

STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

_____)	
NORTH SHORE GAS COMPANY)	
)	
Proposed General Increase In)	Docket No. 14-0224
Rates For Gas Service)	
_____)	
)	
THE PEOPLES GAS LIGHT AND)	
COKE COMPANY)	
)	Docket No. 14-0225
Proposed General Increase In)	(Consolidated)
Rates For Gas Service)	
_____)	

Direct Testimony and Exhibits of

Michael P. Gorman

On behalf of

**City of Chicago
Citizens Utility Board
Illinois Industrial Energy Consumers**

July 2, 2014



**Table of Contents for the
Direct Testimony of Michael P. Gorman**

	<u>Page</u>
SUMMARY	2
Utility Industry Market Outlook	4
RATE OF RETURN	7
Investment Risk	7
PGL/NS's Proposed Capital Structure	10
Return on Equity	11
Risk Proxy Group	12
Discounted Cash Flow Model	14
Constant Growth DCF Model	16
Constant Growth DCF Model (Analysts' Growth)	17
Constant Growth DCF Model (Sustainable Growth)	19
Multi-Stage Growth DCF Model	21
Capital Asset Pricing Model ("CAPM")	27
Return on Equity Summary	33
Financial Integrity	34
RESPONSE TO WITNESS PAUL MOUL	37
UTILITY PLANT	51
EMPLOYEES LEVELS	53
INCENTIVE COMPENSATION	55
QUALIFICATIONS OF MICHAEL P. GORMAN	Appendix A
City/CUB/IIEC Joint Exhibit 1.1 through City/CUB/IIEC Joint Exhibit 1.17	

Direct Testimony of Michael P. Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and a Managing Principal of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to my testimony.

9 **Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10 A I am appearing on behalf of the City of Chicago ("City"), the Citizens Utility Board
11 ("CUB"), and the Illinois Industrial Energy Consumers ("IIEC").

12 **Q WHAT IS THE PURPOSE OF YOUR DIRECT TESTIMONY?**

13 A I will make recommendations concerning the overall cost of capital including return on
14 equity, capital structure and embedded debt cost for Peoples Gas Light and Coke
15 Company ("PGL") and North Shore Gas Company ("NS") (collectively "PGL/NS" or
16 the "Companies").

17 I will also comment on the Companies' proposed projected plant additions for
18 the future test year, the revenue requirement associated with budgeted employee

19 levels, and recommended adjustments to the Companies' proposed incentive
20 compensation.

21 **Q DOES YOUR TESTIMONY IN THIS CASE CONSIDER THE EFFECTS OF THE**
22 **PROPOSED ACQUISITION OF INTEGRYS BY WISCONSIN ENERGY**
23 **CORPORATION (“WEC”)?**

24 A No. The proposed acquisition of Integrys by WEC was just recently announced. The
25 extent that this acquisition affects PGL's and NS's financial integrity or investment risk
26 has not been determined at this time. However, I reserve the right to supplement this
27 testimony later with information that shows an impact on either of these issues.

28 **SUMMARY**

29 **Q PLEASE SUMMARIZE YOUR RATE OF RETURN RECOMMENDATIONS.**

30 A I recommend the Illinois Commerce Commission (the “ICC” or “Commission”) award
31 PGL and NS a return on common equity of 9.15%. My recommended return on
32 equity of 9.15% would result in an overall cost of capital of 6.80% and 6.46% for PGL
33 and NS, respectively, as developed on my City/CUB/IIEC Joint Exhibit 1.1.

34 My recommended return on equity and each Company's proposed capital
35 structure will provide PGL and NS with an opportunity to realize cash flow financial
36 coverages and balance sheet strength that conservatively support their current bond
37 ratings. Consequently, my recommended return on equity represents fair
38 compensation for each Company's investment risk, and it will preserve each
39 Company's financial integrity and credit standing.

40 Q WILL YOU RESPOND TO PGL/NS'S PROPOSED RETURN ON EQUITY OF
41 10.25%?

42 A Yes. I will respond to PGL/NS witness Paul Moul's return on equity recommendation
43 of 10.25%.

44 Q PLEASE SUMMARIZE THE OTHER REVENUE REQUIREMENT ADJUSTMENTS
45 YOU PROPOSE IN THIS PROCEEDING.

46 A The other revenue requirement adjustments I propose for PGL/NS are described as
47 follows:

- 48 1. I recommend a reduction in the projected level of plant additions for the future test
49 year for PGL. I believe PGL's projected plant additions not covered by its riders
50 during the future test year exceed its normal level of plant additions, and those
51 projected additions have not been fully justified in this proceeding. Reducing
52 PGL's projected plant additions for the test year lowers its rate base by \$107
53 million and revenue requirement by \$16 million. To the extent PGL makes greater
54 than normal plant additions, I recommend that eligible amounts be recovered
55 through its Rider for Qualifying Infrastructure Plant.
- 56 2. I recommend an adjustment to PGL/NS cost of employee levels. The Companies'
57 projected employee levels which, as of May 2014, exceed the actual level of
58 employees in forecast periods for which historical data provide a check.
59 Reducing the revenue requirement to reflect the actual levels of employees as of
60 May 2014 lowers the revenue requirement of PGL and NS by \$4 million and \$1
61 million, respectively.
- 62 3. I recommend removing the incentive compensation of PGL and NS from their cost
63 of service. This lowers the revenue requirement by \$7.6 million and \$500,000 for

64 PGL and NS, respectively. The incentive compensation program flexibility allows
65 incentive payments for unspecified factors determined to be appropriate by the
66 executive management or directors of PGL/NS and their parent company,
67 Integrys Energy Group. This lack of specificity allows incentive compensation to
68 be awarded based on financial goals. Achieving those financial goals primarily
69 benefits investors. Therefore, investors should pick up the costs associated with
70 incentives for achieving these goals. The executive management of the
71 Companies can, at their discretion, overrule the goals specified in the incentive
72 compensation plan related to employee safety or service quality and reliability,
73 and all incentive compensation can be paid based entirely on financial goals. As
74 a result, the program provides no clear benefit for customers or certain incentive
75 for achieving greater service reliability or quality of service for customers.
76 Therefore, the primary effect of the incentive compensation program's design is to
77 enhance value for shareholders, not service for customers.

78 **Utility Industry Market Outlook**

79 **Q PLEASE DESCRIBE THIS SECTION OF YOUR TESTIMONY.**

80 A I begin my estimate of a fair return on equity for PGL/NS by reviewing the market's
81 assessment of utility industry investment risk, credit standing, and stock price
82 performance. I used this information to get a sense of the market's perception of the
83 risk characteristics of gas utility investments in general, which is then used to produce
84 a refined estimate of the market's return requirement for investment risk of PGL/NS's
85 utility operations.

86 Based on the assessments described below, I find the credit rating outlook of
87 the industry to be strong and supportive of the industry's financial integrity.

88 Further, the utility industry as a whole is funding large capital expenditure
89 programs, which creates significant demands for external capital. Credit rating
90 agencies and market participants have embraced the utilities' need for significant
91 amounts of external capital. They have responded by meeting the capital market
92 demands of gas utilities at near historical low capital market costs, despite the
93 increased demand for capital. All of this supports my conclusions that PGL/NS
94 should have sufficient access to capital to support its capital program, and that
95 relatively moderate capital costs are currently available and expected to be available
96 for the next several years.

97 Based on this review of credit outlooks and stock price performance, I
98 conclude that the market continues to embrace the utility industry as a safe-haven
99 investment, and views utility equity and debt investments as low-risk securities.

100 **Q PLEASE DESCRIBE UTILITIES' CREDIT RATING OUTLOOK.**

101 A Public utilities' credit rating outlook has improved over the recent past, and the credit
102 outlook is now seen as Stable to Improving. Standard & Poor's ("S&P") recently
103 published a report titled "Stable-To-Modestly Improved Industry Outlook Supports
104 Ratings For U.S. Regulated Electric, Gas, And Water Utilities." In that report, S&P
105 noted the following:

106 **Effect on ratings**

107 Notwithstanding the slow economic recovery, credit quality in the
108 domestic utility industry has continued a long shift to greater stability,
109 and even modest improvement in some cases, especially as many
110 companies re-emphasize their core competencies.

111 * * *

112 **Industry Ratings Outlook**113 **Good access to funding expected to continue**

114 Liquidity is adequate for most utilities and investor appetite for utility
115 debt remains healthy, with deals continuing to be oversubscribed at
116 very attractive rates. The amount of medium- to long-term debt and
117 hybrid securities issued through the three months ended March 31,
118 2013 was about \$8.7 billion. Credit fundamentals indicate that most, if
119 not all, utilities should continue to have ample access to funding
120 sources and credit. The relative certainty of financial performance
121 provided by the regulatory framework under which utilities operate,
122 their effective monopoly position, long-lived assets, and the financing
123 necessary to fund these assets are all factors that make the utility
124 sector attractive to investors. **These elements have also helped**
125 **utilities more effectively manage their rate-relief needs and**
126 **mitigate the effect of sizable rate increases on customers.**¹

127 Similarly, Fitch states:

128 **Rating Outlook**

129 **Stable Ratings Outlook:** Fitch Ratings expects the ratings and
130 ratings outlook for the overall U.S. Utilities, Power, and Gas (UPG)
131 sector to remain stable in 2014.

132 * * *

133 **Got Gas?**

134 Gas utilities are benefitting from stable and low natural gas prices, and
135 growing volumes from system build-outs and growing usage in
136 electricity generation and as transportation fuel. In the northeast and
137 mid-Atlantic regions, conversions from heating oil are also propelling
138 strong customer and volume growth. Fitch expects continued strong
139 growth and improved credit metrics for the sector in 2014, although
140 ratings are expected to be stable.

141 * * *

142 **Sector Outlook**

143 The sector outlook for regulated gas distribution companies is positive.
144 Relatively low and stable natural gas prices, customer growth,
145 expanded use of natural gas for power generation and transportation
146 fuel, and customer switching from heating oil or propane will drive

¹*Standard & Poor's RatingsDirect*. "Industry Report Card: Stable-To-Modestly Improved Industry Outlook Supports Ratings For U.S. Regulated Electric, Gas, And Water Utilities," April 19, 2013 at 3-4 and 6-7, emphasis added.

147 substantially higher throughput volumes and drive improved
148 profitability.²

149 **Q WHAT ARE THE IMPORTANT TAKEAWAY POINTS FROM THIS ASSESSMENT**
150 **OF UTILITY INDUSTRY CREDIT AND INVESTMENT RISK OUTLOOKS?**

151 A Credit rating agencies consider the utility industry (gas, electric and water) credit
152 outlook to be Stable and Improving and believe investors will continue to provide
153 needed capital to support large capital programs at moderate capital costs. All of this
154 supports the belief that utility investments continue to be regarded by market
155 participants as a low-risk investment option.

156 RATE OF RETURN

157 Investment Risk

158 **Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK**
159 **OF PGL.**

160 A The market assessment of PGL's investment risk is described by credit rating
161 analysts' reports. PGL's current corporate bond ratings from S&P and Moody's are
162 "A-" and "A2," respectively. Both rating agencies have a "Stable" outlook for PGL.

163 Specifically, S&P states the following:

164 Business Risk: Excellent

165 We view PGLC's business risk profile as excellent, reflecting
166 our assessment of the regulated utility industry risk as "very
167 low" and a "very low" country risk because the company's
168 operations are based in the U.S. The business risk profile also
169 reflects average regulatory risk management in Illinois, a
170 jurisdiction that we view as "strong/adequate", satisfactory
171 overall profitability, and efficient operations offset by the need

²*FitchRatings*: "2014 Outlook: Utilities, Power, and Gas," December 12, 2013 at 1-2, emphasis added.

172 to replace and upgrade its gas-distribution system, which it is
173 currently addressing. Although the company has limited
174 geographic diversification, it has a relatively large customer
175 base, serving about 831,000 natural gas-distribution customers
176 in Chicago and parts of northern Illinois.

177 The regulated rate structure in Illinois enables PGLC to
178 generate consistent earnings, regardless of natural gas prices,
179 by allowing the utility to pass on the costs to ratepayers via a
180 purchased gas adjustment clause. PGLC also benefits from
181 several other regulatory mechanisms that mitigate potential
182 cash flow volatility and reduce regulatory lag. These
183 alternatives to traditional base rate case applications include an
184 infrastructure surcharge, a bad-debt tracker, riders for recovery
185 of both environmental cleanup and energy conservation costs,
186 and a decoupling mechanism.

187

188

* * *

189 Financial Risk: Significant

190 We apply the medial volatility table given that the company's
191 cash flow comes from low-risk regulated gas distribution
192 operations and average management of regulatory risk.

193 We view PGLC's stand-alone financial risk profile as significant,
194 reflecting our expectations under our base scenario that the
195 company's adjusted FFO to total debt will hover around the
196 high-teens and debt to EBITDA of about 4.5x through 2015.³

197 **Q PLEASE DESCRIBE THE MARKET'S ASSESSMENT OF THE INVESTMENT RISK**
198 **OF NS.**

199 A Credit analysts' assessment of NS's investment risk is very similar to that for PGL.
200 NS's current corporate bond ratings from S&P and Moody's are "A-" and "A2,"
201 respectively. Both rating agencies have a "Stable" outlook for NS.

202 Specifically, S&P states the following:

³Standard & Poor's RatingsDirect. "Summary: The Peoples Gas Light & Coke Co.," April 8, 2014 at 3-4.

203 **Rationale**204 Business Risk: Excellent

205 We view NSG's business risk profile as "excellent", reflecting
206 our assessment of the regulated utility industry risk as "very
207 low" and a "very low" country risk because the company's
208 operations are based in the U.S. The business risk profile is
209 also characterized by average regulatory risk management in
210 Illinois, a jurisdiction that we view as "strong/adequate",
211 satisfactory overall profitability, and efficient operations.
212 Although scale, scope, and diversification is limited, with
213 natural gas distribution service being provided to a relatively
214 small customer base of about 159,000 in northern Illinois, the
215 customer base is predominately residential and commercial,
216 which limits susceptibility to economic cyclicity and provides
217 for relatively stable cash flows.

218 The regulated-rate structure in Illinois enables NSG to generate
219 consistent earnings, regardless of natural gas prices, by
220 allowing the utility to pass on the costs to ratepayers via
221 purchased gas adjustment clauses. NSG also benefits from
222 several other regulatory mechanisms that mitigate potential
223 cash flow volatility and reduce regulatory lag. These
224 alternatives to traditional base rate case applications include
225 bad-debt trackers, riders for recovery of both environmental
226 cleanup and energy conservation costs, and decoupling.

227 * * *

228 Financial Risk: Significant

229 We apply the medial volatility table given that the company's
230 cash flow comes from low-risk regulated gas distribution
231 operations and in light of our strong/adequate regulatory
232 advantage assessment for NSG.

233 We view NSG's stand-alone financial risk profile as significant,
234 reflecting our expectations under our base scenario that the
235 company's adjusted FFO to total debt will hover around the
236 high-teens and debt to EBITDA will be below 4.5x through
237 2015.⁴

⁴Standard & Poor's RatingsDirect. "Summary: North Shore Gas Co.," April 8, 2014 at 3-4.

238 **PGL/NS's Proposed Capital Structure**

239 **Q WHAT ARE PGL/NS's PROPOSED CAPITAL STRUCTURES?**

240 **A** The proposed capital structures for PGL and NS are shown below in Table 1. These
241 capital structures are sponsored by PGL/NS witness Lisa J. Gast.

TABLE 1	
<u>PGL's and NS's Proposed Capital Structures</u>	
(July 31, 2013)	
<u>Description</u>	<u>Weight</u>
<u>PGL</u>	
Long-Term Debt	44.88%
Short-Term Debt	4.81%
Common Equity	<u>50.31%</u>
Total Regulatory Capital Structure	100.00%
<u>NS</u>	
Long-Term Debt	40.62%
Short-Term Debt	8.97%
Common Equity	<u>50.41%</u>
Total Regulatory Capital Structure	100.00%

Sources: PGL Exhibit 2.1 and NS Exhibit 2.1.

242 **Q DO YOU PROPOSE ANY MODIFICATIONS OF PGL's OR NS's PROPOSED**
243 **CAPITAL STRUCTURE?**

244 **A** No. I do not take issue with PGL's and NS's proposed capital structures in these
245 proceedings.

246

RETURN ON EQUITY

247 **Q HOW DID YOU ESTIMATE PGL/NS's CURRENT MARKET COST OF EQUITY?**

248 A I performed three versions of the Discounted Cash Flow ("DCF") model analysis, and
249 I also performed the Capital Asset Pricing Model ("CAPM") analysis. I applied these
250 models to a proxy group of publicly traded companies that have investment risk
251 similar to PGL/NS. Based on these assessments, I estimate PGL/NS's current
252 market cost of equity to be 9.15%.

253 **Q PLEASE DESCRIBE WHAT IS MEANT BY A "UTILITY'S COST OF COMMON**
254 **EQUITY."**

255 A A utility's cost of common equity is the return investors require on an investment in
256 the utility. Investors expect to achieve their return requirement from receiving
257 dividends and stock price appreciation.

258 **Q PLEASE DESCRIBE THE FRAMEWORK FOR DETERMINING A REGULATED**
259 **UTILITY'S COST OF COMMON EQUITY.**

260 A In general, determining a fair cost of common equity for a regulated utility has been
261 framed by two hallmark decisions of the U.S. Supreme Court: Bluefield Water Works
262 & Improvement Co. v. Pub. Serv. Comm'n of W. Va., 262 U.S. 679 (1923) and Fed.
263 Power Comm'n v. Hope Natural Gas Co., 320 U.S. 591 (1944).

264 These decisions identify the general standards to be considered in
265 establishing the cost of common equity for a public utility. Those general standards
266 provide that the authorized return should: (1) be sufficient to maintain financial
267 integrity; (2) attract capital under reasonable terms; and (3) be commensurate with
268 returns investors could earn by investing in other enterprises of comparable risk.

269 Q PLEASE DESCRIBE THE METHODS YOU HAVE USED TO ESTIMATE PGL/NS's
270 COST OF COMMON EQUITY.

271 A I have used several models based on financial theory to estimate PGL/NS's cost of
272 common equity. These models are: (1) a constant growth Discounted Cash Flow
273 ("DCF") model using consensus analysts' growth rate projections, (2) a constant
274 growth DCF model using a sustainable growth rate; (3) a multi-stage growth DCF
275 model; and (4) a Capital Asset Pricing Model ("CAPM"). I have applied these models
276 to a group of publicly traded utilities that have investment risk similar to PGL/NS's. I
277 would normally rely on performance of a Risk Premium model to support my return on
278 equity recommendations. However, the Illinois Commerce Commission ("ICC") has
279 consistently not used this methodology to support its finding on a fair and balanced
280 return on equity. Therefore, consistent with this ICC practice I will not use this
281 methodology to support my return on equity recommendation.

282 **Risk Proxy Group**

283 Q HOW DID YOU SELECT A UTILITY PROXY GROUP SIMILAR IN INVESTMENT
284 RISK TO PGL AND NS TO ESTIMATE THEIR CURRENT MARKET COST OF
285 EQUITY?

286 A I relied on a gas and electric utility proxy group that I determined to be comparable in
287 investment risk to PGL and NS. My recommended proxy group is almost the same
288 proxy group used by the PGL/NS witness Mr. Paul Moul to estimate PGL/NS's return
289 on equity with two exceptions. I excluded the Laclede Group and PEPCO Holdings
290 from Mr. Moul's proxy group because of their involvement in significant merger and
291 acquisition activity. Like Mr. Moul, I am using the same proxy group to estimate a fair

292 return on equity for PGL and NS, because the investment risk of these two affiliates is
293 very comparable.

294 **Q IS IT APPROPRIATE TO EXCLUDE PROXY GROUP COMPANIES THAT ARE**
295 **INVOLVED IN MERGER AND ACQUISITION ACTIVITIES?**

296 A Yes. The subject companies' involvement in merger and acquisition activities can
297 distort the observable stock price, and result in an erroneous statement of what the
298 current market cost of equity is for those companies based on their stand-alone
299 earnings and dividend outlooks. Merger and acquisition activities can result in
300 synergistic improvement to the companies' growth outlooks, which may be captured
301 in the stock price, but may not be reflected in the stand-alone earnings and dividends
302 of the individual companies.

303 **Q PLEASE DESCRIBE WHY YOU BELIEVE YOUR PROXY GROUP IS**
304 **REASONABLY COMPARABLE IN INVESTMENT RISK TO PGL/NS.**

305 A My proxy group is shown on City/CUB/IIEC Joint Exhibit 1.2. This proxy group has an
306 average corporate credit rating from S&P of "A-," which is identical to S&P's corporate
307 credit rating for PGL/NS. The proxy group's corporate credit rating from Moody's of
308 "A2" is also identical to PGL/NS's "A2" rating from Moody's.

309 My proxy group has an average common equity ratio of 47.1% (including
310 short-term debt) from SNL Financial ("SNL") and 54.0% (excluding short-term debt)
311 from *The Value Line Investment Survey* ("*Value Line*") in 2013. The proxy group's
312 common equity ratio is higher but comparable to the 50.3% and 50.4% common
313 equity ratio proposed by PGL and NS, respectively.

314 Comparability of capital structures between PGL and NS and the proxy group
315 must also consider the financing of working capital, whether short-term debt or
316 long-term capital. While the proxy group has a higher common equity ratio based on
317 long-term capital, it has a lower common equity ratio based on total capital (i.e.,
318 including short-term debt.)

319 Based on these high-level metrics, I conclude that the proxy group's financial
320 risk is reasonably comparable to that of PGL and NS. This indicates that my proxy
321 group has comparable financial risk to PGL/NS.

322 I believe that my proxy group reasonably approximates the investment risk of
323 PGL/NS, and can be used to estimate a fair return on equity for PGL/NS.

324 **Discounted Cash Flow Model**

325 **Q PLEASE DESCRIBE THE DCF MODEL.**

326 **A** The DCF model posits that a stock price is valued by summing the present value of
327 expected future cash flows discounted at the investor's required rate of return or cost
328 of capital. This model is expressed mathematically as follows:

329
$$P_0 = \frac{D_1}{(1+K)^1} + \frac{D_2}{(1+K)^2} \dots \frac{D_\infty}{(1+K)^\infty}$$
 where (Equation 1)
330

331 P_0 = Current stock price

332 D = Dividends in periods 1 - ∞

333 K = Investor's required return

334 This model can be rearranged in order to estimate the discount rate or
335 investor-required return, "K." If it is reasonable to assume that earnings and
336 dividends will grow at a constant rate, then Equation 1 can be rearranged as follows:

337 $K = D_1/P_0 + G$ (Equation 2)

338 K = Investor's required return

339 D_1 = Dividend in first year

340 P_0 = Current stock price

341 G = Expected constant dividend growth rate

342 Equation 2 is referred to as the annual "constant growth" DCF model.

343 **Q WILL YOU INCLUDE A QUARTERLY COMPOUNDING ADJUSTMENT TO YOUR**
344 **DCF RETURN ESTIMATE?**

345 **A** Yes. I will do this because it has been the ICC's standard practice to rely on a
346 quarterly compounding return in DCF models. However, I must state my concern that
347 including a quarterly compounding DCF return estimate overstates the utility's cost of
348 capital. This occurs because the return available to investors from reinvesting
349 dividends is not a cost to the utility. Therefore, it should not be reflected as a cost of
350 capital in setting utility rates. By including the quarterly compounding adjustment in
351 the authorized returns used to set rates, investors are provided an opportunity to earn
352 that quarterly compounding return twice. First, investors are provided an opportunity
353 to earn that quarterly compounding return by setting rates to increase the allowed
354 return on equity to include a dividend reinvestment return despite the absence of
355 actual reinvestment of the dividend in the utility. Second, investors are able to earn
356 the reinvestment dividend return again when investors receive dividends from the
357 utilities and actually reinvest in alternative investments.

358 As such, including the quarterly compounding return in the DCF return
359 estimates overstates a fair return on equity for setting rates, because it overstates the
360 utility's cost of capital.

361 Q PLEASE DESCRIBE THE INPUTS TO YOUR CONSTANT GROWTH DCF MODEL.

362 A As shown in Equation 2 above, the DCF model requires a current stock price,
363 expected dividend, and expected growth rate in dividends.

364 **Constant Growth DCF Model**

365 Q WHAT STOCK PRICE HAVE YOU RELIED ON IN YOUR CONSTANT GROWTH
366 DCF MODEL (ANALYST' GROWTH)?

367 A I relied on the average of the weekly high and low stock prices of the utilities in the
368 proxy group over a 13-week period ending on June 6, 2014 for all of my DCF models.
369 An average stock price is less susceptible to market price variations than a spot price.
370 Therefore, an average stock price is less susceptible to aberrant market price
371 movements, which may not be reflective of the stock's long-term value.

372 A 13-week average stock price reflects a period that is still short enough to
373 contain data that reasonably reflect current market expectations, but the period is not
374 so short as to be susceptible to market price variations that may not reflect the stock's
375 long-term value. In my judgment, a 13-week average stock price is a reasonable
376 balance between the need to reflect current market expectations and the need to
377 capture sufficient data to smooth out aberrant market movements.

378 Q WHAT DIVIDEND DID YOU USE IN YOUR CONSTANT GROWTH DCF MODEL?

379 A I used the most recently paid quarterly dividend, as reported in *Value Line*⁵ for all
380 versions of my DCF models. This dividend was annualized (multiplied by 4 for
381 quarterly compounding adjustment) and adjusted for next year's growth to produce
382 the D₁ factor for use in Equation 2 above.

⁵The Value Line Investment Survey, May 23, 2014 and June 6, 2014

383 Q WHAT DIVIDEND GROWTH RATES HAVE YOU USED IN YOUR CONSTANT
384 GROWTH DCF MODEL?

385 A There are several methods that can be used to estimate the expected growth in
386 dividends. I have used two distinct methods to produce two constant growth DCF
387 estimates. The first method relies on analysts' growth estimates, used in my constant
388 growth DCF (analysts' growth) analysis. The second determines the utilities'
389 sustainable growth rate, which is the input used in my constant growth DCF
390 (sustainable growth) analysis.

391 However, regardless of the method used, for purposes of determining the
392 market-required return on common equity, one must attempt to estimate investors'
393 consensus about what the dividend or earnings growth rate will be, and not what an
394 individual investor or analyst may use to make individual investment decisions.

395 **Constant Growth DCF Model (Analysts' Growth)**

396 Q PLEASE EXPLAIN THE ANALYSTS' GROWTH ESTIMATE INPUT USED FOR
397 THE FIRST METHOD.

398 A As predictors of future returns, security analysts' growth estimates have been shown
399 to be more accurate than growth rates derived from historical data.⁶ That is,
400 assuming the market generally makes rational investment decisions, analysts' growth
401 projections are more likely to influence investors' decisions which are captured in
402 observable stock prices than growth rates derived only from historical data.

403 For my constant growth DCF (analysts' growth) analysis, I have relied on a
404 consensus, or mean, of professional security analysts' earnings growth estimates as

⁶See, e.g., David Gordon, Myron Gordon, and Lawrence Gould, "Choice Among Methods of Estimating Share Yield," *The Journal of Portfolio Management*, Spring 1989.

405 a proxy for investor consensus dividend growth rate expectations. I used the average
406 of analysts' growth rate estimates from three sources: Zacks, SNL, and Reuters. All
407 such projections were available on June 6, 2014, and all were reported online.

408 Each consensus growth rate projection is based on a survey of security
409 analysts. There is no clear evidence whether a particular analyst is most influential
410 on general market investors. Therefore, a single analyst's projection does not as
411 reliably predict consensus investor outlooks as does a consensus of market analysts'
412 projections. The consensus estimate is a simple arithmetic average, or mean, of
413 surveyed analysts' earnings growth forecasts. A simple average of the growth
414 forecasts gives equal weight to all surveyed analysts' projections. Therefore, a
415 simple average, or arithmetic mean, of analyst forecasts is a good proxy for market
416 consensus expectations.

417 **Q WHAT ARE THE GROWTH RATES YOU USED IN YOUR CONSTANT GROWTH**
418 **DCF MODEL (ANALYSTS' GROWTH)?**

419 A The growth rates I used in my DCF (analysts' growth) analysis are shown on
420 City/CUB/IIEC Joint Exhibit 1.3. The average growth rate for my proxy group is
421 4.50%.

422 **Q WHAT ARE THE RESULTS OF THIS CONSTANT GROWTH DCF MODEL?**

423 A As shown on City/CUB/IIEC Joint Exhibit 1.4, the average and median constant
424 growth DCF (analysts' growth) returns for my proxy group are 8.48% and 7.96%,
425 respectively. This model indicates a fair return on equity of 8.50% for PGL/NS.

426 Q DO YOU HAVE ANY COMMENTS ON THE RESULTS OF YOUR CONSTANT
427 GROWTH (ANALYSTS' GROWTH) DCF ANALYSIS?

428 A Yes. The constant growth DCF (analysts' growth) analysis for my proxy group was
429 based on a long-term sustainable growth rate of 4.50%. This growth rate is
430 reasonable in comparison to an estimate of a maximum long-term sustainable growth
431 rate of 4.7% which I discuss next in this testimony. I believe my constant growth DCF
432 analysis produces fair return estimates.

433 **Constant Growth DCF Model (Sustainable Growth)**

434 Q WHAT IS YOUR ESTIMATE OF A MAXIMUM LONG-TERM SUSTAINABLE
435 GROWTH RATE?

436 A A long-term sustainable growth rate for a utility stock cannot exceed the growth rate
437 of the economy in which it sells its goods and services. Hence, a reasonable proxy
438 for the maximum long-term sustainable growth rate for a utility investment is best
439 proxied by the projected long-term Gross Domestic Product ("GDP"). *Blue Chip*
440 *Financial Forecasts* projects that over the next 5 and 10 years, the U.S. nominal GDP
441 will grow in the range of 4.8% to 4.6%. As such, the average growth rate over the
442 next 10 years is around 4.7%, which I believe is a reasonable proxy of maximum
443 long-term sustainable growth.⁷

444 Later in my testimony I discuss, in my multi-stage growth DCF analysis,
445 academic and investment practitioner evidence that accepts the projected long-term
446 GDP growth outlook as a maximum sustainable growth rate projection. Hence,
447 recognizing the long-term GDP growth rate as a maximum sustainable growth is

⁷*Blue Chip Financial Forecasts*, June 1, 2014 at 14.

448 logical, and generally consistent with academic and economic practitioner accepted
449 practices.

450 **Q WHAT STOCK PRICE AND DIVIDEND DID YOU USE FOR YOUR SUSTAINABLE**
451 **GROWTH DCF?**

452 A I used the same stock price and dividend in my sustainable growth DCF model as I
453 used in my constant growth DCF model using analyst growth rate projections.

454 **Q PLEASE DESCRIBE HOW YOU ESTIMATED A SUSTAINABLE GROWTH RATE**
455 **FOR YOUR SUSTAINABLE GROWTH DCF MODEL.**

456 A. A sustainable growth rate is based on the percentage of the utility's earnings that is
457 retained and reinvested in utility plant and equipment. These reinvested earnings
458 increase the utility's earnings base (rate base). Earnings grow when plant funded by
459 reinvested earnings is put into service, and the utility is allowed to earn its authorized
460 return on such additional rate base investment.

461 The internal growth methodology is tied to the percentage of earnings retained
462 in the company and not paid out as dividends. The earnings retention ratio is 1 minus
463 the dividend payout ratio. As the payout ratio declines, the earnings retention ratio
464 increases. An increased earnings retention ratio will fuel stronger growth because
465 the business funds more investments with retained earnings.

466 The payout ratios of the proxy group are shown in my City/CUB/IIEC Joint
467 Exhibit 1.5. These dividend payout ratios and earnings retention ratios then can be
468 used to develop a sustainable long-term earnings retention growth rate. A
469 sustainable long-term earnings retention ratio will help gauge whether analysts'

470 current three- to five-year growth rate projections can be sustained over an indefinite
471 period of time.

472 The data used to estimate the long-term sustainable growth rate is based on
473 each of my proxy companies' current market-to-book ratio and on *Value Line's* three-
474 to five-year projections of earnings, dividends, earned returns on book equity, and
475 stock issuances.

476 As shown in City/CUB/IIEC Joint Exhibit 1.6, page 1, the average sustainable
477 growth rate for the proxy group using this internal growth rate model is 5.45%.

478 **Q WHAT IS THE DCF ESTIMATE USING THESE SUSTAINABLE LONG-TERM**
479 **GROWTH RATES?**

480 A. A DCF estimate based on these sustainable growth rates is developed in
481 City/CUB/IIEC Joint Exhibit 1.7. As shown there, a sustainable growth DCF analysis
482 produces proxy group average and median DCF results of 9.46% and 8.98%,
483 respectively. This model indicates a fair return on equity of 9.50% for PGL/NS.

484 **Multi-Stage Growth DCF Model**

485 **Q HAVE YOU CONDUCTED ANY OTHER DCF STUDIES?**

486 A Yes. My constant growth DCF is based on consensus analysts' growth rate
487 projections, so it is a reasonable reflection of rational investment expectations over
488 the next three to five years. The limitation on the constant growth DCF model is that
489 it cannot reflect a rational expectation that a period of high/low short-term growth can
490 be followed by a change in growth to a rate that is more reflective of long-term
491 sustainable growth. Hence, I performed a multi-stage growth DCF analysis to reflect
492 this outlook of changing growth expectations.

493 Q WHAT STOCK PRICE AND DIVIDEND DID YOU USE FOR YOUR MULTI-STAGE
494 GROWTH DCF MODEL?

495 A I used the same stock price and dividend in my multi-stage growth DCF model as I
496 used in my constant growth DCF model using analyst growth rate projections. In this
497 model, I simply used a sustainable growth rate rather than the consensus analysts'
498 projected growth rate.

499 Q WHY DO YOU BELIEVE GROWTH RATES CAN CHANGE OVER TIME?

500 A Analyst projected growth rates over the next three to five years will change as utility
501 earnings growth outlooks change. Utility companies go through cycles in making
502 investments in their systems. When utility companies are making large investments,
503 their rate base grows rapidly, which accelerates their earnings growth. Once a major
504 construction cycle is completed or levels off, growth in the utility rate base slows, and
505 its earnings growth slows from an abnormally high three- to five-year rate to a lower
506 sustainable growth rate.

507 As major construction cycles extend over longer periods of time, even with an
508 accelerated construction program, the growth rate of the utility will slow simply
509 because the utility has limited human and capital resources available to expand its
510 construction program. Hence, the three- to five-year growth rate projection should be
511 used as a long-term sustainable growth rate but not without making a reasonable
512 informed judgment to determine whether it considers the current market environment,
513 the industry, and whether the three- to five-year growth outlook is sustainable.

514 **Q PLEASE DESCRIBE YOUR MULTI-STAGE GROWTH DCF MODEL.**

515 A The multi-stage growth DCF model reflects the possibility of non-constant growth for
516 a company over time. The multi-stage growth DCF model reflects three growth
517 periods: (1) a short-term growth period, which consists of the first five years; (2) a
518 transition period, which consists of the next five years (years 6 through 10); and (3) a
519 long-term growth period, starting in year 11 through perpetuity.

520 For the short-term growth period, I relied on the consensus analysts' growth
521 projections described above in relationship to my constant growth DCF model. For
522 the transition period, the growth rates were reduced or increased by an equal factor,
523 which reflects the difference between the analysts' projected growth rates and the
524 projected long-term sustainable growth rate. For the long-term growth period, I
525 assumed each company's growth would converge to the maximum sustainable long-
526 term growth rate.

527 **Q WHY IS THE GDP GROWTH PROJECTION A REASONABLE PROXY FOR THE**
528 **MAXIMUM SUSTAINABLE LONG-TERM GROWTH RATE?**

529 A Utilities cannot indefinitely sustain a growth rate that exceeds the growth rate of the
530 economy in which they sell services. Utilities' earnings/dividend growth is created by
531 increased utility investment or rate base. Such investment, in turn, is driven by
532 service area economic growth and demand for utility service. In other words, utilities
533 invest in plant to meet sales demand growth, and sales growth, in turn, is tied to
534 economic growth in their service areas.

535 The Energy Information Administration ("EIA") has observed that utility sales
536 growth tracks, albeit is lower than, the U.S. GDP growth, as shown on City/CUB/IIEC
537 Joint Exhibit 1.8. Utility sales growth has lagged behind GDP growth for more than a

538 decade. As a result, nominal GDP growth is a very conservative proxy for gas utility
539 sales growth, rate base growth, and earnings growth. Therefore, the U.S. GDP
540 nominal growth rate is a conservative proxy for the highest sustainable long-term
541 growth rate of a utility.

542 **Q IS THERE RESEARCH THAT SUPPORTS YOUR POSITION THAT, OVER THE**
543 **LONG TERM, A COMPANY'S EARNINGS AND DIVIDENDS CANNOT GROW AT**
544 **A RATE GREATER THAN THE GROWTH OF THE U.S. GDP?**

545 A Yes. This concept is supported in both published analyst literature and academic
546 work. For instance, in a textbook entitled "Fundamentals of Financial Management,"
547 published by Eugene Brigham and Joel F. Houston, the authors state as follows:

548 The constant growth model is most appropriate for mature companies
549 with a stable history of growth and stable future expectations.
550 Expected growth rates vary somewhat among companies, but
551 dividends for mature firms are often expected to grow in the future at
552 about the same rate as nominal gross domestic product (real GDP
553 plus inflation).⁸

554 **Q IS THERE ANY ACTUAL INVESTMENT HISTORY THAT SUPPORTS THE**
555 **NOTION THAT THE CAPITAL APPRECIATION FOR STOCK INVESTMENTS WILL**
556 **NOT EXCEED THE NOMINAL GROWTH OF THE U.S. GDP?**

557 A Yes. This is evident by a comparison of the geometric annual growth of the U.S.
558 GDP compared to the geometric growth of the U.S. stock market. Ibbotson &
559 Associates measures the historical geometric growth of the U.S. stock market over

⁸*Fundamentals of Financial Management*, Eugene F. Brigham and Joel F. Houston, Eleventh Edition 2007, Thomson South-Western, a Division of Thomson Corporation at 298.

560 the period 1926-2013 to be approximately 5.8%.⁹ During this same time period, the
561 U.S. geometric annual growth of the U.S. GDP was approximately 6.2%.¹⁰

562 As such, the geometric growth of the U.S. nominal GDP has been higher but
563 comparable to the capital appreciation geometric growth of the U.S. stock market.
564 This historical relationship indicates the U.S. GDP growth outlook is a conservative
565 estimate of the long-term sustainable growth of U.S. stock investments.

566 **Q HOW DID YOU DETERMINE A SUSTAINABLE LONG-TERM GROWTH RATE**
567 **THAT REFLECTS THE CURRENT CONSENSUS OUTLOOK OF THE MARKET?**

568 A I relied on the consensus analysts' projections of long-term GDP growth. *Blue Chip*
569 *Financial Forecasts* publishes consensus economists' GDP growth projections twice
570 a year. These forward-looking consensus analysts' GDP growth outlooks are the
571 best available measure of the market's assessment of long-term GDP growth. These
572 analyst projections reflect all current outlooks for GDP, as reflected in analyst
573 projections, and are likely the most influential on investors' expectations of future
574 growth outlooks. The consensus economists' published GDP growth rate outlook is
575 4.8% to 4.6% over the next 10 years.¹¹

576 Therefore, I propose to use the consensus economists' projected 5- and
577 10-year average GDP consensus growth rates of 4.8% and 4.6%, respectively, as
578 published by *Blue Chip Financial Forecasts*, as an estimate of long-term sustainable
579 growth. *Blue Chip Financial Forecasts'* projections provide real GDP growth
580 projections of 2.6% and 2.4%, and GDP inflation of 2.1%¹² over the 5-year and
581 10-year projection periods, respectively. This consensus GDP growth forecast

⁹*Ibbotson & Associates 2014 Classic Yearbook* inflation rate of 3.0%.

¹⁰U.S. Bureau of Economic Analysis, April 30, 2014.

¹¹*Blue Chip Financial Forecasts*, June 1, 2014 at 14.

¹²*Id.*

582 represents the most likely views of market participants because it is based on
583 published consensus economist projections.

584 **Q DO YOU CONSIDER OTHER SOURCES OF PROJECTED LONG-TERM GDP**
585 **GROWTH in your analysis?**

586 A Yes and these other sources corroborate my consensus analysts' projections. The
587 U.S. EIA in its *Annual Energy Outlook* projects real GDP out until 2040. In its *2014*
588 *Annual Report*, the EIA projects real GDP through 2040 to be in the range of 1.9% to
589 2.8%, with a midpoint or reference case of 2.4%.¹³

590 Also, the Congressional Budget Office ("CBO") makes long-term economic
591 projections. The CBO is projecting real GDP growth of 2.8% to 2.1% during the next
592 5 and 10 years, respectively, with GDP price inflation of 2.0%.¹⁴ The CBO's real GDP
593 projections are comparable to the consensus, but its GDP inflation is lower than the
594 consensus economists.

595 The real GDP and nominal GDP growth projections made by the U.S. EIA and
596 those made by the CBO support the use of the consensus analyst 5-year and 10-year
597 projected GDP growth outlooks as a reasonable estimate of market participants'
598 long-term GDP growth outlooks.

599 **Q WHAT ARE THE RESULTS OF YOUR MULTI-STAGE GROWTH DCF MODEL?**

600 A As shown on City/CUB/IIEC Joint Exhibit 1.6, the average and median DCF returns
601 on equity for my proxy group are 8.64% and 8.58%, respectively. This model
602 indicates a fair return on equity of 8.65% for PGL/NS.

¹³DOE/EIA *Annual Energy Outlook 2014 With Projections to 2040*, April 2014 at MT-2.

¹⁴CBO: *The Budget and Economic Outlook: Fiscal Years 2014 to 2014*, February 2014 at

603 Q PLEASE SUMMARIZE THE RESULTS FROM YOUR DCF ANALYSES.

604 A The results from my DCF analyses are summarized in Table 2 below:

605 I conclude that a reasonable DCF return for PGL/NS in this case is 9.00%.

<u>Description</u>	<u>Proxy Group</u>
Constant Growth DCF Model (Analysts' Growth)	8.50%
Constant Growth DCF Model (Sustainable Growth)	9.50%
Multi-Stage Growth DCF Model	8.65%

606 DCF estimates range approximately 8.5% up to 9.5%. I believe the high-end
607 estimated range is unreasonably high because the growth rate is far too high to be a
608 sustainable long-term growth rate. Therefore, I believe the midpoint of my DCF, or
609 9.00%, represents the best estimate of PGL/NS's current market cost of equity.

610 **Capital Asset Pricing Model ("CAPM")**

611 Q PLEASE DESCRIBE THE CAPM.

612 A The CAPM method of analysis is based upon the theory that the market-required rate
613 of return for a security is equal to the risk-free rate, plus a risk premium associated
614 with the specific security. This relationship between risk and return can be expressed
615 mathematically as follows:

616 $R_i = R_f + B_i \times (R_m - R_f)$ where:

617 R_i = Required return for stock i

618 R_f = Risk-free rate

619 R_m = Expected return for the market portfolio

620 B_i = Beta - Measure of the risk for stock

621 The stock-specific risk term in the above equation is beta. Beta represents
622 the investment risk that cannot be diversified away when the security is held in a
623 diversified portfolio. When stocks are held in a diversified portfolio, firm-specific risks
624 can be eliminated by balancing the portfolio with securities that react in the opposite
625 direction to firm-specific risk factors (e.g., business cycle, competition, product mix,
626 and production limitations).

627 The risks that cannot be eliminated when held in a diversified portfolio are
628 non-diversifiable risks. Non-diversifiable risks are related to the market in general
629 and are referred to as systematic risks. Risks that can be eliminated by diversification
630 are regarded as non-systematic risks. In a broad sense, systematic risks are market
631 risks, and non-systematic risks are business risks. The CAPM theory suggests that
632 the market will not compensate investors for assuming risks that can be diversified
633 away. Therefore, the only risk for which investors will be compensated are
634 systematic or non-diversifiable risks. The beta is a measure of the systematic or
635 non-diversifiable risks.

636 **Q PLEASE DESCRIBE THE INPUTS TO YOUR CAPM.**

637 A The CAPM requires an estimate of the market risk-free rate, the company's beta, and
638 the market risk premium.

639 Q WHAT DID YOU USE AS AN ESTIMATE OF THE MARKET RISK-FREE RATE?

640 A *Blue Chip Financial Forecasts'* projected 30-year Treasury bond yield is 4.30%.¹⁵
641 The current 30-year Treasury bond yield is 3.47%, as shown on City/CUB/IIEC Joint
642 Exhibit 1.11, page 1. I used *Blue Chip Financial Forecasts'* projected 30-year
643 Treasury bond yield of 4.30% for my CAPM analysis.

644 Q WHY DID YOU USE LONG-TERM TREASURY BOND YIELDS AS AN ESTIMATE
645 OF THE RISK-FREE RATE?

646 A Treasury securities are backed by the full faith and credit of the United States
647 government, so long-term Treasury bonds are considered to have negligible credit
648 risk. Also, long-term Treasury bonds have an investment horizon similar to that of
649 common stock. As a result, investor-anticipated long-run inflation expectations are
650 reflected in both common-stock required returns and long-term bond yields.
651 Therefore, the nominal risk-free rate (or expected inflation rate and real risk-free rate)
652 included in a long-term bond yield is a reasonable estimate of the nominal risk-free
653 rate included in common stock returns.

654 Treasury bond yields, however, do include risk premiums related to
655 unanticipated future inflation and interest rates. A Treasury bond yield is not a
656 risk-free rate. Risk premiums related to unanticipated inflation and interest rates are
657 systematic or market risks. Consequently, for companies with betas less than 1.0,
658 using the Treasury bond yield as a proxy for the risk-free rate in the CAPM analysis
659 can produce an overstated estimate of the CAPM return.

¹⁵*Blue Chip Financial Forecasts*, June 1, 2014 at 2.

660 Q WHAT BETA DID YOU USE IN YOUR ANALYSIS?

661 A As shown on City/CUB/IIEC Joint Exhibit 1.12, the proxy group average *Value Line*
662 beta estimate is 0.75.

663 Q HOW DID YOU DERIVE YOUR MARKET RISK PREMIUM ESTIMATE?

664 A I derived two market risk premium estimates, a forward-looking estimate and one
665 based on a long-term historical average.

666 The forward-looking estimate was derived by estimating the expected return
667 on the market (as represented by the S&P 500) and subtracting the risk-free rate from
668 this estimate. I estimated the expected return on the S&P 500 by adding an expected
669 inflation rate to the long-term historical arithmetic average real return on the market.
670 The real return on the market represents the achieved return above the rate of
671 inflation.

672 Morningstar's *Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook*
673 estimates the historical arithmetic average real market return over the period 1926 to
674 2013 as 8.9%.¹⁶ A current consensus analysts' inflation projection, as measured by
675 the Consumer Price Index, is 2.1%.¹⁷ Using these estimates, the expected market
676 return is 11.19%.¹⁸ The market risk premium then is the difference between the
677 11.19% expected market return, and my 4.30% risk-free rate estimate, or
678 approximately 6.90%.

679 The historical estimate of the market risk premium was also estimated by
680 Morningstar in *Stocks, Bonds, Bills and Inflation 2014 Classic Yearbook*. Over the
681 period 1926 through 2013, Morningstar's study estimated that the arithmetic average

¹⁶ *Morningstar, Inc., Ibbotson SBBI 2014 Classic Yearbook*; Market Results for Stocks, Bonds, Bills, and Inflation 1926-2013 at 92.

¹⁷ *Blue Chip Financial Forecasts*, June 1, 2014 at 2.

¹⁸ $\{ [(1 + 0.089) * (1 + 0.021)] - 1 \} * 100$.

682 of the achieved total return on the S&P 500 was 12.1%,¹⁹ and the total return on
683 long-term Treasury bonds was 5.9%.²⁰ The indicated market risk premium is 6.2%
684 (12.1% - 5.9% = 6.2%). The average of my market risk premium estimates is 6.6%
685 (6.2% to 6.9%).

686 **Q HOW DOES YOUR ESTIMATED MARKET RISK PREMIUM RANGE COMPARE TO**
687 **THAT ESTIMATED BY MORNINGSTAR?**

688 A Morningstar's analysis indicates that a market risk premium falls somewhere in the
689 range of 6.2% to 7.0%. My market risk premium falls in the range of 6.2% to 6.9%.
690 My average market risk premium of 6.6% is within Morningstar's range.

691 Morningstar estimates a forward-looking market risk premium based on actual
692 achieved data from the historical period of 1926 through 2013. Using this data,
693 Morningstar estimates a market risk premium derived from the total return on large
694 company stocks (S&P 500), less the income return on Treasury bonds. The total
695 return includes capital appreciation, dividend or coupon reinvestment returns, and
696 annual yields received from coupons and/or dividend payments. The income return,
697 in contrast, only reflects the income return received from dividend payments or
698 coupon yields. Morningstar argues that the income return is the only true risk-free
699 rate associated with Treasury bonds and is the best approximation of a truly risk-free
700 rate.²¹ I disagree with this assessment from Morningstar, because it does not reflect
701 a true investment option available to the marketplace and therefore does not produce
702 a legitimate estimate of the expected premium of investing in the stock market versus

¹⁹ *Morningstar, Inc. Ibbotson SBBI 2014 Classic Yearbook* at 91.

²⁰ *Id.*

²¹ *Morningstar, Inc., Ibbotson SBBI Classic Yearbook: Market Results for Stocks, Bonds, Bills, and Inflation 1926-2013* at 153.

703 that of Treasury bonds. Nevertheless, I will use Morningstar's conclusion to show the
704 reasonableness of my market risk premium estimates.

705 Morningstar's range is based on several methodologies. First, Morningstar
706 estimates a market risk premium of 7.0% based on the difference between the total
707 market return on common stocks (S&P 500) less the income return on Treasury bond
708 investments. Second, Morningstar found that if the New York Stock Exchange (the
709 "NYSE") was used as the market index rather than the S&P 500, that the market risk
710 premium would be 6.8%, not 7.0%. Third, if only the two deciles of the largest
711 companies included in the NYSE were considered, the market risk premium would be
712 6.2%.²²

713 Finally, Morningstar found that the 7.0% market risk premium based on the
714 S&P 500 was influenced by an abnormal expansion of price-to-earnings ("P/E") ratios
715 relative to earnings and dividend growth during the period 1980 through 2001.
716 Morningstar believes this abnormal P/E expansion is not sustainable.²³ Therefore,
717 Morningstar adjusted this market risk premium estimate to normalize the growth in the
718 P/E ratio to be more in line with the growth in dividends and earnings. Based on this
719 alternative methodology, Morningstar published a long-horizon market risk premium
720 of 6.1%.²⁴

721 **Q WHAT ARE THE RESULTS OF YOUR CAPM ANALYSIS?**

722 A As shown on City/CUB/IEC Joint Exhibit 1.13, based on Morningstar's market risk
723 premium of 6.2% to 7.0%, a risk-free rate of 4.30%, and a beta of 0.75, my CAPM

²²Morningstar observes that the S&P 500 and the NYSE Decile 1-2 are both large capitalization benchmarks. *Id.* at 152.

²³*Id.* at 156.

²⁴*Id.*

724 analysis produces a return of 8.95% to 9.52% with a midpoint of 9.24%, rounded to
725 9.25%.

726 This CAPM estimate reflects a projected risk-free rate that is more than
727 80 basis points higher than the current long-term risk-free rate using the U.S.
728 Treasury security as a proxy. Using this projected Treasury bond yield largely
729 captures the additional risk in the marketplace related to the uncertainty of long-term
730 interest rates after the Federal Reserve discontinues its economic stimulus
731 intervention.

732 **Return on Equity Summary**

733 **Q BASED ON THE RESULTS OF YOUR RETURN ON COMMON EQUITY**
734 **ANALYSES DESCRIBED ABOVE, WHAT RETURN ON COMMON EQUITY DO**
735 **YOU RECOMMEND FOR PGL/NS?**

736 **A** Based on my analyses, I estimate PGL/NS's current market cost of equity to be
737 9.15%.

<u>Return on Common Equity Summary</u>	
<u>Description</u>	<u>Results</u>
DCF	9.00%
CAPM	9.25%

738 My recommended return on common equity of 9.15% is the approximate
739 midpoint of my recommended range of 9.00% to 9.25%. My recommended return on

740 equity estimates reflect the current market interest rate risk and equity investment risk
741 as described in this testimony.

742 **Financial Integrity**

743 **Q WILL YOUR RECOMMENDED OVERALL RATE OF RETURN SUPPORT AN**
744 **INVESTMENT GRADE BOND RATING FOR PGL/NS?**

745 A Yes. I have reached this conclusion by comparing the key credit rating financial
746 ratios for PGL/NS, at my proposed return on equity and PGL/NS's proposed capital
747 structure, to S&P's benchmark financial ratios using S&P's new credit metric ranges.

748 **Q PLEASE DESCRIBE THE MOST RECENT S&P FINANCIAL RATIO CREDIT**
749 **METRIC METHODOLOGY.**

750 A S&P publishes a matrix of financial ratios that correspond to its assessment of the
751 business risk of the utility companies and related bond rating. On May 27, 2009, S&P
752 expanded its matrix criteria²⁵ by including additional business and financial risk
753 categories. Based on S&P's most recent credit matrix, the business risk profile
754 categories are "Excellent," "Strong," "Satisfactory," "Fair," "Weak," and "Vulnerable."
755 Most utilities have a business risk profile of "Excellent" or "Strong." The financial risk
756 profile categories are "Minimal," "Modest," "Intermediate," "Significant," "Aggressive,"
757 and "Highly Leveraged." Most of the utilities have a financial risk profile of
758 "Aggressive." PGL/NS have "Excellent" business risk profiles and "Significant"
759 financial risk profiles.

²⁵S&P updated its 2008 credit metric guidelines in 2009, and incorporated utility metric benchmarks with the general corporate rating metrics. *Standard & Poor's RatingsDirect*. "Criteria Methodology: Business Risk/Financial Risk Matrix Expanded," May 27, 2009.

760 **Q PLEASE DESCRIBE S&P'S USE OF THE FINANCIAL BENCHMARK RATIOS IN**
761 **ITS CREDIT RATING REVIEW.**

762 A S&P evaluates a utility's credit rating based on an assessment of its financial and
763 business risks. A combination of financial and business risks equates to the overall
764 assessment of PGL/NS total credit risk exposure. On November 19, 2013, S&P
765 updated its methodology. In its update, S&P published a matrix of financial ratios that
766 defines the level of financial risk as a function of the level of business risk.

767 S&P publishes ranges for two core financial ratios that it uses as guidance in
768 its credit review for utility companies. The primary financial ratio benchmarks it relies
769 on in its credit rating process include: (1) Debt to Earnings Before Interest, Taxes,
770 Depreciation and Amortization ("EBITDA"); and (2) Funds From Operations ("FFO") to
771 Total Debt.²⁶

772 **Q HOW DID YOU APPLY S&P'S FINANCIAL RATIOS TO TEST THE**
773 **REASONABLENESS OF YOUR RATE OF RETURN RECOMMENDATIONS?**

774 A I calculated each of S&P's financial ratios based on PGL/NS's cost of service for their
775 retail jurisdictional operations. While S&P would normally look at total consolidated
776 PGL/NS financial ratios in its credit review process, my investigation in this
777 proceeding is not the same as S&P's. I am attempting to judge the reasonableness
778 of my proposed cost of capital for rate-setting in PGL/NS's retail regulated utility
779 operations. Hence, I am attempting to determine whether my proposed rate of return
780 will in turn support cash flow metrics, balance sheet strength, and earnings that will
781 support an investment grade bond rating and PGL/NS's financial integrity.

²⁶Standard & Poor's RatingsDirect. "Criteria: Corporate Methodology," November 19, 2013.

782 Q PLEASE DESCRIBE THE RESULTS OF THIS CREDIT METRIC ANALYSIS FOR
783 PGL/NS.

784 A The S&P financial metric calculations for PGL/NS at a 9.15% return are developed on
785 City/CUB/IIEC Joint Exhibit 1.14, page 1 (PGL) and page 2 (NS).

786 PGL's adjusted total debt ratio is approximately 50%. NS's adjusted total debt
787 ratio is approximately 50%. These total debt ratios will support an investment grade
788 bond rating.

789 Based on an equity return of 9.15%, PGL will be provided an opportunity to
790 produce a debt to EBITDA ratio of 3.1x, and NS will produce a debt to EBITDA ratio
791 of 3.2x. These are within S&P's "Intermediate" guideline range of 2.5x to 3.5x.²⁷
792 These ratios also support an investment grade credit rating.

793 PGL's retail operations FFO to total debt coverage at a 9.15% equity return is
794 24%, which is within S&P's "Intermediate" metric guideline range of 23% to 35%.
795 NS's FFO to total debt coverage at a 9.15% return is 17%, which is within S&P's
796 "Significant" metric guideline range of 13% to 23%. These FFO/total debt ratios will
797 support an investment grade bond rating.

798 At my recommended return on equity of 9.15% and PGL/NS's proposed
799 capital structures, PGL/NS's financial credit metrics are supportive of its current
800 investment grade utility bond rating.

²⁷Standard & Poor's RatingsDirect. "Criteria: Corporate Methodology," November 19, 2013.

801 **RESPONSE TO WITNESS PAUL MOUL**

802 **Q WHAT RETURN ON COMMON EQUITY ARE PGL/NS PROPOSING FOR THIS**
803 **PROCEEDING?**

804 A PGL/NS's proposed return on equity is supported by its witness Mr. Paul Moul.
805 Mr. Moul recommends a return on equity for PGL/NS of 10.25%.

806 **Q PLEASE DESCRIBE THE METHODOLOGY MR. MOUL USED FOR HIS RETURN**
807 **ON COMMON EQUITY RECOMMENDATION.**

808 A Mr. Moul uses a DCF analysis, a risk premium analysis, a CAPM model, and a
809 comparable earnings approach. Mr. Moul performed these models on a gas/electric
810 proxy group, which he refers to as the "Delivery Group." Mr. Moul adds a leverage
811 return adder (0.46%) to his DCF estimate, and adjusts the beta used in his CAPM by
812 the Hamada equation, which adjustment increased his CAPM estimate by 0.43%.
813 These return adders are unreasonable and inflate his return estimate for PGL/NS.

814 **Q PLEASE SUMMARIZE YOUR RESPONSE TO MR. MOUL'S PROPOSED RETURN**
815 **ON EQUITY ESTIMATE FOR PGL/NS.**

816 A As shown below in Table 4, Mr. Moul is proposing a return on equity for PGL/NS of
817 10.25%. Mr. Moul's recommendation is excessive. With reasonable and appropriate
818 adjustments to Mr. Moul's analyses, his own studies would support a return on equity
819 in the range of 8.85% to 9.50%. My recommended return on equity of 9.15% falls
820 within this adjusted range.

<u>Description</u>	<u>Delivery Group*</u> (1)	<u>Adjusted Results</u> (2)
DCF	9.71%	9.25%
Risk Premium	11.50%	8.57% - 9.46%
CAPM	9.62%	8.50% - 9.00%

Source: PGL Exhibit 3.0, page 6; NS Exhibit 3.0, page 6.

821 **Q DO MR. MOUL'S FINDINGS AS SHOWN IN TABLE 4 UNDER COLUMN 1 ABOVE**
822 **SUPPORT HIS RECOMMENDED RETURN ON EQUITY OF 10.25%?**

823 A No. The ICC has consistently rejected the risk premium method as unreliable. Using
824 just the DCF and CAPM methods, methods generally accepted in Illinois, would
825 suggest a return on equity for PGL and NS in the range of 9.62% to 9.71%. Hence,
826 without even correcting some of the deficiencies in Mr. Moul's DCF and CAPM study
827 results, a return on equity based on his Distribution Group DCF and CAPM return
828 estimates is approximately 9.6% to 9.7%.

829 **Q PLEASE DESCRIBE MR. MOUL'S DCF ANALYSIS.**

830 A Mr. Moul estimated a DCF return for his Delivery Group of 9.71% (PGL Ex. 3.0 at 6;
831 NS Ex. 3.0 at 6). Mr. Moul's unadjusted DCF result is 9.25%. Mr. Moul includes a
832 leverage adjustment adder of 46 basis points to produce an adjusted DCF return of
833 9.71%.

834 **Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MR. MOUL'S DCF**
835 **ANALYSIS.**

836 A Mr. Moul's DCF analysis is severely flawed and overstates a fair return for PGL/NS.
837 At a minimum, Mr. Moul's return on equity adder for his leverage adjustment of 0.46%
838 should be rejected. This would reduce his DCF result to 9.25% from his
839 recommended result of 9.71%.

840 Mr. Moul's unadjusted DCF return of 9.25% is reasonable as a high-end
841 estimate. The growth rate Mr. Moul used in his DCF analysis exceeds a reasonable
842 growth rate, specifically one that can be sustained indefinitely as required by the
843 constant growth DCF analysis.

844 **Q PLEASE EXPLAIN WHY MR. MOUL'S PROPOSED LEVERAGE RETURN ON**
845 **EQUITY ADDER OF 0.46% TO HIS DCF RESULT IS UNREASONABLE.**

846 A According to Mr. Moul, the leverage adjustment increases the DCF return to reflect
847 PGL/NS's greater book value financial risk compared to its market value financial risk.
848 This return adder to the DCF return is unjustified for several reasons.

849 First, the effect of the adjustment Mr. Moul proposes is to provide a return on
850 amounts that are not invested in PGL/NS and are not used to provide regulated utility
851 service. Mr. Moul maintains that the only perspective that is important to investors is
852 the return on the market value of their investment and offers his adjustment to assure
853 a specific return for individual investors on transactions between investors, rather
854 than on the investments included in rate base. PGL Ex. 1.0 at 23:477. The
855 Commission's focus, however, is the return on PGL/NS's rate base. A regulated
856 utility is allowed an opportunity to earn its authorized rate of return on the amount
857 actually invested in providing utility service, not on the appreciated price paid in

858 secondary market to a seller other than the utility. Mr. Moul's adjustment also has the
859 effect of preserving the relationship of market price to book value. This adjustment
860 has been presented to the Commission in a variety of guises. (Mr. Moul has
861 presented several in the past.) The adjustment consistently has been rejected by the
862 Commission.

863 For example, the Commission concluded the following in its order in Docket
864 No. 09-0197: "Market value is not utilized in this calculation because it typically
865 includes appreciated value (as reflected in its stock price) above the Utilities' actual
866 capital investments." I agree that, mathematically, the Companies' proposed
867 leverage adjustment is the same as applying the unleveraged market required return
868 to an inflated rate base.

869 Second, Mr. Moul's technical arguments merely disguise his overstatement of
870 the required return in financial risk arguments. Even assuming arguendo, if those
871 arguments had any theoretical validity, they lack a factual basis and are also
872 inconsistent with relevant industry practices.

873 Mr. Moul's contention that an adjustment should be made for differentials in
874 financial risk, depending on a review of either the book value or market value capital
875 structure, is erroneous. Mr. Moul's adjustment is flawed, in part, because it lacks any
876 evidentiary foundation. Mr. Moul does not compare PGL/NS's market value capital
877 structure to the market value capital structure of his Delivery Group.

878 As a factual matter, therefore, there is no basis for Mr. Moul to conclude that a
879 financial risk adjustment to the equity return is needed to PGL/NS's return on equity
880 because their market value capital structure has more risk than the proxy group. His
881 testimony does not provide evidence of a need for his leverage risk adjustment.

882 To the contrary, Mr. Moul's own risk comparison of PGL/NS to the Delivery
883 Group shows that the financial risk (based on book value capital structure) of the
884 proxy group and PGL/NS is reasonably comparable. In selecting his proxy group, Mr.
885 Moul compared the book value capital structure of PGL/NS to those of the proxy
886 group companies. (PGL Exs. 3.3. and 3.4; NS Exs. 3.3 and 3.4). On both his PGL
887 and NS Exhibit 3.4, page 1, Mr. Moul shows an average capital structure for the proxy
888 group that includes a fairly consistent common equity ratio of around 47.6% (with
889 short-term debt) or 52.6% (without short-term debt) for the five-year period 2008-
890 2012. This common equity ratio is close to the investor capital common equity ratio of
891 50.31% and 50.41% proposed for PGL/NS in this proceeding.

892 Further, PGL/NS have stronger achieved common equity ratios than the
893 Delivery Group, 51.8% and 52.8% versus 47.6%. PGL/NS also have stronger quality
894 of earnings and cash flow measures than the Delivery Group in nearly every measure
895 shown on his exhibits. These ratios indicate that PGL/NS have less financial risk
896 than the Delivery Group.

897 Further, in its review of a credit rating, S&P reviews the book value capital
898 structure data, not the market value capital structure data. Comparing investment
899 risk, both *Value Line Investment Survey* (an equity analyst report) and S&P in its
900 *Credit Rating Reports* (a debt analysts' report) rely on book value capital structure
901 rates to present information on company financial and operating risk fundamentals to
902 potential investors. This information indicates that assessments using the book value
903 capital structure are the industry norm, not the imposition of leverage adjustments.
904 Based on a review of book value capital structure, earnings, and cash flow measures,
905 PGL/NS's investment risk is lower than the Delivery Group. However, PGL/NS's

906 investment risk is still reasonably comparable to that of the Delivery Group, without a
907 leverage adjustment.

908 **Q DO YOU HAVE OTHER ISSUES WITH MR. MOUL'S LEVERAGE ADJUSTMENT?**

909 A Yes. His leverage adjustment is allegedly tied to the difference in financial risk
910 measured from market value relative to book value capital structures. However, it is
911 simply not credible for him to argue that financial risk is greater based on book value,
912 but lower based on market value. There is only one level of financial risk for a
913 company, not two.

914 Mr. Moul's leverage adjustment is nothing more than a market-to-book ratio
915 adjustment to the return on equity. If this is the case, then the leverage adjustment
916 should be rejected because it is intended to support a specific market price, rather
917 than to fairly compensate PGL/NS for their investment in utility plant and equipment.
918 A market-to-book ratio adjustment will not result in a fair return on equity used to set
919 rates, and in fact will provide PGL/NS an excessive rate of return on utility plant
920 investments, and place unnecessary and excessive rate burdens on retail customers.
921 In either instance, Mr. Moul's leverage adjustment is not reasonable and should be
922 rejected.

923 **Q CAN YOU PROVIDE AN EXAMPLE THAT ILLUSTRATES WHY MR. MOUL'S**
924 **LEVERAGE RETURN ADJUSTMENT WOULD PROVIDE PGL/NS AN EXCESSIVE**
925 **RETURN ON UTILITY PLANT INVESTMENTS?**

926 A Yes. I use Mr. Moul's DCF results to illustrate this point. If PGL/NS were to
927 repurchase its own stock, it would expect to earn a market-based return of 9.25%
928 based on Mr. Moul's unadjusted DCF results. However, if the Commission accepted

929 Mr. Moul's adjusted DCF results, it could earn a return on incremental utility plant
930 investments of 9.71% (9.25% plus a 46 basis point leverage adjustment).

931 If either PGL or NS were considering its options for reinvesting its retained
932 earnings for a given year, each could be faced with the alternative investments of: (1)
933 repurchasing its own stock at a 9.25% return, or (2) investing in new utility plant at an
934 9.71% return. These are comparable risk investments because utility plant
935 investments drive earnings, and earnings drive dividends and stock price. As such,
936 under Mr. Moul's proposal, the utility would be encouraged to gold-plate utility plant
937 investment because it would be provided with an above-market risk adjusted return
938 on such investments. Including such an incentive to earn more than a fair risk
939 adjusted return on utility plant investments will result in rates that are not just and
940 reasonable.

941 **Q HOW DID MR. MOUL DERIVE HIS CONSTANT GROWTH DCF GROWTH RATE**
942 **ESTIMATE?**

943 A Mr. Moul reviewed historical and projected growth rate estimates for his Delivery
944 Group, and he correctly places emphasis on the projected three- to five-year growth
945 rates from I/B/E/S/ First Call (4.87%), Zacks (5.10%), Morningstar (4.70%) and *Value*
946 *Line* (7.83%). Based on these estimates, his average growth rate is 5.06%.
947 However, he concludes that a growth rate of 5.25% is reasonable because of
948 improving business conditions (PGL Exhibit 3.0, page 20).

949 **Q DO YOU BELIEVE A DCF GROWTH RATE OF 5.25% IS REASONABLE?**

950 A No. This growth rate is unreasonable, and substantially exceeds a rational outlook
951 for a long-term sustainable growth rate for utility stock. It is important to recognize

952 that a constant growth model requires a growth rate that can be sustained indefinitely.
953 A utility growth rate of 5.25% in recognition of a long-term projection of U.S. GDP
954 growth of 4.7%, clearly shows that this growth rate cannot be sustained over the
955 long-term. If it did, the utility company would become an increasingly larger share of
956 the total economy. This is an irrational expectation, because utility companies make
957 investments in utility plant and equipment in order to meet the demands for utility
958 services. It is simply not rational to expect that a utility would drive service area
959 economic growth, rather than respond to it by supplying utility services.

960 Further, I outlined above the accepted practitioner and academic position on
961 rational long-term sustainable growth. Both practitioners and academics recognize
962 that a long-term sustainable growth rate for use in a DCF model cannot exceed
963 long-term projections of U.S. economic growth. That is a rational outlook because
964 companies operate within the economies in which they sell their goods and services.
965 It is not reasonable to believe that a company can grow faster than the economy in
966 which it sells its goods and services over a long-term period, because that economy
967 provides the revenues that allow the company to grow.

968 **Q PLEASE DESCRIBE MR. MOUL'S RISK PREMIUM ANALYSIS.**

969 A Mr. Moul constructs a risk premium analysis by adding an equity risk premium of
970 6.25%, to his projected A-rated utility bond yield of 5.25%.

971 **Q PLEASE DESCRIBE THE ISSUES YOU TAKE WITH MR. MOUL'S RISK PREMIUM**
972 **ANALYSIS.**

973 A Since the Commission has consistently rejected the use of risk premium analyses, his
974 RP analysis serves only to increase the average of Mr. Moul's estimates. Without this

975 high-end estimate, the average of Mr. Moul's estimates would decline by more than
976 60 basis points. The primary technical issue I have with Mr. Moul's risk premium
977 analysis is his equity risk premium estimate of 6.25%, which is arbitrary and has not
978 been shown to be appropriate for PGL/NS. Rather, it is simply Mr. Moul's projection
979 and is not based on an independent assessment or a market participant projection.

980 **Q HOW DID MR. MOUL ARRIVE AT A 6.25% RISK PREMIUM FOR PGL/NS?**

981 A Mr. Moul calculated the achieved returns over various periods between the Large
982 Company Common Stocks and long-term corporate bonds from Ibbotson's 2013
983 Classic Yearbook, as shown on PGL Exhibit 3.11 and NS Exhibit 3.11. Based on his
984 observation throughout the of various time periods, Mr. Moul concluded that the
985 equity premium over bond yields falls in the range of 3.77% to 7.00% and that the
986 equity premium moves inversely with interest rates. He then subjectively chose a
987 delivery risk premium of 6.25% to represent his view of recent interest rate movement
988 to derive an equity return for the Delivery Group of 11.50%.

989 **Q IS MR. MOUL'S 6.25% RISK PREMIUM ESTIMATE FOR THE DELIVERY GROUP**
990 **REASONABLE?**

991 A No. Mr. Moul's risk premium study is unreasonable for several reasons. First, his risk
992 premium estimates as derived on his PGL Exhibit 3.11 and NS Exhibit 3.11 are based
993 on the S&P 500 stocks. These are investments that are not risk comparable to
994 PGL/NS or the proxy group. As such, his risk premium is not an appropriate risk-
995 adjusted return for a low-risk regulated utility company. Second, his development of
996 a 6.25% risk premium relative to an "A"-rated corporate bond yield is not well-defined
997 or fully developed on his exhibits. Specifically, the risk premium should have been

998 adjusted for the lower investment risk of PGL/NS, compared to the large company
999 stocks used to develop the risk premium. Second, there should have been a more
1000 refined development of the risk premium to recognize the relative differences in risk
1001 between equity securities versus bond securities. Mr. Moul's development of this risk
1002 premium is certainly subjective (and possibly arbitrary), and it fails to achieve the
1003 objective of a risk premium that fairly considers the investment risk of PGL and NS.

1004 **Q HOW WOULD MR. MOUL'S RISK PREMIUM ANALYSIS CHANGE IF AN**
1005 **APPROPRIATE EQUITY RISK PREMIUM FOR PGL/NS WERE EMPLOYED?**

1006 A Mr. Moul's risk premium analysis is fatally flawed because it does not properly
1007 measure risk and return, and making such a simple change would not validate his
1008 results. However, simply observing Mr. Moul's average equity risk premium over
1009 long-term Treasury bonds of 5.16% (for S&P firms) and using the current Treasury
1010 bond yield of 3.8% and 4.3% debt rate implies a return of 8.96% to 9.46%. Again,
1011 this return has not been properly gauged to reflect the lower regulatory risk of PGL
1012 and NS compared to the large S&P 500 Mr. Moul used to develop the risk premium.
1013 Nevertheless, this range of risk premium estimates largely supports my
1014 recommended return on equity range in this proceeding.

1015 **Q PLEASE DESCRIBE MR. MOUL'S CAPM.**

1016 A Mr. Moul relies on a risk-free rate of 4.25%, a leveraged adjusted beta for his Delivery
1017 Group of 0.75 and a market risk premium of 7.16%. This produces a CAPM return of
1018 9.62% (PGL Exhibit 3.2).

1019 **Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MR. MOUL'S CAPM**
1020 **ANALYSIS.**

1021 A First, Mr. Moul's proposed leverage adjustment to the beta estimate is unreasonable
1022 and should be rejected. Second, Mr. Moul's market risk premium of 7.16% is
1023 excessive and should be revised to reflect more reasonable data.

1024 **Q PLEASE EXPLAIN WHY MR. MOUL'S PROPOSED BETA ESTIMATE ARE**
1025 **UNREASONABLE AND SHOULD BE REJECTED.**

1026 A Mr. Moul's proposed adjustment to the beta to reflect the difference between PGL/NS
1027 and the Delivery Group's book and market leverage is flawed. Mr. Moul first adjusted
1028 the betas to reflect a beta estimate for a company with no leverage, and then
1029 adjusted that unleveraged beta to reflect PGL/NS's and the Delivery Group's book
1030 value leverage.

1031 There are several flaws in Mr. Moul's proposed adjustments to beta estimates.
1032 First, as noted above, analyst projections of leverage risk are based on book value,
1033 not market value leverage. Therefore, investors' expectation of leverage risk is tied to
1034 the book value not the market value leverage of the company. Therefore, Mr. Moul's
1035 adjustment is unnecessary.

1036 Second, Mr. Moul's adjustment to beta ignores all other systematic risk factors
1037 that distinguish PGL/NS's systematic risk and beta from that of the proxy group.
1038 Leverage risk is simply one component of systematic risk. Two companies can have
1039 comparable systematic risk or betas, even though their debt leverage (the basis of
1040 Mr. Moul's adjustment) is not the same. This can occur because certain companies
1041 may react differently to other market or systematic risk factors, such as inflation
1042 uncertainty or global market events.

1043 Finally, Mr. Moul's application of this beta adjustment is erroneous. Mr. Moul
1044 applies this leverage adjustment to the *Value Line* adjusted beta. *Value Line's* own
1045 adjustment already increases betas less than 1 and decreases betas greater than 1.
1046 *Value Line's* adjustment is based on the premise that betas lower than 1 will trend
1047 toward the market beta of 1 over time, and betas greater than 1 will trend downward
1048 to the market beta of 1 over time. Hence, *Value Line's* beta adjustment already
1049 reflects the expectations that a company's leverage risk and other systematic risk
1050 factors will converge to the mean market risk over time. Mr. Moul's leverage
1051 adjustment to *Value Line's* "adjusted" beta is redundant and unreasonable.

1052 **Q PLEASE DESCRIBE MR. MOUL'S MARKET RISK PREMIUM.**

1053 A To arrive at his market risk premium of 7.16%, Mr. Moul averaged his historical
1054 market risk premium of 7.67% and his prospective market risk premium of 6.65%.
1055 Mr. Moul's historical risk premium is obtained from Morningstar data. His prospective
1056 market risk premium is based on the *Value Line* Index and the S&P 500.

1057 Mr. Moul does not provide any details underlying the development of his
1058 projected market return using data from *Value Line* or the S&P 500. His historical risk
1059 premium is the result of selectively averaging historical returns during subjectively
1060 determined (and unexplained) periods described as having high or low interest rates.
1061 For this reason, I recommend the rejection of his market risk premium of 7.16%.
1062 Instead, I propose to use my recommended market risk premium, which falls within
1063 the 6.2% to 7.0% range determined by Morningstar.

1064 Q HOW WOULD MR. MOUL'S CAPM ANALYSIS CHANGE IF THE FLAWED
1065 ADJUSTMENTS YOU HAVE DESCRIBED WERE NOT USED, AND HIS
1066 PROSPECTIVE MARKET RISK PREMIUM WERE REJECTED?

1067 A I corrected Mr. Moul's CAPM analysis for the Delivery Group. Reflecting the
1068 published *Value Line* beta of 0.68 for the Delivery Group, my market risk premium of
1069 6.2% to 7.0%, and his risk-free rate of 4.25% produces a CAPM return estimate of
1070 8.5% to 9.0%.²⁸

1071 Q PLEASE DESCRIBE MR. MOUL'S COMPARABLE EARNINGS ANALYSIS.

1072 A Mr. Moul's comparable earnings analysis is based on the historical and projected
1073 returns on book equity for non-regulated companies followed by the *Value Line*
1074 Investment Survey. Mr. Moul's selected companies based on The *Value Line*
1075 Timeliness Rank, Safety Rank, Financial Strength, Price Stability, Beta, and
1076 Technical Rank. Based on these criteria, as shown on PGL Exhibit 3.13 and NS Ex.
1077 3.13, Mr. Moul identified 22 companies whose *Value Line* median historical earned
1078 return on equity over the period 2008 through 2012 was 10.0%, and projected return
1079 for 2016-2018 of 10.6% (PGL Ex. 3.0 at 37; NS Ex. 3.0 at 37). He excluded
1080 projections of 20% or more in the development of this range. Using this as his
1081 comparable earnings range, Mr. Moul estimated a point estimate for PGL/NS of
1082 10.3% $((10.0+10.6)\div 2)$.

²⁸ $(4.25\% + 0.68 \times 6.2\%) = 8.47\%$ and $(4.25\% + 0.68 \times 7.0\%) = 8.98\%$.

1083 Q PLEASE DESCRIBE THE ISSUES YOU HAVE WITH MR. MOUL'S COMPARABLE
1084 EARNINGS ANALYSIS.

1085 A Mr. Moul's comparable earnings analysis should be rejected for several reasons.
1086 First, a comparable earnings analysis does not measure the market required return
1087 appropriate for the investment risk of PGL/NS. Rather, a comparable earnings
1088 analysis measures the book accounting return. The market required return is not the
1089 same as the accounting return, and the two can be vastly different. Mr. Moul's
1090 analysis does not measure the return that is appropriate to ensure that PGL/NS is
1091 fairly compensated and that ratepayers are not charged an excessive rate of return.

1092 Second, Mr. Moul's analysis is not based on companies that have been shown
1093 to have risk comparable to PGL/NS. Since the risks of these companies have not
1094 been shown to be comparable to that of PGL/NS, the return on book equity Mr. Moul
1095 identifies has not been shown to be a comparable return (even on an "accounting"
1096 basis) appropriate to set PGL/NS's rates.

1097 Finally, because Mr. Moul's companies are non-regulated, their accounting
1098 returns on book equity are not directly comparable to that of a utility company.
1099 Because of differences in accounting mechanisms, it is not reasonable to estimate an
1100 appropriate book return on book equity for PGL/NS from book returns on equity for
1101 non-regulated companies. Regulated companies' book returns on equity can be
1102 higher compared to non-regulated companies because of regulatory accounting
1103 principles. For example, regulated companies are allowed to defer operating
1104 expenses under SFAS-71 if those expenses may be recovered in future rates. This
1105 favorable accounting mechanism allows utilities to avoid recording expenses
1106 immediately, thereby increasing their book equity balance and current earnings.
1107 Inventories and construction financing costs can be different for utilities and non-

1108 regulated companies, thus producing non-comparable balance sheets and
1109 depreciation and amortization expenses. Further, the capital structure mix should
1110 reflect the operating risk of the enterprise, and thus the book return on equity may not
1111 be risk comparable. For these reasons, the book return on equity for non-regulated
1112 companies is not directly comparable to the book return on equity for a regulated
1113 company. Mr. Moul's comparable earnings model should be disregarded.

UTILITY PLANT

1114
1115 **Q WHAT LEVEL OF UTILITY PLANT IS PGL PROPOSING TO INCLUDE IN RATE**
1116 **BASE?**

1117 A The utility plant included in rate base is the forecasted average of 2014 and 2015 end
1118 of year balances (PGL Section 285.2005, Sch B-1). The Company provided actual
1119 balances for 2011 and 2012, six months actual data and six months forecast data for
1120 2013 and forecasts for 2014 and 2015 (PGL Section 285.2005, Sch B-5).

1121 **Q HAVE YOU EXAMINED THE FORECASTED AMOUNTS IN RELATIONSHIP TO**
1122 **MORE CURRENT DATA?**

1123 A Yes. I limited my examination to Distribution plant, which comprises approximately
1124 80% of total utility plant. Based on its Annual Report to the Illinois Commerce
1125 Commission, PGL's actual distribution plant balance was ***

1126 *** than the forecasted level reflected in the Company's forecast for
1127 December 31, 2013.

REDACTED

1128 Q HAS THIS TREND OF EXPERIENCING LESS THAN THE FORECASTED
1129 GROWTH IN DISTRIBUTION PLANT CONTINUED INTO 2014?

1130 A ***

1131 *** (PGL AG DR 11.01 Attach 01
1132 Confidential).

1133 Q ARE YOU PROPOSING AN ADJUSTMENT TO THE LEVEL OF UTILITY PLANT
1134 INCLUDED IN PGL'S RATE BASE?

1135 A Yes. ***

1136

1137 *** PGL's proposed rate base
1138 should be adjusted to reflect a normal level of annual plant additions.

1139 On City/CUB/IIEC Joint Exhibit 1.15, I show the effect of adjusting the 2013,
1140 2014 and 2015 distribution utility plant balances based on the rate of change actually
1141 experienced during 2013, approximately 9%. As can be seen on this exhibit, my
1142 proposed adjustment results in a reduction of over \$134 million to PGL's 2014 and
1143 2015 average utility plant included in rate base. After adjusting for accumulated
1144 depreciation and accumulated deferred income tax reserves, the reduction in rate
1145 base is approximately \$107 million.

1146 Q IF THE ACTUAL DISTRIBUTION UTILITY PLANT INCREASE IS HIGHER THAN
1147 THE LEVEL YOU ARE PROPOSING, IS THERE A POTENTIAL REMEDY?

1148 A Yes. To the extent the additional plant is eligible for consideration under PGL's
1149 Qualifying Infrastructure Plant Tariff, the associated revenue requirement may be
1150 recovered by the Company.

REDACTED

1151 Q ARE THERE ADDITIONAL ADJUSTMENTS ASSOCIATED WITH YOUR
1152 PROPOSED REDUCTION TO FORECASTED UTILITY PLANT?

1153 A Yes. The depreciation recorded in 2013, 2014 and 2015 will be less as a result of the
1154 reduction to utility plant. Therefore, the average accumulated depreciation reserve
1155 balance for 2014 and 2015 will be lower. Also, as a result of the reduction to utility
1156 plant, the balances of the 2014 and 2015 accumulated deferred income taxes will
1157 also be lower. These reductions in the accumulated reserves offset my proposed
1158 adjustment to reduce utility plant. The net reduction to rate base as a result of my
1159 proposal is approximately \$107 million. In addition, my proposed utility plant
1160 adjustment results in a reduction to depreciation expense. Applying the average
1161 distribution depreciation rate to the utility plant adjustment reduces depreciation
1162 expense by approximately \$5 million. At the pre-tax weighted average cost of capital
1163 shown in City/CUB/IIEC Joint Exhibit 1.14, page 3, the revenue requirement
1164 associated with this reduction in rate base, including return and depreciation, is
1165 approximately \$16 million.

1166 **EMPLOYEES LEVELS**

1167 Q ARE YOU PROPOSING AN ADJUSTMENT TO THE LEVEL OF EMPLOYEE
1168 COSTS INCLUDED IN OPERATION AND MAINTENANCE (“O&M”) EXPENSES?

1169 A Yes. I am proposing to reduce the PGL and NS forecasted number of employees in
1170 the 2015 test year. PGL and NS are forecasting that the number of employees in
1171 2015 will be 1,356 and 177, respectively (Section 285.3115 C-11.2). In fact, the
1172 Companies' forecasted approximately the same level of employees for each month
1173 from November 2013 through December 2015.

1174 Q HOW DOES THIS NUMBER OF EMPLOYEES COMPARE TO THE MOST RECENT
1175 ACTUAL LEVELS EXPERIENCED?

1176 A The actual May 2014 number of employees is 1,296 for PGL (60 employees less than
1177 the forecasted May 2014 level of 1,356). In addition, the May 2014 number of
1178 employees has actually declined from the level experienced in February 2014 by ten
1179 employees (PGL AG 11.03 Attach 01).

1180 For NS, the May employee level is 165 (12 employees less than the 177
1181 employees forecasted May 2014 level). (NS AG DR 11.03 Attach 01). The May 2014
1182 actual number of employees reflects a decline from the actual level experienced in
1183 August of 2012 of 171.

1184 Q HOW ARE YOU PROPOSING TO ADDRESS THIS LOWER LEVEL OF
1185 EMPLOYEES?

1186 A As a result of the historical performance demonstrating a consistently lower than
1187 forecasted number of employees and the declining trend in employment levels (rather
1188 than the increasing needed to reach the forecasts), the number of employees used to
1189 determine 2015 test year O&M expenses should be reduced. I recommend adjusting
1190 the O&M payroll expense to reflect the latest number of full-time employees, as of
1191 May 2014. As shown in City/CUB/IIEC Joint Exhibit 1.16, the adjustments for PGL
1192 and NS include adjustments in the level of payroll, benefits and payroll taxes.

1193 Q WHAT IS THE REVENUE REQUIREMENT EFFECT OF YOUR PROPOSED
1194 ADJUSTMENT?

1195 A I propose an adjustment to reduce payroll, employee benefits, and payroll taxes
1196 associated with the elimination of 60 and 12 employees for PGL and NS,

1197 respectively, from forecasted levels. My proposed adjustment reduces the forecasted
1198 test year operation and maintenance expense and payroll taxes by approximately \$4
1199 million for PGL and approximately \$1 million for NS.

1200 **INCENTIVE COMPENSATION**

1201 **Q ARE YOU PROPOSING AN ADJUSTMENT TO THE LEVEL OF INCENTIVE**
1202 **COMPENSATION INCLUDED IN PGL'S FORECASTED O&M EXPENSES?**

1203 A. Yes. Based on my review of the various incentive compensation plans and the
1204 Commission's Order in the previous PGL/NS rate case, for the reasons discussed
1205 below, I propose to disallow the expense associated with the Executive Incentive
1206 Plan ("EIP") and the Omnibus Incentive Compensation Plan ("OICP"). These
1207 incentive compensation costs are incurred directly by PGL and NS or are billed to the
1208 Companies by Integrys Business Support, LLC.

1209 **Q WHY ARE YOU PROPOSING TO ELIMINATE THE COST OF THE EIP?**

1210 A I am proposing to disallow the cost of the EIP for the following reasons:

- 1211 1. A significant amount – potentially all, for some participants – of the incentive
1212 awards are for earnings per share ("EPS") achievement;
- 1213 2. The Compensation Committee of the Integrys Energy Group, Inc. Board of
1214 Directors ("Committee") is able to exercise significant discretion with regard to
1215 the administration of the plan – enough that no ratepayer benefit can be
1216 assured; and
- 1217 3. Some of the awards may be based on achievements that are not specific to
1218 PGL and NS and may not be actually benefitting their ratepayers.

1219 **Q** **WHY SHOULD AWARDS ASSOCIATED WITH EARNINGS PER SHARE BE**
1220 **REMOVED FROM THE COST OF SERVICE?**

1221 A Financial goals such as increasing earnings per share are only beneficial to
1222 shareholders, and therefore the related incentive compensation cost should be borne
1223 by shareholders. Additionally, a multitude of items affect the level of EPS. Some of
1224 these items, for example weather, may result in higher earnings, but are completely
1225 beyond management's control. Increases in earnings do not specifically reflect
1226 improvements in reliability, customer service, employee safety or other ratepayer-
1227 oriented areas. Customers should not be required to pay higher rates for incentive
1228 compensation unless there is a direct tie to improvement in service quality and
1229 prudent reductions in the cost of service.

1230 **Q** **WHY IS THE LEVEL OF COMMITTEE DISCRETION A CONCERN?**

1231 A If the compensation committee is able to exercise significant discretion over the
1232 administration of the plan, then the basis of the awards and the appropriateness of
1233 continued recovery in the cost of service recovered from ratepayers cannot be
1234 determined.

1235 **Q** **IS THAT THE CASE FOR ADMINISTRATION OF THE EIP?**

1236 A Yes. The EIP documentation (PGL Ex. 10.1) contains the following statements:

1237 The performance measures can be specific to an individual or apply to
1238 a group, and may include operational and/or financial measures as
1239 approved by the Committee. Weightings can vary by eligible executive
1240 as approved by the Committee.

1241
1242 [T]he Committee may at any time exercise negative discretion to adjust
1243 the performance measures (or the amount payable upon satisfaction of
1244 one or more performance measures) to reflect the effects of
1245 extraordinary items, non-recurring items or any other items that the

1246 Committee feels should be considered in determining performance
1247 results if the result is to reduce the amount payable relative to the
1248 performance measures as originally approved. The Committee also
1249 has the discretion to approve additional or alternative performance
1250 measures on a participant by participant basis that will supplement or
1251 replace any or all of the performance measures set forth below,
1252 including, without limitation, the authority to incorporate the terms of
1253 any objective performance measure used under another Company
1254 incentive program.

1255
1256 I believe that the statements above show that the Committee is able to
1257 exercise significant discretion to set and change performance goals and determine
1258 performance results. In addition, although Ms. Cleary states that the plan is weighted
1259 70% financial goals and 30% operational goals (PGL Ex. 10.0 176-179), that
1260 language does not appear in the documentation provided. Furthermore, based on
1261 the plan excerpts presented above, the Committee can use its discretion to apply
1262 different weightings between financial and/or operational goals for each participant.
1263 Therefore, the actual basis being used to determine the incentive compensation
1264 under the EIP and whether the associated cost is appropriate for recovery in rates
1265 cannot be determined.

1266 **Q IF OPERATIONAL GOALS ARE CONSIDERED IN THE EIP, ARE THE GOALS**
1267 **SPECIFIC TO PGL's AND NS's PERFORMANCE?**

1268 A There are three possible areas with regard to operational performance: Customer
1269 Performance Index ("CPI"), Employee Safety, and Environmental Impacts. CPI is
1270 measured annually based on the combined results of all the Integrys utilities. Based
1271 on the plan language, the measurement of performance for Employee Safety appears
1272 to be utility specific. Regarding Environmental Impacts, the plan's language was
1273 insufficient to allow a determination of whether the performance measure was PGL or

1274 NS specific. This is further evidence of the flexibility the Board has to award incentive
1275 compensation.

1276 It is my understanding that in the past, the Commission has agreed that when
1277 incentive compensation seeks to achieve goals that primarily benefit shareholders,
1278 then it is reasonable to require that shareholders bear the cost of that incentive
1279 compensation. Here, management has the right to apply goals that primarily benefit
1280 shareholders. The Commission cannot be sure that this will not occur. PGL/NS
1281 should not be allowed to recover this expense in the absence of proof that
1282 management will only apply goals that benefit ratepayers.

1283 **Q WHY ARE YOU RECOMMENDING A DISALLOWANCE WITH REGARD TO THE**
1284 **COST OF THE OICP?**

1285 A The documentation for the OICP plan that was provided in PGL Staff DGK DR 3.03
1286 SUPP Attachment 01 states that the purpose of the OICP is to promote the interests
1287 of the Company and its shareholders. This documentation also indicates that the
1288 administration of the OICP is completely at the discretion of the Committee. This plan
1289 is clearly oriented to benefit the interests of shareholders, and the cost should not be
1290 borne by customers.

1291 **Q WHAT ARE THE TOTAL ADJUSTMENTS TO INCENTIVE COMPENSATION**
1292 **BASED ON YOUR PROPOSAL?**

1293 A For PGL and NS, my proposed disallowances of incentive compensation reduce O&M
1294 expense and payroll taxes by approximately \$7.6 million for PGL and \$500,000, NS.
1295 (City/CUB/IIEC Joint Exhibit 1.17).

1296 Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

1297 A Yes, it does.

Qualifications of Michael P. Gorman

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Michael P. Gorman. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and a Managing Principal with
6 Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND WORK
8 EXPERIENCE.**

9 A In 1983 I received a Bachelor of Science Degree in Electrical Engineering from
10 Southern Illinois University, and in 1986, I received a Masters Degree in Business
11 Administration with a concentration in Finance from the University of Illinois at
12 Springfield. I have also completed several graduate level economics courses.

13 In August of 1983, I accepted an analyst position with the Illinois Commerce
14 Commission ("ICC"). In this position, I performed a variety of analyses for both formal
15 and informal investigations before the ICC, including: marginal cost of energy, central
16 dispatch, avoided cost of energy, annual system production costs, and working
17 capital. In October of 1986, I was promoted to the position of Senior Analyst. In this
18 position, I assumed the additional responsibilities of technical leader on projects, and
19 my areas of responsibility were expanded to include utility financial modeling and
20 financial analyses.

21 In 1987, I was promoted to Director of the Financial Analysis Department. In
22 this position, I was responsible for all financial analyses conducted by the Staff.
23 Among other things, I conducted analyses and sponsored testimony before the ICC
24 on rate of return, financial integrity, financial modeling and related issues. I also
25 supervised the development of all Staff analyses and testimony on these same
26 issues. In addition, I supervised the Staff's review and recommendations to the
27 Commission concerning utility plans to issue debt and equity securities.

28 In August of 1989, I accepted a position with Merrill-Lynch as a financial
29 consultant. After receiving all required securities licenses, I worked with individual
30 investors and small businesses in evaluating and selecting investments suitable to
31 their requirements.

32 In September of 1990, I accepted a position with Drazen-Brubaker &
33 Associates, Inc. ("DBA"). In April 1995, the firm of Brubaker & Associates, Inc. was
34 formed. It includes most of the former DBA principals and Staff. Since 1990, I have
35 performed various analyses and sponsored testimony on cost of capital, cost/benefits
36 of utility mergers and acquisitions, utility reorganizations, level of operating expenses
37 and rate base, cost of service studies, and analyses relating to industrial jobs and
38 economic development. I also participated in a study used to revise the financial
39 policy for the municipal utility in Kansas City, Kansas.

40 At BAI, I also have extensive experience working with large energy users to
41 distribute and critically evaluate responses to requests for proposals ("RFPs") for
42 electric, steam, and gas energy supply from competitive energy suppliers. These
43 analyses include the evaluation of gas supply and delivery charges, cogeneration
44 and/or combined cycle unit feasibility studies, and the evaluation of third-party

45 asset/supply management agreements. I have participated in rate cases on rate
46 design and class cost of service for electric, natural gas, water and wastewater
47 utilities. I have also analyzed commodity pricing indices and forward pricing methods
48 for third party supply agreements, and have also conducted regional electric market
49 price forecasts.

50 In addition to our main office in St. Louis, the firm also has branch offices in
51 Phoenix, Arizona and Corpus Christi, Texas.

52 **Q HAVE YOU EVER TESTIFIED BEFORE A REGULATORY BODY?**

53 **A** Yes. I have sponsored testimony on cost of capital, revenue requirements, cost of
54 service and other issues before the Federal Energy Regulatory Commission and
55 numerous state regulatory commissions including: Arkansas, Arizona, California,
56 Colorado, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas,
57 Louisiana, Michigan, Missouri, Montana, New Jersey, New Mexico, New York, North
58 Carolina, Ohio, Oklahoma, Oregon, South Carolina, Tennessee, Texas, Utah,
59 Vermont, Virginia, Washington, West Virginia, Wisconsin, Wyoming, and before the
60 provincial regulatory boards in Alberta and Nova Scotia, Canada. I have also spon-
61 sored testimony before the Board of Public Utilities in Kansas City, Kansas;
62 presented rate setting position reports to the regulatory board of the municipal utility
63 in Austin, Texas, and Salt River Project, Arizona, on behalf of industrial customers;
64 and negotiated rate disputes for industrial customers of the Municipal Electric
65 Authority of Georgia in the LaGrange, Georgia district.

66 Q PLEASE DESCRIBE ANY PROFESSIONAL REGISTRATIONS OR
67 ORGANIZATIONS TO WHICH YOU BELONG.

68 A I earned the designation of Chartered Financial Analyst (“CFA”) from the CFA
69 Institute. The CFA charter was awarded after successfully completing three
70 examinations which covered the subject areas of financial accounting, economics,
71 fixed income and equity valuation and professional and ethical conduct. I am a
72 member of the CFA Institute’s Financial Analyst Society.

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