complete your direct testimony?

712 A. Yes.