

**STATE OF ILLINOIS  
ILLINOIS COMMERCE COMMISSION**

NORTH SHORE GAS COMPANY	)	
	)	No. 09-0166
Proposed General Increase In Rates For Gas Service.	)	
	)	
	)	(Cons.)
THE PEOPLES GAS LIGHT AND COKE COMPANY	)	
	)	No. 09-0167
Proposed General Increase In Rates For Gas Service.	)	

REHEARING on RIDER ICR BASELINE

**AFFIDAVIT OF SALVATORE D. MARANO**

STATE OF ILLINOIS	)	
	)	SS.
COUNTY OF COOK	)	

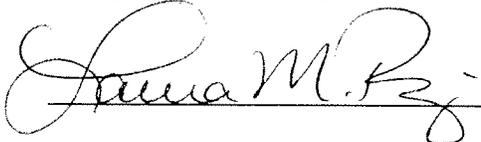
I, Salvatore D. Marano, being first duly sworn, declare under oath as follows:

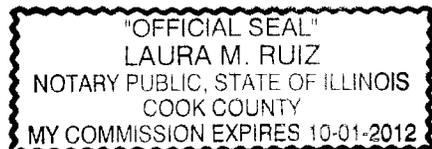
1. I am the Managing Director of Jacobs Consultancy, Inc.'s Utilities Practice
2. I provided direct testimony, identified as NS-PGL Ex. SDM-4.0, NS-PGL Ex. SDM-4.1, NS-PGL Ex. SDM-4.2 and NS-PGL Ex. SDM-4.3, on behalf of North Shore Gas Company and The Peoples Gas Light and Coke Company, the Applicants in this proceeding. Those pieces of testimony, which were filed in this proceeding via the Commission's e-Docket system on April 8, 2010, are attached to this Affidavit and were prepared by me or under my direction and control.
3. I swear and affirm that the testimony provided is true and correct, to the best of my knowledge and ability, and that there are no corrections or revisions to be made to my testimony. If I were asked the same questions today, my answers would be the same. It is my desire that my testimony be considered as evidence by the Administrative Law Judges and by the Illinois Commerce Commission in these consolidated Dockets.

FURTHER AFFIANT SAYETH NOT.

  
 Salvatore D. Marano

SUBSCRIBED AND SWORN to before me  
this 5<sup>th</sup> day of May, 2010.

  
 Notary Public



# **ATTACHMENTS**

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

NORTH SHORE GAS COMPANY	:	
	:	
Proposed General Increase In Rates For Gas Service.	:	
	:	
	:	Nos. 09-0166, 09-0167 Cons.
THE PEOPLES GAS LIGHT AND COKE COMPANY	:	
	:	
	:	
Proposed General Increase In Rates For Gas Service.	:	
	:	
REHEARING on RIDER ICR BASELINE		

Direct Testimony on Rehearing of  
**SALVATORE D. MARANO**  
Managing Director, Jacobs Utilities Practice

On Behalf of  
The Peoples Gas Light and Coke Company

April 8, 2010

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23 I. Introduction

24

25 A. Identification of Witness

26 **Q Please state your name, employer and business address.**

27 A My name is Salvatore D. Marano, P.E. I am employed by Jacobs Consultancy,  
28 Inc. (“Jacobs Consultancy”). My business address is 5995 Rogerdale Road,  
29 Houston, TX 77072.

30

31 **Q Are you the same Salvatore D. Marano, P.E., who submitted pre-filed Direct**  
32 **Testimony, Rebuttal Testimony and Surrebuttal Testimony on behalf of The**  
33 **Peoples Gas Light and Coke Company (“PGL” or the “Company”) in this**  
34 **consolidated Docket?**

35 A Yes.

36

37 **Q What position do you hold at Jacobs Consultancy?**

38 A I am currently the Managing Director of Jacobs Consultancy’s Utilities Practice.

39

40 **Q Please describe the activities of Jacobs Consultancy.**

41 A Jacobs Engineering Group is one of the largest professional service  
42 organizations in the world with over 57,000 employees worldwide. Jacobs  
43 Consultancy is part of the Jacobs Engineering Group. Jacobs Consultancy’s  
44 Utilities Practice serves both the public and private sectors, providing  
45 management, engineering and operations related advisory services to clients  
46 globally. Engagements in the gas and electric utility industries include litigation

47 support, asset integrity, merger and acquisition assistance, management audits,  
48 budget reviews, and policy and procedure reviews.

49

50 B. Purpose of Testimony

51 **Q Please describe the purpose of your testimony in this proceeding.**

52 A The purpose of my testimony is to provide evidence and analysis to establish  
53 what “baseline” should be set by the Illinois Commerce Commission  
54 (“Commission”) for the Infrastructure Cost Recovery Rider (“Rider ICR”) it  
55 approved in this proceeding.

56

57 In its January 21, 2010 Order in this docket (the “Order”), the Commission  
58 approved Rider ICR as proposed by PGL, with the modifications agreed to by  
59 PGL and the Staff of the Illinois Commerce Commission (“Staff”), but further  
60 ordered that a baseline be set to exclude “ongoing legacy costs from [PGL’s] 50  
61 year plan” from recovery under Rider ICR. (Order at 179.) The Commission  
62 ordered that “routine operating and maintenance costs associated with those  
63 forecasted costs” also should not be recovered under Rider ICR. *Id.*

64

65 My testimony will provide information as to what PGL’s “50 year plan” was and  
66 my opinion as to how the baseline should be set so that Rider ICR excludes the  
67 legacy costs from that plan.

68

69 While the scope of my testimony does not include a review and analysis of the  
70 Rider ICR tariff itself, it is my understanding that as worded, it does not allow for  
71 the recovery of routine operating and maintenance costs. This issue will be  
72 addressed for PGL by the testimony of Ms. Christine M. Gregor.

73

74 **Q Can you summarize the approach that Jacobs Consultancy utilized in**  
75 **carrying out this work?**

76 A As part of developing its cost-benefit analysis in this proceeding to support PGL's  
77 request for Rider ICR, Jacobs Consultancy studied the cast iron and ductile iron  
78 ("CI/DI") replacement program that the Company had in place when this  
79 proceeding was filed and PGL made its request for Rider ICR to help enable it to  
80 accelerate that pre-existing CI/DI replacement plan. This analysis included:

- 81 • Identifying and reviewing PGL records and filings;
- 82 • Conducting discussions with the appropriate subject matter experts from  
83 PGL, who have responsibility for gas operations, engineering and  
84 accounting; and
- 85 • Examining PGL gas operations and engineering policies, procedures and  
86 practices regarding the conversion of the low-pressure portion of the  
87 system to medium-pressure, and the replacement of higher-risk pipe  
88 materials, such as cast iron and ductile iron.

89 This review and analysis also included a bottom-up analysis of the costs for this  
90 legacy CI/DI replacement plan by examining and determining the Company's  
91 costs for the various material and labor inputs required for the legacy plan. The

92 estimates of capital cost were developed using actual cost information provided  
93 by PGL's Operations group. The contractor construction costs for various  
94 activities, such as main pipe installation, plastic service pipe installation, and  
95 meter installation on a per unit basis, were provided by PGL.

96  
97 Since rehearing was ordered by the Commission, Jacobs Consultancy has  
98 supplemented this analysis with additional records review and discussions with  
99 subject matter experts at PGL in gas operations, engineering and accounting to  
100 take the analysis Jacobs Consultancy performed to develop the "Current"  
101 scenario (Scenario 2) in its cost-benefit analysis in support of Rider ICR and  
102 modify it to establish a baseline for Rider ICR that will exclude the costs of PGL's  
103 legacy plan.

104

105 **Q Who performed this work?**

106 A This independent review was performed by me and, under my direct supervision;  
107 Jacobs Consultancy staff member Christopher A. Pioli supported the review of  
108 documents and the development of the baseline. Copies of our resumes were  
109 admitted into evidence in this proceeding as Peoples Gas Exhibit SDM-1.23.

110

111 **C. Summary of Conclusions**

112 **Q Please summarize your specific conclusions, based on the findings of your**  
113 **detailed review and analysis.**

114 A The baseline construction cost that should be adopted in Rider ICR to ensure the  
115 exclusion of the legacy costs from PGL's 50 year CI/DI main replacement plan is  
116 \$45,275,708, to be escalated by an escalation rate determined annually from the  
117 Handy-Whitman Index® of Public Utilities Construction Costs™, Cost Trends of  
118 Gas Utility Construction Gas Construction Index for the North Central Region.  
119 This baseline construction cost is based upon the bottom-up determination of  
120 costs for PGL's current, non-accelerated CI/DI main replacement program  
121 through Jacobs' detailed review and analysis of that program as testified to  
122 earlier in this proceeding.

123

124 **D. Attachments to Testimony**

125 Below is an index itemizing the Exhibits to my testimony. While images of these  
126 Exhibits are embedded in my testimony, copies of each also are attached  
127 separately.

<b>Exhibit #</b>	<b>Description</b>	<b>Page</b>
SDM – 4.1	Total Construction Cost Baseline	10
SDM – 4.2	Total Construction Cost Weighted Index Illustration	12
SDM – 4.3	Baseline Construction Cost Escalation	13

128

129 **E. Background and Experience**

130 **Q Is your professional background and your experience in the utility industry**  
131 **the same as you testified to in your direct testimony in the main**  
132 **proceeding?**

133 A Yes, it is.

134 II. PGL's 50-Year Plan

135 **Q Please explain and describe what PGL's 50 year plan is that is referred to in**  
136 **the Commission's Order.**

137 A The Commission's reference to PGL's 50 year plan appears to be a reference to  
138 my revised direct testimony (Peoples Gas Exhibit SDM-1.0 Rev.), in which I  
139 presented a cost analysis of PGL's current legacy CI/DI replacement plan  
140 showing that with the legacy plan's target replacement rate of 45 miles of CI/DI  
141 main per year, the replacement of all of PGL's existing CI/DI main would be  
142 completed by the year 2059, or, in other words, 50 years from the year in which  
143 my testimony was presented (2009 to 2059 = 50 years).

144

145 **Q On what did you base your description of PGL's pre-existing main**  
146 **replacement program as a "50 year plan"?**

147 A The legacy 50 year plan described in my earlier testimony assumes a planned  
148 replacement rate of 45 miles per year based upon our review of records and  
149 discussions with PGL's Operations group. The history and development of this  
150 plan was discussed in detail by Edward Doerk, PGL's Vice-President, Gas  
151 Operations, in his surrebuttal testimony admitted into evidence (NS-PGL Exhibit  
152 ED-3.0 at 4-6) in this proceeding.

153

154 In 1993, PGL commissioned ZEI, Inc. ("ZEI") to perform a study to update an  
155 earlier study on CI/DI main replacement conducted in 1981 by a predecessor

156 company, Zinder Engineering Inc. (“Zinder”). Based on PGL’s database of  
157 maintenance activities and field analysis, ZEI concluded that a slower  
158 replacement rate than recommended by the earlier Zinder report was  
159 appropriate. Based upon the recommendations of ZEI’s 1993 report, PGL  
160 adopted a target rate for the replacement of CI/DI mains of approximately 45  
161 miles annually subsequent to 1993.

162  
163 In 2002, ZEI performed a supplemental study on PGL’s CI/DI main replacement  
164 program, which concluded that PGL’s plan to retire approximately 45 miles of  
165 CI/DI main per year was appropriate. Accordingly, PGL continued to target  
166 replacement of approximately 45 miles of CI/DI main per year.

167  
168 Further, based upon review of records and discussions with Gas Operations, as  
169 more fully described in my earlier direct testimony, PGL currently utilizes methods  
170 and systems to analyze and select potential distribution system capital  
171 improvement projects, based on a combination of pipe history and situational  
172 factors (i.e., the Main Ranking Index, or “MRI”), as well as its Cost Optimization  
173 Program (“COP”). The methodology for project selection ranges from the highest  
174 potential projects to improvement recommendations from PGL’s general  
175 supervisors based on their knowledge of distribution system weaknesses in their  
176 territories to projects based on coordination with public improvement projects.  
177 The driver, however, for determining the location and scope of these projects

178 primarily has been the goal of replacing approximately 45 miles of CI/DI pipe  
179 each year in the most effective manner possible.

180  
181 Based upon this plan, PGL's pre-existing main replacement program would not  
182 be completed until the year 2059 -- 50 years after the year 2009 in which the  
183 hearing took place -- as set forth in my earlier direct testimony.

184

185 **Q Didn't the 2007 Kiefner and Associates study recommend a higher**  
186 **replacement rate than 45 miles annually?**

187 **A** As explained by Mr. Doerk in his surrebuttal testimony (NS-PGL Exhibit ED-3.0 at  
188 5), the study conducted by Kiefner and Associates ("Kiefner") commissioned in  
189 2007 was required to satisfy a condition of approval for the merger between  
190 Peoples Energy Corporation and WPS Resources as directed by the  
191 Commission in the Final Order of merger docket 06-0540. While Kiefner  
192 concluded that PGL's legacy plan replacement program criteria and methodology  
193 were working effectively, Kiefner did recommend a plan that would accelerate the  
194 annual retirement rate of CI/DI mains to 57 miles.

195

196 Based upon our review and analysis, however, PGL had not yet adopted the  
197 Kiefner approach into its existing legacy plan at the time this docket commenced  
198 and my earlier testimony was filed. Rather, the change in PGL's management  
199 that occurred with the merger between Peoples Energy Corporation and WPS  
200 Resources and Kiefner study appear to be the beginning of the Company's

201 determination that its legacy CI/DI main replacement program needed to be  
202 accelerated and its corresponding efforts to obtain Rider ICR to help enable it to  
203 do so.

204

205 III. The Baseline for Rider ICR

206 **Q What is the appropriate baseline for Rider ICR that will prevent the recovery**  
207 **under Rider ICR of costs associated with PGL's 50 year plan?**

208 A A general description of "baseline" is "a usually initial set of critical observations  
209 or data used for comparison or a control" (Merriam-Webster Dictionary).

210

211 In my opinion, the appropriate data to use as a baseline for Rider ICR is the cost  
212 (Nominal Dollars) based on the 2011 Total Construction Cost as shown in  
213 Scenario 2 of the Cost Benefit Analysis Model as presented in my previous  
214 testimony (see Peoples Gas Exs. SDM-1.0 Rev. at 56 and SDM-1.18 Rev.). This  
215 figure represents the spending level that was calculated based on PGL's 50 year  
216 plan. This review and analysis was a bottom-up analysis of the total construction  
217 cost for this legacy CI/DI replacement plan by examining and determining the  
218 costs elements.

219

220 Exhibit SDM-4.1 is an extract from the Cost Benefit Analysis Model showing the  
221 Total Construction Cost and a cost breakdown for year 2011 in both real and  
222 nominal dollars. The year 2011 was chosen as the base year because it is the  
223 starting year of the approved Rider ICR.

224  
225

Exhibit SDM - 4.1 - Total Construction Cost Baseline

<b>Scenario 2 - Current</b>	<b>2011 (2010 Real Dollars)</b>	<b>2011 Baseline (Nominal Dollars)</b>
Main Replacement Cost	\$26,212,470	\$26,684,294
Installation of PL Main	\$18,540,469	\$18,874,197
Installation of ST Main	\$2,263,678	\$2,304,424
Restoration Cost	\$5,408,323	\$5,505,673
Service Replacement Cost	\$13,756,749	\$14,004,371
Installation of Services	\$10,731,692	\$10,924,863
Restoration Cost	\$3,025,057	\$3,079,508
Meter Replacement Cost	\$2,798,832	\$2,849,211
House Regulator Cost	\$1,399,416	\$1,424,605
Cost to Abandon Regulator Stations	\$172,606	\$175,713
New Regulator Stations	\$135,083	\$137,515
New City Gate Stations	\$0	\$0
<b>Total Construction Cost*</b>	<b>\$44,475,156</b>	<b>\$45,275,708</b>
* Total Construction Cost difference in sum of 2011 Baseline (Nominal Dollars) is due to rounding		

226  
227  
228  
229  
230  
231

**Q Does an escalation factor need to be included with the baseline and why?**

A Yes. The baseline cost of \$45,275,708 should be adjusted annually in years subsequent to 2011 to account for changes in material and labor costs in subsequent years.

232 **Q What is the escalation factor that should be included with the baseline in**  
233 **Rider ICR?**

234 A In my opinion the Handy-Whitman Index® of Public Utilities Construction  
235 Costs™, Cost Trends of Gas Utility Construction Gas Construction Index for the  
236 North Central Region is the most recognized source to serve as a cost escalation  
237 factor of the ICR Baseline. Not only is the Handy-Whitman Index® published by  
238 an independent third-party and has been accepted and approved by the  
239 Commission because it is utility industry specific<sup>1</sup>, it provides separate  
240 construction cost indices for gas plant accounts associated with the main  
241 replacement program.

242

243 **Q How should the Handy-Whitman index be applied?**

244 A I would propose that a weighted index for total construction cost be determined  
245 annually using the gas plant accounts. Exhibit SDM-4.2 uses the Handy-  
246 Whitman Index® for January 2009 to illustrate the methodology and its  
247 application in future years.

248

249

250

---

<sup>1</sup> See, e.g., *Illinois-American Water Co.*, ICC Docket No. 08-0768, at 7 and 10 (Order, July 8, 2004); *Northern Illinois Gas Co.*, 1996 WL 34370337 at 16 (Order, April 3, 1996); *Commonwealth Edison Co.*, 143 P.U.R.4<sup>th</sup> 463, 1993 WL 312271 at 10-12 (Order, June 2, 1993); *Northern Illinois Water Corp.*, 1982 WL 914957 at 5 (Order, Jan. 6, 1982) (“The Commission has approved the use of the Handy-Whitman Index to trend original cost dollars as a means of establishing valuation for rate-making purposes in numerous cases. Furthermore, the Index is widely recognized in the utility industry as a measure of the value of utility facilities.”)

251

## Exhibit SDM - 4.2 - Total Construction Cost Weighted Index Illustration

252

<b>Construction Cost Elements</b>	<b>Baseline Cost</b>	<b>Plant Account No</b>	<b>Index Weighting Factor</b>	<b>H-W Cost Index</b>	<b>Weighted Component</b>
Main Replacement Cost	\$26,684,294				
Installation of PL Main	\$18,874,197	376	41.69%	493	205.53
Installation of ST Main	\$2,304,424	376	5.09%	682	34.71
Restoration Cost *	\$5,505,673	376	12.16%	514	62.50
Service Replacement Cost	\$14,004,371				
Installation of PL Services	\$10,924,863	380	24.13%	492	118.72
Restoration Cost	\$3,079,508	380	6.80%	492	33.46
Meter Replacement Cost	\$2,849,211	381	6.29%	261	16.42
House Regulator Cost	\$1,424,605	383	3.15%	412	12.98
Cost to Abandon Regulator Stations	\$175,713	378	0.39%	589	2.30
New Regulator Stations	\$137,515	378	0.30%	589	1.77
New City Gate Stations	\$0	379	0.00%	592	-
<b>Total Construction Cost **</b>	<b>\$45,275,708</b>				
<b>Weighted Index</b>					<b>488.38</b>
<ul style="list-style-type: none"> <li>* Restoration Cost Index is a weighted average of the Installation of PL Main and Installation of ST Main indices</li> <li>** Total Construction Cost difference is due to rounding</li> <li>H-W refers to Handy-Whitman Index®, North Central Region, Jan 1 2009</li> </ul>					

253

254 The Handy-Whitman Gas Construction Index is published twice each year: in

255 May, including data for January of that year; and in November, including data for

256 July of that year. The weighted index for the Baseline Year of 2011 should be

257 determined when the Handy-Whitman Gas Construction Index for January 2011

258 is published using the method shown in Exhibit SDM-4.2, above. Each

259 subsequent year, the weighted index should be calculated when the Handy-

260 Whitman Gas Construction Index for July of the previous year to escalate the

261 baseline construction cost for changes in material and labor costs as shown

262 below in Exhibit SDM-4.3, below.

264

$$\begin{array}{l} \text{For Year XXXX} \\ \text{Adjusted Baseline} \\ \text{Construction Cost} \end{array} = \frac{\text{Weighted Index For} \\ \text{July Year (XXXX -1)}}{\text{Weighted Index For} \\ \text{January Year 2011}} \times \begin{array}{l} \text{2011 Baseline} \\ \text{Construction Cost} \end{array}$$

265

266

267 For example, in 2015, if the Weighted Index for January Year 2011 was 488.38,  
268 and the Weighted Index for July Year 2014 was 571.34, then the Adjusted  
269 Baseline Construction Cost for 2015 would equal \$52,966,588 (the 2011  
270 Baseline Construction Cost of \$45,275,708 x 571.34 / 488.38).

271

272 **Q Why do you recommend using the Weighted Index for July of the previous**  
273 **year rather than the Weighted Index for January of the year in question?**

274 **A** The Rider ICR tariff requires that an information sheet be filed with the  
275 Commission on March 20 of each year specifying the ICR Charge Percentage to  
276 be effective for service rendered during the period April 1 through December 31  
277 that year. Since the January Handy-Whitman Gas Construction Index for a  
278 particular year is not published until May of that year, it would be too late for the  
279 requirements of the Rider ICR tariff. The July Handy-Whitman Gas Construction  
280 Index from the previous year, therefore, will be the most current information  
281 available to use each year for escalation of the Rider ICR baseline.

282 **Q How will the baseline be presented in the Rider ICR tariff?**

283 A While I am not presenting testimony on or helping to prepare the Rider ICR tariff  
284 itself, I am aware that PGL would propose that the annual baseline value in the  
285 Rider ICR tariff be rounded to the nearest ten-thousand (.01 million) dollars as it  
286 is currently reflected in the rider. The escalation factor would apply to the  
287 rounded amount and the result would likewise be rounded to the nearest ten-  
288 thousand dollars.

289

290 IV. Conclusions

291 **Q In summary, in your opinion, what is the baseline that should be set to**  
292 **ensure that legacy costs forecasted for the Company's 50 year plan are**  
293 **excluded from recovery under Rider ICR?**

294 A In my opinion, the baseline for Rider ICR should be set at \$45,275,708 (rounded  
295 to \$45.28 million in the Rider ICR tariff) for 2011 and the Handy-Whitman Index®  
296 January Index published by Whitman, Requardt and Associates, LLP be used as  
297 the 2011 base index with the July index being used to determine the annual  
298 escalation factor for each year thereafter as described above.

299

300 **Q Does this conclude your direct testimony on rehearing?**

301 A Yes

## Exhibit SDM - 4.1 - Total Construction Cost Baseline

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## Exhibit SDM - 4.2 - Total Construction Cost Weighted Index Illustration

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Exhibit SDM - 4.3 - Baseline Construction Cost Escalation

$$\begin{array}{l} \text{For Year XXXX} \\ \text{Adjusted Baseline} \\ \text{Construction Cost} \end{array} = \frac{\begin{array}{l} \text{Weighted Index For} \\ \text{July Year (XXXX -1)} \end{array}}{\begin{array}{l} \text{Weighted Index For} \\ \text{January Year 2011} \end{array}} \times \begin{array}{l} \text{2011 Baseline} \\ \text{Construction Cost} \end{array}$$