

MESSER CAPARELLO & SELF, P.A.

RECEIVED-FPSC

Attorneys At Law

www.lawfla.com

11 APR 27 PM 4:14

April 27, 2011

COMMISSION CLERK

BY HAND DELIVERY

Ms. Ann Cole, Director
Commission Clerk and Administrative Services
Room 110, Easley Building
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Re: Docket No. 100304-EU

Dear Ms. Cole:

Enclosed for filing on behalf of Choctawhatchee Electric Cooperative, Inc. is an original fifteen copies of the following documents in the above referenced docket:

- 1. Rebuttal Testimony of Jonathan Matthew Avery; 02902-11
- 2. Rebuttal Testimony of Dr. Martin J. Blake; and, 02903-11
- 3. Rebuttal Testimony of Leigh V. Grantham. 02904-11

Please acknowledge receipt of this letter by stamping the extra copy of this letter Afiled@ and returning the same to me.

Thank you for your assistance.

Sincerely,

Norman H. Horton, Jr.

- COM _____
- APA _____
- ECR _____
- GCL _____
- RAD _____
- SSC _____
- ADM _____
- OPC _____
- CLK _____

NHH/amb

Enclosure

cc: Ms. Leigh V. Grantham
Parties of Record

DOCUMENT NUMBER-DATE

02902 APR 27 =

FPSC-COMMISSION CLERK

CERTIFICATE OF SERVICE

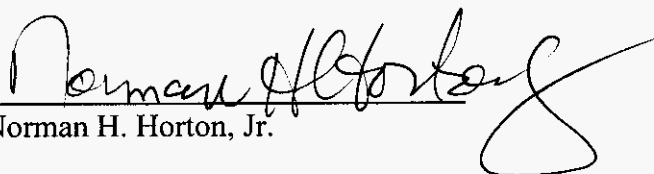
I HEREBY CERTIFY that a true and correct copy of the foregoing has been served on the following parties by Hand Delivery (*), Overnight Delivery (**) and/or U. S. Mail this 3rd day of March, 2011.

Ralph Jaeger, Esq.*
Office of the General Counsel
Florida Public Service Commission
2540 Shumard Oak Blvd.
Tallahassee, FL 32399-0850

Ms. Leigh V. Grantham
Choctawhatchee Electric Cooperative, Inc.
P.O. Box 512
DeFuniak Springs, FL 32435-0512

Ms. Susan D. Ritenour
Gulf Power Company
One Energy Place
Pensacola, FL 32520-0780

Steven R. Griffin, Esq.**
Beggs and Lane
501 Commendencia Street
Pensacola, FL 32502-5953


Norman H. Horton, Jr.

DOCKET 100304-EU

REBUTTAL TESTIMONY OF

JONATHAN MATTHEW AVERY

ON BEHALF OF CHOCTAWHATCHEE ELECTRIC COOPERATIVE, INC.

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

2 A. Jonathan Matthew Avery and my business address is 1350 West Baldwin
3 Avenue, DeFuniak Springs, FL 32435.

4 **Q. HAVE YOU PREFILED DIRECT TESTIMONY IN THIS DOCKET?**

5 A. Yes.

6 **Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

7 A. I will respond to statements made in the Direct Testimony of Gulf Power
8 witness Mr. Mike Feazell.

9 **Q. ON PAGE 5 OF HIS TESTIMONY, MR. FEAZELL ADDRESSES THE**
10 **NECESSARY FACILITIES FOR CHELCO TO PROVIDE SERVICE**
11 **TO FREEDOM WALK. DO YOU AGREE WITH HIS ASSESSMENTS?**

12 A. No. First of all, the question to Mr. Feazell uses the word “extend” and to be
13 clear, CHELCO would not have to extend any facilities to provide service to
14 Freedom Walk. We are there now, with three-phase service as Mr. Feazell
15 acknowledges. Secondly, the upgrades he references are not needed to
16 provide initial service to Freedom Walk. Project 300-RU10—01 (the 1.3 mile
17 conductor segment span), was planned to be completed regardless of the
18 specific load for Freedom Walk. The current 2011-2014 Construction Work

COM 5
APA _____
ECR 1
GCL 8
RAD _____
SSC _____
ADM _____
OPC _____
CLK CF.RPR

DOCUMENT NUMBER-DATE
02902 APR 27 =
FPSC-COMMISSION CLERK

1 Plan calls for it to be constructed in 2014. It is not a problem, nor is it unusual
2 to accelerate the construction schedule as needs arise. That does not affect the
3 cost or the resources to construct the segment. Again, this project is in our
4 Construction Work Plan (CWP) and will be constructed whether CHELCO
5 serves Freedom Walk or not. This project should not be included in the cost
6 to serve the development.

7 **Q. MR. FEAZELL INCLUDES THE NORMANDY ROAD PROJECT IN**
8 **HIS ANALYSIS. IS THIS APPROPRIATE?**

9 A. No. Normandy Road runs along the western boundary of Freedom Walk and
10 CHELCO currently has a single phase line along that road. Because that line
11 is there, CHELCO has the ability to provide an additional feed into the
12 property from the western boundary. As the load grows, CHELCO could
13 upgrade the single phase line on Normandy to 3-phase to increase the
14 reliability of the service and provide a back feed to the development. That
15 upgrade would not be required to serve Freedom Walk, but is an option
16 available to CHELCO strictly to provide an additional safeguard and to ensure
17 reliable service in the event of unusual circumstances. That option is not
18 available to Gulf Power since they have no lines in the area. Since the
19 improvement to the Normandy Road line is not a requirement for CHELCO to
20 deliver adequate and reliable service to Freedom Walk, it would not be
21 appropriate to include that project in the cost to serve analysis.

1 Q. ON PAGE 6 OF HIS TESTIMONY, MR. FEAZELL DISCUSSES THE
2 SDOC. WHAT IS THE SDOC?

3 A. The System Design and Operating Criteria (SDOC) is primarily a planning
4 guideline, not a mandate for operations. The SDOC is used to plan for
5 projected upgrades on a reasonable schedule, and to help meet the minimum
6 standards of adequacy for voltages, thermal loading, safety and reliability on
7 the system. It allows us to look ahead to anticipate when components of the
8 system are expected to approach their operating capacities, and to plan for
9 upgrades to meet those contingencies. Generally, we try to identify facility
10 components that may be reviewed well in advance of their approaching 100%
11 of their operating capacity. I want to stress that the criteria given in the
12 SDOC are considered to be a guideline and not a mandate. Oftentimes system
13 conditions will occur which may exceed a specific planning criteria which
14 gives planners an indication that the facilities may need to be upgraded in the
15 future before they can exceed a specific operating criteria.

16 Q. ON PAGES 6 AND 7 OF HIS TESTIMONY, MR. FEAZELL STATES
17 CHELCO WILL EXCEED THE SDOC RECOMMENDED CAPACITY
18 ON SEVERAL SECTIONS OF CONDUCTOR. DOES AN
19 EXCEEDANCE OF THE SDOC GUIDELINES COMPROMISE THE
20 SAFETY OR RELIABILITY OF THE FACILITY OR ITS
21 COMPONENTS?

22 A. Again, the SDOC is a planning guideline or tool, not a mandate. We use the
23 SDOC to help plan for future load and growth in an area. The SDOC helps us

1 identify primary conductors that may need to be upgraded at some point in the
2 future. By identifying these line sections when they reach 60% to 75% of
3 their design load capacity, we can begin to evaluate whether facility upgrades
4 may be necessary in the future while there is still a surplus of capacity to
5 maintain adequate service to our members. The conductors are designed to
6 safely operate at 100% of their rated capacity, and should not fail under
7 normal circumstances when loaded to 80%, 90% or even 99% of capacity.
8 Depending on what the conductor is serving, whether the load in the area is
9 growing or not, whether the conductor is part of a feeder that is connected to
10 another feeder or not are all considerations that influence if the conductor
11 needs to be upgraded. Exceeding the SDOC planning criteria provides an
12 indication that the line segments should be watched and evaluated for possible
13 upgrades in the future. Mr. Feazell suggests that just because we are allowing
14 sections of conductor to exceed the SDOC that we cannot provide adequate
15 service. That is just not accurate.

16 **Q. AS MR. FEAZELL DESCRIBES THE SITUATION, IT SOUNDS AS IF**
17 **YOU WILL BE VIOLATING SOME STANDARDS OR**
18 **REQUIREMENTS. IS THIS CORRECT?**

19 **A.** No. As I said the SDOC is primarily a planning guideline or tool and that is
20 how we use it. It is our planning document and not one mandated or required
21 by any agency or standard. I have to believe most responsible utilities have a
22 similar tool that allows them to plan for upgrades well in advance of the time

1 their facilities approach capacity. Some wait until their load comes closer to
2 capacity; however CHELCO uses a very conservative number.

3 The SDOC recommends evaluating whether conductor should be
4 changed out when the conductor load is greater than 60% of operating
5 capacity in the summer and 75% in the winter. We evaluate power lines once
6 they reach the 60% and 75% loading because we like to have sufficient
7 capacity in reserve to provide the ability to back-feed when possible. If the
8 circuit is loaded more than 60% or 75%, it limits the option to back-feed in
9 high load times, but in no way does it compromise the ability or safety of the
10 lines to meet their intended load requirements.

11 In planning for projected conductor upgrades, we also consider other
12 factors. For example, regarding the Auburn South Circuit (03), this feeder
13 does not tie to another feeder and is not utilized to back-feed any other circuit.
14 Therefore, CHELCO will likely not plan for an upgrade when the circuit
15 reaches the summer 60% or winter 75% guideline, but will be allowed to get
16 closer to its operating capacity before a specific upgrade is planned. The
17 Auburn Substation Circuit 03 can be loaded more than the SDOC planning
18 recommendation because at the present time, it is not needed for back-feed
19 capability. Therefore, even though adding a full build out load of 4700 kW
20 will result in load to the system *greater than the summer 60% or winter 75%*
21 *planning guideline*, it is both safe and acceptable to operate that circuit at
22 loads up to and including 100% of the rated capacity.

1 As to our earlier discussions in which CHELCO considered moving
2 Project 300-RU10—01 (the 1.3 mile conductor segment span) up 3 years, we
3 have determined that to be unnecessary. That discussion was based on a full
4 increase of 4700 kW from Freedom Walk coming on line instantaneously.
5 CHELCO could handle that instantaneous load within the current CWP
6 merely by accelerating that one project. However, because a development
7 such as Freedom Walk cannot be built out overnight, CHELCO could provide
8 service to the projected load without any modification to the already planned
9 CWP projects.

10 **Q. ARE UPGRADES NEEDED TO HANDLE THE FULL PROJECTED**
11 **FREEDOM WALK 4700 kW LOAD?**

12 A. No, there would be no unplanned upgrades needed. If that load were to come
13 on tomorrow, the only needed upgrade to CHELCO facilities would be the
14 acceleration of existing Project 300-RU10—01 (the 1.3 mile conductor
15 segment span) from 2014 to 2011. Outside of the CWP projects already
16 planned, no other upgrades would be necessary. Given the more probable
17 Freedom Walk build out schedule, we will not need to alter any planned
18 project or schedule to meet the 4700 kW load. However, I would add that
19 once we upgrade the 394 AAAC conductor to the 741 AAAC conductor, as
20 already planned in our Construction Work Plan, we will have the ability to
21 serve the Freedom Walk development as well as other expected growth in the
22 area. As I've mentioned before, this upgrade was planned without including

1 load for Freedom Walk and is not being constructed just for the Freedom
2 Walk development.

3 **Q. WITH THAT ACKNOWLEDGMENT, WOULD CHELCO HAVE TO**
4 **UPGRADE OR BUILD A NEW SUBSTATION TO SERVE THE 4700**
5 **kW LOAD?**

6 A. Because the Auburn substation transformer is a 25 MVA unit, no substation
7 upgrades are required.

8 **Q. WILL THE LOWSIDE BUSWORK IN THE AUBURN SUBSTATION**
9 **NEED TO BE UPGRADED?**

10 A. No. Even if the Freedom Walk load reached 4700 kW tomorrow, it would not
11 be necessary to change out or upgrade the lowside buswork, switches or
12 breakers.

13 **Q. MR. FEAZELL REFERENCES THE RECOMMENDATIONS OF**
14 **PATTERSON & DEWAR ENGINEERS (P&D) IN HIS TESTIMONY.**
15 **WHAT WAS THE ROLE OF P&D IN THIS DOCKET?**

16 A. P & D is an engineering firm that provides consulting services to CHELCO
17 and a number of other cooperatives. Specifically for this docket, we asked P &
18 D to perform studies on the effects to the distribution system of the additional
19 load of Freedom Walk. Ms. Nicole Sullivan discusses those in her testimony.

1 **Q. WERE THE RECOMMENDATIONS FROM P&D BASED ON**
2 **SERVING THE FULL PROJECTED 4700 kW LOAD**
3 **IMMEDIATELY?**

4 A. Yes. Even though we do not believe that the full load will be there on the first
5 day, but will be phased in over several years, in order to approach our member
6 service responsibilities in the most conservative and prudent manner possible,
7 the study assumed full load immediately. Even under that extreme scenario,
8 the conclusions and recommendations demonstrate that CHELCO does not
9 have to make any upgrades to serve the load other than the acceleration of the
10 previously planned upgrade. If the 4700 kW load phases in over several
11 years, as most likely will occur, CHELCO would not need to make any
12 unscheduled upgrades.

13 **Q. HOW HAS GULF POWER INCORPORATED THE PROJECTED**
14 **LOAD ASSOCIATED WITH FREEDOM WALK IN THEIR**
15 **PLANNING?**

16 A. Gulf has not included Freedom Walk's projected load in its current planning
17 documents because, in Gulf's words, "the probability of Freedom Walk
18 developing has not yet reached a threshold where Gulf would begin to include
19 the anticipated load in its load studies." However, for purposes of responding
20 to the question, Gulf Power provided a table in which they begin slowly
21 phasing in the load beginning in 2012. By 2015, they project additional load
22 of only 3760 kW associated with Freedom Walk, which is less than the full
23 build out projection. With the addition of a phased in load, it appears that

1 Gulf's Airport Road substation will exceed its rated capacity with the addition
2 of 1880 kW from Freedom Walk in 2013.

3 It is interesting to note that earlier in this proceeding; CHELCO based
4 some projections on an anticipated load of 3700 kW by 2014. Gulf was
5 critical of CHELCO for failing to account for the full 4700 kW load, and
6 argued that CHELCO's service was deficient because it would have to move
7 its conductor upgrade from 2014 to 2011 to meet the full 4700 kW load.
8 However, now that Gulf has provided information, we have learned that Gulf
9 was planning only for 3760 kW by 2015, and has never planned out to
10 determine what steps it would have to take to be fully capable of meeting that
11 4700 kW load.

12 **Q. MR. FEAZELL ESTIMATES THAT THE COSTS ASSOCIATED**
13 **WITH THE PATTERSON & DEWAR ENGINEERS**
14 **RECOMMENDATIONS ASSOCIATED WITH THE 4700 kW LOAD**
15 **WOULD BE APPROXIMATELY \$1 MILLION. DO YOU AGREE?**

16 **A.** No. Mr. Feazell's testimony was based on the cost of performing substation
17 upgrades. As stated earlier in my rebuttal, the Auburn substation is rated at
18 25MVA, which is more than needed to serve Freedom Walk and other
19 anticipated load. There are no upgrades needed for the substation lowside
20 buswork, switches or breakers. Therefore, as I've previously testified, there
21 are no additional substation costs associated with serving the full 4700 kW
22 Freedom Walk load.

1 Q. ON PAGE 9 MR. FEAZELL ADDRESSES THE CHELCO COSTS TO
2 PERFORM WHAT HE CONSIDERS TO BE REQUIRED UPGRADES.
3 DO YOU HAVE ANY RESPONSE TO HIS TESTIMONY?

4 A. Yes. Upgrading the 394 AAAC segment of the feeder to 741 AAAC will be
5 performed whether Freedom Walk is served by CHELCO or not. That section
6 of line will be upgraded when the load demands it, but given the likely build
7 out we have determined that it will not be required in 2011. The upgrade is
8 not being planned just for Freedom Walk and the inclusion of this amount is
9 not proper until the load demands it, which is currently projected for 2014.
10 When that upgrade is performed, there will be sufficient reserve capacity to
11 serve projected loads well into the future. CHELCO will use this upgrade to
12 serve the Auburn South Circuit (Circuit 1003). The Freedom Walk load will
13 be served by Circuit 1003.

14 CHELCO has not yet assessed and provided the cost to upgrade the
15 750 MCM because there is no reasonably, immediate need to upgrade it.
16 There is no upgrade required at present, and therefore no costs. Exceeding the
17 60%/75% SDOC planning guidelines is acceptable in this situation, for the
18 reasons described more fully above.

19 As set forth in detail earlier in my testimony, we have not provided
20 costs to upgrade the Auburn substation because there are no upgrades to the
21 substation currently required.

1 Q. ON PAGE 10 MR FEAZELL TESTIFIES THAT GULF POWER
2 WOULD NOT NEED TO MAKE ANY UPGRADES OR INVESTMENT
3 TO SERVE FREEDOM WALK OTHER THAN THAT ASSOCIATED
4 WITH EXTENDING THEIR EXISTING LINES. WOULD YOU
5 COMMENT ON THIS PLEASE?

6 A. Yes. Responses to discovery provided by Gulf Power raise questions on that.
7 For example, in response to interrogatory No. 39, Mr. Feazell says there are
8 no planned upgrades at the Airport Road substation in order to serve Freedom
9 Walk. However, in that response and the response to No. 41, he describes
10 major upgrades to several facilities, including the Airport Road substation, to
11 address "reliability and maintenance" issues. Gulf Power's position is that
12 since these upgrades were planned independent of Freedom Walk, the costs
13 should not be included in this docket. I would note however that in his
14 response to Interrogatory 39, Mr Feazell says : "Absent these planned
15 upgrades, Gulf would need to replace three single phase substation
16 transformers at the Airport Road substation at a cost of approximately \$40,000
17 in order to serve the estimated 4.7 MW load associated with Freedom Walk."

18 That seems to be consistent with the table in Interrogatory 43 which
19 shows the Airport Road substation to be in excess of its rated capacity by
20 2013 with only a small portion of the total projected 4700 kW load. As to the
21 ability of Gulf to implement those substation upgrades, the upgrades are
22 currently not scheduled, with the only time projection being that they should
23 occur sometime within 5 years. Even that schedule assumes that there will be

1 no problems with easements, rights-of-way and other land use issues.
2 Therefore, there is no certainty that Gulf can provide adequate and reliable
3 service to Freedom Walk from its Airport Road substation at any time in the
4 next five years without some stop-gap measures being implemented.

5 **Q. DO YOU HAVE AN EXHIBIT WITH THESE RESPONSES?**

6 A. Yes. Exhibit JMA-7 contains responses from Gulf Power to Interrogatories 39-
7 41 and 43

8 **Q. ON PAGES 9 AND 10 OF HIS TESTIMONY, MR. FEAZELL**
9 **ADDRESSES THE GULF POWER COSTS TO EXTEND SERVICE TO**
10 **THE FREEDOM WALK DEVELOPMENT. DO YOU HAVE ANY**
11 **RESPONSE TO HIS TESTIMONY?**

12 A. Yes. Mr. Fezell indicates the only cost Gulf Power would incur in extending
13 service to Freedom Walk is \$89,738. While this may be the cost to extend the
14 3 phase to the development, Mr. Fezell did not include the \$40,000 in
15 additional transformer work to upgrade the Airport Road substation that will
16 be required to serve Freedom Walk as addressed in my prior responses. Based
17 on my experience, this figure seems extremely low, and Mr. Fezell was
18 unable to provide any specific information as to those costs. As a matter of
19 comparison, when discussing CHELCO's costs of purchasing transformers,
20 Mr. Fezell testified that a substation transformer costs between \$700,000 and
21 \$1.2 million. I can only surmise that his \$40,000 estimate for **three**
22 transformers is a pro-rated cost of the total cost to upgrade the substation
23 transformers based on the percentage of the total upgraded capacity to be

1 devoted to Freedom Walk. Such a pro-rating and parceling out of cost is at
2 total odds with the manner in which Gulf has suggested that the cost of
3 upgrades be applied to CHELCO in this territorial dispute.

4 The bottom line, however, is that it will not cost CHELCO anything to
5 extend adequate and reliable service to Freedom Walk for the full projected
6 4700 kW load since CHELCO is already there. It will, however, cost Gulf
7 much more than the \$89,738 in admitted costs to extend such service, much of
8 which will be expended to duplicate CHELCO's existing facilities.

9 **Q. ON PAGES 11 AND 12 OF HIS TESTIMONY, MR. FEAZELL**
10 **ADDRESSES THE COSTS TO PROVIDE THE FACILITIES WITHIN**
11 **FREEDOM WALK. DO YOU AGREE WITH HIS OPINION THAT**
12 **THE COSTS WITHIN THE DEVELOPMENT SHOULD BE**
13 **SUBSTANTIALLY THE SAME FOR BOTH PARTIES?**

14 A. Yes. The costs should be essentially the same as he notes.

15 **Q. ON PAGE 13 OF HIS TESTIMONY, MR. FEAZELL TESTIFIES**
16 **THAT GULF POWER HAS THE ABILITY TO RESPOND TO**
17 **OUTAGES AT FREEDOM WALK MORE QUICKLY BECAUSE OF**
18 **THE LOCATION OF THEIR RESOURCES. DO YOU AGREE WITH**
19 **THIS?**

20 A. No. While Gulf does have an operations facility closer to Freedom Walk,
21 whether Gulf Power is able to provide more reliable service to Freedom Walk
22 because of this is speculative. From a day-to-day supply/material perspective
23 there is no advantage. The availability of materials for either Gulf or

1 CHELCO is the same in that they have to be picked up and/or delivered.
2 Also, there would be no advantage for after-hours events. CHELCO's Baker
3 service center is roughly 12 miles away from Freedom Walk; and most
4 material required for any repair is stored there. Mr. Feazell seems to imply
5 that the closer you live to Gulf Power's Crestview headquarters the higher
6 level of service or outage response you would receive. That is simply not the
7 case. Gulf's System Average Interruption Duration Index ("SAIDI") for 2009
8 was 140 minutes. CHELCO's SAIDI for 2010 was 104 minutes, and 83
9 minutes when excluding major event days. CHELCO strives to provide the
10 same high quality level of service to all members no matter what distance they
11 are from our main headquarters. We have two service centers in the general
12 area of Freedom Walk, Auburn and Baker. As our SAIDI numbers indicate,
13 CHELCO can respond as or more quickly as Gulf Power. As an added bonus
14 to Freedom Walk residents, CHELCO's Auburn service center shares space
15 with the water provider of Freedom Walk – Auburn Water System, making
16 doing business simultaneously with each utility very convenient for members.

17 **Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

18 A. Yes.

CHELCO's Second Set of Interrogatories
Docket No. 100304-EU
Gulf Power Company
April 11, 2011
Item No. 39
Page 1 of 1

39. Will there be any upgrades required to the Airport Road substation to serve Freedom Walk at full build out?

ANSWER:

There are no planned upgrades to the Airport Road substation in order to serve the Freedom Walk development. As discussed further in response to Interrogatory No. 41, the Airport Road substation is one of several facilities in North Okaloosa County that will be upgraded as part of a larger plan to convert Gulf's 46 kV system in the area to a 115 kV system. These upgrades are intended to address reliability and maintenance issues on Gulf's system in North Okaloosa County and are not related in any way to serving Freedom Walk. Absent these planned upgrades, Gulf would need to replace three single phase substation transformers at the Airport Road substation at a cost of approximately \$40,000 in order to serve the estimated 4.7 MW load associated with Freedom Walk.

CHELCO's Second Set of Interrogatories
Docket No. 100304-EU
Gulf Power Company
April 11, 2011
Item No. 40
Page 1 of 1

40. Are there any currently planned and/or scheduled upgrades to the Airport Road substation?

ANSWER:

Yes.

CHELCO's Second Set of Interrogatories
Docket No. 100304-EU
Gulf Power Company
April 11, 2011
Item No. 41
Page 1 of 2

41. If the response to Question 39 or 40 is yes, what is the purpose, time line for the upgrades and total cost?

ANSWER:

As a result of operational issues that Gulf Power has been experiencing with its 46 kV system in North Okaloosa County, the Airport Road substation and other facilities in the general area will be converted from 46 kV high-side to 115 kV high-side. Further details concerning the overall need for the conversions and engineering solution are provided below.

The conversion project involves the following Gulf Power substations in North Okaloosa County: South Crestview, Milligan, Baker, Airport Road and Laurel Hill substations.

The 46 kV transmission line from Gulf's South Crestview substation to Gulf's Baker substation is a wood pole line built in 1953. The 46 kV substation equipment at the South Crestview substation is 1950's vintage equipment or older. Neither the Baker substation nor the Milligan substation have Radio Transmission Units (RTUs), which are required in order to remotely monitor the substations through the Company's Energy Management System. Recently there have been operational issues at both substations that occurred due to the age of the equipment at the substations, lack of RTUs at the substations, and condition of the 46 kV line feeding the substations.

Gulf's Distribution department has studied the area feeders from Baker and Milligan and has established a solution that will allow the Milligan substation to carry the load served from Baker, which will allow the retirement of the Baker substation. There is a 115 kV line less than 0.5 miles from the Milligan substation. The Milligan substation will be converted to 115 kV and tapped off the nearby 115 kV line.

The Airport Road substation is served from the 46 kV system from South Crestview. The 46 kV equipment, at the South Crestview substation, is older equipment and the elimination of this equipment will also reduce the maintenance costs associated with the equipment. The line from the South Crestview substation to the Airport Road substation was built to 115 kV specifications in 1992 in anticipation of converting both substations to 115 kV at a future point in time. Conversion of the Airport Road substation from 46 kV to 115 kV will allow Gulf Power to operate at the voltage at which the line was designed, eliminate the older 46 kV substation equipment and allow conversion of the 46 kV transformers to the Southern Company Standard 115/12 kV 28 MVA transformer.

CHELCO's Second Set of Interrogatories
Docket No. 100304-EU
Gulf Power Company
April 11, 2011
Item No. 41
Page 2 of 2

The cost for the combined solution for all the lines and substations discussed above is \$3.95 million-see information below. The Airport Road substation work is part of the composite of all work and cannot be considered apart from the other work. However, the voltage upgrade will increase the capacity of the Airport Road substation when the Southern Company Standard 115/12 kV 28 MVA transformer is installed. Gulf will perform the above referenced voltage conversion project regardless of whether Gulf serves the Freedom Walk development. Its exclusive purpose is to mitigate existing reliability risks and reduce maintenance costs in the North Okaloosa County area.

The components of the North Okaloosa 46 kV conversion project are set forth below:

- Move the Baker load to Milligan substation
- Convert the Milligan substation to 115 kV and build a ½ mile tap from the 115 kV line to Milligan substation to serve the substation (Cost: \$850,000)
- Convert the Airport Road substation to 115 kV, with new relaying, a new 115 / 12 kV transformer, and new high side protection (Cost: \$1,500,000)
- Serve the Airport Road substation on the existing Crestview – Airport 115 kV (constructed 1992) line after reattaching the line to the 115 kV bus at South Crestview (Cost: \$100,000)
- Construct a new 115 / 46 kV transformer with appropriate protection to serve the 46 line going to Laurel Hill, Paxton, and into Alabama (Cost: \$1,500,000)
- Retire the 46 kV South Crestview to Baker line and all 46 kV equipment at South Crestview substation

CHELCO's Second Set of Interrogatories
Docket No. 100304-EU
Gulf Power Company
April 11, 2011
Item No. 43
Page 1 of 1

43. What is the forecasted load for the next five (5) years, listed by year, on the substation and feeder that will serve Freedom Walk a) with load demand anticipated with this development of Freedom Walk and b) without the load demand anticipated with the development of Freedom Walk.

ANSWER:

The probability of Freedom Walk developing has not yet reached a threshold where Gulf would begin to include the anticipated load in its load studies. For purposes of answering this interrogatory Gulf has incorporated an estimate of the Freedom Walk load in its existing Crestview Area Distribution Study as shown in part (a) below.

- a) With estimated 4,700 kW load at Freedom Walk:

Airport Rd.	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Bank No. 1	KW	KW	KW	KW	KW
10.5MVA					
OCB 8932	6,866	8,078	9,498	10,781	11,960
OCB 8942	1,752	1,840	1,932	2,029	2,131
TOTAL	8,618	9,918	11,430	12,810	14,091

- b) Without estimated 4,700 kW load at Freedom Walk:

Airport Rd.	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>
Bank No. 1	KW	KW	KW	KW	KW
10.5MVA					
OCB 8932	6,866	7,138	7,618	7,961	8,200
OCB 8942	1,752	1,840	1,932	2,029	2,131
TOTAL	8,618	8,978	9,550	9,990	10,331