

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

NORTH SHORE GAS COMPANY	:	
	:	No. 07-_____
Proposed General Increase	:	
In Rates For Gas Service	:	

Direct Testimony of
EDWARD DOERK
Vice President, Gas Operations
The Peoples Gas Light and Coke Company
and
North Shore Gas Company

On Behalf of
North Shore Gas Company

March 9, 2007

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1 **I. INTRODUCTION AND BACKGROUND**

2 **A. Identification Of Witness**

3 Q. Please state your name and business address.

4 A. Edward Doerk. 1241 W. Division St., Chicago, IL 60622.

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

6 A. I am employed by The Peoples Gas Light and Coke Company (“Peoples Gas”).
7 My current title is Vice President, Gas Operations, for both Peoples Gas and
8 North Shore Gas Company (“North Shore” or the “Company”). Both Peoples
9 Gas and North Shore are wholly-owned subsidiaries of Peoples Energy
10 Corporation.

11 **B. Purpose Of Testimony**

12 Q. What is the purpose of your direct testimony in this proceeding?

13 A. The purposes of my testimony, in brief, are, first, to describe the key components
14 of Gross Utility Plant included in rate base. I will confirm that our rate base
15 assets, including assets added since the last general rate case (the “1995 Rate
16 Case”), are used and useful and were prudently acquired and placed into service at
17 a reasonable cost.

18 I am presenting support for the Company’s major capital projects from
19 fiscal year 1997 through the test year, fiscal year 2006. I also address, in a
20 summary fashion, North Shore Gas’ physical system and operations and the

21 manner in which the Company makes sure that its capital expenditures relating to
22 its physical system are prudently incurred.

23 Finally, I address one of the conditions of the Illinois Commerce
24 Commission's (the "Commission" or "ICC") order in ICC Docket No. 06-0540
25 applicable to North Shore Gas, specifically Condition 22.

26 **C. Summary of Conclusions**

27 Q. Please summarize the conclusions you make in your direct testimony.

28 A. I conclude that all of the Company's properties recorded in the property accounts
29 of North Shore are used and useful in the Company's rendering of utility service.

30 I also conclude that the four projects I discuss in my testimony (the
31 Gurnee system expansion project, the ANR Gate Station project, the Rosecrans
32 Road system expansion project, and the Lake Cook Road public improvement
33 project) were prudently undertaken, were reasonable in cost, and are used and
34 useful in providing utility services to customers served by North Shore.

35 **D. Background And Experience**

36 Q. Please summarize your educational background and experience.

37 A. I graduated from Bradley University in 1978 with a Bachelor of Science in
38 Engineering. I have worked for Peoples Energy Corporation's utility subsidiaries
39 for the past 28 years and have held many positions with increasing responsibility
40 within gas operations. Prior to my current, position I was Vice President of North
41 Shore. I assumed my current position in October of 2004.

42 Q. What are your responsibilities in your current position?

43 A. I am responsible for all facets of gas distribution utility operations including
44 maintenance, construction, engineering, customer service, and technical training.

45 **II. NORTH SHORE'S PHYSICAL SYSTEM**

46 Q. Please describe North Shore's physical system.

47 A. North Shore is a local distribution company selling and/or distributing gas to
48 approximately 155,000 customers in 54 communities located in a 275 square mile
49 area of northeastern Illinois. North Shore's distribution system consists of
50 approximately 2,270 miles of gas distribution mains. North Shore owns
51 approximately 95 miles of transmission lines. North Shore's distribution system
52 is most commonly operated at a pressure of 45 pounds per square inch, while the
53 transmission system operates at a pressure of 250 pounds per square inch. While
54 North Shore does not own any storage fields, it does purchase storage services
55 from Peoples Gas, pursuant to the Underground Gas Storage Services Agreement,
56 approved by the Illinois Commerce Commission in Docket 57988, and from two
57 interstate pipelines, Natural Gas Pipeline Company of America and ANR
58 Pipeline, under rate schedules approved by the Federal Energy Regulatory
59 Commission. In addition, North Shore owns a liquid propane production facility
60 used for peaking purposes.

61 Q. How would you describe the physical configuration of the North Shore system?

62 A. The physical configuration of North Shore's system is a dispersed/multiple city-
63 gate, integrated transmission/distribution and multi pressure-based system.

64 Q. What considerations have gone into the design of the North Shore system?

65 A. North Shore's system is designed to provide gas service to all customers entitled
66 to be attached to the system, to deliver volumes of natural gas to all sales and
67 transportation customers, and to meet the aggregate peak design day capacity
68 requirements of all customers entitled to service on the peak day. A gas utility
69 system sized only to accommodate average gas demands would not be able to
70 meet system peak demands.

71 Q. Are you familiar with the properties recorded in the property accounts of the
72 Company, as summarized on Schedule B-5 of North Shore Exhibit ("Ex.")
73 SF-1.1?

74 A. Yes, I am. That schedule is sponsored by North Shore witness Mr. Fiorella
75 (North Shore Ex. SF-1.0), and described in his testimony. That schedule sets
76 forth gross additions, retirements, and transfers to North Shore's plant in service
77 and concludes with plant balances at September 30, 2006 (Schedule B-5, page 2,
78 Column J). North Shore's total plant in service, Account 101, is \$372,639,000 at
79 September 30, 2006 (Schedule B-5, page 2, Column J, line 7).

80 Q. In your opinion, are the properties represented on Schedule B-5 used and useful in
81 North Shore's rendering of utility service?

82 A. Yes. All of those properties are used and useful.

83 Q. Are you familiar with the major categories of plant?

84 A. Yes. The major categories of the plant are Distribution, Underground Storage,
85 Transmission, General, and Production. The vast majority of North Shore's plant
86 is made up of Distribution Plant and Transmission Plant.

87 Q. Please describe North Shore's test year Distribution Plant.

88 A. North Shore's Distribution Plant was \$306,544,000 (Schedule B-5, page 2,
89 Column J, line 1) at the end of the test year. Distribution Plant is comprised of
90 2,270 miles of distribution mains and related facilities, such as service pipes,
91 regulators, valves and meters. Distribution facilities are typically connected
92 directly to our customers.

93 Q. How is the Distribution Plant used to provide service to the Company's
94 customers?

95 A. Customers are served directly by the distribution system through company owned
96 service lines linking the distribution mains with customer owned piping.

97 Q. Please describe North Shore's test year Transmission Plant.

98 A. North Shore's Transmission Plant was \$29,220,000 (Schedule B-5, page 2,
99 Column J, line 3) at the end of the test year. Transmission Plant consists of the
100 larger size and higher pressure pipelines and related facilities (e.g. valves, and
101 regulators) typically used to move gas from our interconnections with the
102 interstate pipelines and throughout our service territory. Unlike Distribution
103 Plant, transmission facilities are not typically connected directly to our customers'
104 service.

105 Q. How is the Transmission Plant used to provide service to the Company's
106 customers?

107 A. As I testified, North Shore's Transmission Plant is used to move gas from the
108 interstate pipeline suppliers to our local distribution systems, and is useful to the

109 Company's customers in performing those functions. Indeed, these functions are
110 essential if the Company is to provide gas to its customers and essential to its use
111 of its assets.

112 Q. Please describe how North Shore has controlled the capital cost of its
113 Transmission and Distribution functions.

114 A. North Shore has not sought a rate increase since 1995, which demonstrates
115 discipline in controlling costs and ensuring efficiency. North Shore has
116 implemented many cost saving initiatives in its operations, such as directional
117 boring and the use of coiled plastic pipe that have contributed to the extended
118 period of stable rates. Directional boring has reduced main installation costs by
119 minimizing restoration costs through the elimination of open cut trenches. Labor
120 costs of installation are also reduced since much less excavating is required. The
121 use of coiled plastic pipe has also contributed to lower main installation costs by
122 installing greater lengths of continuous pipe segments. Longer lengths of
123 continuous pipe segments reduces the number of field fusion joints required and
124 contributes to overall lower main installation costs.

125 Q. Does the Company have Underground Storage Plant?

126 A. The Company does not have any underground storage. However, the Company
127 does lease storage services from other companies. The cushion gas required for
128 one of these services is classified as Underground Storage Plant.

129 Q. What is General Plant?

130 A. While I am not a plant accountant, I understand at the practical level that General
131 Plant consists of assets that are used in the provision of gas service, but that are
132 not subject to being specifically classified as Distribution, Transmission,
133 Production, or Storage. Illustrative examples of General Plant include real estate
134 the Company owns which is not part of a specific Distribution, Transmission, or
135 Storage asset, the employee reporting centers, workshops, the Company's
136 Customer Call Center, vehicles used in the performance of various Company
137 functions (backhoes, etc.), and tangible computer and data processing equipment.

138 Q. How is General Plant used and useful in the provision of natural gas utility
139 services?

140 A. Assets included in General Plant support the provision of our utility services. We
141 would not be able to provide those services without our General Plant assets.

142 Q. Does the Company have Production Plant?

143 A. Yes. We maintain a propane-air facility that can inject a propane-air mixture into
144 our pipes.

145 Q. How is the propane-air facility included in Production Plant used and useful in
146 serving customers?

147 A. The propane-air facility is used to satisfy peak day deliverability. If needed, the
148 Company's Gas Supply Department contacts us and instructs us to run the
149 facility.

150 Q. Please briefly describe how North Shore decides how to make capital
151 investments.

152 A. Each fiscal year, the Company prepares a capital expenditures budget for the
153 upcoming fiscal year, setting forth recommendations for capital expenditures for
154 major categories of plant. The budget is scrutinized at many levels and ultimately
155 submitted to the Board of Directors for its approval.

156 Q. Once the capital budget is approved, how does North Shore monitor its capital
157 expenditures?

158 A. After the Capital Budget is approved, aggregate expenditures are tracked monthly
159 and reconciled with the Capital Budget. Expenditure forecasts are adjusted based
160 on actuals to ensure compliance with the budget targets.

161 Q. You said earlier that you would be addressing Condition 22, set forth in
162 Appendix A to the Commission's final Order in ICC Docket No. 06-0540. What
163 is Condition 22?

164 A. Condition 22 states that the Gas Companies (North Shore and Peoples Gas) will
165 maintain their respective capital expenditure budgets and operation and
166 maintenance budgets associated with their physical gas systems, specifically,
167 distribution, transmission, measurement, and storage, for the aggregate period
168 2007 through 2009 at levels that will equal or exceed the actual capital and
169 operation and maintenance expenditures, excluding unusual items of a non-
170 recurring nature, by each Company during the aggregate three-year period of
171 fiscal 2004 through fiscal 2006.

172 Q. Is North Shore willing and able to satisfy this condition?

173 A. Yes. As the Vice President of North Shore responsible for all facets of gas
174 distribution utility operations including maintenance, construction, and
175 engineering, I am authorized to commit that North Shore is willing and able to
176 satisfy Condition 22.

177 **III. SUMMARY OF MAJOR CAPITAL PROJECTS**

178 Q. Please describe North Shore Ex. ED-1.1

179 A. North Shore Ex. ED-1.1 is Schedule F-4 of the Commission's Standard Filing
180 Requirements and sets forth information about the Company's major projects for
181 fiscal years 1997 through 2006.

182 Q. For purposes of this exhibit, how did you define "major project"?

183 A. By "major project," I mean those additions to rate base meeting the definition
184 contained in 83 Illinois Administrative Code Part 285.6100 for Schedule F-4.
185 This definition varies by size of utility. For North Shore, a major project is one
186 with a cost greater than the higher of 0.2% of net plant or \$1,000,000. North
187 Shore's net plant for the test year is approximately \$221 million. Therefore, for
188 North Shore, a major project would be one that costs more than \$1,000,000.

189 Q. Using this definition, how many major projects did North Shore identify in North
190 Shore Ex. ED-1.1?

191 A. Four. They are: 1) the Gurnee system expansion project; 2) the ANR Gate
192 Station; 3) the Rosecrans Road system expansion project; and 4) the Lake Cook
193 Road public improvement project.

194 Q. Are any of these projects related to each other?

195 A. Yes. The first three projects identified in my previous answer are all related,
196 although the Company considers them three separate projects. These projects
197 were completed over the course of 1998 through 2000. When completed, they
198 connected to each other and, as a whole, supported the increase in demand in the
199 northern part of the Company's service territory.

200 A. **Gurnee System Expansion Project**

201 Q. Please describe the Gurnee system expansion project.

202 A. This project was necessary to serve market growth in the northern portion of the
203 service territory. The project, constructed in 1997, added 26,500 ft. of high
204 pressure 12" steel main to the distribution system along Delaney Road from
205 Sunset Avenue in Gurnee to Rosecrans Road (State Route 173) in Wadsworth.
206 This project provided increased capacity to the existing 6" high pressure gas main
207 in Route 173. Due to the expansion of residential and commercial customers in
208 the northern areas of our service territory, the existing gas mains installed in the
209 early 1960's did not have the capacity to keep up with the new demands for
210 natural gas. This project was completed with the expectation that future system
211 expansions, including the ANR Gate Station and Rosecrans Road projects, would
212 be integrated with this new main to help increase overall system capacity in the
213 entire northern section of North Shore's service territory. The total cost for this
214 project was \$1.733 million.

215 Q. What types of reports, studies, forecasts, documentation, or other factors are
216 relied upon to support the conclusion that this project was prudent and should be
217 included in rate base?

218 A. Market growth forecasts are derived by assessing housing developments, talking
219 with developers, and monitoring applications for new service. These growth
220 forecasts are then input to a steady state mathematical flow model used to predict
221 the behavior of the distribution system under varying assumptions. Alternatives
222 are separately evaluated such as new supply sources, changing pipe diameter and
223 varying operating pressures. The results of all studies are then compiled to
224 compare and contrast the alternatives. After all alternatives are evaluated, the
225 most cost effective and operationally prudent solution is chosen.

226 Q. Was the investment in the Gurnee system expansion project prudently undertaken,
227 reasonable in cost, and used and useful in providing utility service?

228 A. Yes. The system expansion has further integrated North Shore's transmission
229 system providing not only increased capacity but also improved system flexibility
230 and security. The system has satisfied the market demand of our customers and
231 continues to support customer growth at North Shore. The project is used and
232 useful. My conclusion is supported by the workpapers to Schedule F-4
233 (specifically NS WPF-4(1)), which demonstrate that a 12-inch high pressure line
234 in Delaney Road would best serve the Company's customers, and would result in
235 substantially better peak-day pressure in many areas of the Company's system.

236 **B. ANR Gate Station**

237 Q. Please describe the ANR Gate Station project.

238 A. This project involved the installation of a complete new gate station (that is, a
239 connection point between an interstate pipeline and the distribution system),
240 including regulators, odorizing equipment, and interconnection facilities. The
241 new connection was with the ANR Pipeline. The project was constructed in 1998
242 near Edwards Rd. west of Rt. 41 in Lake County, Illinois. at a total cost of
243 \$1.028 million.

244 The ANR Gate Station had two important purposes. First, it provided a
245 new physical source of gas supply to an area of the distribution system that was
246 experiencing significant growth and expansion of the customer base. As
247 discussed above, the additional supply available from the ANR Gate Station was
248 developed in concert with the two large main projects (Gurnee and Rosecrans
249 Road) to increase capacity to the area. Second, the connection to ANR Pipeline
250 diversified North Shore's pipeline supplier portfolio. Prior to this project, North
251 Shore had two other gate stations, and purchased all its pipeline services from
252 Natural Gas Pipeline Company of America. This diversity provides a measure of
253 system security that reduces the risk of adverse consequences due to an
254 interruption at one of the other North Shore gate stations.

255 Q. What types of reports, studies, forecasts, documentation, or other factors are
256 relied upon to support the conclusion that this project was prudent and should be
257 included in rate base?

258 A. Market growth forecasts are derived by assessing housing developments, talking
259 with developers, and monitoring application for new service. These growth
260 forecasts are then input to a steady state mathematical flow models used to predict
261 the behavior of the distribution system under varying assumptions. Alternatives
262 are separately evaluated such as new supply sources, changing pipe diameter and
263 varying operating pressures. The results of all studies are then compiled to
264 compare and contrast the alternatives. After all alternatives are evaluated, the
265 most cost effective and operationally prudent solution is chosen. For example, the
266 ANR Gate Station project was evaluated under seven different model conditions
267 to quantify the effect on the overall transmission system including the integration
268 with other interstate pipeline gate stations. (A summary of this modeling is
269 included with the workpapers to Schedule F-4, NS WPF-4(2)).

270 Q. Was the investment in the ANR Gate Station project prudently undertaken,
271 reasonable in cost, and used and useful in providing utility service?

272 A. Yes. The addition of the ANR Gate Station has contributed to increased capacity
273 on the transmission system while also improving system flexibility and security.
274 By adding a new source of gas in the high growth Northwest corner of North
275 Shore's service territory, a cost effective solution has been developed to satisfy
276 growing customer demand both now and in the future. This new Gate Station
277 continues to support incremental system expansions in the Northwest quadrant of
278 the service territory. Furthermore, when coupled with the other system
279 expansions identified in this testimony, the new ANR Gate Station provides a

280 significant measure of flexibility and system security in the event of supply
281 curtailments at one of the other two interstate pipeline gate stations. The project
282 is used and useful.

283 **C. Rosecrans Road System Expansion Project**

284 Q. Please describe the Rosecrans Road system expansion project.

285 A. The Rosecrans Road system expansion project involved the installation of a major
286 new main. The main transports gas from the newly constructed ANR Gate
287 Station, following Rosecrans Road (State Route 173), and terminating into the
288 12” Delaney Road main described above (the Gurnee system expansion project).
289 The project, constructed in 1998 and 1999, added 26,525 ft. of 16” high pressure
290 steel main to the distribution system. The cost of this project was \$2.017 million.

291 The Rosecrans Road system expansion project was critically needed to
292 meet system growth and provide enhanced security of the distribution system.
293 The new main allowed for more supply options by improving flow capacities
294 throughout the system. In addition to expanding the capacity of the distribution
295 system, this project also integrated the new ANR Pipeline Gate Station into the
296 North Shore distribution system, thereby enhancing overall system security. That
297 integration is necessary in order to get the full benefit of the additional gate
298 station. The new high capacity main connected to the ANR gate station provides
299 the northwestern area of North Shore’s territory with two separate supply feeds in
300 the event one supply is interrupted.

301 Q. What types of reports, studies, forecasts, documentation, or other factors are
302 relied upon to support the conclusion that this project was prudent and should be
303 included in rate base?

304 A. Market growth forecasts are derived by assessing housing developments, talking
305 with developers, and monitoring application for new service. These growth
306 forecasts are then input to steady state mathematical flow models used to predict
307 the behavior of the distribution system under varying assumptions. Alternatives
308 are separately evaluated such as new supply sources, changing pipe diameter and
309 varying operating pressures. The results of all studies are then compiled to
310 compare and contrast the alternatives. After all alternatives are evaluated, the
311 most cost effective and operationally prudent solution is chosen.

312 Q. Was the investment in the Rosecrans Road system expansion project prudently
313 undertaken, reasonable in cost, and used and useful in providing utility service?

314 A. Yes. The system expansion has further integrated North Shore's transmission
315 system providing not only increased capacity but also improved system flexibility
316 and security. The system has satisfied the market demand of our customers and
317 continues to support customer growth at North Shore. The project is used and
318 useful.

319 **D. Lake-Cook Road Public Improvement Project**

320 Q. Please describe the Lake-Cook Road public improvement project.

321 A. In 2001 Lake Cook Road was widened between the Tri-State Tollway (I-294) and
322 Portwine Rd. This public improvement necessitated the relocation of 5,575 feet

323 of existing 6” steel main, which was originally installed in 1963. That main
324 predates the extensive development along Lake Cook Road and in the
325 surrounding area.

326 North Shore would have incurred substantial costs in the relocation
327 anyway, but took the opportunity to replace the existing main with 16” medium
328 pressure steel main. The larger pipe diameter was chosen to provide increased
329 capacity to serve the southeast portion of North Shore’s service territory. The
330 larger diameter also provided for increased distribution network flexibility given
331 that this section of main is tied-in with a 16” pipe on the west, a 12” pipe on the
332 east, and a 12” pipe on the north. The total cost for this project was
333 \$1.411 million.

334 Q. What types of reports, studies, forecasts, documentation, or other factors are
335 relied upon to support the conclusion that this project was prudent and should be
336 included in rate base?

337 A. For public improvements, the alternatives considered are typically different than
338 for system expansions. For public improvements, governmental bodies are
339 imposing the requirement that our facilities be adjusted to meet the requirements
340 of the public improvement. Alternatives are still evaluated to find the most cost
341 effective and operationally efficient solutions. The Lake Cook Road public
342 improvement provided the opportunity to re-evaluate a small segment of main
343 installed prior to other system expansions to more closely match the capacities of
344 the interconnecting pipeline systems. (See workpaper NS WPF-4(4).) This

345 alternative coupled with market growth forecasts are then input to steady state
346 mathematical flow models used to predict the behavior of the distribution system
347 under varying assumptions. Alternatives are separately evaluated such as new
348 supply sources, changing pipe diameter and varying operating pressures. The
349 results of all studies are then compiled to compare and contrast the alternatives.
350 After all alternatives are evaluated, the most cost effective and operationally
351 prudent solution is chosen.

352 Q. Was the investment in the Lake Cook Road public improvement prudently
353 undertaken, reasonable in cost, and used and useful in providing utility service?

354 A. Yes. The public improvement was constructed and put into service as designed
355 and has satisfied the market demand of our customers. This project also provided
356 an opportunity to expand capacity on a previously constrained segment of the
357 transmission system to provide enhanced system flexibility and security. The
358 project is used and useful.

359 Q. Does this conclude your direct testimony in this proceeding?

360 A. Yes it does.