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

****

REBUTTAL 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

DOCKET NO. 07-00224

AFFIDAVIT

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

Steve Brown

STEVE BROWN

Sworn to and subscribed before me this 27th day of Feb., 2009.

Emily Knight

NOTARY PUBLIC

EMILY KNIGHT
STATE OF TENNESSEE NOTARY PUBLIC
DAVIDSON COUNTY, TENN.
My Commission Expires AUG. 23, 2011

My commission expires: Aug. 23, 2011

I. Rebuttal Testimony Summary.

Q_1. Please state your name.

A_1. Dr. Stephen Brown.

Q_2. What is the purpose of your testimony?

A_2. My testimony rebuts the testimony of Mr. Sherwood, the Managing Director of Capacity Planning for AGL Services Company. He testified in July 2008 on behalf of Chattanooga Gas Company (CGC). AGL Services Company and CGC are subsidiaries of the parent holding company, AGL Resources (AGLR). CGC's asset manager, Sequent, is a subsidiary of AGLR (AGLR). My rebuttal testimony relies on many of AGLR's SEC 8-K filings filed with the Securities and Exchange Commission from 2004 through 2007. These filings are often composed of slide-shows given by AGLR management to investors. In my work papers I provide a list of these filings and where they can be found. When I use one of those slides in rebuttal, I describe it as an "image" and tell the reader the date of the filing, which is a public record available at the SEC's web site. Taken as a whole, the 8-K filings prove that AGLR and CGC have a vested interest in capacity planning which results in and preserves CGC's idle capacity.

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

Brown Rebuttal Exhibit 1
Brown Rebuttal Exhibit 2
Brown Rebuttal Exhibit 3
Brown Rebuttal Exhibit 4
Brown Rebuttal Exhibit 5
Brown Rebuttal Exhibit 6
Brown Rebuttal Exhibit 7
Brown Rebuttal Exhibit 8
Brown Rebuttal Exhibit 9
Brown Rebuttal Exhibit 10
Brown Rebuttal Exhibit 11
Brown Rebuttal Exhibit 12
Brown Rebuttal Exhibit 13
Brown Rebuttal Exhibit 14
Brown Rebuttal Exhibit 15
Brown Rebuttal Exhibit 16
Brown Rebuttal Exhibit 17
Brown Rebuttal Exhibit 18
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Brown Rebuttal Exhibit 34
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Brown Rebuttal Exhibit 74
Brown Rebuttal Exhibit 75
Brown Rebuttal Exhibit 76
Brown Rebuttal Exhibit 77
Brown Rebuttal Exhibit 78
Brown Rebuttal Exhibit 79
Brown Rebuttal Exhibit 80

There is an asset-management agreement between CGC and Sequent. Per CGC's reply Of April 11, 2008 to CAPD discovery request 68, "Sequent may only act at the direction of CGC." See:

Brown Rebuttal Exhibit 1; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 68.

However, my rebuttal testimony shows CGC's capacity planning serving the broad interests of AGLR which sees its subsidiaries' excess capacity as a platform for Sequent's earnings-contributions to AGLR. AGLR's company-wide policy is to have Sequent "capture the value from idle or underutilized transportation and storage assets for both affiliates and non-affiliates," as confirmed in Brown Rebuttal Exhibits 2 and 3. See:

Brown Rebuttal Exhibit 2; AGL Resources SEC 8-K (Dec. 1, 2005), Exhibit 99.1, Calyon Securities Utility & Energy Merchant Conference Presentation, Slide 10 of 18.

Brown Rebuttal Exhibit 3; AGL Resources SEC 8-K (Dec. 1, 2005), Exhibit 99.1, Calyon Securities Utility & Energy Merchant Conference Presentation, Slide 12 of 18.

For all slides of Exhibit 99.1 see:

- Brown Rebuttal Exhibit 4, AGL Resources SEC 8-K (Dec. 1, 2005), Exhibit 99.1, Calyon Securities Utility & Energy Merchant Conference Presentation.

Brown Rebuttal Exhibits 2 and 3 show that AGLR's "Long Term Value" is tied to the excess capacity of its subsidiaries. Brown Rebuttal Exhibit 2 is the opening slide for AGLR's CFO's presentation in December 2005.

Brown Rebuttal Exhibit 3 is from the same presentation and describes Sequent's purpose as it related to the idle capacity of AGLR's utility subsidiaries. I have placed an arrow indicating AGLR's language that Sequent's task is to "capture the value from idle or underutilized transportation and storage assets for both affiliates and non-affiliates."

Also see:

- Brown Rebuttal Exhibit 5; AGL Resources SEC 8-K (Nov. 14, 2005), Exhibit 99.4 AGL Resources 2005 Analyst/Investor Conference, Slide 13 of 23, where Sequent's "Asset Management Portfolio" and utility subsidiaries' transportation contracts are treated as Sequent's "Transport Holdings."

For all slides of Exhibit 99.4 see:

- Brown Rebuttal Exhibit 6, AGL Resources SEC 8-K (Nov. 14, 2005), Exhibit 99.4 AGL Resources 2005 Analyst/Investor Conference.

Therefore, Mr. Sherwood's testimony, regarding CAPD's conclusions on the issues set by the Hearing Officer, is properly viewed as an effort to sustain CGC's excess capacity in accordance with AGLR's "Long-Term Value Proposition."

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For example, Mr. Sherwood testified:

> *"The load forecasting, pipeline transportation capacity, storage service levels, peaking capability requirements, daily supply resource management, system monitoring, and asset manager compliance are functions that are all performed by AGL Service Company employees, who exclusively work for the AGL Resources' LDCs, including CGC…The capacity planning objective of CGC is to be able to meeting the gas supply needs of its firm service customers under the coldest weather conditions that can reasonably be expected to occur in the service territory utilizing either pipeline services that are contracted for on a firm basis or using resources under the operational control of the utility."* TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) at 2-3.

However, employees working exclusively for CGC are not uninfluenced by Sequent. AGLR's Annual Incentive Plan provides bonuses to employees and is built on earnings per share of AGLR, which includes the wholesale unit's (Sequent's) performance and the performance of the particular operating unit where the employee is assigned. See:

- Brown Rebuttal Exhibit 7; AGL Resources SEC 8-K (Aug.6, 2007), Exhibit 10.1, AGL Resources Inc. Annual Incentive Plan – 2007, Page 3.

- Brown Rebuttal Exhibit 8; AGL Resources SEC 8-K (Aug.6, 2007), Exhibit 10.1, AGL Resources Inc. Annual Incentive Plan – 2007, Page 4.

- Brown Rebuttal Exhibit 9; AGL Resources SEC 8-K (Aug.6, 2007), Exhibit 10.1, AGL Resources Inc. Annual Incentive Plan – 2007, Page 9.

For all pages of Exhibit 10.1 see:

- Brown Rebuttal Exhibit 10; AGL Resources SEC 8-K (Nov. 14, 2005), Exhibit 99.4 AGL Resources 2005 Analyst/Investor Conference.

The "wholesale business unit" is Sequent. AGLR's SEC 8-K of February 1, 2007 says that Sequent contributed "$90 million" in earnings in 2006. See:

- Brown Rebuttal Exhibit 11; AGL Resources SEC 8-K (Feb. 1, 2007), 2006 Business Results.

Thus Mr. Sherwood and others who do the gas supply planning for AGLR's utility subsidiaries have a direct pay-incentive to help Sequent. Mr. Sherwood says:

> *"When CGC introduced asset management the 50/50 sharing concept remained, but with CGC's affiliate asset manager, Sequent, retaining the company's portion. Given the success that asset management had at enhancing value, CGC came to the conclusion that continuing with this capacity optimization method was in the best interest of its customers."* TRA Docket 07-00224, Sherwood Direct (July 30, 2008) at 16.

To the extent self-interest guides CGC's supply planning and preserves CGC's excess capacity for Sequent, Mr. Sherwood's conclusion that the CGC/Sequent relationship is "in the best interests of customers" is mistaken in the sense he gives no weight to the influence of AGLR's "Long-Term Value Proposition."

AGLR publicly articulated its policy in December 2005, two years after the East Tennessee Natural Gas Pipeline (ETNG) completed its massive Patriot project. Patriot ultimately connects gas markets in middle and east Tennessee to East Coast gas markets. I discussed Patriot in much of my testimony, but Mr. Sherwood says little about Patriot and how it has affected AGLR's valuation of CGC's contracts with ETNG.

CGC has implemented its part of the "Long-Term Value Proposition" by using its ETNG's capacity less and less since 2003. Conversely, CGC uses the Southern Natural Gas Pipeline (SONAT) more now than in the past. There is no evidence that CGC's shift from ETNG to SONAT is cost-based. For example, as I show later SONAT's reservation charge for city-gate delivery to CGC is $10.94 per dekatherm but ETNG's is $6.73. The commodity cost of gas on SONAT is slightly higher than the commodity cost of gas on ETNG, according to data filed by CGC in TRA Docket 05-00322.

There has been a clear change in CGC's "daily supply resource management," a function Mr. Sherwood describes as being performed by "AGL Service Company employees, who exclusively work for…LDCs, including CGC."

CGC's reduced use of ETNG is consistent with CGC giving up capacity at ETNG's Ridgetop receipt point (which I discuss in my direct testimony) in the sense that both actions resulted in CGC having a reduced presence on ETNG thus allowing Sequent's presence to grow. In my opinion CGC's current approach to capacity planning has two purposes, to enhance Sequent's access to ETNG and to meet load requirements in Chattanooga.

Although Mr. Sherwood says little about Patriot's affect on CGC, AGLR itself has acknowledged ETNG's Patriot expansion as beneficial for CGC. See:

- Brown Rebuttal Exhibit 12; AGL Resources SEC 8-K (Nov. 12, 2004), Exhibit 99.6, Marketing Our Products, AGL Resources' Analyst Conference, Slide 24 of 26.

For all slides of Exhibit 99.6 see:

- Brown Rebuttal Exhibit 13; AGL Resources SEC 8-K ((Nov. 12, 2004), Exhibit 99.6, Marketing Our Products, AGL Resources' Analyst Conference.

The in-service date of the Patriot project, November 1, 2003, is a threshold that divides CGC's use of ETNG into two distinctly different patterns. In my opinion CGC's ratepayers have not received fair compensation for "Chattanooga Successes." Mr. Sherwood testified:

> *"Through past asset management agreements, CGC has been very successful in returning very favorable gains to its customers. Over the past thirty-nine months, CGC's customers have received approximately $7.9 million for the non-jurisdictional sale of gas supply assets that otherwise would have been sitting idle. These are very favorable results considering the small size of CGC with approximately 62,000 firm customers.."* TRA Docket 07-00224, Sherwood Direct (July 30, 2008) at 17.

Mr. Sherwood explains value in terms of CGC's having a small number of customers. He is silent on the market value that would have been placed on the strategic nature of CGC's ETNG contracts as avenues to east coast gas markets. According to CGC's replies on April 11 2008 to CAPD discovery request 23 and 30, CGC's ratepayers received compensation of $7.9 million on sales of $709 million for the period of January 1, 2004 through March 31, 2007, a value ratio of 1 percent.

AGLR's policy of capturing "the value from idle or underutilized transportation and storage assets" appears to have placed CGC in the position of overestimating the growth of CGC's peak. For example, in January 2005 CGC's firm customers had peak of 86,026 dekatherms but at the same time city gate capacity was 143,917 dekatherms. Thus firm customers used only 60 percent of capacity. Despite this low ratio, CGC continues to raise its estimate of the peak load.

For example, in TRA Docket 06-00175 CGC design for a peak load was 124,774 dekatherms. Mr. Sherwood's table TSS-2 shows a design peak load of 129,761 dekatherms in 2009, a growth of 5,000 dekatherms in just two years.

The projected growth of CGC's design peak in Mr. Sherwood's testimony contrasts with the stipulation in the Georgia Public Service Commission docket 24960-U. See:

- Brown Rebuttal Exhibit 14; Georgia Public Service Commission, Order Granting Joint Request For An Amended Final Order (Nov. 6, 2007), Joint Request Of Public Interest Advocacy Staff And Atlanta Gas

Light Company For Amended Final Order (Oct. 5 2007), and AGLC's Capacity Supply Plan Stipulated Parties' Acceptance of Amended Stipulation (Sept. 28, 2007) at Exhibit A, Page 2 of 2.

II. Mr. Sherwood's Approach To CGC's Capacity Planning Is A Pre-Patriot Approach, Emphasizing Weather And Ignoring The Affect Of ETNG's Strategic Pipeline Expansion.

Q_3. Where in your direct testimony do you give your opinions on CGC's Storage and Transportation Capacity?

A_3. See TRA Docket 07-00224, Brown Direct (May 30, 2008) at 2 – 20. Two of my main points are:

> *"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."*
>
> *"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."*

Q_4. What is Mr. Sherwood's opinion regarding your testimony on this issue?

A_4. Mr. Sherwood's opinion is that only the weather matters and that it is wrong to evaluate gas supply planning in terms of annual or seasonal usage. Mr. Sherwood stated:

> *"Capacity is a measure of daily take rights and is associated with the amount of gas that must be available to meet the daily needs of the system. Therefore annual usage, which is the sum of usage over the entire year, is not the appropriate way to determine how much gas is needed on the maximum day. CGC acquires firm capacity to meet the needs of customers with firm supply rights for the coldest day that may reasonably occur in the service territory, not the average temperatures that happened to have occurred over the past few years."* TRA Docket 07-00224, Sherwood Direct (July 30, 2008) at 8, 20.

Q_5. **How is Mr. Sherwood's capacity planning a "Pre-Patriot" approach?**

A_5. Mr. Sherwood's planning is a "Pre-Patriot" approach because he recognizes only weather, "the coldest day." He does not acknowledge the changed economics of ETNG's system as a force in CGC's transportation and storage planning. I have based a portion of my opinion on the testimony of William Wickman, ETNG's Director Of Marketing. See:

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

For the Final Order in that FERC Docket see:

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

The timing of Sequent's success story is a "Pre-Patriot" and "Post-Patriot" story. See:

- Brown Rebuttal Exhibit 15; AGL Resources SEC 8-K (Dec. 1, 2005), Exhibit 99.1, UBS Conference Presentation, 2005 CEO Energy/Power Conference, Slide 11 of 19.

For all slides of Exhibit 99.1 see:

- Brown Rebuttal Exhibit 16; AGL Resources SEC 8-K (Dec. 1, 2005), Exhibit 99.1, UBS Conference Presentation, 2005 CEO Energy/Power Conference.

Sequent's "Sales Volume/Day," shown in the second line of Brown Rebuttal Exhibit 15 improved substantially.

Any Sequent gas crossing ETNG had to use CGC's assets to bring gas to ETNG in the first place because, according to FERC's "Index of Customers" (which I described in my direct testimony) Sequent had no firm transportation and no firm storage contracts in its name on SONAT, Texas Eastern Transmission, Tennessee Gas Pipeline, and Columbia Gulf Transmission Company where the delivery point was on ETNG, the major upstream pipelines identified by Mr. Wickman as "feeding ETNG."

III. AGLR Relies On Its Subsidiaries' Excess Capacity To Make Sequent Successful.

Q_6. In your opinion, how did Sequent achieve its success?

There are probably many ways in which Sequent has achieved its results. For the purpose of the Hearing Officer's Issue 5, which I am discussing here, the important fact is that AGLR recognized its utility subsidiaries had idle capacity not only in the few days of the peak but throughout the year. See:

- Brown Rebuttal Exhibit 17; AGL Resources SEC 8-K (Nov. 12, 2004), Exhibit 99.3, Analyst Conference, Reconfiguring Assets Slide 11 of 35.

- Brown Rebuttal Exhibit 18; AGL Resources SEC 8-K (Nov. 12, 2004), Exhibit 99.3, Analyst Conference, Reconfiguring Assets Slide 14 of 35.

For all slides of Exhibit 99.3 see:

- Brown Rebuttal Exhibit 19; AGL Resources SEC 8-K (Nov. 12, 2004), Exhibit 99.3, Analyst Conference, Reconfiguring Assets.

Brown Rebuttal Exhibit 18 is AGLR's display of the excess capacity conditions at its utility subsidiaries. The red dots indicate annual load factors, a measure of how much capacity is used throughout the year. The general formula for an annual load factor is: (total annual throughput) divided by (total capacity multiplied by 365).

A load factor ranges between the extremes of 100 percent, meaning capacity is used constantly, to zero percent, meaning the capacity is never used. The dots (red or dark) indicate a load factor of 22 percent for CGC, 22 percent for Virginia Natural Gas (VNG) and about 17 percent for AGLC. The height of the bars (blue or dark) indicates annual throughput. For example, AGLC's throughput was expected to be about 150 million dekatherms, or 17 percent of maximum potential use.

Three months after its November 2004 presentation to investors, AGLR continued to speak publicly of the excess capacity conditions at its subsidiaries. See:

- Brown Rebuttal Exhibit 20; AGL Resources SEC 8-K (Feb. 15, 2005), Exhibit 99.1, UBS Conference Presentation, Natural Gas and Electric Utilities Conference, Slide 1 of 16.

- Brown Rebuttal Exhibit 21; AGL Resources SEC 8-K (Feb. 15, 2005), Exhibit 99.1, UBS Conference Presentation, Natural Gas and Electric Utilities Conference, Slide 4 of 16.

- Brown Rebuttal Exhibit 22; AGL Resources SEC 8-K (Feb. 15, 2005), Exhibit 99.1, UBS Conference Presentation, Natural Gas and Electric Utilities Conference, Slide 5 of 16.

For all slides of Exhibit 99.3 see:

- Brown Rebuttal Exhibit 23; AGL Resources SEC 8-K (Feb. 15, 2005), Exhibit 99.1.

IV. CGC's Annual Use Of ETNG Matters: Historical Data Shows Less Energy Delivered To CGC Via ETNG After The Strategic Pipeline Expansion.

Q_7. Did Mr. Sherwood indicate in his testimony that a review of historical data is important to capacity planning?

A_7. Yes, he did. Mr. Sherwood testified that:

> *"Each month the historical loads and weather are reviewed and CGC indicates to the asset manager how much gas is to be delivered on a base load basis. Similarly, each day a next day forecast is developed for the system and a decision as to the level of swing gas to be delivered is communicated to the asset manager. Typically, CGC targets to purchase of its pipeline transportation supply on a base load basis in order to price certainty with operation flexibility."* TRA Docket 07-00224, Sherwood Direct (July 30, 2008) at 4.

Q_8. Is Mr. Sherwood's opinion about the importance of historical data consistent with his opinion that "annual usage…is not the appropriate way" to determine how much gas is needed?

A_8. No, his opinions are not consistent. If he had reviewed historical data he might agree that annual usage matters. To the extent CGC does not use capacity, that capacity is available to the asset manager, Sequent.

Without annual information there would be no disclosure of the changes in the Pre and Post Patriot use of ETNG, or "the daily supply resource management" to use his phrase. Since October 2003 the amount of energy scheduled to CGC's connecting points with ETNG has declined on a moving 12-month basis. See:

- Brown Rebuttal Exhibit 24; East Tennessee Natural Gas, LINK System Informational Postings, (Feb. 22, 2009) http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP.

Q_9. **What is the source of the information in Brown Rebuttal Exhibit 24?**

A_9. The source is ETNG's web site, which I described as a data source in my direct testimony.

Q_10. **In your opinion is the data accurate?**

A_10. My answer is a qualified "yes." The data has to be treated cautiously because CGC's scheduled and actual deliveries from ETNG are not necessarily the same.

On an annual basis ETNG's system wide scheduled deliveries substantially match system wide actual deliveries. See:

- Brown Rebuttal Exhibit 25; East Tennessee Natural Gas, Annual FERC Form 2, http://www.ferc.gov.

Each year ETNG submits a Form 2 to FERC showing how much energy ETNG delivered. For example, in 2004 ETNG's Form 2 shows actual deliveries of 125,315,970 dekatherms. For the same year ETNG's web site shows scheduled deliveries of 125,081,950 dekatherms.

However, ETNG's data is system wide across Georgia, North Carolina, Tennessee and Virginia. Even though system wide scheduled deliveries match system wide actual deliveries, that does not mean that scheduled usage and actual usage match at any particular point, such as CGC's points.

V. Scheduled Deliveries And Actual Deliveries Are Reconciled Through The Balancing Process.

Natural gas customers who have contracts with pipelines have a day-to-day task of matching scheduled deliveries from the pipeline with the actual usage. On a day-to-day basis scheduled and actual usage rarely match. The general procedure to achieve balance is this: If on one day a company uses more gas than scheduled, then in a subsequent day it will schedule less gas than it expects to use so that scheduled and actual deliveries to stay in balance. The balancing process is clearly described by El Paso Electric Power Company in FERC Docket RP07-511-000. See:

- Brown Rebuttal Exhibit 26; FERC Docket RP07-511-000, El Paso Electric Company's Initial Comments on Techmical Conference (Oct. 22, 2007) at 3.

For instance, El Paso Electric Power Company uses natural gas as fuel in its power plants. The power company is a customer of the El Paso Natural Gas Pipeline. Thus the power company is in the same position with respect to its pipeline as CGC is to its pipelines.

El Paso Electric provided a color chart to illustrate its own balancing behavior at a single delivery point from January 1, 2006 to June 1, 2007. See:

- Brown Rebuttal Exhibit 27; FERC Docket RP07-511-000, El Paso Electric Company's Initial Comments on Technical Conference (Oct. 22, 2007) at Attachment B.

The company plotted scheduled deliveries, actual deliveries and the difference between them as an "Imbalance" for a single delivery point. The imbalance is centered on "zero." I have a placed an arrow in the chart to indicate the electric company's "hunt zero" behavior to balance actual and scheduled deliveries. The imbalance line is sometimes above zero and sometimes below zero. If the line were always above zero or always below zero, then there is no effort being made to balance scheduled and actual deliveries at that particular point on the pipeline.

Later I will contrast this imbalance behavior with what is known about CGC's balancing behavior with regard to ETNG. This behavior, which is a part of what Mr. Sherwood has called "daily supply resource management" is most likely assisting Sequent's delivery of energy to Saltville, Virginia. CGC's balancing behavior, to the extent it is governed by AGLR's "Long Term Value Proposition," lacks the flexibility needed to "hunt zero," just as CGC's design day is constrained to create "value" that is captured by Sequent.

VI. CGC's Replies And ETNG's Filings With FERC Confirm A Match Between CGC's Scheduled and Actual Deliveries For The Twelve Month Periods Ending October 2003 And October 2005.

Q_11. Does the table in Brown Rebuttal Exhibit 24 indicate any information about CGC's actual use of ETNG?

A_11. No. Other information is required to verify that the scheduled deliveries matched actual deliveries.

Q_12. Do you have information that allows you to match CGC's scheduled deliveries and actual deliveries over any time period?

A_12. Yes. I have confirmed that the data for the 12-month period ending October 2003 and the data for 12-month period ending October 2005 are accurate. The data says that CGC did balance its actual and scheduled deliveries for those two 12-month periods as a whole. See:

- Brown Rebuttal Exhibit 27; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 79.

- Brown Rebuttal Exhibit 28; FERC Docket RP04-234-000, East Tennessee Natural Gas 2002-2003 Cash Report And Refund Plan (March 29, 2004), at 1.

- Brown Rebuttal Exhibit 29; FERC Docket RP04-234-000, EEast Tennessee Natural Gas 2002-2003 Cash Report And Refund Plan (March 29, 2004), at Appendix C Schedule 1.

For ETNG's entire filing in that FERC Docket see:

- Brown Rebuttal Exhibit 30; FERC Docket RP04-234-000, East Tennessee Natural Gas 2002-2003 Cash Report And Refund Plan (March 29, 2004).

For the Final Order in that FERC Docket see:

- Brown Rebuttal Exhibit 31; FERC Docket RP04-234-000, East Tennessee Natural Gas 2002-2003 Cash Report And Refund Plan (July 23, 2004).

Also see:

- Brown Rebuttal Exhibit 32; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 80.

- Brown Rebuttal Exhibit 33; FERC Docket RP06-280-001, East Tennessee Natural Gas 2004-2005 Cash Report And Refund Plan (April 3, 2006), at Appendix C Schedule 1.

For the Final Order in that FERC Docket see:

- Brown Rebuttal Exhibit 34; FERC Docket RP06-280-001, East Tennessee Natural Gas 2004-2005 Cash Report And Refund Plan (May 10, 2006).

CGC's reply to CAPD discovery request 79 says that $32,259 was credited to CGC's ratepayers in July 2004 for a "cashout" related to the 12 month period ending October 2003. ETNG's filing of March 24, 2004 with FERC shows ETNG's credit of $32,259 was based on a volume of 13,119.5 million dekatherms. This confirms that prior to Patriot's in-service date of November 1, 2003, CGC's ratepayers were given a credit based on a volume of 13,119 million dekatherms. CGC's reply to CAPD discovery request 80 says that $181,994 was credited to CGC's ratepayers in June 2006 for a "cashout" related to the 12 month period ending October 2005.

I have confirmed my earlier opinion that "there has been a clear change in CGC's 'daily supply resource management'" with regard to SONAT and ETNG in the Pre and Post Patriot times.

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VII. ETNG's Practice Of Balancing By "Balancing Parties" Allows The Parties To Ship Gas Between Themselves.

Q_13. In your opinion, how could ETNG's practice of balancing scheduled and actual deliveries through balancing parties affect the scheduling of CGC's deliveries?

A_13. In my opinion ETNG's practice of allowing parties to balance means that the "hunt zero" process which is described by El Paso Electric earlier in my testimony, does not have to occur on delivery point basis or on a regional basis. As long as two parties are within the same Balancing Agreement, they can be in different states and "hunt zero." Thus CGC could schedule more deliveries than it needs and the imbalance could be taken as a delivery at another point on ETNG's system. If that point were out of state, then it would mean that CGC's firm capacity in Tennessee was actually being used to make deliveries in Georgia, Virginia or North Carolina. See:

- Brown Rebuttal Exhibit 35; 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 Rebuttal Exhibit 36; Order On Segmentation Report, 115 FERC ¶ 61,046 (Apr. 13, 2006).

Q_14. Do you have CGC's actual usage from the ETNG pipeline?

A_14. Yes. See:

- Brown Rebuttal Exhibit 37; TRA Docket 07-00224, Supplemental Responses Of CGC (September 17, 2008), Attachment A.

The data spans 446 days from August 1, 2005 to July 31, 2008.

Q_15. Based on the data provided, does CGC have imbalances where scheduled deliveries exceed actual deliveries on ETNG?

A_15. Yes. Based on the data CGC has imbalances.

Q_16. Based on the data provided, does CGC have imbalances where scheduled deliveries are less than actual deliveries on ETNG?

A_16. No. ETNG's scheduled deliveries to CGC exceed the actual use, based the data CGC has provided for actual usage.

Q_17. **Based on the data provided, does CGC have to "hunt zero" with regard to its use of the ETNG pipeline?**

A_17. No. From August 1, 2005 to December 31, 2007 I compared CGC's ETNG supply total provided in Brown Rebuttal Exhibit 37, with CGC's scheduled deliveries from ETNG's web site:

- East Tennessee Natural Gas, LINK System Informational Postings, (Feb. 22, 2009) http://link.spectraenergy.com//pipecap/CapacityMain.asp?bu=et&mapType=OCP.

See:

- Brown Rebuttal Exhibit 38.

Brown Rebuttal Exhibit 38 has two parts. The right is from the data in Brown Rebuttal Exhibit from August 1 to August 31, 2005. The left side is from East Tennessee Natural Gas, LINK System Informational Postings. On the left side column (4) is calculated as column (3) less column (2). I have provided only one-month's data here to illustrate the comparison I made.

I performed the same analysis for all days provided by CGC, 361 days from August 1, 2005 to December 31, 2007. For all days I found that the scheduled deliveries exceeded the actual deliveries, sometimes by large amounts in winter months of November through March. See:

- Brown Rebuttal Exhibit 39..

  Brown Rebuttal Exhibit 39 is organized exactly as El Paso Electric's imbalance chart. See:

- Brown Rebuttal Exhibit 27.

Brown Rebuttal Exhibit 39 shows that CGC does not "hunt zero" because the imbalance line is nearly always above zero. See:

- Brown Rebuttal Exhibit 40.

Brown Rebuttal Exhibit 40 displays a comparison of the "hunt zero" line for the El Paso Electric Company on it pipeline delivery point and the "hunt zero" line of CGC. The difference between the two is that El Paso's "hunt zero" line often dips below zero, but CGC's does not. This means CGC schedules more energy than is actually used and that CGC is a part of a balancing group where some other party schedules less energy than is actually used. This is consistent with Brown Rebuttal Exhibit 35.

To give a geographic context to ETNG's description of its system, I have used Mr.

Sherwood's schedule TSS-4 and circled the Chattanooga area and Saltville area, as shown in his Direct.

- See:Brown Rebuttal Exhibit 41.

VIII. Energy Deliveries From SONAT have Replaced A Portion Of Energy Deliveries From ETNG.

Q_18. What has been done to replace the energy that used to be transported via ETNG to CGC's connection points with ETNG?

A_18. Energy deliveries from SONAT have increased, as displayed in the following table. I picked the 12-month periods ending 200312 and 200512 because they are near the 12-month periods ending 200310 and 200510 which have confirmed data as shown in Direct. See:

- Brown Rebuttal Exhibit 42.

Q_19. What is the source of the information in Brown Rebuttal Exhibit 42?

A_19. The source for column (2) is CGC's response on April 18 to CAPD discovery request 15, where CGC provided its annual throughput. Column (3) is data I compiled from ETNG's web site, which I described as a data source in my direct testimony. The remaining columns are calculations. Because CGC is served by only two pipelines, throughput not met in by ETNG supply in those time periods was met by SONAT supply, with the small exception of supply provided by CGC's LNG plant.

Q_20. **In your opinion, what caused the change?**

A_20. In my opinion CGC used ETNG less to enhance Sequent's access to ETNG, after it placed the Patriot Project into service.

Q_21. **In your opinion, would the shift from ETNG to SONAT as a supply source be caused by SONAT having cheaper sources of gas than ETNG?**

No. Gas delivered to CGC via ETNG is probably cheaper than gas delivered to CGC via SONAT. TRA docket 05-00322 established that the commodity cost of gas delivered via SONAT was a bit more costly than the commodity cost of gas delivered via ETNG. The TRA staff asked CGC several questions. See:

- Brown Rebuttal Exhibit 43; TRA Docket 05-00322, Chattanooga Gas Company Annual Incentive Plan Filing For 12 months ended June 30, 2005, Staff Data Request 1, (Mar. 7, 2006).

CGC's reply was lengthy so I provide only two responses. See:

- Brown Rebuttal Exhibit 44; TRA Docket 05-00322, Chattanooga Gas Company Annual Incentive Plan Filing For 12 months Ended June 30, 2005, CGC Reply To Staff Data Request 1, (March 27, 2006).

- Brown Rebuttal Exhibit 45; TRA Docket 05-00322, Chattanooga Gas Company Annual Incentive Plan Filing For 12 months Ended June 30, 2005, CGC Reply To Staff Data Request 1, (March 27, 2006).

Brown Rebuttal Exhibit 44 displays costs for gas delivered to CGC via ETNG/Nora. Brown Rebuttal Exhibit 45 displays the response regarding "SONAT FOM adjusted for storage."

The two exhibits show SONAT having a slightly higher cost. For gas delivered to CGC via ETNG/Nora, CGC said “ETNG and TGP (Tennessee Gas Pipeline) are interconnected in which case the gas has to go through TGP to get to ETNG.” CGC shows a starting price of 6.08 per MCF “grossed up” to 6.2342. CGC’s reply was lengthy so I provide only two responses, one for “Tenn/Z1 FOM adjusted for NORA” and “SONAT FOM adjusted for storage.” The two examples show SONAT having a slightly higher cost. For gas delivered to CGC via ETNG/Nora, CGC said “ETNG and TGP (Tennessee Gas Pipeline) are interconnected in which case the gas has to go through TGP to get to ETNG.” CGC shows a starting price of 6.08 per MCF “grossed up” to 6.2342.

For gas delivered to CGC via “SONAT FOM adjusted for storage,” CGC shows a starting price of 6.16 per MCF “grossed up” to 6.3262.

Q_22. **Is there any difference in the costs of firm transportation to the city gate for ETNG and SONAT?**

A_22. Yes. See Brown Rebuttal Exhibit 37, at 2, 3.

For example, on September 18, 2008 CGC replied to CAPD discovery request 7(b) through 7(d) saying that the reduction of 5,000 dekatherms of city-gate delivery from ETNG:

> *"has resulted in a fixed cost savings of $400,800 over the most recent 12 months for CGC's firm service customers and a total fixed cost savings of $801,600 from October 1, 2006 through September 30, 2008 to CGC's firm service customers."* TRA Docket 07-00224, Reply to CAPD Discovery Request (Sept. 18, 2008) Question 7(b)-7(d).

CGC had earlier explained its decision to reduce its take from ETNG in CGC's reply to CAPD discovery request 82. see:

- Brown Rebuttal Exhibit 46; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 82.

> *"In evaluating the design day (peak day) load of the firm customers, the Company came to the conclusion that the needs of the customers could be met without the 5,000 dekatherms per day of firm transportation capacity associated with East Tennessee Pipeline."*

However, the decision makes no sense in financial terms. ETNG reduced its demand rates in the fall of 2005. See:

- Brown Rebuttal Exhibit 47; FERC Docket RP05-672-000, East Tennessee Natural Gas, Petition For Approval Of Settlement Agreement (Sep. 15, 2005) at 1, and Appendix D, Page 1.

For ETNG's entire filing see:

- Brown Rebuttal Exhibit 48; FERC Docket RP05-672-000, East Tennessee Natural Gas, Petition For Approval Of Settlement Agreement (Sep. 15, 2005).

For the Final Order in that FERC Docket see:

- Brown Rebuttal Exhibit 49; FERC Docket RP05-672-004, (Oct. 19, 2006).

In Brown Rebuttal Exhibit 46 CGC's "fixed cost savings amount" of $400,800 equates to a demand charge of $6.68 per dekatherm for ETNG, a 5-cent discount off the tariff of $6.73.

- Also see:

  Brown Rebuttal Exhibit 50; Southern Natural Gas Company Informational Postings, (Feb. 22, 2009) http://ixsnp.sonetpremier.com/ebbmasterpage/Tariff/sheet.aspx?code=SNG&sid=70.

SONAT's demand charge for city gate delivery to CGC, which is in zone 3 of SONAT, has been $10.94 since 2005.

CGC could have saved an additional $255,000 per year, [(10.94-6.68) * 5000 * 12] if it had reduced its transportation capacity from SONAT. On this basis CGC's decision is not economic for CGC's ratepayers. See:

- Brown Rebuttal Exhibit 51; SONAT System Map Zone 3, http://ixsnp.sonetpremier.com/ebbmasterpage/Tariff/Map.aspx?code=SNG&status=Tariff&fileName=FA-2006-03-23*zone*3.pdf.

As I pointed out earlier in my discovery reply to CGC, SONAT gas a "regulatory out" clause in its tariff allowing a company to reduce capacity on a three month notice if a regulatory agency so orders. To my knowledge CGC never petitioned the TRA regarding this matter.

CGC's decision makes even less sense considering that SONAT itself considered ETNG a competitor who could take business from SONAT. See:

- Brown Rebuttal Exhibit 52; FERC Docket RP99-496-000, Notice Of Rate Change, Testimony of James Yardley (Sep. 2, 1999) at 6,7.

- Brown Rebuttal Exhibit 53; FERC Docket RP99-496-000, Notice Of Rate Change, Testimony of James Yardley (Sep. 2, 1999), Exhibit JCY-3.

For the Final Order in that FERC Docket see:

- Brown Rebuttal Exhibit 54; FERC Docket RP99-496-007 (July 31,2000).

Q_23. Would the shift from ETNG to SONAT affect CGC's own profit margins?

A_23. No. CGC's gas commodity costs and pipeline costs are passed on to ratepayers and most of CCG's profits are decoupled from usage, so there is no motivation to shift from one pipeline to another from CGC's point of view. See:

- Brown Rebuttal Exhibit 55; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.2, Distribution Operations, Slide 10 of 18.

For all slides in Exhibit 99.2 see:

- Brown Rebuttal Exhibit 56; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.2., Distribution Operations.

Brown Rebuttal Exhibit shows that 55 percent of CGC's profit margins are decoupled.

Q_24. In your opinion what explains CGC's decision to reduce its capacity on ETNG instead of SONAT?

A_24. In my opinion CGC's decision is consistent with the implementation of AGLR's "Long-Term Value Proposition." By reducing capacity on ETNG instead of SONAT, CGC enhanced Sequent's access to ETNG's capacity. In my direct testimony at pages 23-27 I said:

> *"According to ETNG's unsubscribed capacity reports at its web site, Ridgetop is the most heavily subscribed receipt point in Tennessee. On April 1, 2005 and May 1, 2005 only 3,694 dekatherms were available at Ridgetop – short of what SEM needed to make contract 410206 work CGC relinquished 5,000 dekatherms of capacity at Ridgetop, otherwise SEM could not have established contract 410206 for the long-term delivery of energy to the Transco pipeline."* TRA Docket 07-00224, Brown Direct (May 30, 2008) at 23-27.

Mr. Sherwood testified::

> *"the utility elected to move 5,000 Dth/d of receipt capacity off of Ridgetop and move it to Hartsville. This capacity was destined to be turned back to the pipeline"*. TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) at 12.

CGC's city gate capacity from ETNG "was destined" only because CGC relinquished its receipt capacity at Ridgetop to Sequent. CGC could have turned back SONAT city gate capacity but that action would not have "freed up" any of ETNG's receipt capacity for Sequent.

Mr. Sherwood said at page 12 of his testimony that CGC wanted "added contract level flexibility." See:

- Brown Rebuttal Exhibit 57; TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) at 12.

In the course of subsequent discovery requests CGC has maintained that its need for "added contract level flexibility" was the result of the normal course of business. See:

- Brown Rebuttal Exhibit 58 TRA Docket 07-00224, Supplemental Responses Of CGC (September 19, 2008), CGC Reply to CAPD question 7a.

However, I disagree with CGC's reply because the evidence says that "flexibility" is needed by Sequent, not CGC. See:

- Brown Rebuttal Exhibit 59; AGL Resources SEC 8-K (Nov. 14, 2005), Exhibit 99.4 AGL Resources 2005 Analyst/Investor Conference AGL Resources, Slide 14 of 23.
- For all slides of Exhibit 99.4 see Brown Rebuttal Exhibit 6.

CGC's need to preserve AGLR's "Long-Term Value Proposition" has also caused contradictory responses on Mr. Sherwood's part.

For example, in his testimony at page 11 line 12 Mr. Sherwood said that CGC's "existing FT…is sourced from the west end of [ETNG's] system."

If that were true, then CGC would not need firm transportation from receipt points in the east end of ETNG's system, such as the 4,899 dekatherms at Dickenson County, Virginia. When CGC reduced its ETNG city-gate supply by 5,000 dekatherms, the matching amount could have been withdrawn from the receipt point at Dickenson County, Virginia. See:

- Brown Rebuttal Exhibit 60; TRA Docket 07-00224, Chattanooga Gas Company's Responses And Objections To CAPD's Second Discovery Requests, (Aug. 26, 2008), CGC Reply To CAPD Question 7d.

For the entire set of responses see:

- Brown Rebuttal Exhibit 61, TRA Docket 07-00224, Chattanooga Gas Company's Responses And Objections To CAPD's Second Discovery Requests, (Aug. 26, 2008).

at displays CGC's reply of August 26 to CAPD's request 7(d) , where CGC says it wanted "geographic supply diversity" even though Mr. Sherwood had testified that CGC's "existing FT…is sourced from the west end of [ETNG's] system."

However, according to past testimony ETNG's Director of Marketing:

> *"Customers' contractual rights do not reflect the operational reality of actual flows. Many loads are physically served by gas that is delivered into the system at a receipt point that is fairly close to the delivery point, even though the contractual "primary" receipt point is located some distance away."*

See:

- Brown Rebuttal Exhibit 62; FERC Docket RP00-469-000, East Tennessee Natural Gas Company Order No. 637 Compliance Filing, (August 15, 2000) Testimony of William Wickman, at 9.

For the final order in that FERC Docket see:

- Brown Rebuttal Exhibit 63; East Tennessee Natural Gas Company, 98 FERC ¶ 61, 060 (Jan. 30, 2002).

- Brown Rebuttal Exhibit 62; TRA Docket 07-00224, Chattanooga Gas Company's Responses And Objections To CAPD's Second Discovery Requests, (Aug. 26, 2008), CGC Reply To CAPD Question 7d.

In other words, CGC's receipt point at Dickenson County, Virginia does not serve CGC's load. CGC's receipt point at Dickenson County, Virginia is very close to Saltville Storage, which is a delivery point for Sequent's eventual shipments to East Coast markets.

In sum, Mr. Sherwood's testimony on CGC's decisions has a forced logic. Because 5,000 dekatherms were no longer needed at CGC's peak:

.

- 5,000 dekatherms had to be removed from ETNG even though SONAT had more expensive demand costs and more expensive gas commodity costs as I explained in this rebuttal testimony.

- 5,000 dekatherms had to be removed from ETNG's Ridgetop receipt point instead of the Dickenson County receipt point in Virginia even though "existing FT…is sourced from the west end of [ETNG's] system" where Ridgetop is located. See Brown Rebuttal Exhibit 41.

IX. AGLR's Incentive Plan Provides Direct Pay Incentives To Personnel Who Perform Capacity Planning For AGLR's Utility Subsidiaries.

Q_25. In your opinion, are there salary considerations which affect CGC's commitment to AGLR's "Long-Term Value Proposition?"

A_25. Yes. Particularly important is AGLR's Annual Incentive Plan, which provides bonuses to employees. See Brown Rebuttal Exhibit 10 at 4:

AGLR's 2007 Annual Incentive Plan says in part:

> *"Corporate Performance Goals. Corporate performance is measured against the EPS goal approved by the Board of Directors for the Performance Measurement Period and certified by them at the end of the Performance Measurement Period. For purposes of the AIP, the certified EPS will be will be used as the Corporate Performance Score in calculating payouts under the plan adjusted to reflect the effect of economic value created by the Company's wholesale business unit, but not yet reflected in GAAP earnings reported for the year. The EPS goal represents an aggressive goal intended to provide an incentive for participants to extend extraordinary efforts to match the expectations of our investors and customers. At the end of the Performance Measurement Period (December 31, 2007), the Corporate Performance Score is expressed as a percentage and can range from 0% to 200%."*

There is no doubt that Sequent is an important source of profits to AGLR. Its SEC 8-K of February 1, 2007 says that Sequent contributed "$90 million" in earnings and that "Sequent also recognized a $12 million gain in 2006 associated with financial instruments used to hedge its transportation capacity." Of course Sequent is an asset manager of CGC's transportation capacity. See Brown Rebuttal Exhibit 11 at 4.

AGLR's 2007 Annual Incentive Plan and provide more evidence that incentives are directly related to the wholesale unit's (Sequent's) performance. See Brown Rebuttal Exhibits 7, 8, 9 and 10. The AIP has been operating since at least 2003, about the time CGC began rerouting less energy via ETNG. See:

- Brown Rebuttal Exhibit 64; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.4, Sequent Energy Management, 2007 Analyst/Investor Conference Slide 1 of 14.

- Brown Rebuttal Exhibit 65; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.4, Sequent Energy Management, 2007 Analyst/Investor Conference Slide 7 of 14.

- Brown Rebuttal Exhibit 66; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.4, Sequent Energy Management, 2007 Analyst/Investor Conference Slide 13 of 14.

For all slides in Exhibit 99.4 see:

- Brown Rebuttal Exhibit 67; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.4, Sequent Energy Management, 2007 Analyst/Investor Conference.

It is worth noting that the improvement in profit and sales volumes is consistent with the Pre and Post Patriot periods of ETNG.

Clearly it is in the self-interests of CGC's capacity planners to assist Sequent's profit levels.

X. Mr. Sherwood's Cost-Benefit Analysis Of ETNG's Saltville Storage Versus CGC's LNG Plant Is Misdirected.

In my direct testimony I discussed the possibility that the costs of CGC's LNG plant might exceed the cost of ETNG's LNG service to and that a comparative study of costs should be done to make an assessment.

Mr. Sherwood testifies that he made such an analysis. See:

- Brown Rebuttal Exhibit 68 TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) Exhibit TSS-2.

This is not the comparison I discussed, which was a comparison between costs incurred from ETNG's LNG Service versus costs saved if CGC's own LNG plant were gone.

His analysis is misdirected in the sense that he compared the costs of storage at TGP's and SONAT's sites to the costs of ETNG's LNG service. Also, he made no reductions in storage capacity that could be attributed to CGC's LNG plant. For example, Mr. Sherwood testified in TRA Docket 07-00224:

> *"Dr. Brown's suggestion does not appear to take into account the need to utilize transportation service to refill LNG Peaking and storage service in the non-winter period."* TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) at 4.

Mr. Sherwood assumes that if CGC's LNG plant were gone, there would be no impact on the current transportation and storage needs. Also, Mr. Sherwood's analysis provides no estimate of the salaries, insurance and other overhead costs required to keep CGC's plant up and running and no analysis of the storage requirements at Saltville that would be needed as a substitute for CGC's LNG plant. He has assumed that all gas stored on SONAT and TGP would be stored at Saltville. This assumption is not a comparison of costs incurred from ETNG's LNG Service versus costs saved if CGC's own LNG plant were gone.

Thus Mr. Sherwood's testimony at page 10 lines 21-22 that CGC has "evaluated the cost of holding capacity at Saltville Storage" is not accurate with respect to the issue I raised in my direct testimony. In my opinion Mr. Sherwood's analysis has the effect of making sure that CGC's presence on the ETNG pipeline does not grow so that CGC's regulated operations do not get in the way of Sequent's operations on ETNG.

XI. CGC's Firm Load In The Winter Is Far Below City Gate Capacity, And CGC's Design Day Load Is Excessive.

Mr. Sherwood says seasonal purchases would be conditioned on the pipelines having the right to interrupt the service in the winter and that such conditions jeopardize service to firm customers. Mr. Sherwood testified in TRA Docket 07-00224:

> *"If CGC were to agree to curtail in the winter period, would it mean that CGC would in effect be purchasing interruptible service during the winter period? Yes"*
>
> *"Could CGC depend on interruptible interstate pipeline service to provide service to its firm customers? No."* TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) at 13.

However, during the 18 winter months from January 2003 through March 2006, CGC's firm customers used just 81 percent of firm city gate capacity in January 2003. In all the remaining winter months CGC's firm customers used no more than 60 percent of city gate capacity. I compiled these statistics from CGC's response to CAPD discovery request 91 in TRA Docket 06-00175, and CGC's response CAPD discovery request 21 in TRA Docket 07-00224. See:

- Brown Rebuttal Exhibit 69; TRA Docket 06-00175, CGC Reply to CAPD discovery request (Sep. 8, 2006) Question 91.
  For the entire reply to CAPD discovery request 91 see:
- Brown Rebuttal Exhibit 70.

Also see:

- Brown Rebuttal Exhibit 71; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 21.

I combined the data from the two replies and made the table displayed in. See:

- Brown Rebuttal Exhibit 72.

Columns (1) to (4) are from CGC's reply to CAPD discovery request 91 in TRA Docket 06-00175. Column (7) is from CGC's reply to CAPD discovery request 21 in TRA Docket 07-00224. Columns (5), (6), and (8) are calculations. It is clear from the data that Mr. Sherwood exaggerates when he says: "Could CGC depend on interruptible interstate pipeline service to provide service to its firm customers? No."

The data in the table also casts doubt on Mr. Sherwood's forecast of CGC's "Projected 2009 Design Day Load" of 129,761 dekatherms which appeared at the bottom of his table TSS-2: See:

- Brown Rebuttal Exhibit 73 TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) Exhibit TSS-2.

- Brown Rebuttal Exhibit 74 TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) Exhibit TSS-2.

His projection for 2009 is a four percent increase over the 2007 design day forecast which appeared in Mr. Heintz's testimony in Docket 06-00175. I provide a copy of that forecast. See:

- Brown Rebuttal Exhibit 75. TRA Docket 06-00175, Heintz Direct (Jun3 30, 2006) Exhibit DAH-3, Page 1.

It is clear that CGC's design day forecasts include industrial loads that are interruptible or stand-by only.

The rapid growth of CGC's design day peak contrasts with the stipulation in the Georgia Public Service Commission (GPSC) docket 24960-U, "AGLC's Capacity Supply Plan." In that stipulation AGLR reduced design peaks for all of its areas in Georgia except Atlanta. See Brown Rebuttal Exhibit 14; AGLC's Capacity Supply Plan Stipulated Parties' Acceptance of Amended Stipulation (Sept. 28, 2007) at Exhibit A, Page 2 of 2.

The design day for Rome Georgia, which lies just due south of Chattanooga was reduced from

62,185 dekatherms in 2008 to 57,246 dekatherms in 2010, an 8 percent reduction. Rome is not located on ETNG and does not provide access to gas markets on the East Coast. Thus if CGC were not in a strategic location with regard to ETNG, CGC's design-day might not be increasing. See Brown Rebuttal Exhibit 14; AGLC's Capacity Supply Plan Stipulated Parties' Acceptance of Amended Stipulation (Sept. 28, 2007) at Exhibit A, Page 2 of 2.

Also see:

- Brown Rebuttal Exhibit 76. http://ixsnp.sonetpremier.com/ebbmasterpage/Tariff/Map.aspx?code=SNG&status=Tariff&fileName=FA-2006-03-23*zone*3.pdf

Rome, Georgia in SONAT's zone 3 and just south of Chattanooga.

CGC's firm customers are paying about 50 percent more per CCF than customers in the industrial class. See:

- Brown Rebuttal Exhibit 77, TRA Docket 07-00224, Chattanooga Gas Company's Responses And Objections To CAPD's Second Discovery Requests, (Aug. 26, 2008), CGC Reply To CAPD Question 4a.

For the entire set of responses see Brown Rebuttal Exhibit 61.

There is no doubt that firm customers will bear the cost-increases caused by increases in the design day capacity. To the extent that Sequent's payments to CGC are passed on to CGC's ratepayers via a CCF credit, the firm customers share in the credit will be much less than the design day allocation factors shown in Mr. Heintz's table, because the firm customers have a small share of the overall usage. See Rebuttal Exhibit 75.

However, Sequent's payments to CGC and the other utility affiliates have declined as a portion of Sequent's profits. I compiled Brown Rebuttal Exhibit 78 from four different sources. See

- Brown Rebuttal Exhibit 79; TRA Docket 07-00224, Reply To CAPD Discovery Request (April 11, 2008) Question 23.

- Brown Rebuttal Exhibit 80, AGL Resources SEC 8-K (Nov. 12, 2004), Exhibit 99.4, Analyst Conference, Driving Technology, the slide titled "Sharing With Affiliates, Slide 41 of 45.

- Brown Rebuttal Exhibit 67; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.4, Sequent Energy Management, 2007 Analyst/Investor Conference Slide 8 of 14.

- Brown Rebuttal Exhibit 67; AGL Resources SEC 8-K (March 22, 2007), Exhibit 99.4, Sequent Energy Management, 2007 Analyst/Investor Conference Slide 7 of 14.

Mr. Sherwood describes Sequent's duties:

> *"The asset manager is required to source commodity gas as nominated by CGC. Arrange for physical delivery of the gas on the pipeline system, market available assets to other markets.* TRA Docket 07-00224, Sherwood Direct (Jul. 30, 2008) at 16.

In 2006 Sequent had profits of $90 million, but CGC received just $1.44 million from Sequent. This amount is not fair compensation to CGC's ratepayers for the strategic value of the contracts on ETNG, considering CGC's timely assistance to Sequent: Ridgetop, Dickenson County, CGC's declining use of ETNG, increased use of SONAT, the excessive design day forecasts, and the balancing process on ETNG.

This concludes my testimony.