

BEFORE THE  
TENNESSEE REGULATORY AUTHORITY  
AT NASHVILLE, TENNESSEE

IN RE:

DOCKET TO EVALUATE CHATTANOOGA GAS COMPANY'S GAS PURCHASES  
AND RELATED SHARING INCENTIVES

DOCKET NO. 07-00224

\*\*\*\*\*

DIRECT TESTIMONY  
OF  
STEVE BROWN

\*\*\*\*\*

March 2, 2009

Before the  
**TENNESSEE REGULATORY AUTHORITY**

**IN RE:        DOCKET TO EVALUATE CHATTANOOGA GAS COMPANY'S GAS  
                 PURCHASES AND RELATED SHARING INCENTIVES**

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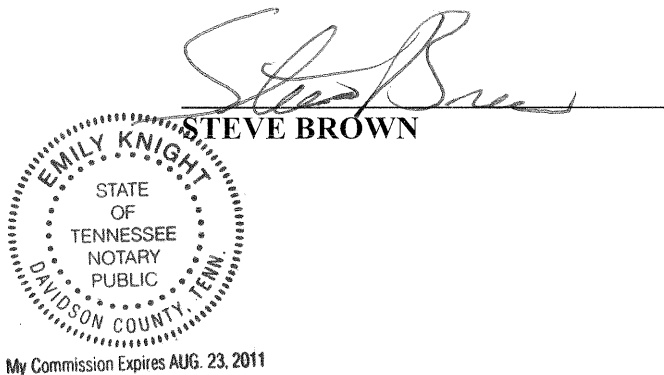
**AFFIDAVIT**

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I, Steve Brown, Economist, for the Consumer Advocate Division of the Attorney General's Office, hereby certify that the attached Direct Testimony represents my opinion in the above-referenced case and the opinion of the Consumer Advocate Division.

Sworn to and subscribed before me  
this 26<sup>th</sup> day of Feb., 2009.

Emily Knight  
NOTARY PUBLIC



My commission expires: Aug. 23, 2011

**I. Asset Manager Issues In Tennessee  
– CGC and SEQUENT.**

Q\_1. Please state your name.

A\_1. Dr. Stephen Brown.

Q\_2. Where do you work and what is your job title?

A\_2. I am an Economist in the Consumer Advocate and Protection Division, Office of the Tennessee Attorney General. A statement of my credentials appears at the end of this testimony.

Q\_3. What were you asked to do with respect to this case?

A\_3. I was asked to assess the Asset-Manager-Relationship between Chattanooga Gas(CGC) and Sequent Energy Management (SEM) and to give my opinions on that business activity as it relates to Issues 4, 5, 6, 7, 8 and 9 set by the Hearing Officer. I have no opinion on issue 3 because I do not know of any FERC-mandated payments between CGC and SEM. The order of the issues in my testimony is 5, 4, 6, and 8. Issues 7 and 9 relate to storage and are addressed in my discussion of issue 5. My opinions are based on public records: CGC's replies to CAPD discovery requests in this docket, CGC's past testimony in TRA Docket 06-

00175, public records from the Federal Energy Regulatory Commission(FERC), public records from the Securities and Exchange Commission (SEC), and public records from the East Tennessee Natural Gas Pipeline (ETNG), the Southern Natural Pipeline (SONAT), and the Tennessee Gas Pipeline (TGP).

Especially important to the formation of my opinions are two SEC Form 10ks filed by CGC's parent AGL and AGL Resources and FERC's "Index of Customers." FERC requires all pipelines to provide the agency with a report four times a year on January 1, April 1, July 1, and October 1. FERC started this practice in 1996 and then revised it in April 2000 to allow disclosure of detail in the contracts. If the contract involves the firm shipment of gas, then the pipeline must file a quarterly report. I have used the SEC's and FERC's details on SEM's and CGC's contracts with ENG and TGP, among other information, to reach my opinions. FERC's website page is [www.ferc.gov/docs-filing/efrms/form-549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/efrms/form-549b/data.aps#skipnavsub).

I am sponsoring the following exhibits in connection with my testimony:

Brown Direct Exhibit 1  
Brown Direct Exhibit 2  
Brown Direct Exhibit 3  
Brown Direct Exhibit 4  
Brown Direct Exhibit 5  
Brown Direct Exhibit 6

1	Brown Direct Exhibit 7
2	Brown Direct Exhibit 8
3	Brown Direct Exhibit 9
4	Brown Direct Exhibit 10
5	Brown Direct Exhibit 11
6	Brown Direct Exhibit 12
7	Brown Direct Exhibit 13
8	Brown Direct Exhibit 14
9	Brown Direct Exhibit 15
10	Brown Direct Exhibit 16
11	Brown Direct Exhibit 17
12	Brown Direct Exhibit 18
13	Brown Direct Exhibit 19
14	Brown Direct Exhibit 20
15	Brown Direct Exhibit 21
16	Brown Direct Exhibit 22
17	Brown Direct Exhibit 23
18	Brown Direct Exhibit 24
19	Brown Direct Exhibit 25
20	Brown Direct Exhibit 26
21	Brown Direct Exhibit 27
22	Brown Direct Exhibit 28
23	Brown Direct Exhibit 29
24	Brown Direct Exhibit 30
25	Brown Direct Exhibit 31
26	Brown Direct Exhibit 32
27	Brown Direct Exhibit 33
28	Brown Direct Exhibit 34
29	Brown Direct Exhibit 35
30	Brown Direct Exhibit 36
31	Brown Direct Exhibit 37
32	Brown Direct Exhibit 38
33	Brown Direct Exhibit 39
34	Brown Direct Exhibit 40
35	Brown Direct Exhibit 41

1	Brown Direct Exhibit	42
2	Brown Direct Exhibit	43
3	Brown Direct Exhibit	44
4	Brown Direct Exhibit	45
5	Brown Direct Exhibit	46
6	Brown Direct Exhibit	47
7	Brown Direct Exhibit	48
8	Brown Direct Exhibit	49
9	Brown Direct Exhibit	50
10	Brown Direct Exhibit	51
11	Brown Direct Exhibit	52
12	Brown Direct Exhibit	53
13	Brown Direct Exhibit	54
14	Brown Direct Exhibit	55
15	Brown Direct Exhibit	56
16	Brown Direct Exhibit	57
17	Brown Direct Exhibit	58
18	Brown Direct Exhibit	59
19	Brown Direct Exhibit	60
20	Brown Direct Exhibit	61
21	Brown Direct Exhibit	62
22	Brown Direct Exhibit	63
23	Brown Direct Exhibit	64
24	Brown Direct Exhibit	65
25	Brown Direct Exhibit	66
26	Brown Direct Exhibit	67
27		

**II. Hearing Officer Issue 5: Has CGC Oversubscribed To Storage And Transportation Capacity Assets To Handle Its Jurisdictional Requirements?**

Q\_4. Based on the information you have gathered and considered what opinions have you formed on this issue?

A\_4. Based on the information I have gathered and considered I have these opinions:

- CGC's firm ratepayers appear to be paying for too much year-round firm transportation capacity from ETNG relative to the actual use of that pipeline's capacity by CGC's firm customers.
- CGC's firm ratepayers use less than half of the energy delivered to CGC via SONAT and ETNG, and this mismatch between capacity and usage probably flows through to the storage contracts because they are also supposed to be fashioned according to the needs of the firm ratepayers.

1           •           The need for CGC's LNG facilities  
2                   appears to be declining and  
3                   potentially CGC's LNG plant could be  
4                   replaced by ETNG's LNG service. CGC's  
5                   LNG facilities are in CGC's rate base  
6                   and create expenses. CGC should  
7                   provide the TRA with a study examining  
8                   the cost-effectiveness of using ETNG's  
9                   LNG service versus maintaining CGC's  
10                  LNG facilities. This issue could also  
11                  be treated in an independent triennial  
12                  review.

13  
14          •           According to CGC, its storage on  
15                  the SONAT pipeline is a cost-effective  
16                  alternative to making use of ETNG's  
17                  storage facilities, even though other  
18                  service providers in Tennessee and  
19                  near CGC use ETNG's facilities.  
20                  However, CGC's regulatory intervention  
21                  at the Federal Energy Regulatory  
22                  Commission suggests that ETNG's  
23                  storage facilities are potentially  
24                  useful to CGC. CGC should provide the  
25                  TRA with a study examining the cost-  
26                  effectiveness of using Saltville  
27                  Storage versus other storage and firm  
28                  transportation options. This could  
29                  also be addressed in an independent  
30                  triennial review.



- Because CGC appears not to use its ETNG capacity to fill storage in the off-peak season, a portion of CGC's year-round firm transportation from ETNG could be replaced by seasonal capacity while still meeting the needs of firm customers.

**Q\_5. Did CAPD ask CGC about its transportation and storage assets?**

**A\_5.** Yes. CAPD discovery request 21 asked for a listing of all of CGC's transportation and storage assets. See:

- Brown Direct Exhibit 1; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 21.

**Q\_6. How did you form the opinion that CGC's ratepayers may be paying for too much year-round firm capacity from ETNG?**

**A\_6.** I formed that opinion by compiling and analyzing data from CGC's replies to CAPD discovery requests 14, 15, 66, 67 and 90. See:

- Brown Direct Exhibit 2; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 18, 2008) Question 14.
- Brown Direct Exhibit 3; TRA Docket 07-00224, Reply To CAPD Discovery Request

(April 18, 2008) Question 14, Attachment A.

- Brown Direct Exhibit 4; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 18, 2008) Question 15.
- Brown Direct Exhibit 5; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 66.
- Brown Direct Exhibit 6; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 67.
- Brown Direct Exhibit 7; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 90.

Requests 66 and 67 asked CGC to confirm the amounts of firm transportation capacity that CGC had contracted for from ETNG and the Southern Natural Gas Pipeline (SONAT). From all of these responses, I compiled a table showing how much of the transportation capacity is being used by CGC's firm customers. See:

- Brown Direct Exhibit 8.

**Q\_7. Why are you calling attention to firm customers?**

**A\_7. In my opinion these customers are important because their needs should be**

governing how much firm capacity CGC needs from the pipelines.

**Q\_8. Is it a generally accepted principle that the needs of firm customers should govern the service provider's acquisition of firm capacity?**

**A\_8.** Yes it is. To prove the point, I refer to the affidavit of Professor Richard J. Pierce in FERC Docket RM98-10-000 and RM98-12-000. AGL submitted Dr. Pierce's affidavit in support of AGLC's own marketing efforts in Georgia. See:

- Brown Direct Exhibit 9 ; FERC Docket RM98-10-000 and RM98-12-000, Affidavit of Richard Pierce (Apr. 22, 1999) at 7, 11.

For the Final Order in that FERC Docket see:

- Brown Direct Exhibit 10, Regulation of Short-Term Natural Gas Transportation Services, and Regulation of Interstate Natural Gas Transportation Services, 90 FERC ¶ 61,109 (Feb. 9, 2000).

**Q\_9. In your opinion is CGC contracting only to meet the peak day needs of its firm customers?**

**A\_9.** No. CGC has a large amount of excess pipeline capacity throughout the year. My opinion is based on the data I compiled.

1 In Brown Direct Exhibit 8, the columns on  
2 the right side, in the bottom two  
3 portions, display the percent of CGC's  
4 firm daily capacity which is used by the  
5 firm and nonfirm customers. In 2007, for  
6 example, firm customers used only 27  
7 percent of the pipeline capacity. The  
8 other 73 percent was always available for  
9 other uses. The nonfirm customers' use of  
10 capacity is calculated as CGC's annual  
11 throughput, provided in the reply to  
12 question 15, less the total sales to firm  
13 customers. The data shows that the nonfirm  
14 customers use more capacity throughout the  
15 year than the firm customers.

16  
17 **Q\_10. In the data above, which customer classes**  
18 **are firm customers, in your opinion?**

19  
20 **A\_10.** In my opinion the firm customers are R-1  
21 Residential Class, R-4 Multi-Family Class,  
22 C-1 General Service Class, and C-2 Medium  
23 General Service Class.

24  
25 **Q\_11. Isn't it true that CGC's LNG plant would have**  
26 **supplied some of those sales during a peak**  
27 **period?**

28  
29 **A\_11.** Yes. To the extent LNG was needed during a peak  
30 period, the sales would be supplied by LNG. In  
31 that case, a smaller portion of annual sales  
32 would have been supplied via the pipeline for  
33 both firm and nonfirm customers. Therefore,  
34 columns on the right side of the table in Brown  
35 Direct Exhibit 8, in the bottom two portions,  
36 represent the maximum portion of annual sales

1 being met with year-round firm pipeline  
2 capacity.

3  
4 However, the public records available at SONAT  
5 and ETNG's web sites under for the year 2007  
6 show that 14,060,417 dekatherms were scheduled  
7 for CGC's city gates. See:

- 8
- 9 • Brown Direct Exhibit 11; East Tennessee  
10 Natural Gas, LINK System Informational  
11 Postings, (Feb. 22, 2009)  
12 <http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP>; and  
13 Southern Natural Gas Company Informational  
14 Postings, (Feb. 22, 2009)  
15 <http://ixsnp.sonetpremier.com/ebbmastere/Capacity/OperAvailAutoTable.aspx?code=SN&status=Cap&name=Operationally%20Available%20Capacity&sParam1=007&sParam2=03/02/2009&sParam8=04&sParam11=D&details=Y>.  
16  
17  
18  
19  
20  
21  
22
  - 23 • Brown Direct Exhibit 12; East Tennessee  
24 Natural Gas, LINK System Informational  
25 Postings, (Feb. 22, 2009)  
26 <http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP>; and  
27 Southern Natural Gas Company Informational  
28 Postings, (Feb. 22, 2009)  
29 <http://ixsnp.sonetpremier.com/ebbmastere/Capacity/OperAvailAutoTable.aspx?code=SN&status=Cap&name=Operationally%20Available%20Capacity&sParam1=007&sParam2=03/02/2009&sParam8=04&sParam11=D&details=Y>.  
30  
31  
32  
33  
34  
35

1  
2 Thus in 2007 CGC had a total throughput of  
3 14,939,141 dekatherms, and of that amount 93  
4 percent came from the pipelines, and very  
5 little came from CGC's LNG plant. Because so  
6 little of CGC's supply is provided via its LNG  
7 plant, and because the LNG plant causes  
8 expenses to be incurred, ETNG's LTNG service  
9 might be a more cost-effective way to meet the  
10 peak needs of CGC's firm customers.

11  
12 The solution to this issue could be found in an  
13 independent triennial review of CGC's Gas  
14 Supply Plan.

15  
16 The data in Brown Direct Exhibits 11 and 12  
17 reveals that CGC uses 82 percent of its annual  
18 SONAT capacity but only 38 percent of its  
19 annual ETNG capacity.

20  
21 The major difference between CGC's use of its  
22 SONAT and ETNG capacity suggests CGC may be  
23 able to reduce and to convert much of its year-  
24 round capacity from ETNG to seasonal capacity  
25 covering the winter months of November through  
26 March. I have complied Brown Direct Exhibit 13  
27 to show just one example of a seasonal capacity  
28 arrangement. See:

- 29  
30 • Brown Direct Exhibit 13.  
31  
32

Both Atmos Energy Corporation and the Knoxville Utilities Board have seasonal contract with ETNG. Thus for seven months out of the year CGC's ratepayers would avoid paying fixed costs for a year-round supply that appears to have little use for CGC's firm customers.

As of January 1, 2008, CGC's capacity situation is this:

- NonFirm customers use more of the pipeline capacity than the firm customers.
- Because nonFirm customers use more of the pipeline capacity than the firm customers, there is good reason to believe the same pattern characterizes CGC's storage contracts.
- There is no substantial evidence that CGC is making efforts to shape its pipeline capacity to establish a better fit with the firm customers use of firm pipeline capacity.
- The LNG plant is rarely used.
- CGC's firm ratepayers are harmed because they cannot avoid the payments for firm capacity, which are passed through the PGA.

1           Regarding CGC's reply to CAPD discovery request  
2           21, displayed in Brown Direct Exhibit 1,  
3           Saltville Storage in Virginia is not on this  
4           list. Other service providers in Tennessee,  
5           including Atmos Energy Corporation, Knoxville  
6           Utilities Board and the Middle Tennessee  
7           Utility District, use Saltville Storage. In  
8           addition, gas service providers in Tennessee  
9           avail themselves of other ETNG resources in  
10          Virginia such that the service providers'  
11          activities in Tennessee are not severable from  
12          the providers activities in Virginia. Such  
13          activities are usually integrated with each  
14          other and cannot be treated as if they are  
15          unrelated and isolated.

16  
17          In CAPD discovery request 87 CGC was asked to  
18          explain why it had no storage capacity at  
19          Saltville. See:

- 20  
21          •     Brown Direct Exhibit 14; TRA Docket 07-  
22                00224, Reply To CAPD Discovery Request  
23                (April 11, 2008) Question 87.

24  
25          The reply suggests CGC does not use its ETNG  
26          capacity to fill storage. Also, CGC's  
27          intervention in FERC Docket RP-05-672-002 on  
28          March 20, 2006 suggests Saltville is  
29          potentially useful to CGC. See:

- 30  
31          •     Brown Direct Exhibit 15;FERC Docket RP-05-  
32                672-002 (March 20, 2006) at 2.



“On March 7, 2006, ETNG Natural Gas, LLC (“ETNG”), pursuant to a September 15, 2005 settlement, filed an east-end pooling proposal, encompassing the Saltville and Early Grove Storage facilities and the ETNG LNG storage facility (collectively, the “Storage Facilities”). According to ETNG, the submitted pooling proposal is intended to enhance operational flexibility on the ETNG system by providing, to every customer that has a firm transportation service agreement with primary point rights at any one of the Storage Facilities, the equivalent level of primary point rights at any one or a combination of the three Storage Facilities through nominations to the designated meters at the Storage Facilities. The pro forma tariff sheets reflect proposed east-end pooling provisions in Rate Schedules FT-A and FT-GS. ETNG seeks an effective date of November 1, 2006. CGC is a jurisdictional transportation customer of ETNG pursuant to ETNG’s Rate Schedule FT-A. CGC will be directly impacted by the outcome of this proceeding. No other party in this proceeding can adequately represent CGC’s interests.”

At the time and now, CGC has no Saltville Storage service, no ETNG LNG storage service, and no service from the Early Grove facility.

However, the potential of Saltville to be a cost-effective source of storage or a cost-effective alternative to firm transportation could be determined in an independent triennial review of CGC’s Gas Supply Plan. My opinion also applies to issues 7 and 9 set by the Hearing Officer.

**III. Hearing Officer Issue 4: What Is The Appropriate Level And Mix Of Firm Transportation, Peaking, And Storage Capacity?**

1 **Q\_12. Based on the information you have gathered**  
2 **and considered what opinions have you**  
3 **formed on this issue?**

4  
5 **A\_12.** The information I have gathered and  
6 considered, I have this opinion:

- 7  
8 • As I have already discussed, a  
9 portion of CGC's year-round firm pipeline  
10 capacity on ETNG could be replaced by  
11 seasonal pipeline capacity on ETNG, and  
12 there is a potential for CGC's LNG plant  
13 to be replaced by ETNG's LNG service.  
14 However, based on the data I have used  
15 regarding Issue 5, my opinion is that CGC  
16 appears not to have a planning process  
17 which joins the needs of firm customers to  
18 transportation, peaking and storage  
19 capacity.  
20

21 The data I provided regarding Issue 5  
22 shows a potential lack of correspondence  
23 between sales to firm users and CGC's  
24 portfolio of transportation, peaking and  
25 storage capacity.  
26

27 For example, Brown Direct Exhibit 8 shows  
28 that nonfirm customers use so much  
29 capacity throughout the year that there is  
30 no reason to conclude that they avoid on-  
31 peak usage. In TRA Docket 06-00175, CGC's  
32 most recent rate case, its witnesses did  
33 not address the peak use of the pipeline  
34 capacity. They limited their testimony to  
35 a discussion of the peak use of the  
36 distribution system.

CGC's witness David Heintz sponsored CGC's class cost-of-service study without mentioning the issue of pipeline capacity See:

- Brown Direct Exhibit 16; TRA Docket 06-00175, David Heintz Direct (June 30, 2006) at 2-3, 6.

*"Q. What is the purpose of a Cost-of-Service Study ("COSS")?*

*" A. A COSS provides a measure of the cost responsibility of the various rate classes based on cost-causation principles."*

*"Demand costs are those that are incurred due to the customer's peak load requirements such as distribution mains, or more localized distribution facilities which are designed to satisfy individual customer maximum demands. Demand costs vary with the quantity or size of the plant and are fixed in nature and do not vary with the number of customers or the amount of commodity that customers receive."*

*"Please describe the allocation process used in the COSS."*

*" The allocation process started with the allocation of the rate base plant accounts. As explained above, the plant accounts were designated as either demand-related or customer-related. Demand-related investment generally was allocated using a peak-demand-allocation factor made up of Dedicated Design Day Capacity ("DDDC") and contract demands. DDDC values were calculated for the Residential (R-1), Multi-Family (R-4), C&I General (C-1), and Large C&I General (C-2) classes. Contract demand values were used for the Industrial sales and transport (I1/T2, I1/T2 & T1) and the large C&I transportation class (T-3)."*

*"What is the DDDC?"*

1  
2                   *"The DDDC is a measure of a customer's demand under design*  
3                   *day conditions and is calculated individually for each customer*  
4                   *and summed to the rate class level. The process of calculating the*  
5                   *DDDC is explained more fully in the testimony of Company*  
6                   *Witness Philip Buchanan."*  
7

8                   In TRA Docket 06-00175 CAPD asked CGC about Mr.  
9                   Buchanan's "DDDC" measure of a customer's  
10                  demand. See:  
11

- 12                  •     Brown Direct Exhibit 17; TRA Docket 07-  
13                       00224, Reply To CAPD Discovery Request  
14                       (April 11, 2008) Question 33.  
15

16                  However, the lack of connection between  
17                  Mr. Buchanan's peak use on a distribution  
18                  system and peak use of pipeline capacity  
19                  is shown in Mr. Heintz's testimony where  
20                  Mr. Heintz says "a complete listing of the  
21                  external and internal allocation factors  
22                  used in the COSS is shown in Exhibit DAH-  
23                  3." See Brown Direct Exhibit 16, at 9.  
24

25                  A portion of DAH-3, with its demand  
26                  allocation factor is displayed. See:  
27

- 28                  •     Brown Direct Exhibit 18; TRA Docket  
29                       06-00175, David Heintz Direct Exhibits  
30                       (June 30, 2006) at DAH-3.  
31

1 Especially important is the mismatch  
2 between the demand allocators for "Design  
3 Day Demand Capacity", and pipeline  
4 capacity. The "Total" allocator is 124,774  
5 dekatherms. This amount is not a measure  
6 of who uses pipeline capacity throughout  
7 the year and when it is used.

8  
9 CGC has conflated the notion of "design  
10 day" to encompass distribution needs and  
11 year-round pipeline contracts. As of  
12 January 1, 2007 CGC reduced its pipeline  
13 capacity from ETNG by 5,000 dekatherms.  
14 CAPD data request 82 asked CGC about it's  
15 the reduction in pipeline capacity at  
16 certain points on ETNG's pipeline. See:

- 17  
18 • Brown Direct Exhibit 19; TRA Docket  
19 07-00224, Reply To CAPD Discovery  
20 Request (April 11, 2008) Question 82.

21  
22 CGC's reply suggests there is a direct  
23 link between pipeline capacity and its use  
24 by firm customers, but if there is a  
25 direct link, it has not been clarified by  
26 CGC.

27  
28 The absence of causal and cost connection  
29 between CGC's pipeline capacity and its  
30 cost-of-service is shown by Mr. Buchanan's  
31 testimony. See:

- 32  
33 • Brown Direct Exhibit 20; TRA Docket  
34 06-00175, Phillip Buchanan Direct  
35 (June 30, 2006) at 1, 2.

1  
2  
3       *"I will support and describe the specific methods employed in*  
4       *developing the normalization of billing determinates and base*  
5       *revenue for the Test Year period ending December 31, 2005, and*  
6       *for the forecast of billing determinates and base revenue for the*  
7       *Attrition Year period ending December 31, 2007 for Chattanooga*  
8       *Gas Company ("CGC" or "the Company"). The Attrition Year*  
9       *period forecast is the base from which the requested base revenue*  
10       *increase of \$5.8M has been determined"*  
11

12       CGC's reduction in capacity at the  
13       pipeline, which occurred as of January 1,  
14       2007, was not translated into a meaningful  
15       benefit for CGC's firm customers, other  
16       than to say such costs would no longer be  
17       passed through the PGA. Also, even though  
18       CGC reduced its transportation capacity  
19       from ETNG by 5,000 dekatherms, there were  
20       no changes in the storage contracts on the  
21       Tennessee Gas Pipeline (TGP) which CGC  
22       uses to bring gas to ETNG. In my opinion a  
23       change in transportation should have at  
24       least some impact on the need for storage,  
25       but in CGC's case there was no impact at  
26       all. Although Brown Direct Exhibit 1 shows  
27       two storage contracts between CGC and TGP,  
28       3947 and 22923, there were no changes from  
29       October 2000 through April 2007, the most  
30       recent TGP data which I have analyzed.  
31       See:  
32

- Brown Direct Exhibit 21; East Tennessee Natural Gas, Quarterly Index Of Customers, FERC e forms Form 549b Data (Feb. 22, 2009) [www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub);

The original termination date was moved from October 31, 2005 to October 31, 2010.

There was a small reduction in CGC's upstream contract with TGP.

- Brown Direct Exhibit 22; Tennessee Gas Pipeline, Quarterly Index Of Customers, FERC e forms Form 549b Data (Feb. 22, 2009) [www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub);

Brown Direct Exhibit 22 shows that CGC's contract 48082 with TGP for 37,819 dekatherms is a slight reduction from 39,792 dekatherms, an amount established in 1993. However, this reduction of 1,973 dekatherms is substantially less than the 5,000-dekatherm reduction from ETNG.

In CGC's design day analysis, the length of time that pipeline capacity is available throughout the year whether the capacity is for transportation or storage depends only on the peak, nothing else.

CGC's gas supply planning for pipeline-storage and pipeline-transportation appears to be unrelated to the needs of firm customers, who have been harmed by CGC's prolonged retention of year-round capacity from ETNG. The Authority should closely examine how CGC goes about its process of planning. The situation with regard to CGC's year-round capacity from ETNG shows such a need.

***IV. Hearing Officer Issues 6 and 8: What Safeguards Should Exist To Ensure CGC Subscribes To The Proper Levels Of Capacity? Have CGC's Sales And Purchases Of Natural Gas Been Prudent And Should Safeguards Be Put In Place To Ensure Least Cost Purchasing Of Natural Gas? If So, What Should These Safeguards Be?***

Q\_13. Based on the information you have gathered and considered what opinions have you formed on these issues?

A\_13. Based on the information I have gathered and considered I have this opinion:



- CGC should submit to the TRA an annual or triennial review of CGC's asset mix where CGC's portfolio of pipeline contracts is reviewed, where the review provides the reasons which support the changes in CGC's asset mix or the reasons for CGC maintaining a status quo.

In discovery request 88, CAPD asked CGC about the extent of its cooperation with SEM regarding the terms of the contracts, CGC's decisions to exit and enter contracts.

- Brown Direct Exhibit 23; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 88.

Q\_14. **Given CGC's reply to CAPD discovery request 88, why do you have the opinion that CGC should provide the TRA with a review of CGC's contract portfolio?**

1 **A\_14.** I have this opinion because the data I  
2 have gathered suggests that CGC's  
3 portfolio of contracts may have been  
4 affected by SEM's needs. CGC's entry into  
5 contracts and termination of contracts  
6 with ETNG, and CGC's retention of year-  
7 round contracts with ETNG for  
8 jurisdictional purposes (which are largely  
9 underused by firm customer) provide excess  
10 capacity that can be used to sell gas to  
11 nonjurisdictional users via ETNG's Patriot  
12 Project.

13  
14 *ETNG's Patriot Project Made ETNG Pipeline*  
15 *A Market Center And Changed The*  
16 *Motivations Of Shippers Using ETNG.*

17  
18  
19 **Q\_15.** **What was the Patriot Project?**

20  
21 **A\_15.** The Patriot Project was a construction  
22 effort to extend ETNG's pipeline from its  
23 eastern end to the Transco Pipeline in  
24 North Carolina. Patriot's construction was  
25 completed in 2003.

26  
27 On November 15, 2003 ETNG's Director of  
28 Marketing, William E. Wickman, submitted  
29 testimony to FERC in Docket RP-00-469-007  
30 explaining that ETNG's business had  
31 changed because of Patriot.  
32

1 He identified a major change in the  
2 motivations for shippers to use ETNG. Not  
3 only could shippers use ETNG to meet  
4 jurisdictional needs, shippers could use  
5 ETNG to meet nonjurisdictional needs on  
6 Transco. See:

- 7
- 8 • Brown Direct Exhibit 24; FERC Docket  
9 RP00-469-007, Testimony of William  
10 Wickman (Dec. 15, 2003) at 2, 3, 5.

11  
12 For the Final Order in that FERC Docket  
13 see:

- 14
- 15 • Brown Direct Exhibit 25; East  
16 Tennessee Natural Gas Company, 109  
17 FERC ¶ 61,149 (Nov. 4, 2004).

18  
19 It is reasonable to conclude that CGC and SEM  
20 would be affected by the Patriot Project.

21  
22 **Q\_16. What was Patriot's capacity, and who were**  
23 **supposed to be its first users?**

24  
25 **A\_16.** According to ETNG's filings with FERC, there  
26 were 260,000 Dekatherms (DTH) of capacity.  
27 Seven users subscribed to 196,000 DTH. Among  
28 them was NUI (the parent of NUIEB). See:

- 29
- 30 • Brown Direct Exhibit 26; FERC Docket CP01-  
31 415-000, Abbreviated Application for a  
32 Certificate of Public Convenience and  
33 Necessity and Related Authorizations,  
34 (July 26, 2001) at 15.

1 For the Final Order in that FERC Docket  
2 see:

- 3
- 4 • Brown Direct Exhibit 27; FERC Docket  
5 CP01-415-000, Abbreviated Application  
6 for a Certificate of Public  
7 Convenience and Necessity and Related  
8 Authorizations, (August 7, 2003).
- 9

10  
11 In November 2004 NUIEB became SEM's. See:

- 12
- 13 • Brown Direct Exhibit 28; FERC Docket RP-  
14 05-157-005, Filing of Corrected Negotiated  
15 Rate Service Agreement (Aug. 17, 2005) at  
16 2.
- 17

18 For the Final Order in that FERC Docket  
19 see:

- 20
- 21 • Brown Direct Exhibit 29; FERC Docket  
22 RP-05-157-005, Filing of Corrected  
23 Negotiated Rate Service Agreement  
24 (Sep. 15, 2005).
- 25  
26  
27

28 *CGC's Gas Operations Appear To Be*  
29 *Integrated Into SEM's Marketing, And CGC*  
30 *May Not Be Independent Of SEM.*  
31

1 In my opinion AGL's acquisition of NUIEB  
2 affected the CGC-SEM Asset Manager  
3 relationship. In my testimony which  
4 follows, I discuss several of CGC's  
5 contracts with ETNG, showing that the  
6 contract-changes appear to be integrating  
7 CGC's assets into SEM's efforts regarding  
8 the Transco markets.  
9

10 The starting point is contract 33653  
11 between CGC and ETNG. According to AGL  
12 Resources' SEC Form 10-K405 for the fiscal  
13 year ending September 30, 2000, CGC  
14 entered into contract 33653 on June 1,  
15 2000. The contract was scheduled to  
16 terminate on October 31, 2005. See:  
17

- 18 • Brown Direct Exhibit 30; AGL SEC 10-  
19 K405 Fiscal Year 20000930, Exhibit  
20 10.65, Exhibit A.  
21

22 On November 30, 2004 SEM became the  
23 successor to NUI Energy Broker's rights  
24 regarding the Patriot Project.  
25

1 On May 1, 2005 CGC terminated contract  
2 33653 six months ahead of schedule,  
3 replacing 33653 with contracts 410203 and  
4 410204 which reduced CGC's receipts at  
5 Ridgetop from 18,540 dekatherms to 13,540  
6 dekatherms, a decrease of 5,0000  
7 dekatherms. CGC made no other changes to  
8 its receipt capacity at that time. CGC's  
9 reply to CAPD discovery request 82, says  
10 "CGC exercised its rights it held under  
11 its contract [410199] to turn back firm  
12 transportation capacity." See Brown Direct  
13 Exhibit 19.

14  
15 ETNG's public records filed with FERC show  
16 that contract 410199 did not start until  
17 May 1, 2005.

18  
19 On May 1, 2005 SEM's contract 410206 took  
20 effect, using receipt capacity of 5,000 at  
21 Ridgetop to fulfill a contract under the  
22 FT-APT tariff with ETNG to deliver gas in  
23 the amount of 20,000 to the Transco  
24 Pipeline and 5,000 to meter point 59014,  
25 named Atlanta, in Hamilton County,  
26 Tennessee. See:

- 27  
28 • Brown Direct Exhibit 31; East Tennessee  
29 Natural Gas, Quarterly Index Of Customers,  
30 at FERC e forms Form 549b Data (Feb. 22,  
31 2009) [www.ferc.gov/docs-](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub)  
32 [filing/eforms/form-](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub)  
33 [549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub).  
34

1 According to ETNG's unsubscribed capacity  
2 reports at its web site, Ridgetop is the  
3 most heavily subscribed receipt point in  
4 Tennessee. On April 1, 2005 and May 1,  
5 2005 only 3,694 dekatherms were available  
6 at Ridgetop - short of what SEM needed to  
7 make contract 410206 work. See:

- 8  
9 • Brown Direct Exhibit 32; East  
10 Tennessee Natural Gas, LINK System  
11 Informational Postings, (Feb. 22,  
12 2009)  
13 [http://link.spectraenergy.com//pipecap](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=UNS)  
14 [/CapacityMain.asp?bu=et&mapType=UNS](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=UNS).  
15
- 16 • Brown Direct Exhibit 33; East  
17 Tennessee Natural Gas, LINK System  
18 Informational Postings, (Feb. 22,  
19 2009)  
20 [http://link.spectraenergy.com//pipecap](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=UNS)  
21 [/CapacityMain.asp?bu=et&mapType=UNS](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=UNS).  
22  
23  
24

1 CGC relinquished 5,000 dekatherms of  
2 capacity at Ridgetop, otherwise SEM could  
3 not have established contract 410206 for  
4 the long-term delivery of energy to the  
5 Transco pipeline. CGC's reply to CAPD  
6 discovery request 83 says CGC did not ask  
7 for any financial compensation from SEM.  
8 In reply to CAPD discovery requests 82 and  
9 83, CGC said SEM may have acquired rights  
10 to the capacity "through the open access  
11 tariff." I have found no public records  
12 confirming the reply. CGC's reply to CAPD  
13 discovery request 85, says CGC did not  
14 know that SEM would acquire the 5,000  
15 dekatherms of receipt capacity at  
16 Ridgetop. See:

- 17
- 18 • Brown Direct Exhibit 34; TRA Docket 07-  
19 00224, Reply To CAPD Discovery Request  
20 (April 11, 2008) Question 83.
- 21
- 22 • Brown Direct Exhibit 35; TRA Docket 07-  
23 00224, Reply To CAPD Discovery Request  
24 (April 11, 2008) Question 85.
- 25
- 26
- 27
- 28



1 The thirty-year profit stream flowing to  
2 AGL Resources and SEM from contract 410206  
3 stems directly from CGC reducing its  
4 receipt capacity at Ridgetop. If CGC had  
5 been a rational economic decision-maker,  
6 CGC would have translated the value of its  
7 receipt rights at Ridgetop into financial  
8 compensation that captured a portion of  
9 the value that SEM placed on Ridgetop.  
10 The Hearing Officer's Issue 10 asks:

11  
12 *"Is the amount paid by SEM for the right to utilize or market*  
13 *assets, which are paid for by the customers of CGC, representative*  
14 *of the fair market value of such assets?"*  
15

16  
17 In April 2005 SEM was managing 18,540  
18 dekatherms of CGC's receipt capacity at  
19 Ridgetop. By May 1, SEM was managing just  
20 13,540 dekatherms of CGC's receipt  
21 capacity at Ridgetop, with SEM having  
22 5,000 dekatherms of receipt capacity that  
23 was once CGC's.  
24

25 The Ridgetop issue is a good example of  
26 one subsidiary capturing the resources of  
27 another, and a good example of what CAPD  
28 witness Terry Buckner says in his  
29 testimony at page 17: "the amount paid by  
30 Sequent for the right to utilize [CGC's]  
31 assets is not representative of the fair  
32 market value...at the same time...  
33 Sequent...[is]...maximize[ing] its profit."  
34 TRA Docket 07-00224, Buckner Direct (May  
35 30, 2008) at 17.  
36

1  
2 This is especially true in light of the  
3 growing sales to the Trancso markets via  
4 ETNG. See:

- 5  
6 • Brown Direct Exhibit 36; East  
7 Tennessee Natural Gas, LINK System  
8 Informational Postings, (Feb. 22,  
9 2009)  
10 [http://link.spectraenergy.com//pipecap](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP)  
11 [/CapacityMain.asp?bu=et&mapType=OCP](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP).  
12  
13

14 CGC and SEM are subsidiaries of the same  
15 holding company, AGL Resources. On July  
16 29, 2005 the Securities and Exchange  
17 Commission issued its ruling that bears on  
18 the financial relationship between  
19 subsidiaries where the actions of one  
20 subsidiary help the other. See:

- 21  
22 • Brown Direct Exhibit 37; SEC Release  
23 No. 35-28009, 70-10309; "Order  
24 Authorizing External and Intrasystem  
25 Financing and Related Transactions;  
26 Authorizing Service Agreements; and  
27 Reserving Jurisdiction," (July 29,  
28 2005) at 20.  
29

30 *"Contracts may be assigned from one subsidiary to another Enron group*  
31 *company or a third party. The assignment of contracts that have value*  
32 *among Enron group companies could be viewed as a dividend or capital*  
33 *contribution."*  
34

CGC's reply to CAPD discovery request 82, says in part "CGC did not relinquish, release, or assign any capacity to SEM." See Brown Direct Exhibit 19.

On its face CGC's decision to terminate contract 33653 six months ahead of term, and to reduce its receipt capacity at Ridgetop without seeking compensation appears as a capital contribution by CGC to SEM and an abandonment of the true value such capacity would have been assigned in a market transaction. CGC restricted its action to Ridgetop at a time when there was insufficient receipt capacity at Ridgetop to meet the terms of SEM's contract with ETNG, but for CGC's actions.

The substantial under-use of CGC's firm pipeline capacity by CGC's firm customers', which I show in Brown Direct Exhibit 8, suggests a willingness of the LDC to retain year-round pipeline capacity. ETNG's Index of Customers as of October 8, 1996 shows CGC having firm transportation in the amount of 46,350 dekatherms on November 1, 1993. See:

- Brown Direct Exhibit 38; East Tennessee Natural Gas, Quarterly Index Of Customers, FERC e forms Form 549b Data (Feb. 22, 2009) [www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub).

1 Industrial customers, previously CGC's  
2 customers in CGC's territory, had firm  
3 transportation contracts in amounts ranging  
4 from 1,500 to 7,000 dekatherms since October  
5 2000. See:

6  
7 Brown Direct Exhibit 39; East Tennessee  
8 Natural Gas, Quarterly Index Of Customers,  
9 FERC e forms Form 549b Data (Feb. 22,  
10 2009) [www.ferc.gov/docs-](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub)  
11 [filing/eforms/form-](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub)  
12 [549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub).  
13

14 Despite this opportunity to reduce capacity,  
15 CGC retained 46,350 dekatherms of delivery  
16 capacity from ETNG until 2007.

17  
18 Once ETNG became a market center, access to it  
19 via receipt points was essential. Capacity at  
20 receipt points (where gas enters the pipeline),  
21 has a history of being used to its maximum on  
22 the Tennessee portion of ETNG. In contrast,  
23 receipt capacity in the Virginia portion of  
24 ETNG was ample enough to respond to ETNG's  
25 status as a market center. ETNG's natural gas  
26 receipts in Tennessee changed little in the  
27 past 5 years while receipts in Virginia have  
28 increased. See:

29  
30 Brown Direct Exhibit 40; East Tennessee Natural  
31 Gas, LINK System Informational Postings, (Feb.  
32 22, 2009)  
33 [http://link.spectraenergy.com//pipecap/Capacity](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP)  
34 [Main.asp?bu=et&mapType=OCP](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP).

1 ETNG's contracts require receipt capacity to  
2 match delivery capacity. If an LDC reduces  
3 delivery capacity, receipt capacity is reduced.  
4 With ETNG as a market center, reductions in  
5 delivery point capacity by an LDC means  
6 reductions in receipt capacity, and less  
7 opportunity to sell gas to the Transco markets.  
8

9 Brown Direct Exhibit 19 shows CGC's reply  
10 to CAPD discovery:  
11

12 *"In evaluating the design day (peak day) load of the firm customers...*  
13 *[CGC] concluded that the needs of the customers could be met without the*  
14 *5,000 dekatherms."*  
15

16 This reply is inexact. When CGC gave up  
17 its 5,000 dekatherms of receipt capacity  
18 at Ridgetop, CGC also added 5,000 of  
19 receipt capacity at the ETNG's Texas  
20 Eastern Hartsville interconnection. This  
21 action suggests that in its own estimation  
22 CGC needed the 5,000 dekatherms of receipt  
23 capacity at Ridgetop, but CGC found the  
24 capacity elsewhere, only to give it up as  
25 of January 1, 2007. At the same time CGC  
26 reduced its delivery capacity at several  
27 meters, including meters 59014, 59016,  
28 59017, 59024, and 59106 by a total of  
29 5,000 dekatherms.  
30

31 Ridgetop is known to have swing  
32 capability, the capability to adjust to  
33 the difference between scheduled receipts  
34 and actual receipts, and may be a more  
35 desirable receipt point for some  
36 shippers. See:

- Brown Direct Exhibit 41; Federal Trade Commission, In The Matter Of El Paso Energy Corporation, (Jan. 11, 2000) at VI.C.

The FTC ordered ETNG divested from its owner EL PASO and moved to Duke Energy.

The desirability of Ridgetop as a receipt point for SEM is shown by changes in SEM's receipt portfolio from May 2005 to January 2008. In April 2006 SEM revised its contract 410206 to contract 410206-R1, where SEM increased its receipts at Ridgetop from 5,000 dekatherms to 8,526 dekatherms, an increase of 3,526 dekatherms while decreasing receipts at Hartsville by the same amount, an amount very nearly equal to the unsubscribed capacity at Ridgetop, 3,694 dekatherms. Sequent maintained this portfolio through January 1, 2008. See:

- Brown Direct Exhibit 42; East Tennessee Natural Gas, Quarterly Index Of Customers, FERC e forms Form 549b Data (Feb. 22, 2009) [www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub).

1 Also, SEM's capacity at Ridgetop put it in  
2 a position to manage more of CGC's TGP  
3 storage at Portland Tennessee (which is  
4 near Ridgetop) under TGP contract 3947. To  
5 the extent that CGC reduced its ETNG  
6 transportation capacity by 5,000  
7 dekatherms without reducing storage in TGP  
8 contract 3947, some storage that had been  
9 devoted to CGC's use would be freed for  
10 other use. SEM has no storage contracts in  
11 its own name at TGP's Portland and Bear  
12 Creek facilities. CGC's TGP storage  
13 contracts are displayed in Brown Direct  
14 Exhibit 1.  
15

16 **Q\_17. Did CGC pay more for its receipt capacity at**  
17 **Hartsville than its receipt capacity at**  
18 **Ridgetop?**  
19

20 **A\_17.** No. To my knowledge, ETNG's FT-A tariff was  
21 applied to CGC at each receipt point.  
22

23 **Q\_18. Do you know if CGC's cost of gas from gas**  
24 **producers or its composition of gas suppliers**  
25 **changed because it reduced its capacity at**  
26 **Ridgetop?**  
27

28 **A\_18.** No, I do not know.  
29

30 **Q\_19. How were CGC's firm customers harmed by CGC's**  
31 **actions?**  
32

33 **A\_19.** CGC's firm customers were harmed because they  
34 did not receive the benefits that should have  
35 flowed to them, where such benefits would have  
36 allowed for lower bills to the firm customers.  
37

1  
2 *Before November 2005, CGC's Deliveries To*  
3 *Chattanooga via ETNG Were Scheduled*  
4 *Through CGC's City-Gate Meters. As Of*  
5 *November 2005, One-half Of CGC's*  
6 *Subscribed Capacity Was Moved To ETNG*  
7 *Meter 59014, Which Is An Interconnection*  
8 *with Atlanta Gas, And Which May Now Allow*  
9 *CGC's Capacity To Be Used By Sequent Or*  
10 *AGL.*

11  
12  
13 Besides the Ridgetop issue, there is  
14 another instance suggesting a need for a  
15 review of CGC's decisions regarding its  
16 portfolio of contracts. This involves  
17 ETNG's Hamilton-County-meter 59014, where  
18 SEM and CGC both have capacity as of  
19 November 2005.

20  
21 According to AGL Resources's SEC Form 10-K  
22 for the fiscal year ending September 30,  
23 1997, on November 1, 1993 Atlanta Gas  
24 Light entered into contract 4235 with  
25 ETNG. See:

- 26  
27 • Brown Direct Exhibit 43; AGL SEC 10-K  
28 FY 19970930, Exhibit 10.61, Service  
29 Package No. 4235, Exhibit A To The  
30 Firm Transportation Agreement (Nov. 1,  
31 1993) Amendment No. 0.



1           There was only one delivery point, meter  
2           759014 (later referred to as 59014), and  
3           AGL was the only user. AGL did not renew  
4           the contract when it expired in November,  
5           2000. Comparing this contract to CGC's  
6           contract 33653 shows that CGC and AGL used  
7           different delivery points, and there was  
8           no mixing, contractual or physical, of gas  
9           flowing to AGL's customers with gas  
10          flowing to CGC's customers. However, both  
11          CGC and AGL used Dickenson County  
12          Receiving and Lobelville as receipt  
13          points. But once AGL terminated its  
14          contract 4235, CGC was the only company to  
15          have access to Dickenson and Lobelville.  
16          The separation between CGC delivery points  
17          and AGL delivery points ended in 2005,  
18          after SEM executed contract 410206.

19  
20          On May 1, 2005, CGC's contract 33653 was  
21          replaced by three contracts: 410199,  
22          410203, and 410204. The delivery amount of  
23          22,006 dekatherms was subdivided between  
24          the three contracts respectively: 2,374,  
25          6,172, and 13,460. The amount of 2,374  
26          dekatherms was dropped by October 2006 for  
27          a net amount of 19,500 dekatherms as of  
28          January 1, 2008. ETNG's public records  
29          show CGC as the only firm LDC shipper to  
30          point 59014.

1 According to SONAT's public records, CGC  
2 is operator of SONAT's delivery point to  
3 Chattanooga. ETNG's records show Atlanta  
4 Gas the operator of CGC's ETNG delivery  
5 points. CAPD asked CGC about AGL's role as  
6 the operator of all ETNG's delivery points  
7 serving CGC. See:

- 8
- 9 • Brown Direct Exhibit 44; TRA Docket 07-  
10 00224, Reply To CAPD Discovery Request  
11 (April 11, 2008) Question 72.
- 12

13 CGC did not explain why it is not the  
14 operator of CGC's ETNG delivery points.  
15 Also, the reply is mistaken because meter  
16 59014 is in Hamilton County, Tennessee,  
17 not in AGL's service territory. Regarding  
18 the meters identified as firm delivery  
19 points for CGC, Sequent was CGC's asset  
20 manager in 2003.  
21

1 According to ETNG's public records, as of  
2 January 1, 2003 CGC's contract 33653 was  
3 rearranged. CGC's capacity at point 59007  
4 was reduced from 10,300 dekatherms to 212.  
5 CGC's capacity at point 59001 was reduced  
6 from 10,815 dekatherms to 100. CGC's  
7 capacity at point 59014 was raised from  
8 zero to 22,006 dekatherms. There was no  
9 change in the overall delivery amount of  
10 46,350 dekatherms. However, ETNG's  
11 unsubscribed capacity reports show CGC not  
12 actually applying those changes until  
13 after SEM's contract 410206 was executed.  
14 On November 11, 2005 CGC moved about one-  
15 half of its firm delivery capacity to  
16 meter 59014. I compiled a table from  
17 ETNG's data unsubscribed capacity reports.  
18

- 19 • Brown Direct Exhibit 45; East  
20 Tennessee Natural Gas, LINK System  
21 Informational Postings, (Feb. 22,  
22 2009)  
23 <http://link.spectraenergy.com//pipecap>  
24 [/CapacityMain.asp?bu=et&mapType=UNS](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=UNS).  
25  
26  
27  
28

1 The boxed portion at the bottom of Brown  
2 Direct Exhibit 45 displays the  
3 unsubscribed and subscribed capacity at  
4 meter 59014 as of 3 dates: June 1, 2003,  
5 November 10, 2005, and November 11, 2005,  
6 when subscribed capacity jumped from zero  
7 to 27,006 dekatherms, which is the sum of  
8 5,000 dekatherms per SEM contract 410206  
9 and 22,006 dekatherms per changes in CGC's  
10 contracts. The other three boxed portions  
11 display the unsubscribed and subscribed  
12 capacity at CGC's meters. The unsubscribed  
13 capacity reports again confirm the  
14 coordinated activities of CGC and SEM. See  
15 Brown Direct Exhibit 19.

16  
17 *CGC's Jurisdictional Assets Appear To Be*  
18 *Mixed In With SEM's Assets Used For Sales*  
19 *To The Transco Pipeline. The Mix Could Be*  
20 *Achieved Through Operational Balancing*  
21 *Agreements.*

22  
23  
24 **Q\_20. What is an "Operational Balancing**  
25 **Agreement" and what is it used for on**  
26 **ETNG?**

27  
28 **A\_20.** According to ETNG's compliance filing for  
29 FERC Order 637, in FERC Docket RP00-469-  
30 000, an operational balancing agreement  
31 makes the Balancing Party to assume  
32 responsibility for imbalance resolution,  
33 instead of the shipper. The shipper is  
34 deemed to have received its scheduled  
35 receipts and scheduled deliveries. See

- Brown Direct Exhibit 46; FERC Docket RP00-469-000, East Tennessee Natural Gas Company Order No. 637 Compliance Filing, Statement Of Nature, Reasons, And Basis, at 15, 16.

For the Final Order in this FERC Docket see:

- Brown Direct Exhibit 47; East Tennessee Natural Gas Company, 98 FERC ¶ 61, 060 (Jan. 30, 2002).

**Q\_21. How is an OBA relevant to Sequent and CGC?**

**A\_21.** An OBA is relevant to Sequent and CGC because they share the same delivery point, meter 59014. CAPD asked CGC to explain the use of meter 59014 in the context of a balancing agreement. CAPD discovery request 78 asked CGC about its handling of meter 59014. See:

- Brown Direct Exhibit 48; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 78.

**Q\_22. Do you agree with CGC's explanation?**

**A\_22.** No, I disagree. CGC did not explain fully the potential in the OBA for energy nominated at a CGC delivery point to be rerouted to Transco. See:

- Brown Direct Exhibit 49; FERC Docket RP00-469-010, Answer Of East Tennessee Natural Gas, LLC To Comments Of Sequent Energy Management, L.P. And The East Tennessee Group (Jan. 18, 2006) at 5.

For the Final Order in that FERC Docket see:

- Brown Direct Exhibit 50; Order On Segmentation Report, 115 FERC ¶ 61,046 (Apr. 13, 2006).

**Q\_23. In your opinion, can gas nominated for CGC's use be redirected to Transco?**

**A\_23.** Yes. In my opinion CGC's use of meter 59014 is meant to take advantage of an OBA because there is no operational reason for CGC to nominate deliveries to 59014. I have underlined portions of CGC's reply to CAPD discovery request 78, Brown Direct Exhibit 46, where CGC's reply offers an explanation regarding AGLC's methods of separating its natural gas supply from the CGC's gas at meter 59014.

In the past, there was no need for such separation, but CGC has made no disclosure explaining why meter 59014 became a part of CGC's portfolio. See:

- Brown Direct Exhibit 51; East Tennessee System Map, FERC Form 2 (June 22, 2003).

1  
2  
3 Brown Direct Exhibit 51 shows that meter 59014  
4 lies on ETNG's "Atlanta Extension Line" to the  
5 south and downstream of the other ETNG delivery  
6 meters to CGC, other than meter 59142. There is  
7 no operational need to schedule CGC-bound gas  
8 at 59014 because CGC-bound gas-flows reach the  
9 meters without flowing through 59014. This flow  
10 direction was also confirmed by ETNG in FERC  
11 Docket RP00-469-000. See:

- 12  
13 • Brown Direct Exhibit 46;FERC Docket RP00-  
14 469-000, East Tennessee Natural Gas  
15 Company Order No. 637 Compliance Filing,  
16 Statement Of Nature, Reasons, And Basis,  
17 at 3,8.

18  
19 To the extent that CGC has the right to  
20 ship 19,500 dekatherms a day, four times  
21 the daily amount of 5,000 dekatherms which  
22 SEM uses as delivery point in contract  
23 410206, in which the Transco pipeline is  
24 also a delivery point, gas scheduled for  
25 CGC but not used can be rerouted to  
26 Saltville Storage and on to the Transco  
27 pipeline.  
28

Therefore, if CGC and Sequent were both parties to the same OBA, or if the OBA used a point common to CGC and SEM, or CGC and AGL, CGC's assets and contracts could be used to balance Sequent's receipts and deliveries on ETNG's system, including deliveries to Transco. On the other hand, if the OBAs showed that CGC was not part of an OBA that was linked to Transco, then there would be no issue. To resolve the issue, CAPD needed to review the OBAs.

**Q\_24. Did CAPD ask for copies of OBAs?**

**A\_24.** Yes. CAPD made three discovery requests. See:

- Brown Direct Exhibit 52; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 75.
- Brown Direct Exhibit 53; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 76.
- Brown Direct Exhibit 54; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 77.

**Q\_25. Did CAPD receive copies of the OBAs which were requested?**

**A\_25.** CAPD did not receive the OBA between Sequent and ETNG. CAPD received an OBA between CGC and AGLC.



1 **Q\_26. Is it your opinion that CGC's contract**  
2 **with ETNG can be used to fulfill SEM's**  
3 **contract with ETNG?**  
4

5 **A\_26.** Yes. One contract can be used to fulfill  
6 another. This was clearly stated in the  
7 testimony of ETNG's Manager of Capacity  
8 Planning and Scheduling, Mr. George  
9 Snyder, in FERC Docket RP-00-469-007 where  
10 he discussed an ultimate delivery point.  
11 See:  
12

- 13 • Brown Direct Exhibit 24; FERC Docket  
14 RP00-469-007, Testimony of George  
15 Snyder (Dec. 15, 2003) at 3.  
16

17 **Q\_27. In your opinion, what does the term "ultimate**  
18 **delivery point" in Mr. Snyder's testimony mean**  
19 **in the context of CGC's and SEM's contracts**  
20 **with ETNG?**  
21

22 **A\_27.** In my opinion the term "ultimate delivery  
23 point" means other delivery points act as  
24 transfer points along the way to the ultimate  
25 destination and that such transfer points do  
26 not mean the gas is actually consumed at the  
27 point.  
28  
29

30 **Q\_28. Are CGC's contracts with ETNG seasonal or year-**  
31 **round?**  
32

33 **A\_28.** They are year-round.  
34

35 **Q\_29. What does it mean that a contract is "year-**  
36 **round?"**

1  
2 A\_29. When a contract is "year-round" it means the  
3 shipper has the right to ship its contract  
4 amount every day of the year. By linking this  
5 right to an OBA, gas bound for CGC could end up  
6 at Transco every day of the year.

7  
8 This potential is clear and shown in ETNG's  
9 segmentation report to FERC in December 2006.  
10 See:

- 11  
12 • Brown Direct Exhibit 55; FERC Docket  
13 RP00-469-011, Updated Segmentation  
14 Report For The Year Ending August 31,  
15 2006 (Dec. 4, 2006) at 1.

16  
17 The report's information on meter 59014 shows  
18 that its daily average use from September 1,  
19 2005 through August 31, 2006 was approximately  
20 4,200 dekatherms, about one-fourth of the  
21 19,500 dekatherms that can be directed to meter  
22 59014 every day via CGC's contracts 410199,  
23 410203, and 410204 with ETNG. See:

- 24  
25 • Brown Direct Exhibit 55; FERC Docket  
26 RP00-469-011, Updated Segmentation  
27 Report For The Year Ending August 31,  
28 2006 (Dec. 4, 2006) at Exhibit  
29 (1)(a)(ii)(b).

30  
31 For the Final Order in that FERC Docket see:

- 32  
33 • Brown Direct Exhibit 56; Order On  
34 Segmentation Report And Pro Forma

Compliance Filing, 118 FERC ¶ 61,239  
(March 23, 2007).

There is enough capacity at meter 59014 to meet CGC's needs and to reroute substantial amounts of gas to Transco.

To the extent that year-round capacity acquired for ratepayers can be used to send gas to the Transco markets, there is an incentive to maintain excess capacity.

The attractiveness of the Transco markets is having a pervasive effect on having an impact on the providers of regulated-gas-service in Tennessee.

For example, in early 2006 Piedmont Natural Gas executed a contract with ETNG to supply Transco with 25,000 dekatherms of energy. Atmos Energy Corporation (AEC) has recently executed a contract with ETNG where AEC itself is shipping 4,000 dekatherms to Transco.

**Q\_30. How much energy is being shipped through ETNG's system to the Transco markets?**

**A\_30.** Brown Direct Exhibit 36 shows over 32% of the energy shipped through ETNG, 57 million DTH, were delivered to the Transco delivery point in 2007. Most of these shipments are priced under ETNG's FT-APT tariff. A small fraction shipped to North Carolina via the FT-A tariff. See:

- Brown Direct Exhibit 57; East Tennessee Natural Gas, Annual FERC Form 2 Reports.

Brown Direct Exhibit 57 is compiled from ETNG's annual reports to FERC. The first section displays volumes in dekatherms delivered by tariff, the second section displays revenues by tariff, and third section displays ETNG's revenues per dekatherm by tariff.

For example, the third section shows that in 2007 energy shipped via the FT-APT tariff cost \$.659 per dekatherm while energy shipped via the FT-A tariff, applied to most shippers in Tennessee and Virginia, cost \$.433 per dekatherm. Despite the 50 percent premium in cost, sales to the Transco markets are booming.

**Q\_31. Does ETNG know where the deliveries to Transco originate on ETNG's pipeline?**

**A\_31.** Yes. As I mentioned earlier in this testimony, ETNG's Manager of Capacity Planning and Scheduling, George Snyder, testified about an ultimate delivery point. See:

- Brown Direct Exhibit 24; FERC Docket RP00-469-007, Testimony of George Snyder (Dec. 15, 2003) at 3.

1 **Q\_32. Is the redirection of energy from meter 59014**  
2 **to Transco via an OBA consistent with FERC's**  
3 **policy?**

4  
5 **A\_32.** Yes. In FERC order 637 the agency  
6 established a policy known as "Flexible  
7 Point Rights," which meant that a  
8 particular point's function may change.  
9 See:

- 11 • Brown Direct Exhibit 10; at 130.

12  
13 As long as firm shippers have capacity rights,  
14 the shippers can change a point's use as  
15 needed.

16  
17 **Q\_33. Does the gas have to actually flow from meter**  
18 **59014 to Saltville or Transco to achieve the**  
19 **intended effect?**

20  
21 **A\_33.** No. On August 15, 2000 ETNG's Director of  
22 Marketing, William E. Wickman, testified in  
23 FERC Docket RP-00-469-000 that the effect can  
24 be achieved via displacement. See:

- 26 • Brown Direct Exhibit 46; FERC Docket  
27 RP00-469-000, East Tennessee Natural  
28 Gas Company Order No. 637 Compliance  
29 Filing, Testimony of William Wickman  
30 (Aug. 15, 2000) at 9.

31  
32 **Q\_34. How is displacement related to meter 59014**  
33 **being in a CGC's contract?**

34  
35 **A\_34.** Via CGC's contract 410204 with ETNG, meter  
36 59014 is linked to a receipt point in Virginia,

1 DICKENSON CO RECEIVING in the amount of 4,899  
2 dekatherms. SEM, as CGC' asset manager, has  
3 access to CGC's receipt capacity at DICKENSON  
4 CO RECEIVING receipt point. This facility is in  
5 Virginia, close to Saltville Storage, in Smyth  
6 County, Virginia.

7  
8 Energy is placed into the Saltville Storage  
9 Field via injection into the field. This occurs  
10 either via over-scheduling, where a shipper  
11 schedules an amount of gas for a delivery point  
12 but the scheduled amount is more than what is  
13 actually used. The excess is taken at a point  
14 where the pipeline has agreed to take the gas  
15 not used such as ETNG's "park and loan"  
16 arrangements. Another method is to schedule the  
17 injections directly into the field rather than  
18 using the field to take an excess. The relative  
19 locations of Dickenson, Saltville, and Transco  
20 are displayed. See:

- 21
- 22 • Brown Direct Exhibit 58; East Tennessee  
23 System Map, FERC Form 2 (June 22, 2003).
  - 24
  - 25 • Brown Direct Exhibit 59; East Tennessee  
26 Natural Gas, LINK System Informational  
27 Postings, (Feb. 22, 2009)  
28 <http://infopost.spectraenergy.com/regulatory/tariff/sheet.asp?map=yes&pipe=ET>.  
29  
30

1 In Brown Direct Exhibit 59 "Rural Retreat"  
2 is shown in the upper left corner. The  
3 purple line just to the right of "Rural  
4 Retreat" represents the Patriot connection  
5 to the Transco pipeline. Thus Dickenson  
6 and Saltville are in close proximity to  
7 the Transco pipeline, as shown.  
8  
9  
10

11 Receipt volumes at Dickenson have grown by  
12 approximately 50%, in comparison to the  
13 major ones in Tennessee, as shown Exhibit  
14 44. See:  
15

- 16 • Brown Direct Exhibit 60; East  
17 Tennessee Natural Gas, LINK System  
18 Informational Postings, (Feb. 22,  
19 2009)  
20 [http://link.spectraenergy.com//pipecap](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP)  
21 [/CapacityMain.asp?bu=et&mapType=OCP](http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP).  
22

23 **Q\_35. Was SEM engaged in marketing efforts at the**  
24 **time meter 59014 was placed into CGC's contract**  
25 **portfolio?**  
26

27 **A\_35. Yes. See:**  
28

- 29 • Brown Direct Exhibit 61; FERC Docket PL03-  
30 3, Comments of Intelligence Press (March  
31 26, 2004) at 23.  
32

33 For the Final Order in that FERC Docket see:  
34

- Brown Direct Exhibit 62; 109 FERC ¶ 61, 184, Order Regarding Future Monitoring Of Voluntary Price Formation, Use Of Price Indices In Jurisdictional Tariffs, And Closing Certain Tariff Dockets, (Nov. 19, 2004).

Regarding the Hearing Officer's issue 8

- "Have CGC's sales and purchases of natural gas been prudent and should safeguards be put in place to ensure least cost purchasing of natural gas? If so, what should these safeguards be?"

My answer is "probably not" because of several factors, including:

- The appearance of coordinated planning between CGC and SEM.
- The mixing of CGC and SEM delivery points and delivery points.
- CGC's contradictory position on Saltville Storage.
- SEM's lack of storage on TGP while SEM uses ETNG to deliver firm gas supply to Transco.
- The substantial underuse of firm pipeline capacity by CGC's firm customers.



- The lack of changes in CGC's storage portfolio while its transportation portfolio has changed substantially.

- CGC's complete reliance on a "Design Day" to guide and justify its gas supply planning.

One solution to these problems is CGC's submission to the TRA of an annual or triennial review of CGC's asset mix. Potential problems such as those reviewed in my testimony could be addressed regularly and more quickly.

*It Is Not Clear If CGC's Remuneration From SEM Includes Or Excludes SEM's Sales To Transco.*

**Q\_36. How much money has SEM directed to CGC's ratepayers?**

**A\_36.** CAPD raised that issue in CAPD discovery request 23. See:

- Brown Direct Exhibit 63; TRA Docket 07-00224, Reply To CAPD Discovery Request 87 (April 11, 2008) Question 23.

1 For the period January 1, 2004 through March  
2 31, 2007 SEM directed a total of approximately  
3 \$8 million to CGC's ratepayers.  
4

5 **Q\_37. What was the value of SEM's transactions which**  
6 **relied on CGC's assets?**  
7

8 **A\_37. See:**  
9

- 10 • Brown Direct Exhibit 64; TRA Docket 07-  
11 00224, Reply To CAPD Discovery Request 83  
12 (April 11, 2008) Question 30.  
13

14 For the period January 1, 2004 through March  
15 31, 2007 SEM's transactions had a value of \$708  
16 million, about 100 times larger than the  
17 revenues credited to CGC's ratepayers.  
18

19 However, the wording of CGC's reply may suggest  
20 that "Sales Volume Dth" may include the  
21 throughput volumes displayed in Brown Direct  
22 Exhibit 8, which are CGC's overall sales. If  
23 this were the case, then the ratio of 100,  
24 which I noted above, would decline to 50.  
25

26 **Q\_38. Did CAPD ask SEM for any profit information**  
27 **regarding its contracts with ETNG?**  
28

29 **A\_38. Yes. CAPD raised that issue in CAPD discovery.**  
30 **See:**  
31

- 32 • Brown Direct Exhibit 65; TRA Docket 07-  
33 00224, Reply To CAPD Discovery Request 87  
34 (April 11, 2008) Question 89.  
35

I have compiled a summary schematic of the several contract conditions I have discussed regarding CGC, AGL and SEM, showing the interplay between meter 59014, various receipt points in CGC's contracts and SEM's emergence as major shipper on ETNG. See:

- Brown Direct Exhibit 66; East Tennessee Natural Gas, Quarterly Index Of Customers, FERC e forms Form 549b Data (Feb. 22, 2009) [www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub](http://www.ferc.gov/docs-filing/eforms/form-549b/data.aps#skipnavsub).

The dates of the quarters reported are represented as YYYYMM, or 200301 meaning as of January 1, 2003, for example, and are displayed across the top line. Below the top line there are numbers displaying dekatherms in each contract. The information on the left displays the pipeline's information about each point including the point's data reference number, the meter number, the contract number, the points' name and the point's type. Contract 4235 is the only one that was held by Atlanta Gas Light. All others are CGC's.

Statement of Credentials and Experience
-----------------------------------------

**Q\_39. What experience do you have regarding utilities?**

**A\_39.** In 1995 I began work as an economist in the Consumer Advocate and Protection Division (CAPD) of the Attorney General's

1 Office. I have also appeared as a witness  
2 for CAPD in several cases before the  
3 Tennessee Regulatory Authority (TRA). From  
4 1986 to 1995 I was employed by the Iowa  
5 Utilities Board as Chief of the Bureau of  
6 Energy Efficiency, Auditing and Research,  
7 and Utility Specialist and State Liaison  
8 Officer to the U.S. Nuclear Regulatory  
9 Commission. From 1984 to 1986 I worked for  
10 Houston Lighting & Power as Supervisor of  
11 Rate Design. From 1982 to 1984 I worked  
12 for Arizona Electric Power Cooperative as  
13 a Rate Analyst. From 1979 to 1982 I worked  
14 for Tri-State Generation and Transmission  
15 Association as Power Requirements  
16 Supervisor and Rate Specialist. Since 1979  
17 my work spanned many issues including cost  
18 of service studies, rate design issues,  
19 telecommunications issues and matters  
20 related to the disposal of nuclear waste.  
21 See Brown Direct Exhibit 67 for additional  
22 professional experience and background.  
23

24 **Q\_40. What is your educational background?**

25  
26 **A\_40.** I have an M.S. in Regulatory Economics  
27 from the University of Wyoming, an M.A.  
28 and Ph.D. in International Relations with  
29 a specialty in International Economics  
30 from the University of Denver, and a B.A.  
31 from Colorado State University. See Brown  
32 Direct Exhibit 67 for additional  
33 educational background.  
34  
35

1 Q\_41. Dr. Brown, have you authored any articles  
2 relating to your profession?  
3

4 A\_41. Yes, my articles have appeared in Public  
5 Utilities Fortnightly. See Brown Direct  
6 Exhibit 67 for additional information on  
7 publications.  
8  
9

10 Q\_42. Are you and have you been a member of any  
11 professional organizations?  
12

13 A\_42. Yes, I am a past member of the NARUC Staff  
14 Committee on Management Analysis, a past  
15 trustee of and a member of the Board for  
16 the Automatic Meter Reading Association,  
17 and a current member of the National  
18 Association of Business Economics. See  
19 Brown Direct Exhibit 67 for additional  
20 information of professional memberships.  
21  
22

23 Q\_43. Have you studied mathematics and  
24 statistics as part of your education?  
25

26 A\_43. Yes. This concludes my testimony.