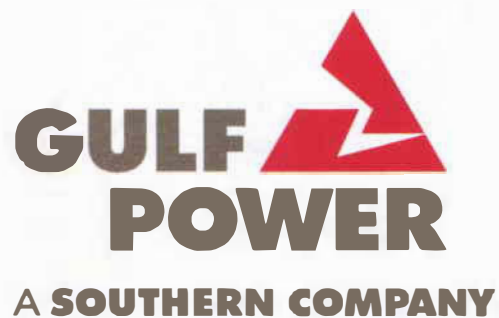


**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

DOCKET NO. 130140-EI



**TESTIMONY AND EXHIBIT
OF
J. ANDY MCQUAGGE**

1 **GULF POWER COMPANY**

2 **Before the Florida Public Service Commission**
3 **Prepared Direct Testimony of**
4 **J. Andy McQuagge**
5 **Docket No. 130140-EI**
6 **In Support of Rate Relief**
7 **Date of Filing: July 12, 2013**

8 Q. **Please state your name and business address.**

9 A. **My name is Andy McQuagge. My business address is One Energy Place,**
10 **Pensacola, Florida 32520.**

11 Q. **By whom are you employed?**

12 A. **I am employed by Gulf Power Company (Gulf or the Company), where I**
13 **serve as the Distribution General Manager.**

14 Q. **What are your responsibilities as Gulf's Distribution General Manager?**

15 A. **I have responsibility for the employees who design, construct, operate, and**
16 **maintain Gulf's distribution system in Northwest Florida. My department**
17 **handles over 7,700 miles of electrical lines that provide electricity to Gulf's**
18 **434,571 customers (as of December 2012), ranging from Perdido Key west**
19 **of Pensacola to Youngstown east of Panama City. My department is**
20 **responsible for providing continuous electric service to the customers we**
21 **serve 24 hours a day, 7 days a week, and 365 days per year.**

22 Q. **Please state your prior work experience and responsibilities.**

23 A. **I came to Gulf in 1980 as a field engineer and started working in**
24 **Gulf's Central District, Ft. Walton, where I worked for 9 years in a variety of**
25

1 field engineering roles. In 1989, I moved to the Eastern District, Panama
2 City, as a Supervisor of Area Engineering where I was responsible for the
3 field engineering staff. Over the next several years, I progressed through
4 several supervisory roles before becoming Engineering & Construction
5 Manager for the Eastern District in 1999. In 2003, I transferred to Gulf's
6 Corporate Office in Pensacola where I progressed to the position of Power
7 Delivery Services Manager in 2006. I assumed my current position in
8 October 2012.

9

10 Q. What is your educational background?

11 A. I have a Bachelor of Science in Electrical Engineering from the University of
12 Central Florida and a Master of Science in Management from Troy
13 University.

14

15 Q. What is the purpose of your testimony?

16 A. My testimony describes the general function and operation of an electric
17 distribution system. I will address Gulf's electric distribution system; and in
18 doing so, describe Gulf's service area, the location of its distribution system
19 within the service area, and some challenges Gulf faces in planning,
20 operating and maintaining its distribution system. I will explain Gulf's
21 distribution planning process along with Gulf's distribution budget process
22 for both Capital Additions and Operation and Maintenance (O&M)
23 expenses. I then present Gulf's distribution Capital Additions and O&M
24 Budgets for the 2014 test year. I will present Gulf's projected year
25 investment in distribution facilities. Finally, I will discuss how well Gulf

1 has performed in terms of distribution performance and customer
2 satisfaction.

3

4 Q. What exhibits do you sponsor?

5 A. Attached to my testimony is Exhibit JAM-1, Schedules 1 through 10. This
6 exhibit was prepared under my supervision and control. The information
7 contained therein is true and correct to the best of my knowledge and belief.

8

9 Q. Which of the Company's Minimum Filing Requirements (MFRs) do you
10 sponsor?

11 A. The MFRs I sponsor or co-sponsor are listed on Exhibit JAM-1, Schedule 1.
12 The information contained in the MFRs I sponsor or co-sponsor is true and
13 correct to the best of my knowledge and belief.

14

15

16 **I. AN ELECTRIC DISTRIBUTION SYSTEM**

17

18 Q. What is the function of an electric distribution system?

19 A. The electric power grid is composed of three basic components: the
20 generation source, the transmission system, and the electric distribution
21 system. The electric distribution system provides electrical service to the
22 customer through distribution lines and equipment. The distribution system
23 consists of the facilities beginning at the distribution substation and ending
24 at the customer's meter.

25

1 Q. Please describe the major components of an electric distribution system.

2 A. The electric distribution system begins in the distribution substation. For
3 electricity to be useful in a home or business, it must be transformed from
4 the higher voltage of the transmission grid to the lower voltage of the
5 distribution system. The place where the conversion from “transmission” to
6 “distribution” occurs is in a distribution substation. A picture of a distribution
7 substation with the major components labeled is set forth in my Exhibit
8 JAM-1, Schedule 2, page 1.

9

10 A distribution substation typically performs several key functions:

- 11 • Power transformers reduce transmission voltages (typically 115,000
12 volts or 230,000 volts) to distribution level voltages (for Gulf this is
13 typically 12,470 volts).
- 14 • Capacitor banks help maintain voltage at the substation.
- 15 • The distribution “bus” ties everything together in the substation.
- 16 • Regulator banks regulate voltage on the distribution system to
17 prevent low voltage and overvoltage conditions.
- 18 • Circuit breakers and switches allow the substation to be
19 disconnected from the transmission grid and/or allows separate
20 distribution lines to be disconnected from the substation when
21 necessary.

22 Once electricity reaches the distribution “bus” within the substation, it flows
23 through the breakers, regulators, and onto the feeders. As shown on
24 Exhibit JAM-1, Schedule 2, page 2, a feeder circuit is made up of a set of
25 four wires. When observing a distribution pole, the three wires at the top of

1 the pole are the wires used to provide three-phase power (typically referred
2 to as "primary" lines which carry electricity). The fourth wire, lower on the
3 pole, is the neutral or ground wire. Feeders are the backbone of the
4 distribution grid and allow for ties between other feeders, or other
5 distribution substations.

6
7 Feeders, in turn, are connected to "lateral" lines that branch into
8 subdivisions, industrial parks, businesses, or individual homes. As shown
9 on Exhibit JAM-1, Schedule 2, page 3, these lateral lines are made up of
10 one, two, or three primary lines and a neutral. Distribution equipment
11 located on the feeders and laterals includes voltage regulators, capacitor
12 banks, electronic and hydraulic reclosers, switches, and fuses. Often this
13 equipment includes some type of distribution automation package to either
14 allow for automatic operation or communication with an operation center for
15 remote monitoring and control. The equipment located on the feeders and
16 laterals is necessary and required for proper voltage control and safe
17 operation of the complete distribution system.

18
19 Finally, customers are served from laterals (or, in some cases, feeders)
20 using distribution transformers to reduce the voltage to 120/208 volts,
21 120/240 volts, or 277/480 volts, depending on the customer's requested
22 service voltage level. The electricity leaves the distribution transformer
23 through a "service" line that then connects to an electric service meter.
24 Please refer to Schedule 3 of my Exhibit JAM-1 for a diagram and
25 component descriptions of a typical electric power grid.

1 Q. Please describe the types of customers that Gulf serves from the electric
2 distribution system.

3 A. There are three major classifications of customers: residential, commercial,
4 and industrial. These customers are defined by usage parameters specific
5 to the customer requirements. Industrial customers typically require three-
6 phase service and have large motor loads and higher capacity requirements
7 for manufacturing capability. Commercial customers may require a single-
8 phase or three-phase service and are typically big box stores, outlet malls
9 and stores, and other small and large commercial businesses. These
10 businesses vary in their electrical demands, but generally they use electric
11 service to provide a product or service to their respective client base.
12 Residential customers are primarily served through single-phase
13 installations where service capability is typically defined by the size of the
14 home and the associated heating and cooling design.

15

16

17 **II. GULF'S DISTRIBUTION SYSTEM**

18

19 Q. Please provide a description of Gulf's distribution system.

20 A. As of December 2012, Gulf's distribution system consists of 95 distribution
21 substations, 299 distribution feeders, 5896 miles of overhead primary lines,
22 and 1827 miles of underground primary lines.

23

24 Q. Please describe Gulf's general service area.

25 A. Gulf's general service area covers much of the Florida panhandle. In broad

1 geographic terms, it spans from the Perdido River on the Alabama/Florida
2 border in the west approximately 153 miles to the east and from the Florida
3 coast of the Gulf of Mexico north to the Florida/Alabama border. A map of
4 this broad geographic area in which Gulf's service area is located is
5 presented on Exhibit JAM-1, Schedule 4. This service area covers
6 approximately 7,550 square miles in eight Florida counties—Bay,
7 Escambia, Holmes, Jackson, Okaloosa, Santa Rosa, Walton, and
8 Washington. Gulf's service area currently encompasses 71 towns and
9 communities in Northwest Florida.

10

11 Q. Does Gulf have electric distribution facilities throughout the broad
12 geographic area you described as Northwest Florida?

13 A. Yes. Gulf has electric distribution facilities throughout the broad geographic
14 area, except where the retail electric service is provided by a rural electric
15 cooperative. Also, there are some parts of this geographic area that simply
16 do not have any retail customers, so no distribution facilities exist.
17 However, Gulf has an obligation as a public utility to serve such areas, so
18 the Company must be prepared to extend its distribution facilities when
19 customers make such a request.

20

21 Q. Where are Gulf's electric distribution facilities primarily located?

22 A. Most of Gulf's electric distribution systems are located in areas of the
23 greatest population density; however, the population density of the Florida
24 panhandle is lower than much of the other more urban populations in the
25 Florida peninsula. Gulf Power's Service Area & Customer Density Areas

1 are shown on Exhibit JAM-1, Schedule 5. As shown, Gulf is divided into
2 three Districts: Western, Central and Eastern. In the Western District, the
3 greatest densities of customers are around Escambia and Pensacola Bays
4 (Gulf Breeze, Pensacola and Milton) and in and around the following
5 communities to the north: Cantonment, Beulah, Molino, and Century. In
6 the Central District, the greatest densities of customers are around
7 Choctawhatchee Bay in the south (Ft. Walton Beach, Niceville and Destin)
8 and in and around the following communities to the north: Crestview, Laurel
9 Hill, Paxton, DeFuniak Springs and Ponce de Leon. In the Eastern District,
10 the greatest population densities are around St. Andrews Bay (Panama City
11 and Panama City Beach) in the south and in the following communities to
12 the north and east: Vernon, Caryville, Bonifay, Chipley, Graceville,
13 Campbellton, Cypress and an unincorporated area between Sneads and
14 Chattahoochee.

15
16 Q. Are there any distinctive aspects or characteristics of Gulf's service area
17 that affect Gulf's electric distribution system?

18 A. Yes. There are geographic and climatic characteristics that affect Gulf's
19 service areas and distribution system.

20
21 A significant part of Gulf's service area is adjacent to coastal waters and
22 numerous natural bays, intra-coastal waterways and rivers. This subjects
23 Gulf's distribution system to the effects of salt contamination and tropical
24 weather impacts. Tropical weather impacts consist of storm surge up to 20
25 feet or more and high winds. A map showing the potential wind field

1 impacts is included on Exhibit JAM-1, Schedule 4. The wind loading lines
2 on the drawing are based on the National Electric Safety Code (NESC)
3 extreme wind loading standards specified in figure 250-2(d) on page 197 of
4 the 2012 NESC book. These impacts have resulted in Gulf adopting more
5 stringent standards and specifications for its material and equipment. For
6 example, Gulf has adopted the more stringent Grade B construction
7 standard for all new distribution facilities and the use of stainless steel
8 transformers in coastal regions to minimize the adverse effects from salt
9 contamination and corrosion.

10
11 Another distinctive characteristic of Northwest Florida that affects Gulf's
12 distribution system is the frequency of lightning strikes. Vaisala's National
13 Lightning Detection Network (NLDN) indicates that the cloud to ground
14 lightning incident rate in Northwest Florida is among the highest in the
15 nation. See Exhibit JAM-1, Schedule 6. To address this high incidence of
16 lightning strikes, Gulf's design standards and specifications require an
17 increased number of lightning arrestor installations and associated
18 grounding enhancements.

19
20
21 **III. GULF'S DISTRIBUTION PLANNING PROCESS**

22
23 Q. Please describe Gulf's distribution planning process.

24 A. Gulf's planning process is used to determine the most reliable, practical,
25 and economical expansion of the distribution system. Gulf performs "Long

1 Range Area Distribution Studies” (Studies) to identify issues that could
2 adversely impact the delivery of power across the distribution system.
3 These Studies are continually performed such that each operating area is
4 studied on a three- to five-year cycle depending on customer growth and
5 distribution changes. For these Studies, Gulf uses analysis software by
6 CYME® International, which is recognized as one of the industry leaders in
7 this field.

8
9 The Studies are initiated by modeling the relevant distribution system and
10 the distribution system loading in their current states. Long-range forecast
11 information based on historical data trends, marketing data and actual field
12 information is compiled to determine system growth in each area. This
13 information is then applied to each feeder to establish a forecast demand.
14 The Study projects a seven-year horizon window, and each year is then
15 analyzed to determine the operating conditions and their potential impacts
16 to the distribution system.

17
18 Operating conditions requiring adjustment are identified along with the most
19 practical and economical solutions. The final recommendations from the
20 Studies are reviewed and approved by Distribution management who have
21 knowledge of the district, the distribution system, and any unique
22 characteristics of the area served.

23
24 When a significant change occurs in an area that is not currently under
25 study, the distribution planning group performs a “Special Distribution

1 Study.” An example of a significant change would be a large new business
2 customer or a business adding significant electrical load. The latest Long
3 Range Study of that area is adjusted for the change to determine any
4 potential impact to the distribution system. If an operating condition
5 requiring adjustment occurs, then a solution is determined, and a
6 recommendation generated. The final recommendations from the Studies
7 are reviewed and approved by Distribution management.

8
9 Annually, a review of all current planning Studies is performed by
10 Distribution management. The justification of each project is compared to
11 the latest actual load to ensure the recommended timing for construction is
12 appropriate. If the recommendations have changed, the project justification
13 and construction schedule are adjusted accordingly. Careful consideration
14 is given to those projects that require longer construction lead times such as
15 new distribution substations, which have a two-year or more construction
16 timeframe. This timeframe is impacted by equipment availability, permitting
17 and land acquisition, all of which have become major considerations for
18 construction in Northwest Florida.

21 **IV. GULF’S DISTRIBUTION BUDGET PROCESS**

22
23 **Q.** Please describe the distribution budgeting process.

24 **A.** The distribution budgeting process consists of two components: the Capital
25 Additions Budget and the O&M Budget. The Capital Additions Budget

1 consists of expenditures related to on-going capital replacements and
2 capital construction projects. The O&M Budget consists of expenses
3 associated with the daily operation and maintenance of the distribution
4 system.

5
6 Q. Please describe Gulf's distribution Capital Additions Budgeting process.

7 A. Each year, Gulf's Corporate Planning and Budgeting department provides a
8 Budget Message to each planning unit. As discussed in the testimony of
9 Gulf Witness Ritenour, the Budget Message provides budget guidelines for
10 preparing a budget request. Distribution begins its Capital Additions Budget
11 process by analyzing the two components that make up the distribution
12 Capital Additions Budget: on-going capital replacement and capital
13 construction projects. Capital replacement programs include the routine
14 replacement of poles, transformers, voltage regulation equipment,
15 reclosers, switches, arrestors, conductors, outdoor lighting, and other
16 assets. Capital construction projects, except for new business construction
17 requests, are a result of the planning Studies that I mentioned previously.
18 Both the capital replacement projects and capital construction projects are
19 developed to support reliability, safety, and customer demand.

20
21 Capital replacements and capital construction projects are further
22 subdivided into blanket and specific plant expenditure (PE) categories.
23 Blanket PEs reflect repetitive expenditures based on historical trends and
24 projected customer growth. Blanket PEs include items such as new
25 business overhead and underground construction, meters and transformers,

1 trucks and equipment, lighting, pole replacements, and other capital
2 improvement projects. Specific PEs are related to planning projects and
3 major initiatives requiring distribution plant additions. Examples of specific
4 PEs are distribution automation, storm hardening, new feeders, and
5 distribution substations.

6
7 The proposed Capital Additions Budget is reviewed by the Distribution
8 management team. Once approved, the Distribution management team
9 submits a proposed Capital Additions Budget to the Customer Service and
10 Operations Vice President. Once reviewed and approved by the Customer
11 Service and Operations Vice President, the Capital Additions Budget is
12 presented to Corporate Planning for inclusion in the Company's Capital
13 Additions Budget. Ms. Ritenour will address Gulf's Capital Additions Budget
14 process within Corporate Planning.

15
16 Q. Describe the Distribution capital expenditures monitoring process.

17 A. After the Capital Additions Budget has been approved, each distribution PE
18 is assigned an owner within the Distribution organization. Each owner's
19 responsibility is to monitor expenditures against the budget. Within each
20 PE, Distribution System Orders (DSO) are created, approved, and
21 authorized for construction. DSOs are created by field engineers and
22 approved and authorized by the appropriate level of management based on
23 the cost of the DSO. DSOs are routed to crews for field completion. These
24 completed work orders are then returned to engineering for material and
25 labor reconciliation. Each month, the Distribution management team

1 reviews capital project expenditures and any budget variance for all
2 projects. Each project owner is responsible for explaining budget variances.

3
4 Budget variances may result in the reallocation of overall capital
5 expenditures within the Distribution organization. On a quarterly basis,
6 Corporate Planning requires a detailed explanation of all budget variances
7 greater than 10 percent or \$250,000 (whichever is lower). Variances less
8 than \$10,000 do not require a variance explanation.

9
10 Q. How are new capital projects or changes to existing projects incorporated in
11 the current year budget?

12 A. In the event a new project or an increase in capital expenditures associated
13 with an existing project is necessary, Distribution must submit a justification
14 letter to the Customer Service and Operations Vice President. Once
15 approved by the Customer Service and Operations Vice President, the letter
16 is forwarded to the Chief Financial Officer (CFO) for review and approval. If
17 the change is approved, the letter is sent to Corporate Planning where the
18 change is documented and the current budget is updated to reflect the
19 change.

20
21 Q. Please describe the Distribution O&M Budgeting process.

22 A. Gulf's Corporate Planning organization provides a Budget Message with
23 guidelines for preparing the budget. Gulf's Distribution O&M Budget is then
24 developed by employees who are very knowledgeable about the distribution
25 systems they operate and maintain on a daily basis. Each year Gulf's

1 Distribution organization develops a five-year O&M Budget based on
2 historical experience and projected maintenance in order to continue the
3 safe operation and reliability of the distribution system.

4
5 Gulf relies on a combination of inputs in determining the appropriate level of
6 O&M expenses for a budget request. First, the requested level of some
7 Distribution O&M expenses is determined by looking at available historical
8 trends. Expenses associated with outage restoration, underground cable
9 fault repairs, and street light maintenance are examples of such expenses.
10 Other O&M expenses are a result of compliance with regulatory
11 requirements. The O&M expenses necessary for Gulf to accomplish the
12 programs in its Storm Hardening Plan are an example of this type of
13 expense. In addition, Gulf's field personnel have a role in the O&M Budget
14 process. Gulf's field personnel identify maintenance and inspection needs
15 in their areas of responsibility.

16
17 As the proposed O&M Budget is developed, the Distribution management
18 team meets to review and prioritize the O&M programs and projects. Once
19 approved, the Distribution management team submits a proposed O&M
20 Budget to the Customer Service and Operations Vice President. Once
21 reviewed and approved by the Customer Service and Operations Vice
22 President, the O&M Budget is presented to Budgeting for inclusion in the
23 Company's O&M Budget. Ms. Ritenour addresses Gulf's O&M Budget
24 process within Corporate Planning and Budgeting.

25

1 Q. How are significant variances in the O&M Budget resolved when
2 unforeseen circumstances arise during the budget year?

3 A. Where Distribution projects to exceed the budget, justification of the
4 variance is submitted to the Customer Service and Operations Vice
5 President. If approved by the Customer Service and Operations Vice
6 President, the variance is forwarded to the CFO and Budgeting department.
7 Executive management will review the variance request. If approved, the
8 variance is incorporated into the Distribution O&M Budget for the year.

9
10 Q. Describe the Distribution O&M monitoring process.

11 A. Each Distribution O&M activity is assigned an owner within the Distribution
12 organization. Each owner's responsibility is to monitor expenses against
13 budget. Within each activity, all variances are reported to Distribution
14 management for their review on at least a monthly basis. At the end of
15 each quarter, budget to actual reports are provided to Budgeting along with
16 justifications for variances from the budget.

17

18

19

V. GULF'S DISTRIBUTION O&M BUDGET

20

21 Q. What is Gulf's Distribution O&M Budget for 2013 and 2014?

22 A. Gulf's Distribution O&M Budget for 2013 is \$40,975,000. Gulf's Distribution
23 O&M Budget for 2014 is \$42,070,000.

24

25

1 Q. Is Gulf's projected level of Distribution O&M expense of \$42,070,000 in
2 2014 reasonable and prudent?

3 A. Yes. This is the level of Distribution O&M expenses that was approved as a
4 result of Gulf's robust budget process that I described earlier, and this is the
5 level of 2014 Distribution O&M expenses that is reasonable, prudent and
6 necessary for Gulf to provide adequate and reliable electric service to our
7 customers. As shown on JAM-1, Schedule 7 of my exhibit, the 2014
8 budgeted Distribution related O&M expenses include the following major
9 activities: Asset Management [\$2,834,000], Overhead and Underground
10 Line Operation and Maintenance [\$16,776,000], Minor Storms [\$658,000],
11 Load Dispatch [\$1,225,000], Meters [\$3,388,000], Storm Hardening
12 [\$367,000], Vegetation Management [\$5,948,000], and Engineering and
13 Supervision [\$10,874,000].

14

15 Q. Please describe Gulf's Asset Management activity.

16 A. The Asset Management activity [\$2,834,000] includes expenses related to
17 equipment inspection programs that ensure safe and effective operation of
18 distribution equipment. For example, this activity covers Gulf's inspection of
19 major distribution equipment such as overhead and underground
20 transformers, regulators, transclosers and vaults on the distribution system.
21 Gulf's pole inspection program is included in this activity. Gulf's pole
22 inspection program is conducted annually based on an eight-year cycle as
23 approved by the Florida Public Service Commission (FPSC or the
24 Commission) in Order No. PSC-07-0078-PAA-EU, Docket No. 060531-EU.
25 This activity also includes maintenance expenses for Gulf's distribution

1 automation program, which includes repair and maintenance of line devices
2 and their associated communication equipment.

3

4 Q. Please describe Gulf's Overhead and Underground Line Operation and
5 Maintenance activity.

6 A. Gulf's Overhead and Underground Line Operation and Maintenance activity
7 [\$16,776,000] includes expenses related to line inspection, repair and
8 maintenance programs. For example, Gulf's annual inspection of mainline
9 feeders using both visual observations and infrared technology is included
10 in this activity. Also included in this activity are the expenses associated
11 with outage-related distribution switching (load transfer or isolation); repair
12 of damaged underground cables; repair of damaged overhead feeders,
13 laterals, and services; and outage restoration efforts.

14

15 Q. Please describe Gulf's Minor Storm activity.

16 A. The Minor Storm activity [\$658,000] includes expenses involved in restoring
17 electric service to Gulf's customers after weather events such as
18 thunderstorms or winter storms. This activity would include repairing
19 downed feeders or laterals and other equipment damaged by weather
20 events not covered by the Property Damage Reserve.

21

22 Q. Please describe Gulf's Load Dispatch activity.

23 A. Gulf's Load Dispatch activity [\$1,225,000] includes expenses related to non-
24 outage distribution switching. An example of non-outage distribution

25

1 switching is the transfer of load between feeders or laterals to facilitate
2 construction or maintenance.

3

4 Q. Please describe Gulf's Meters activity.

5 A. Gulf's Meters activity [\$3,388,000] includes expenses related to Gulf's meter
6 inspection and testing programs. These programs are part of the ongoing
7 support of the "Gulf Power Company Test Plan for Revenue Metering
8 Devices" that is filed with the FPSC, outlining meter test schedules.

9

10 Q. Please describe Gulf's Storm Hardening activity.

11 A. Gulf's Storm Hardening activity [\$367,000] includes part of the O&M
12 expenses associated with Gulf's Storm Hardening Plan filed with the
13 Commission on May 1, 2013. This budget item covers the O&M component
14 of pole replacement and equipment repair associated with Gulf's pole and
15 feeder inspection programs outlined in Gulf's Storm Hardening Plan.

16

17 Q. Please describe Gulf's distribution Vegetation Management activity.

18 A. Gulf's distribution Vegetation Management activity [\$5,948,000] includes
19 expenses to clear, trim, and maintain the distribution rights of way. Gulf's
20 vegetation management activities include a combination of a three-year trim
21 cycle on all main line feeders, a four-year cycle on laterals, and an annual
22 inspection and correction of main line feeders to ensure the approved
23 cycles are achieved. The test year request is \$1,030,000 higher than the
24 \$4,918,000 approved in the last rate case due to increased costs
25 associated with maintaining the new tree trim cycles established in Gulf's

1 Storm Hardening Plan which was approved by the Commission in Order No.
2 PSC-10-0688-PAA-EI, Docket No. 100265-EI. This increase is consistent
3 with the Storm Hardening Plan filed May 1, 2013, and represents Gulf's
4 distribution vegetation management plan outlined in the filing. The costs
5 included and approved in Gulf's last rate case were estimates based on a
6 single year of Gulf transitioning from the previous 6 year "lateral trim" cycle
7 to a newly approved 4 year "lateral trim" cycle.
8

9 Q. Please describe Gulf's Engineering and Supervision expense.

10 A. Gulf's Engineering and Supervision expense [\$10,874,000] includes the
11 salaries and expenses associated with supervision, engineers, and other
12 employees engaged in the operation and maintenance of the distribution
13 system.
14

15 Q. Is Gulf's projected level of Distribution O&M expense of \$42,070,000 in
16 2014 representative of a going forward level of Distribution O&M expenses
17 beyond 2014?

18 A. Yes. This is best illustrated by comparing the 2014 level of Distribution
19 O&M expenses to the budgeted levels of Distribution O&M expenses for the
20 years 2013 - 2017, which were also developed in the same budget process.
21 Exhibit JAM-1, Schedule 7 shows that over the 2013 - 2017 time periods
22 Gulf's Distribution O&M expenses will continue to grow at a moderate and
23 consistent rate to meet the needs of our customers.
24
25

1 Q. The Commission has historically employed an O&M benchmark calculation
2 in base rate proceedings. How do Gulf's distribution O&M expenses
3 forecasted for 2014 compare to the O&M benchmark level of distribution
4 expenses?

5 A. Gulf's 2014 level of distribution O&M expenses is \$663,000 below the O&M
6 benchmark. The O&M benchmark level for distribution provided to me by
7 Gulf Witness McMillan is \$42,733,000. Gulf is projecting to spend
8 Distribution O&M in 2014 of \$42,070,000. This is shown in Exhibit JAM-1,
9 Schedule 8.

10

11

12

VI. GULF'S DISTRIBUTION INVESTMENT

13

14 Q. Ms. Ritenour shows a total of \$2.944 billion of plant in service investment in
15 Gulf's 2014 rate base in this case. Are the assets associated with these
16 costs used and useful in the provision of electric service to the public?

17 A. Yes. The Distribution assets, which comprise a total of \$1,152,898,000 of
18 plant in service in Gulf's 2014 rate base, are used and useful in Gulf's
19 provision of electric service.

20

21 Q. Are these Distribution investments reasonable and prudent?

22 A. Yes. They are the product of Gulf's Distribution planning process as well as
23 the rigorous budgeting and monitoring process I described earlier in my
24 testimony.

25

1 Q. How does the test year level of Distribution plant in service compare with
2 the level of Distribution plant in service in Gulf's last rate case?

3 A. The projected level of distribution plant in service in Gulf's average rate
4 base is \$1,152,898,000. This compares to the 13-month average projected
5 level of distribution plant in service in Gulf's last rate case of
6 \$1,028,984,000.

7

8 Q What have been the major drivers associated with the \$124 million increase
9 in the Distribution plant in service in rate base between this test year and
10 Gulf's last rate case?

11 A. The major drivers behind the increase in distribution plant in service are the
12 following:

- 13 • The installation of new distribution facilities to meet the needs of
14 customer growth.
- 15 • Distribution system infrastructure improvements due to:
 - 16 ○ System loading, as discussed earlier as part of the distribution
17 system planning and studies programs
 - 18 ○ Reliability upgrades
 - 19 ○ Storm Hardening
 - 20 ○ Distribution Automation
 - 21 ○ Advanced Metering Infrastructure
- 22 • Replacement of older equipment and aging infrastructure

23 All of these additions and improvements require capital investments to
24 provide for the safe, reliable and efficient operation of the distribution
25 system.

1 Q. What is Gulf's distribution Capital Additions Budget for 2013 and 2014?

2 A. Gulf's distribution Capital Additions Budget for 2013 is \$46,140,000. Gulf's
3 projected distribution Capital Additions Budget for 2014 is \$45,348,000. As
4 shown on Exhibit JAM-1, Schedule 9, the 2014 Capital Additions Budget
5 includes the following types of expenditures: Distribution Infrastructure
6 Improvements [\$17,337,000], Storm Hardening [\$2,806,000], Asset
7 Management [\$4,082,000], New Business [\$12,040,000], Highway
8 Improvements/Joint Use [\$1,210,000], and Distribution Transformers
9 [\$7,873,000].

10

11 Q. Describe Gulf's Distribution Infrastructure Improvement expenditures.

12 A. Gulf's Distribution Infrastructure Improvement expenditures for 2014 are
13 \$17,337,000. Distribution Infrastructure Improvement expenditures are for
14 the replacement of equipment that is operating at or has the potential of
15 exceeding capacity. These expenditures also include modifications and
16 additions to the overhead distribution system that are necessary to protect
17 the reliability of distribution feeders and laterals and maintain voltage levels
18 on the distribution system. These modifications are identified, evaluated,
19 and constructed based on recommendations from Gulf's distribution
20 planning process.

21

22 Q. Describe Gulf's Storm Hardening expenditures.

23 A. Gulf's Storm Hardening expenditures for 2014 are \$2,806,000. This
24 expenditure is the result of Gulf's 2013 – 2015 Storm Hardening Plan which
25 was filed with the Commission on May 1, 2013. This plan incorporates the

1 10-Part Storm Preparedness Plan Initiatives that were originally approved in
2 Order No. PSC-06-0781-PAA-EI, Docket No. 060198-EI in September
3 2006. This capital expenditure includes the upgrade of strategic critical
4 infrastructure to Grade B construction standards along with the continued
5 installation and construction of Distribution Automation equipment.

6
7 Gulf's Distribution Automation program was originally approved in Gulf's
8 Storm Hardening Plan, Order No. PSC-10-0688-PAA-EI in Docket No.
9 100265-EI. Gulf plans to continue with the implementation of its Distribution
10 Automation program that consists of the installation of protective devices
11 (reclosers), substation relaying changes and a Distribution Supervisory
12 Control and Data Acquisition (DSCADA) System. Gulf is installing mid-line
13 reclosers and fault indicators, replacing older reclosers, and constructing
14 self-healing networks and automated switches on critical feeders. These
15 devices will be monitored and controlled remotely by Gulf's Distribution
16 Control Center personnel and/or placed in an automated restoration
17 scheme. The goal of this program is to reduce the number of customer
18 outages, and when an outage does occur; minimize the number of
19 customers affected and the time associated with restoration.

20
21 Q. Describe Gulf's Asset Management Improvement Program expenditures.

22 A. Gulf's Asset Management expenditures for 2014 are \$4,082,000. These
23 expenditures are for the purchase and installation of equipment necessary
24 to continue the reliable operation of the distribution system. Lightning
25 protection devices on feeders and laterals are also included in this activity.

1 Gulf's distribution system is exposed to a higher than average frequency of
2 lightning strikes, which is a distinctive characteristic of Northwest Florida.
3 Vaisala's National Lightning Detection Network (NLDN) indicates that the
4 cloud to ground lightning incident rate in Northwest Florida is among the
5 highest in the nation. See Exhibit JAM-1, Schedule 6. To address this
6 Gulf's design standards and specifications require an increased number of
7 lightning arrestor installations and associated grounding enhancements on
8 distribution feeders and laterals. Also included are expenditures for the
9 purchase and installation of municipal street lighting and other outdoor
10 lighting facilities.

11

12 Q. Describe Gulf's New Business expenditures.

13 A. Gulf's New Business Capital Additions Expenditures for 2014 are
14 \$12,040,000. New Business includes expenditures for distribution facilities
15 that are necessary to construct additions, extensions, and improvements
16 related to the connection of new residential, commercial, or industrial
17 customers. These expenditures include installation of poles, conduit, and
18 wires which are necessary to serve additional customers and their
19 associated loads. New Business also includes distribution facilities installed
20 to serve a new residential subdivision or a new commercial development.
21 This amount is lower than the initially budgeted amount for 2014 by
22 \$4,135,000. This reduction is to reflect expected customer growth.

23

24 Q. Describe Gulf's Highway Improvements/Joint Use expenditures.

25 A. Gulf's Highway Improvements/Joint Use expenditures for 2014 are

1 \$1,210,000. These expenditures are used to relocate lines as required by
2 state and county agencies for street and highway construction. In addition
3 this includes the cost associated with the replacement of poles where
4 additional height is needed to meet joint use clearance requirements and
5 work on Gulf's equipment that is attached to a joint use pole owned by a
6 communication company.

7
8 **Q.** Describe Gulf's Distribution Transformers expenditures.

9 **A.** Gulf's Distribution Transformers expenditures for 2014 are \$7,873,000.
10 Distribution Transformers includes expenditures associated with the
11 purchase and installation of overhead and underground distribution system
12 transformers as a result of new customers or service improvements.

13
14 **Q.** Are you responsible for any General Plant expenditures?

15 **A.** Yes. While Ms. Ritenour discusses General Plant in her testimony, I am
16 responsible for the maintenance and General Plant expenditures related to
17 Gulf's fleet of vehicles (Fleet). Gulf's Fleet currently consist of 230 light
18 vehicles (pickups and vans), 8 medium/heavy non-mechanized units, 126
19 mechanized units (bucket and pole trucks), 179 trailers, and 49 off-road
20 units (forklifts, dozers, and boats). Expenditures for 2014 will be
21 \$3,340,000. These test year expenditures are incurred as a result of a
22 standard replacement plan based on a 10-year cycle for light vehicles and a
23 12-year cycle for mechanized equipment and are necessary to maintain an
24 adequate Fleet.

25

1 **VII. GULF'S DISTRIBUTION PERFORMANCE**

2

3 Q. How does Gulf assess the quality of its distribution system service?

4 A. Gulf evaluates distribution system performance from the point of view of our
5 customers. One of the Company's goals is to be in the upper quartile in
6 customer value when measured against a peer group of utilities. Gulf
7 Power utilizes the Customer Value Benchmark (CVB), which allows the
8 Company to compare and contrast itself against an elite group of 16 peer
9 utilities in the Southeast and nationally. One of the specific drivers of
10 customer satisfaction in the CVB is reliability. The CVB survey results
11 indicate that reliability is one of the most important drivers of customer
12 value. The CVB survey measures reliability satisfaction on a 0 to 10 point
13 scale. From 2006 to 2012, Gulf's average rating has been 8.62.

14

15 Another measure of Gulf's distribution system performance is the number of
16 reliability related complaints the Commission receives from our customers.
17 According to the data available from the Commission for the 2012 calendar
18 year, Gulf had zero reliability related complaints.

19

20 Q. Does Gulf use any other measures to value distribution system
21 performance?

22 A. Yes. Consistent with Rule No. 25-6.0455, Gulf also uses the following
23 reliability measures: System Average Interruption Frequency Index (SAIFI),
24 System Average Interruption Duration Index (SAIDI), Momentary Average
25 Interruption Event Frequency Indicator (MAIFIE), Customer Average

1 Interruption Duration Index (CAIDI), and Customers Experiencing More
2 Than Five Interruptions (CEMI5). Gulf's distribution system performance on
3 these reliability measures over the 2006 to 2012 period has been relatively
4 consistent. In Exhibit JAM-1, Schedule 10, pages 1 through 5 there is a
5 comparison of Gulf's CVB scores to each of the above standard
6 performance indices.

7
8 Q. Please describe Gulf's distribution system performance.

9 A. Based on the foregoing measures, Gulf's distribution system performance
10 has been good. The projects and programs in the 2014 Capital and O&M
11 budgets are necessary for Gulf to continue to provide reliable electric
12 service.

13
14
15 **VIII. SUMMARY**

16
17 Q. Please summarize your testimony.

18 A. Gulf's Distribution organization continues to focus on customer service and
19 system performance. Gulf has a rigorous and proven planning process that
20 has been successful in providing for the needs of our customers. The
21 projected Distribution O&M expenses for 2014 are reasonable and
22 necessary for Gulf to continue to provide reliable electric service for our
23 customers and these expenses for 2014 are below the Commission's
24 benchmark. Gulf's Distribution Capital investments for 2014 are necessary
25 for the continued reliability and growth of the system. With the customer at

1 the center of everything we do, Gulf is committed to the safe, reliable
2 operation of the system, and meeting the needs of our customers.

3

4 **Q.** Does this conclude your testimony?

5 **A.** Yes.

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 130140-EI

Before me the undersigned authority, personally appeared
J. Andy McQuagge, who being first duly sworn, deposes, and says that he is the
Power Delivery General Manager of Gulf Power Company, a Florida corporation,
that the foregoing is true and correct to the best of his knowledge, information,
and belief. He is personally known to me.

s/ J. Andy McQuagge
J. Andy McQuagge
Power Delivery General Manager

Sworn to and subscribed before me this 8th day of July, 2013.

Monica A. Williams
Notary Public, State of Florida at Large

Commission No. EE166803

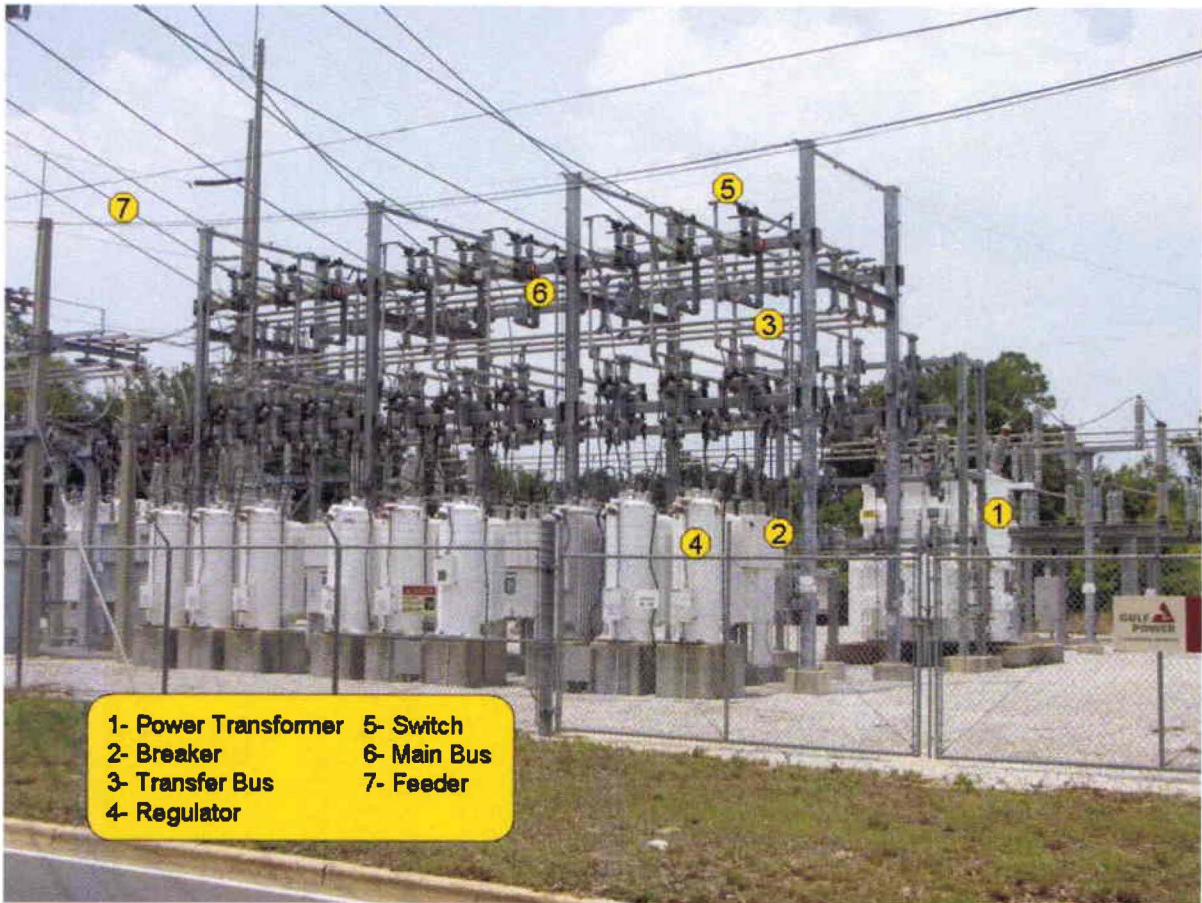
My Commission Expires 2/6/16



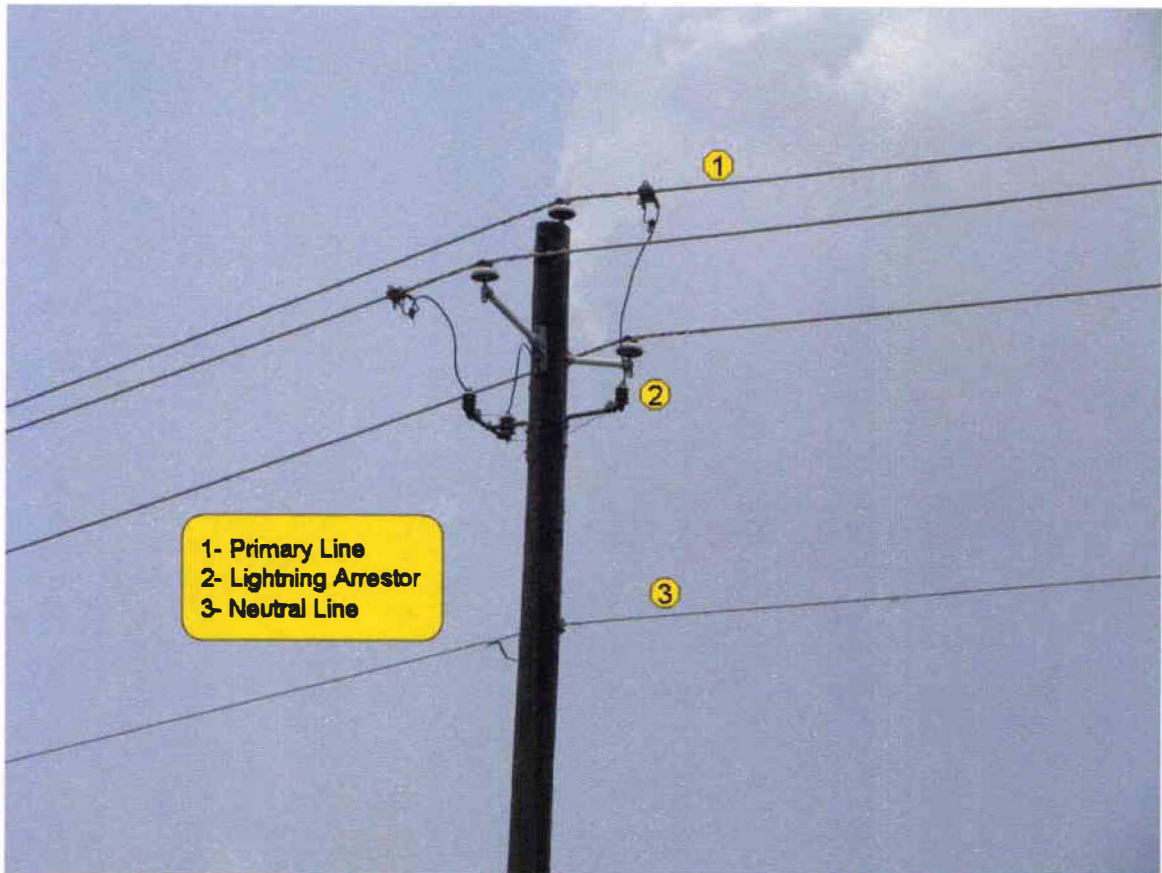
Responsibility for Minimum Filing Requirements

<u>Schedule</u>	<u>Title</u>
C-6	Budgeted Versus Actual Operating Revenues and Expenses
C-8	Detail of Changes in Expenses
C-34	Statistical Information
C-41	O&M Benchmark Variance by Function
F-8	Assumptions

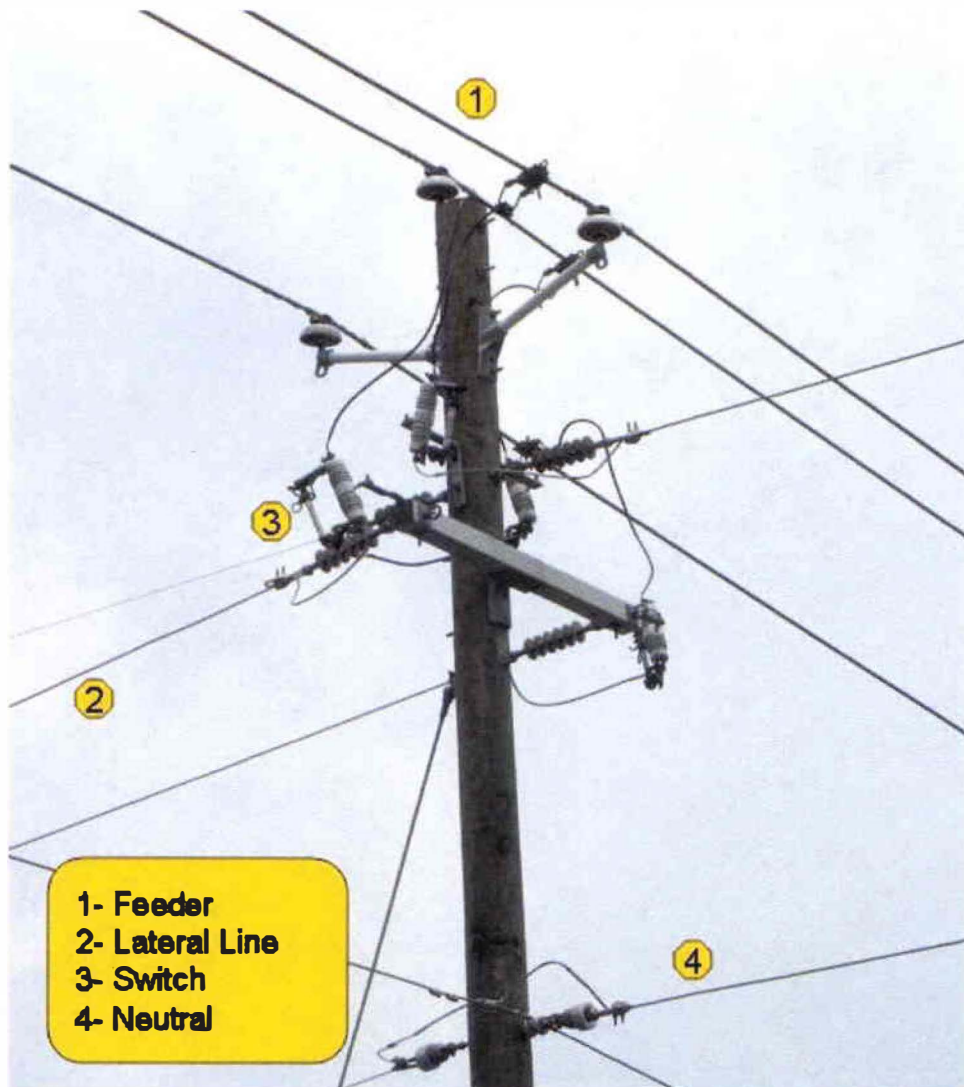
Distribution Substation



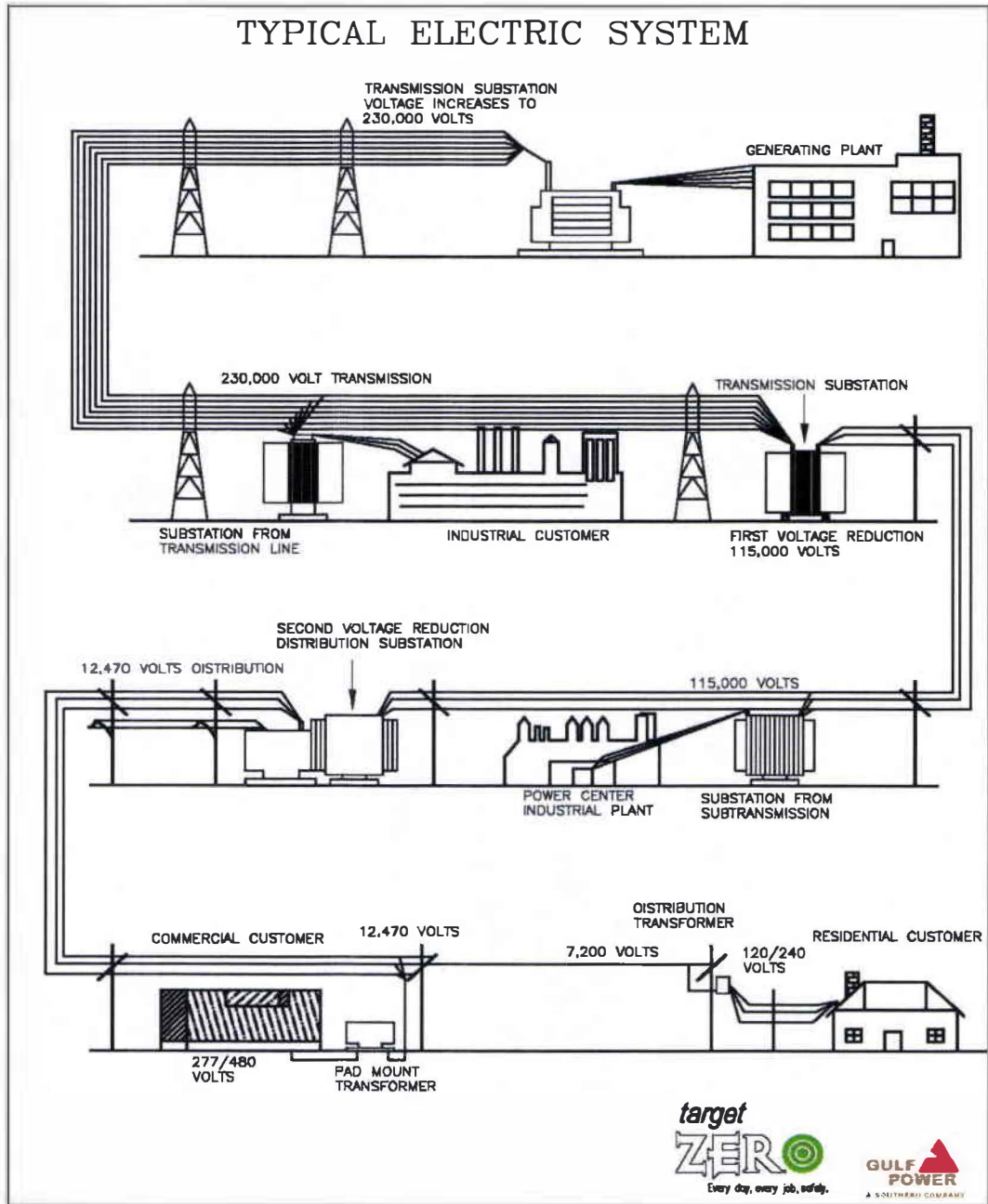
Feeder



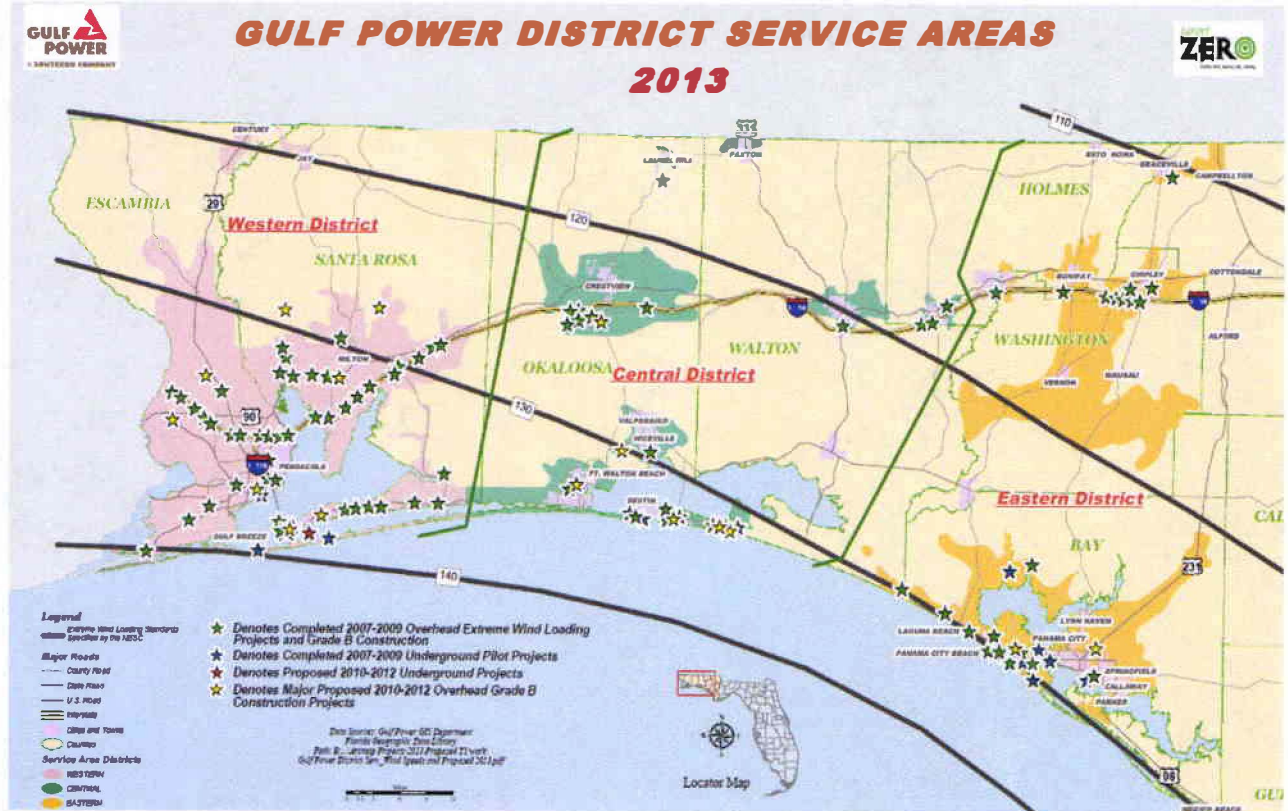
Lateral Lines



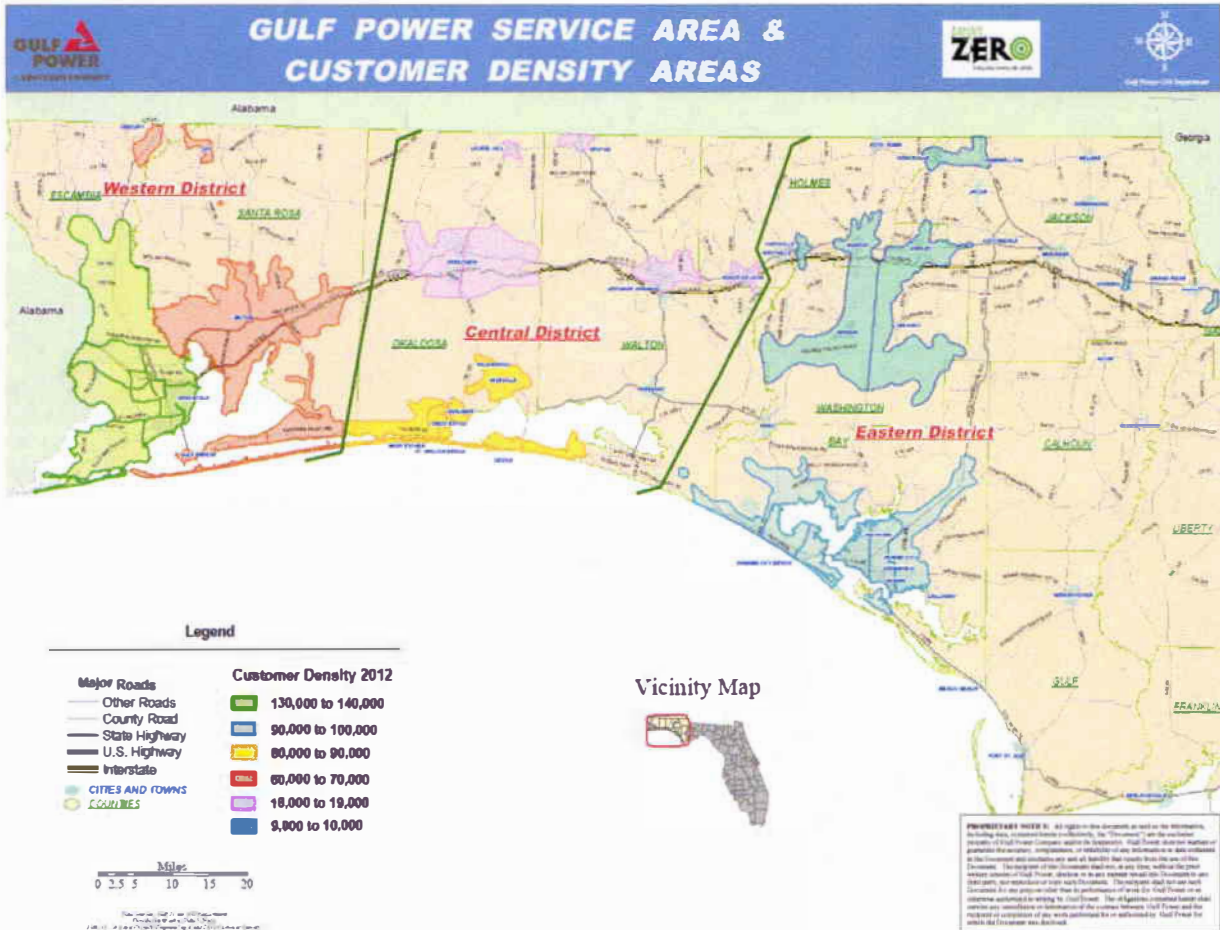
Electric Power Grid



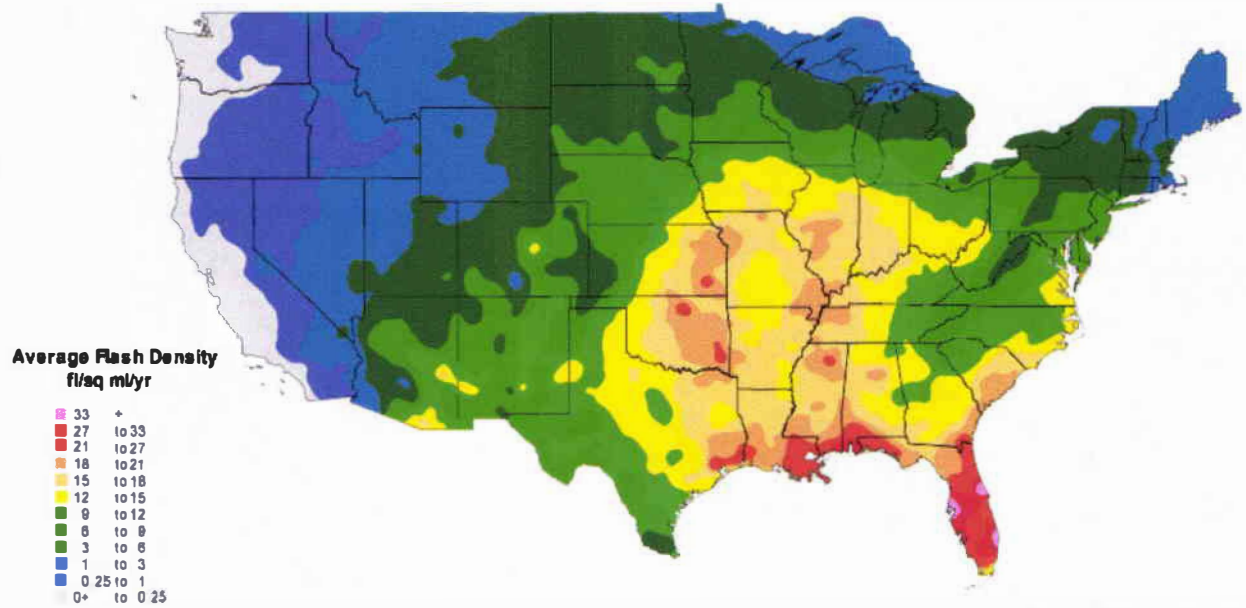
Gulf Power District Service Areas



Gulf Power's Service Area & Customer Density Areas



Vaisala's National Lightning Detection Network® (NLDN®)
Cloud-to-Ground Lightning Incidence in the Continental U.S. (1997 - 2012)



© Vaisala 2013. All rights reserved. For display purposes only - any other use is prohibited without prior written consent from Vaisala.

VAISALA

**Gulf Power Company
Distribution O&M Budget
2013 to 2017**

Category	2013 \$ (000's)	2014 \$ (000's)	2015 \$ (000's)	2016 \$ (000's)	2017 \$ (000's)
Asset Management	2,837	2,834	2,841	2,849	2,855
Overhead and Underground Line Operation and Maintenance	16,769	16,776	17,100	17,792	17,474
Minor Storms	663	658	663	664	665
Load Dispatch	1,187	1,225	1,235	1,268	1,292
Meters	3,480	3,388	3,452	3,523	3,583
Storm Hardening	367	367	367	368	368
Vegetation Management	5,593	5,948	5,948	5,948	5,948
Engineering & Supervision Overhead	10,079	10,874	11,370	11,815	12,046
Total O&M	40,975	42,070	42,976	44,227	44,231

Distribution Benchmark Variance

(000's)

Test Year Adjusted Benchmark	42,733
Test Year Adjusted Request	42,070
System Benchmark Variance	(663)

**Gulf Power Company
2013 - 2014 Distribution/Fleet Capital Additions Budget**

Distribution	2013 \$ (000's)	2014 \$ (000's)
AMI	200	-
Distribution Infrastructure Improvements	18,550	17,337
Storm Hardening	2,801	2,806
Asset Management Improvement Program	4,080	4,082
New Business	11,803	12,040
Distribution Additions/Retirements due to Highway & Joint Use	1,174	1,210
Distribution Transformers	7,532	7,873
Total Capital	46,140	45,348

General Plant	2013 \$ (000's)	2014 \$ (000's)
Fleet Investment	3,002	3,340

