

**STATE OF NEW JERSEY  
BOARD OF PUBLIC UTILITIES**

**In the Matter of the Petition of South Jersey Gas Company for Approval of  
Increased Base Tariff Rates and Charges for Gas Service and Other Tariff  
Revisions**

Direct Testimony of

**Michael E. Barrett**

Partner, Ernst & Young LLP

On Behalf of  
South Jersey Gas Company

January, 2010

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4

5 **Q. Please state your name, current position and business address.**

6 A. My name is Michael Barrett. I am a Partner with the accounting firm of Ernst  
7 & Young LLP. My business address is 55 Ivan Allen Boulevard, Atlanta, GA  
8 30308.

9 **Q. Please describe your qualifications.**

10 A. I am currently the Firm's Southeast Area Power & Utility Sector Leader. I  
11 formerly served as Ernst & Young's National Director of the Electric & Gas  
12 Energy Group, where I specialized in providing audit and consulting services  
13 to the electric, gas, water and wastewater industries. In the course of my  
14 career, I have served as either the audit partner or technical reviewer for  
15 hundreds of audits of companies in the power and utilities industry, all across  
16 the United States. In addition, in my roles as Area Sector Leader and  
17 National Director, I am consulted on most substantive technical accounting  
18 issues on audits performed by Ernst & Young in the power and utility  
19 industry. I am a Certified Public Accountant and am a member of the  
20 American Institute of Certified Public Accountants.

21 In 1976, I started my career with the Federal Power Commission, which later  
22 became the Federal Energy Regulatory Commission, as an auditor responsible

23 for completing audits of electric and gas utilities for compliance with the  
24 Commission's Uniform System of Accounts.

25 In 1981, I joined the accounting firm of Coopers & Lybrand in its national  
26 utility industry program as a supervisor responsible for audits and consulting  
27 projects to utilities. I was admitted into the partnership in 1988 and served as  
28 the firm's national utility industry leader for the business assurance  
29 department from 1996 to 1998. I joined Ernst & Young in my current position  
30 in 1998.

31 My experience includes financial audits of numerous electric and gas utilities  
32 as well as several energy marketers and traders. I have previously testified as  
33 an expert in over 30 regulatory proceedings and arbitrations. I presented South  
34 Jersey Gas Company's ("the Company" or "SJG") lead-lag study supporting  
35 its request for cash working capital in its 2003 base rate case.

36 My curriculum vitae, detailing more fully my academic and work experience,  
37 is attached at Schedule MEB-5.

38 **Q. What is the purpose of your testimony in this case?**

39 A. SJG engaged Ernst & Young to supervise the preparation of the lead-lag study  
40 supporting its request for cash working capital, and to present the results of the  
41 study in this proceeding. The detailed study was prepared by Ernst & Young  
42 and Company personnel under my direction and supervision. This testimony  
43 presents the methodology and approach used in the study and the results.

44 **Q. Would you begin by presenting the approach to the lead-lag study**  
45 **supporting the cash working capital allowance requested in this**  
46 **proceeding?**

47 A. The Company last presented a lead-lag study to the Commission for the  
48 twelve-month period ending December 31, 2002. I will present the lead-lag  
49 study in the same general format and applying the same methodologies where  
50 applicable. Since that time there have been some modest changes in the  
51 operating and regulatory environments that would affect the cash working  
52 capital requirements. In this summary I will highlight those changes.

53 **Q. What period is covered by the study?**

54 A. The study covers the twelve-month period ended December 31, 2008.

55 **Q. What procedures did you perform to ascertain that the results of this**  
56 **study were reasonable?**

57 A. The initial step was to interview certain SJG management to identify what  
58 changes had occurred in their business since the last rate case to determine  
59 what changes were needed to the lead-lag study approach. I also performed a  
60 review of the Company's financial statements for the same purpose. I then  
61 investigated the effects of the changes in their business to determine the  
62 reasonableness of the effects.

63 **Q. Did your review identify any significant changes in SJG's business that**  
64 **impacted the results of the study?**

65 A. I identified changes that had some modest effects. At the time of the previous  
66 study, the State of New Jersey had allowed the introduction of competition in  
67 the sale of the gas commodity at the retail level. With this gas industry

68 restructuring, off-system sales had become a much larger component of  
69 revenue and capacity release had become a source of revenue.

70 In addition, the majority of new retail gas providers used the Company as their  
71 billing agent. For retail gas providers to commercial and large volume  
72 accounts, SJG continues to bill the retail gas customers for the gas commodity  
73 and remit this cash to the gas marketer. For retail gas providers to residential  
74 accounts, SJG now purchases the receivables and performs the billing and  
75 collection. This affects the cash flow that was analyzed and factored into the  
76 study. I will discuss this later in my testimony.

77 Also, SJG now outsources certain services to affiliates and third parties. The  
78 lag between the performance of these services by the outsource providers and  
79 SJG's payment for these services has been incorporated into the lead lag  
80 study.

81 Further, SJG now uses financial hedges to hedge its natural gas costs. The cost  
82 or gain on the hedges, and the timing of the settlement of the hedges, affects  
83 the purchase gas component of the expense lag in Schedule MEB-3.

84 **Q. Did your review indicate any changes in regulatory programs that would**  
85 **affect cash working capital requirements?**

86 A. Yes. The Conservation Incentive Program ("CIP") is a BPU approved  
87 program that began in October 2006, and is designed to eliminate the link  
88 between SJG's profits and the quantity of natural gas sold, and to foster  
89 conservation efforts. The CIP tracking mechanism adjusts earnings based on  
90 weather and also based on where actual usage per customer experienced  
91 during an annual period varies from an established baseline usage per

92 customer. The cash impact of variations in customer usage will result in cash  
93 being collected from, or returned to, customers during the subsequent CIP  
94 year. Thus it affects the deferred revenue in the cash working capital  
95 requirements calculation, and is included in Schedule MEB-2.

96 Also, the New Jersey Clean Energy Program (“NJCEP”), approved in  
97 December 2004, includes a mechanism that recovers costs associated with  
98 SJG’s energy efficiency and renewable energy programs. The lag between  
99 when expenses are incurred and payments are made affects cash working  
100 capital requirements, and is included in the Summary of Expense Lags,  
101 Schedule MEB-3.

102 **Q. Did your review indicate any other changes in the Company’s position**  
103 **that should be noted?**

104 A. Yes. The 2002 study included among the adjustments for other requirements  
105 for, or sources of, cash working capital not otherwise included in rate base, a  
106 pension reserve that provided a source of cash. In the current study the balance  
107 in the pension account has changed to a prepaid position, which results in a  
108 requirement for cash working capital of \$18,155,121. This change from  
109 reserve to prepaid is due to SJG’s pension contributions since 2002. In fact, in  
110 December 2002 SJG made a \$14.6 million pension contribution that brought  
111 the pension balance into a prepaid position of \$9.2 million at year end 2002.  
112 But taking the thirteen month average for 2002 still resulted in a reserve  
113 balance for the year 2002. Since 2002, the Company has made additional  
114 pension contributions that have brought the prepaid pension balance to an  
115 average of \$18,155,121 for the thirteen month period from year end 2007 to

116 year end 2008. See Schedule MEB-4 for a schedule of SJG's annual pension  
117 contributions for the years 1998-2008.

118 **Q. What is the lead-lag study designed to do?**

119 A. The study is designed to measure the average amount of capital, over and  
120 above the investments in plant, and other separately identified rate base items,  
121 provided by investors in the Company, to bridge the gap between the time  
122 expenditures are required to provide service and the time collections are  
123 received for the service. This quantity is referred to as cash working capital.  
124 Cash working capital is more comprehensive than simply financing the lag  
125 between Company payments and receipts, as investor capital is required to  
126 finance the lag in the recovery of the entire cost of service including  
127 depreciation and cost of capital.

128 **Q. What does the cash working capital requirement represent?**

129 A. A requirement for cash working capital represents the amount necessary to  
130 provide the utility with an opportunity to earn a fair return on all capital  
131 invested in utility operations. Unless all capital supplied by investors has that  
132 opportunity, investors will not be fully compensated for the capital supplied  
133 and the objective of the cash working capital requirement will not be met.  
134 Consequently, the key test of the adequacy of the cash working capital  
135 requirement to be included in the rate base should be whether the inclusion of  
136 such an amount when added to net utility plant and other items includible in  
137 rate base will produce a fair representation of the capital on which there  
138 should be an opportunity to earn a return.

139 **Q. With that background would you review the methodology used in this**  
140 **lead-lag study for the determination of the cash working capital**  
141 **component of rate base?**

142 A. To the extent applicable, this study tracks the methodology used in the  
143 previous rate filings of the Company and decisions of the Board for other New  
144 Jersey utilities.

145 Simply stated the lead-lag study measures the difference in time frames  
146 between: (1) when service is rendered and the revenue for that service is  
147 received (revenue lag); and (2) when the costs in providing service are  
148 incurred (including costs of purchased gas, labor, materials, services, etc.) and  
149 the time those costs are paid for (expense lag). The difference between these  
150 lag periods is expressed in terms of days. The number of days so calculated  
151 multiplied by the average daily operating revenues produces the cash working  
152 capital required by the Company. To that amount we must add operational  
153 cash requirements and add or deduct any other requirements for or sources of  
154 cash working capital, such as prepayments, reserves and items capitalized  
155 prior to payment, that are not otherwise accounted for in rate base.

156 **Q. What is the cash working capital requirement that you have calculated?**

157 A. We have calculated a net cash working capital requirement of \$40,436,523.

158 **Q. Would you identify and explain the Schedules you are sponsoring in this**  
159 **proceeding that support that calculation?**

160 A. Schedule MEB-1 is the summary of cash working capital requirements,  
161 including the average daily revenue times the net lag (i.e., the revenue lag less  
162 the expense lag) plus the adjustments for other requirements for, or sources of,

163 cash working capital. Schedule MEB-2 is the summary of the lag in collection  
164 of revenues. Schedule MEB-3 is the summary of the lag in payment of  
165 expenses.

166 **Q. Please explain the components of Schedule MEB-1.**

167 A. The first section of Schedule MEB-1 reflects the cash working capital required  
168 by the excess lag in receipt of revenues over the lag in payment of related  
169 expenses. The cash required due to this lag component, presented on line 5 of  
170 Schedule MEB-1, is \$17,561,044. It is calculated by multiplying one day's  
171 average operating revenue during the 2008 test year, times the net difference  
172 in the revenue/expense lag of 11.28 days. The individual revenue and expense  
173 lags are presented on Schedule MEB-2 and Schedule MEB-3, respectively.  
174 The second section of Schedule MEB-1 shows the other requirements for and  
175 sources of cash working capital not otherwise accounted for in rate base. The  
176 net adjustment for these items is an additional cash requirement of  
177 \$22,875,479 for a total cash requirement of \$40,436,523.

178 **Q. Please explain Schedule MEB-2.**

179 A. Schedule MEB-2 calculates the weighted average lag in receipt of revenues of  
180 43.91 days. Total gas revenues of \$568,046,182 match the consolidated  
181 Company revenues from SJG's income statement.

182 **Q. Please explain the retail and industrial sales revenue component.**

183 A. The regulated Company revenues are comprised of a number of types of sales  
184 segregated because of differing delays in the time from when service is  
185 rendered until collections are received. The largest revenue category is retail  
186 and industrial sales, which includes all gas sales, both firm and interruptible,

187 and transportation revenues. Retail and industrial sales are considered in  
188 aggregate because they are all basically handled in the same manner. The  
189 average delay in the collection of retail and industrial revenues for the  
190 Company was calculated to be 45.80 days. The total revenue lag was  
191 calculated by analyzing the time lag for each of the three components of the  
192 total revenue lag.

193 **Q. Please describe the three components that comprise the revenue lag for**  
194 **retail and industrial sales.**

195 A. The first component of the total revenue lag for retail and industrial sales is the  
196 service period lag. The Company reads the meters for all of its retail and  
197 industrial accounts once a month on a cycle basis; therefore, the average time  
198 between meter reading dates was 30.42 days. This was calculated by taking  
199 365 days in a year and dividing by 12 meter reads. Dividing this period by  
200 two produces the average period from the time service is rendered until the  
201 meter is read (15.21 days).

202 The second component of the total revenue lag is the time from the meter  
203 reading date to when the customer is billed. For most retail and industrial  
204 customers the bill is sent the next business day after the meter is read. Given  
205 that the Company reads meters on twenty days each month and the average  
206 month is 30.42 days, the average time lag after the calendar adjustment is 1.52  
207 days (30.42 days in an average per month divided by 20 meter reading days).  
208 For large accounts (primarily industrial customers), known as “LABS” (Large  
209 Account Billing System) the timing is slightly different, based on the actual  
210 LABS bill by month. The weighted average of the lags for the retail and

211 industrial customers and the LABS customers results in an overall meter  
212 reading lag of 1.75 days.

213 The third component of the total revenue lag is the period from the billing date  
214 to the time the customer pays its bill (i.e., to the date that the cash payments  
215 are credited on the accounts receivable records). This component of the  
216 revenue lag is measured by dividing average daily accounts receivable by  
217 average daily sales. Accounts receivable on the Company's books include  
218 both the amounts due from the Company's customers and the amounts due to  
219 the purchase of accounts receivable from residential gas providers described  
220 previously. This latter amount distorts the calculation of the revenue lag from  
221 the Company's customers, and so the accounts receivable due to the purchases  
222 of accounts receivable from residential gas providers is removed from the  
223 analysis. Since the accounts receivable amount is not separately identifiable,  
224 the accounts payable to residential gas service providers is used as a proxy.  
225 Removing the accounts receivable due to purchases of accounts receivable  
226 from residential gas providers reduces the Company's revenue lag, lowering  
227 its cash working capital requirements.

228 Based on the review of retail and industrial sales accounts receivable balances  
229 and sales there was an average of approximately 28.84 days of revenue  
230 included in average daily accounts receivable balances for these accounts.  
231 This represents the average number of days from billing to collection. Adding  
232 these three components together produced a total 45.80 day lag in the  
233 collection of revenues for services rendered to retail and industrial customers.

234 **Q. What is the revenue lag for off-system sales and how was it calculated?**

235 A. The second line of Schedule MEB-2 presents the average revenue lag in the  
236 collection of off-system sales, which was calculated to be 36.15 days. This lag  
237 was determined by analyzing all bills for service during the twelve months  
238 ended December 31, 2008.

239 **Q. What is the revenue lag for capacity release transactions and how was it**  
240 **calculated?**

241 A. The revenue lag for capacity release was determined by analyzing all capacity  
242 release transactions. The lag measures the time from service delivery, which  
243 is measured as the midpoint of the month of capacity release (all capacity  
244 release was for the entire month) to the time that a credit is provided on the  
245 invoice from the interstate pipeline. The lag was calculated to be 27.26 days.

246 **Q. Please explain the revenue lag for utility turn-on revenues.**

247 A. The lag for utility turn-on revenue was measured based on three distinct time  
248 periods. The first is from the time the customer is physically connected to the  
249 system until the bill is posted to the customer account. The second is from  
250 when the bill is posted to the customer account until the bill is actually sent to  
251 the customer. This is based on the mid-point of the billing cycle because the  
252 turn-on charge is included in the next monthly bill to the customer once it is  
253 posted to its account. The third and final period is from the time the customer  
254 bill has been rendered until the bill has been paid. The total lag for utility  
255 turn-on revenue was 155.90 days.

256 **Q. Please explain Schedule MEB-3.**

257 A. Schedule MEB-3 sets forth the calculated payment lag periods by major  
258 categories of operating expenses. The various types of expense have different  
259 payment lags.

260 **Q. Please explain the expense lag for purchased gas.**

261 A. The cost of purchased gas is by far the largest operating expense category. In  
262 calculating the lag for payment of this item, we looked at flowing gas  
263 purchases and net withdrawals of gas from inventory, as well as off-system  
264 supply capacity release and the affect of financial hedges of gas purchases.

265 For flowing gas, we looked at each supplier's production months and  
266 payments (for both natural gas purchases and LNG purchases). The lag  
267 periods were weighted by the dollar amounts of the invoices and produced an  
268 average lag in the payment of natural gas purchases of 39.72 days, and 26.53  
269 days for the payment of LNG purchases.

270 For net inventory withdrawals we assumed zero lag days as the gas was paid  
271 for before it was withdrawn, when it was purchased and injected into  
272 inventory. Since the gas in inventory is included in rate base, there is no  
273 separate adjustment to the cash working capital requirement, but when the gas  
274 is withdrawn from inventory it is removed from rate base and expensed.

275 **Q. What other substantive events affected the gas supply expense lag?**

276 A. In addition, we looked at the cash impact of capacity release. As noted in the  
277 revenue discussion, capacity release is credited to the pipeline invoice.  
278 Because the pipeline is billing the gas supplier receiving the capacity release  
279 directly, and crediting SJG on the Company's invoice from the pipeline, the  
280 expense lag equals and offsets the revenue lag.

281 We also looked at the cash impact of financial hedges of gas purchases. Each  
282 month the settlement of the financial hedges resulted in either an additional  
283 cost or a gain.

284 Further, the timing of the settlement of the financial hedges also affected the  
285 overall purchase gas expense lag days. The timing works as follows. The  
286 NYMEX contract used for hedging settles on the third business day prior to  
287 the end of the month preceding the delivery month. In other words, as an  
288 example the NYMEX contract for January delivery settles on the third  
289 business day prior to the end of December. If SJG owes money they receive  
290 the invoice within about 3 days of the settlement date, and are required to pay  
291 the invoice within 3 days of receipt. Thus they pay the invoice in the first  
292 week of the delivery month. Since the expense for gas delivery for the month  
293 is assumed to occur on average at the midpoint of the month, payments owed  
294 on hedges are prepaid by the amount of time from the first week of the month  
295 when the invoice is paid and the midpoint of the month when the expense is  
296 incurred for gas delivery.

297 If SJG gains on the hedge and is owed money, they receive payment on  
298 approximately the 25<sup>th</sup> of the delivery month based on the NYMEX physical  
299 billing cycle. In this situation there is a negative expense with a positive  
300 expense lag from the midpoint of the delivery month when the expense is  
301 incurred to approximately the 25<sup>th</sup> when the payment is received. The net  
302 effect of the hedging costs and gains incurred in 2008 was to slightly reduce  
303 the overall purchase gas expense lag time. The overall lag period calculated  
304 for payment of purchased gas was 39.92 days.

305 **Q. Please explain the prepayments lags and materials and supplies issues lag.**

306 A. Individual analyses were prepared for the major components of other  
307 operation and maintenance expenses. Charges to expense from prepayments  
308 and materials and supplies (“M&S”) inventories were assigned a zero lag.  
309 This is because the payment for these items had been made in advance of the  
310 charge to expense. Prepayments are paid when entered into a prepayment  
311 account, but are not expensed until later. Payments for M&S are made when  
312 the items are purchased and put into M&S inventories. They are not expensed  
313 until they are distributed from M&S inventories. Because these prepayments  
314 and inventory balances required the earlier expenditure of cash, they are added  
315 as separate components of total working capital. (Prepayments are included in  
316 Schedule MEB-1 and inventories in Schedule SAP-2.

317 **Q. What are the expense lags for pensions and employee benefits and how**  
318 **were they calculated?**

319 A. For pensions and employee benefits we determined the midpoint of the service  
320 period and calculated the lag (or lead) until the payment was actually made.  
321 Most of the payment dates are tied to payment schedules with providers and  
322 actual payment dates. For pensions, because payment was made in advance of  
323 when the pension expense was incurred, there is an expense lead or a negative  
324 expense lag of (9.44) days. The employee benefit lag was 41.32 days.

325 **Q. Please explain the expense lag for payroll and related withholding**  
326 **charges.**

327 A. Payroll and related withholding charges account for 27% of other operation  
328 and maintenance expenses. We calculated the expense lag by looking at the

329 Company's payroll periods, determining the midpoints of the payroll periods  
330 and identifying the payment dates. The lag is the weighted average time from  
331 the midpoint of the payroll period to the payment date. The payroll and  
332 associated withholding lag was 15.67 days. We note also that the Company  
333 capitalizes some of its payroll - the portion related to capital activities. This  
334 portion of payroll is considered elsewhere in the rate base. Payroll included in  
335 this analysis is related only to that which is expensed to operations and  
336 maintenance.

337 **Q. What is the other compensation component of the expense lag and how**  
338 **was the lag calculated?**

339 A. An additional component of compensation in this review period was  
340 performance compensation, including cash awards and restricted stock. Cash  
341 awards are earned during the year and paid on March 12 of the following year.  
342 The lag is calculated as the time from the service period midpoint (365/2) plus  
343 the remaining days to payment as of December 31, 2008. The restricted stock  
344 grants are earned over three years and are paid out on March 1 following the  
345 third calendar year of the initial grant. Three grants were earned during 2008;  
346 the 2006, 2007 and 2008 grants. The lag for the year is calculated as the time  
347 from the service period midpoint (365/2) plus the remaining days to payment  
348 as of December 31, 2008. The overall expense lag for other compensation was  
349 383.81 days.

350 **Q. Please explain the expense lag for uncollectible items.**

351 A. Included in the non-gas components of operation and maintenance expenses  
352 are charges for uncollectible accounts. The lag determined for these charges

353 was 456.08 days. The extended lag assigned to these charges was required  
354 because provisions for this cost are made a number of months prior to the  
355 actual write-off of uncollectible accounts. Because the associated reserve is  
356 not used to separately reduce rate base, this payment lag was recognized in  
357 determining the expense lag.

358 **Q. Please explain the expense lag for the affiliate and third party provided**  
359 **services.**

360 A. Expenses for affiliate and third party provided meter reading services now  
361 represent significant expenses. The expenses are incurred monthly with the  
362 expense lag being the number of days from the midpoint of the provision of  
363 service during the month to the payment date. The lag for affiliate provided  
364 services expense was 74.41 days and the lag for meter reading services was  
365 43.45 days.

366 **Q. Please explain the zero expense lag on amortization of remediation costs?**

367 A. We have assigned a zero lag to the amortization of remediation costs  
368 previously incurred on the same theory as that for prepayments.

369 In summary, while the expense charges for uncollectible accounts, materials  
370 and supplies, prepayments and remediation costs technically represent “non-  
371 cash” charges which do not require or provide working capital at the time the  
372 charge is made, payment lags are assigned to these items in the lead-lag study  
373 to either adjust separately identified rate base components, or to recognize  
374 payment patterns for items that have not otherwise been separately identified.  
375 If taken literally, virtually all charges to expense made by a company using  
376 accrual accounting represent non-cash charges. The purpose of the lead-lag

377 study must be to recognize the effects of these items on total working capital  
378 from the time charges are made to expense as compared to the time it is paid  
379 for, or used to increase or decrease another rate base component. This must be  
380 done in order for investors to be compensated for their investment.

381 **Q. Are work paper analyses available for all of the remaining identified**  
382 **operation and maintenance expense line items?**

383 A. Yes. Separate work paper analyses were prepared for each of the remaining  
384 identified elements of operation and maintenance expense listed separately in  
385 Schedule MEB-3.

386 **Q. Please explain how the lag has been assigned to depreciation and**  
387 **amortization on Schedule MEB-3.**

388 A. A zero lag has been assigned to depreciation and amortization because it is  
389 deducted from rate base when the expense is recorded.

390 **Q. Are you familiar with the position that depreciation is a noncash charge**  
391 **and therefore cannot produce a need for cash working capital?**

392 A. Yes. The rationale is based on the assumption that there is no cash outlay  
393 associated with depreciation expense. However, there was in fact a cash  
394 outlay when the plant was constructed. The investors are not made whole  
395 until customers are billed for and pay the depreciation costs. As stated in the  
396 highly regarded treatise of Robert L. Hahne, “investors are funding the  
397 provision of utility service, and such funds must be recognized in rate base.”<sup>1</sup>

398 Moreover, Mr. Hahne explains that:

399 The cumulative amount of depreciation expense (i.e., the reserve  
400 for depreciation) is a measure of the total consumption of funds to

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<sup>1</sup> Robert L. Hahne and Gregory E. Aliff, *Accounting for Public Utilities*, §5-20.

401 date. As the expenses are recorded, equal revenues are  
402 *recoverable* from ratepayers as reimbursement to investors and the  
403 accumulated provisions are deducted from rate base. The base rate  
404 deduction presumes that *recovery* of the recorded depreciation  
405 reserves has occurred...The *recovery* assumption, however, is not  
406 correct. When the depreciation expense is recorded, the recovery  
407 is in the form of an increase in the accounts receivable from  
408 customers. The expense is recorded in one period. The actual  
409 recovery occurs later...In the interim, the investor has not realized  
410 the recovery of capital that is imputed by the deduction of recorded  
411 depreciation expense. The funds due and payable to investors are  
412 being held by the ratepayers, and the ratepayers should reimburse  
413 the investors for the time value of unpaid amounts due.<sup>2</sup>  
414

415 **Q. Please explain the lag for TEFA, PUA and other non income taxes.**

416 A. The lag of 7.86 days for TEFA and PUA taxes is a result of the timing of the  
417 assessments relative to the service year. The PUA assessment is due on July  
418 31 of the following year, yielding a positive lag that outweighs the negative  
419 lag on TEFA assessments that are due on May 15 of the current year. The  
420 timing of other taxes is similarly based on the timing from the midpoint of the  
421 service period, which is the time when the expense is incurred, to the payment  
422 date.

423 **Q. Please explain the lags on current and deferred income taxes.**

424 A. The lag for current Federal and New Jersey corporation business taxes result  
425 from the statutory payment dates. Like the rationale set forth above regarding  
426 depreciation expense, the lag for deferred income taxes is zero because it is  
427 deducted from rate base when the expense is recorded. Including deferred  
428 taxes with a zero lag is necessary to provide the Company with an opportunity  
429 to earn a fair return on all capital invested in utility operations.

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<sup>2</sup> *Id.*

430 Historically, the Board ruled against inclusion of deferred federal income  
431 taxes in the lead-lag study on the stated basis that no investor capital is  
432 required. However, here, investor capital was spent on plant assets, and  
433 invested capital is used through depreciation that reduces plant assets  
434 irrespective of book and tax depreciation timing differences that give rise to  
435 deferred taxes. The amount deducted from rate base is immediate when the  
436 expense is recorded and reduces invested capital. Like with depreciation  
437 expense, the cost is not recovered until customers pay their bills. Investor  
438 capital must be used during that lag period. The deduction from rate base  
439 overstates the actual amount of cost-free funds that are available. Thus,  
440 including deferred taxes with a zero lag is necessary to provide the Company  
441 with the opportunity to earn a fair return on all capital invested in utility  
442 operations.

443 **Q. What lag has been assigned to net operating income?**

444 A. Net operating income is the return on invested capital, just as depreciation  
445 expense is a return of invested capital. Like the depreciation expense, a zero  
446 lag was assigned to net operating income in recognition of the fact that the  
447 return is earned when the service is provided.

448 **Q. What is the average overall lag in the payment of cost of service?**

449 A. As shown on Schedule MEB-3, each of the lags was weighted to determine an  
450 overall average lag in the payment of cost of service of 32.63 days. That lag is  
451 used in Schedule MEB-1 and netted against the revenue lag to calculate the  
452 cash working capital requirement from operations.

453 **Q. Please review the remaining adjustment components of other cash**  
454 **working capital requirements on Schedule MEB-1. What is the**  
455 **adjustment for cash balances and working funds?**

456 A. These are the additional sources and requirements of other cash working  
457 capital not reflected elsewhere in rate base. The amount for cash balances  
458 represents the average daily balances included on the Company's books,  
459 despite very assiduously applied cash management practices. It must be  
460 remembered that the measurement of leads and lags in the payment of  
461 operating expenses assumed a zero cash balance. It should be obvious that a  
462 company the size of South Jersey Gas cannot operate without some cash  
463 balances and working funds. These cash balances and working funds are not  
464 reflected elsewhere in rate base.

465 **Q. What is the adjustment for prepayments?**

466 A. Prepayments are the amounts paid for rents, certain taxes, insurance, etc. in  
467 advance of the time they are recorded as expenses. The average of the general  
468 prepayments balance on Schedule MEB-1 of \$2,004,829 is the average  
469 amount of cash required for expenses that have been disbursed before the  
470 expenses are recorded as incurred. It reflects the fact that there is a time  
471 period from when disbursements are made until they are charged to expense,  
472 and is thus an addition to cash working capital requirements. As discussed  
473 earlier, when such amounts are charged to expense, thereby reducing the  
474 prepayment balance, we use the expense assuming a zero lag in calculating the  
475 overall expense lag on Schedule MEB-3.

476 The prepaid Energy Sales and Use Tax balance of \$7,960,130 is another  
477 adjustment item. The Company collects the tax from customers in their bills  
478 and pays the tax to the State. The tax is not a Company expense because the  
479 Company is merely a conduit of the payments from customers to the State.  
480 But, the Company prepays the tax, so it has an average prepayment balance on  
481 its books. This average amount reflects a use of cash that the Company is  
482 required to provide. Included in the prepayment calculation is an additional  
483 requirement for cash for the time lag between when the customer expense is  
484 recorded and when the Company receives payment from the customer.

485 The USF/Lifeline payment operates in a similar manner to the Energy Sales  
486 and Use Tax and had a balance of \$(98,567).

487 **Q. What is the adjustment for prepaid pension and post retirement**  
488 **healthcare reserve?**

489 A. The prepaid pension reflects the pension prepaid balance account. The  
490 prepayment amount is \$18,155,121. The post retirement healthcare similarly  
491 reflects the prepaid balance in the account of \$40,381. With the  
492 implementation of FAS 158 accrued pension and post retirement healthcare  
493 obligations were added to the liabilities on the Company financial statements,  
494 but this was offset by the creation of an offsetting asset. The changes are all to  
495 the balance sheet, with no impact on the income statement and no impact on  
496 the timing of cash flows.

497 **Q. What are the adjustments for accruals related to plant and other**  
498 **reserves?**

499 A. Accrued invoices and accrued payroll related to plant reflect the average level  
500 of materials and labor capitalized prior to the date it is actually paid. While  
501 this is not a source of cash working capital, this lag is recognized to offset the  
502 return capitalized on these amounts. The result is a reduction to cash working  
503 capital requirements of \$(1,989,635) and \$(320,246) for accrued invoices and  
504 accrued payroll respectively.

505 The other reserves for vacation accruals and uninsured risk similarly measure  
506 the balance of amounts previously charged to ratepayers and not yet paid out.

507 **Q. Did you make an adjustment to the cash working capital requirements for**  
508 **the changes in cash flows caused by the advent of the retail marketers and**  
509 **the related changes in the Company's cash flows?**

510 A. Yes. As previously described, SJG now bills and collects cash that is remitted  
511 to the retail gas marketers. For residential gas service providers, SJG  
512 purchases the receivables from the marketer and performs the billing and  
513 collection. For these marketers the receivables and payables to marketers  
514 offset and both are excluded from the lead lag study. For commercial and large  
515 volume gas service providers, SJG bills and collects cash that is subsequently  
516 remitted to the marketers. The cash flow impact is a result of the difference  
517 between the time when the Company collects the marketers' gas supply costs  
518 from the customers and when the Company pays the marketers. We  
519 calculated the thirteen-month average accounts payable balance in the  
520 marketer accounts payable account for these marketers. Overall the Company  
521 had a net balance of funds received from customers but not yet paid to

522 marketers. This is a source of cash and a reduction to the cash working capital  
523 requirement of \$(5,253,296).

524 **Q. Why was the adjustment made as an adjustment to cash working capital**  
525 **as opposed to part of the revenue lag analysis?**

526 A. The calculated amounts were added as an adjustment to cash working capital  
527 because the cash related to these transactions is not part of the Company's  
528 revenues. As a result, the cash working capital impact should be calculated  
529 based on their separate independent cash flows.

530 **Q. Does this conclude your pre-filed testimony?**

531 A. Yes, it does.

**Schedule MEB-1**  
South Jersey Gas Company  
Summary of Lead-Lag Study  
12 Months Ended 12/31/08

			<u>Supporting Document</u>
1	Average Daily Revenue	\$ 1,556,291	<i>From Line 18</i>
2	Revenue Lag Days	43.91	<i>From Schedule MEB-2</i>
3	Expense Lag Days	<u>32.63</u>	<i>From Schedule MEB-3</i>
4	Net Lag	<u>11.28</u>	
5	Average Daily Revenue x Net Lag	\$ 17,561,044	
6	Cash Balance	3,601,742	<i>Exhibit A</i>
7	Working Funds	280,177	<i>Exhibit B</i>
8	General Prepayments	2,004,829	<i>Exhibit C</i>
9	Prepaid Energy Sales and Use Tax	7,960,130	<i>Exhibit D</i>
10	USF/Lifeline Reserve	(98,567)	<i>Exhibit D-1</i>
11	Prepaid Pension	18,155,121	<i>Exhibit E</i>
12	Prepaid Postretirement Healthcare	40,381	<i>Exhibit E</i>
13	Accrued Invoices related to Plant	(1,989,635)	<i>Exhibit F</i>
14	Accrued Payroll related to Plant	(320,246)	<i>Exhibit G</i>
15	Vacation Accrual Reserve	(1,034,294)	<i>Exhibit H</i>
16	Uninsured Risk Reserve	(470,862)	<i>Exhibit H-1</i>
17	Marketer Payment Reserve	<u>(5,253,296)</u>	<i>Exhibit I</i>
18	Net Amount	<u><b>\$ 40,436,523</b></u>	
19		\$568,046,182 / 365 \$ 1,556,291	<i>Annual Utilities Revenue/365</i>

**Schedule MEB-2**  
 South Jersey Gas Company  
 Summary of Lag in Collection of Revenues  
 12 Months Ended 12/31/08

	<u>Type of Sale</u>	<u>Amount</u>	<u>Lag Days</u>	<u>Dollar Days</u>	<u>Supporting Document</u>
1	Retail & Industrial Sales	\$468,767,518	45.80	\$ 21,467,263,096	<i>Exhibit J-1</i>
2	Off System Sales	90,430,253	36.15	3,269,485,080	<i>Exhibit J-2</i>
3	Capacity Release	15,548,998	27.26	423,935,318	<i>Exhibit J-2</i>
4	Other Utility:				
5	Turn on Revenues	<u>\$698,986</u>	<u>155.90</u>	<u>108,968,948</u>	<i>Exhibit J-1</i>
6	Subtotal	\$575,445,756	43.91	\$ 25,269,652,441	
7	BGSS, CIP & Deferred	(8,010,060)			<i>Exhibit J-3</i>
8	Other Revenues	<u>610,486</u>			<i>Exhibit J-3</i>
9	Total Utility Revenues	<u><u>\$568,046,182</u></u>			

**Schedule MEB-3**  
South Jersey Gas Company  
Summary of Expense Lags  
12 Months ended 12/31/08

Description of Expense	Amount	Lag Days	Dollar Days	<u>Supporting Document</u>
1 Purchase Gas	\$383,403,386	39.92	\$15,305,567,771	<i>Exhibit K</i>
Other Operating Expenses:				
2 Prepaid Insurance	1,179,197	0.00	0	<i>Exhibit C</i>
3 Pensions	1,090,708	(9.44)	(10,295,461)	<i>Exhibit E</i>
4 Payroll	16,879,947	15.67	264,484,060	<i>Exhibit L &amp; L-2</i>
5 Other Compensation	343,344	383.81	131,777,755	<i>Exhibit M</i>
6 Motor Vehicle	1,313,082	11.40	14,969,912	<i>Exhibit N</i>
7 Uncollectible Account Expense	1,865,617	456.08	850,870,601	<i>Exhibit O</i>
8 Outside Services (Audit)	299,674	164.64	49,337,198	<i>Exhibit P</i>
9 Employee Benefits	2,507,758	41.32	103,616,690	<i>Exhibit Q</i>
10 FASB 106	761,001	37.50	28,539,550	<i>Exhibit R</i>
11 NJ Clean Energy Program	6,554,116	45.83	300,348,014	<i>Exhibit S</i>
12 Other Accounts Payable	11,186,838	44.86	501,874,621	<i>Exhibit T</i>
13 Remediation Expense (RAC)	3,994,038	0.00	0	<i>Exhibit U</i>
14 Affiliate Provided Services	11,403,806	74.41	848,513,260	<i>Exhibit V</i>
15 Meter Reading Services	2,897,027	43.45	125,877,472	<i>Exhibit Z</i>
16 Materials & Supplies Issues	54,256	0.00	0	<i>Exhibit AB</i>
17 Membership Dues	311,603	19.53	6,086,212	<i>Exhibit AC</i>
18 Utility Location Markout Services	1,558,397	36.93	57,544,551	<i>Exhibit AD</i>
19 Bank Service Fees	399,715	76.01	30,381,341	<i>Exhibit AE</i>
20 Other O&M Not Lagged	(1,156,193)	0.00	0	<i>N/A</i>
21 Subtotal	<u>\$63,443,931</u>	<u>52.08</u>	<u>\$3,303,925,776</u>	
22 Depreciation	25,588,540	0.00	0	<i>Exhibit AA</i>
23 Amortization	237,963	0.00	0	<i>Exhibit U</i>
24 TEFA & PUA Taxes	8,655,836	7.86	68,021,819	<i>Exhibit W</i>
25 Other Taxes	1,971,572	11.83	23,320,756	<i>Exhibit X</i>
26 Federal Income-Tax Current	1,000,368	37.00	37,013,616	<i>Exhibit Y</i>
27 Federal Income-Tax Deferred	18,877,231	0.00	0	<i>Exhibit Y</i>
28 CBT - Current	4,075,187	(47.25)	(192,552,586)	<i>Exhibit Y</i>
29 CBT - Deferred	2,818,359	0.00	0	<i>Exhibit Y</i>
30 Operating Income	<u>58,291,451</u>	<u>0.00</u>	<u>0</u>	<i>Exhibit AA</i>
31 Subtotal	<u>\$121,516,508</u>	<u>(0.53)</u>	<u>(\$64,196,395)</u>	
32 Total Revenues Lagged	\$568,363,825	<u>32.63</u>	\$18,545,297,152	
33 Post 1970 Invest. Tax Credit	<u>(317,643)</u>			<i>Exhibit AA</i>
34 Total Utility Revenues	<u>\$568,046,182</u>			

**Schedule MEB-4**  
South Jersey Gas Company  
Annual Pension Contributions  
For the Years 1998 - 2008

<u>Year</u>	<u>Aetna Pension Contribution</u>
1998	1,516
1999	2,458
2000	2,337
2001	2,238
2002	19,179 **
2003	9,076
2004	10,762
2005	4,363
2006	0
2007	0
2008	4,796

\*\* 2002 was made at the end of the last lead-lag study and flipped the balance to a Prepaid position for only one month (12/02). Since the calculation used for MEB-1, line 10, is a 13-month average, it had little impact on the overall reserve at that time. However, this has remained in the prepaid position ever since (excluding FAS 158 entries that required non-cash, non-expense gross-ups of the balance sheet).

**Schedule MEB-5**  
Michael E. Barrett, CPA  
Curriculum Vitae and Summary of Professional Testimony

**Mr. Michael E. Barrett, CPA**

Mr. Barrett is a partner with the firm of Ernst & Young L.L.P. ("Ernst & Young"). Ernst & Young is one of the "Big Four" accounting firms and one of the largest professional services firms in the world. At Ernst & Young Mr. Barrett specializes in providing audit and consulting services to the electric, gas, water and wastewater industries. He is a Certified Public Accountant in several states including Pennsylvania, Georgia, and Florida. Mr. Barrett graduated cum laude from the University of Scranton in 1976 with a Bachelor of Science in Accounting. In 1976, Mr. Barrett started his career with the Federal Power Commission, which later became the Federal Energy Regulatory Commission, as a field auditor responsible for completing audits of electric and gas utilities for compliance with the Commission's Uniform System of Accounts. In 1980, he joined Harvey Hubbell, Inc. a manufacturing company in Orange, CT., as a senior internal auditor. There he was responsible for financial and operational audits of the various divisions of the Company. In 1981, he joined Coopers & Lybrand in their national utility industry program as a supervisor responsible for audits and consulting projects to utilities. He was admitted into the partnership in 1988 and served as the Firm's national utility industry leader for the business assurance line of business. In 1998, he joined the firm of Ernst & Young as National Director-Utilities. He relinquished that role in September 2006 and is currently the Firm's Southeast Area Power & Utility Sector Leader.

Mr. Barrett's experience includes financial audits of numerous electric and gas utilities including rural electric cooperatives, and several energy marketers and traders. He has also performed contract audits of power purchase agreements. He has also testified as an expert in regulatory proceedings and arbitrations. In addition to his audit experience his non audit client experience has included examinations of prospective financial information and analysis of projections, assistance in mergers and acquisitions including due diligence and financial analysis, financial systems design and implementation and organization and staffing assessments.

Mr. Barrett is a member of the American Institute of Certified Public Accountants. He is a member of the Corporate Accounting Committee of the Edison Electric Institute and American Gas Association. He has served as the Treasurer of the Alliance to Save Energy. Mr. Barrett also co-authored a biennial report "Survey of FERC Compliance Audit Findings" published by the Corporate Accounting Committee. He has also spoken at numerous industry conferences and training courses sponsored by both industry associations, Coopers & Lybrand and Ernst & Young.

**Schedule MEB-5**  
Michael E. Barrett, CPA  
Curriculum Vitae and Summary of Professional Testimony

**2009**

**Entergy Gulf States, Inc.  
Before the Louisiana Public Service  
Commission**

**Before the Florida Public Utility  
Commission**

**Docket No, 050045-EI**

**Consolidated Dockets U-21453, U-20925,  
U22092 (Subdocket J)**

**Application of Nevada Power for  
Authority to Adjust Electric Rates  
Before the Nevada Public Service  
Commission**

**2008**

**United States of America  
Vs.  
Kentucky Utilities Company**

**Civil Action No. 5:07-CV-75-KSF**

**2004**

**The United States et. al.**

**vs.**

**American Electric Power Company, et. al.**

**New Jersey Natural Gas Company  
Before the New Jersey Board of Public  
Utilities**

**Docket No. GR06060415**

**Civil Action Nos. C2 99-1182, C2 99-1250**

**South Jersey Gas Company  
In Matter of Petition for Approval  
Of Increased Base Tariff Rates**

**BPU Docket no. GR 03080683**

**2006**

**Columbia Gas of Virginia, Inc.  
Before the Commonwealth of Virginia State  
Corporation Commission**

**Case Nos. PUE – 2005 – 00098, 10000**

**Application of Madison Gas and Electric  
Company for Authority to Adjust Electric  
and Natural Gas Rates before the  
Wisconsin Public Service Commission**

**2005**

**United States of America  
Vs.  
East Kentucky Power Cooperative, Inc.**

**Civil Action No. 04-34-KSF**

**Application of Wisconsin Public Service  
Company for Authority to Adjust Electric  
Rates before the Wisconsin Public Service  
Commission**

**Nicor Gas Company**

**vs.**

**Illinois Commerce Commission**

**Florida Power & Light Company**

**Docket No. 01-0705, 02-0067, 02-0725**

**Michael E. Barrett, CPA**  
**Curriculum Vitae and Summary of Professional Testimony**

**2001**

**Cinergy Corporation**  
vs.  
**The United States**

**Duquesne Light Company**  
vs.  
**State of Ohio**

**Re: Property Tax Assessment**

**2000**

**South Jersey Gas Company and  
Elizabethtown Gas Company**  
**Before the New Jersey Board of Public  
Utilities**

**1997 - 2000**

**City of Warton, Pasadena and Galveston  
Texas Individually and as Class  
Representatives**

**1999**

**Delaware Electric Cooperative**  
**Before the Delaware Public Service  
Commission**

vs.

**Houston Lighting & Power Company and  
Houston Industries Finance, Inc.**

**Pursuant to Texas Rule of Civil Procedures  
Regarding Cause No. 96-016613**

**Docket 99-457**

**1997**

**Investigation by the D.T.E. into  
Boston Edison's Compliance  
With the Department's Order  
in D.P.U. 93-37**

**Old Dominion Electric Cooperative**  
**Application of ODEC for correction of  
Assessments of Gross Receipts Taxes and  
for a Refund - tax year 1997**

**DPU 97-95**

**Case No. PST970002**

**1998**

**Public Service of New Hampshire, North  
Atlantic Energy Corporation, Northeast  
Utilities and Northeast Utilities Service  
Company**

**American Bituminous Power Partners, L.P.**  
vs.

**Monongahela Power Company**

**Case No 55-198-012-96 DAW**

vs.

**Public Utilities Commission of the State of  
New Hampshire**

**1992**

**Florida Cities Water Company**

**Michael E. Barrett, CPA**  
**Curriculum Vitae and Summary of Professional Testimony**

**vs.**  
**Hillsborough County, FL**

**City of Palm Bay, FL**  
**and**  
**City of North Port, FL**

**vs.**  
**Generation Development Utilities, Inc.**

**Arbitration**

**North Carolina Municipal Power Agency**  
**No. 1 and Piedmont Municipal Power**  
**Agency**

**vs.**  
**Duke Power Co.**  
**The Florida Public Service Commission**

**Vs.**  
**General Development Utilities, Inc.**  
**Port Malabar and West Coast Divisions**

**Docket No. 911030-WS**  
**and**  
**Docket No. 911067-W**

**1991**

**City of Austin – City Commissions**  
**vs.**  
**Southern Union Gas Company**

**Nevada Public Service Commission**  
**vs.**  
**Sierra Power Company**

**Docket No. 91-7079, et. al.**

**Fourth Arbitration**

**Seaboard Water Co.**  
**Vs.**  
**Hillsborough County, FL**

**1989**

**Public Service Commission of The State of**  
**Tennessee**

**vs.**  
**United Cities Gas Company**

**Docket No. 89-10017**

**1987**

**Central Florida Gas Company**  
**vs.**  
**Florida Public Service Commission**

**Docket No. 8970118-GU**

**1985**

**Public Service Commission of Delaware**  
**vs.**

**Michael E. Barrett, CPA**  
**Curriculum Vitae and Summary of Professional Testimony**

**Chesapeake Utilities Corporation**  
**Delaware Division**

**Docket No. 85-17**

**1983**

**Eastern Shore Natural Gas Company**  
**vs.**  
**Federal Energy Regulatory Commission**

**Docket No. RP83-32-000**

**Chesapeake Utilities - Citizens Division**  
**vs.**  
**Maryland Public Service Commission**

**Case No. 7952**

**1982**

**Chesapeake Utilities - Delaware Division**  
**vs.**  
**Delaware Public Service Commission**

**Docket No. 82-10**