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October 12, 2016

VIA ELECTRONIC FILING

Ms. Carlotta Stauffer
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: Petition for an increase in rates by Gulf Power Company, Docket No. 160186-EI

Re: Petition for approval of 2016 depreciation and dismantlement studies, approval of proposed depreciation rates and annual dismantlement accruals and Plant Smith Units 1 and 2 regulatory asset amortization by Gulf Power Company, Docket No. 160170-EI

Dear Ms. Stauffer:

Attached is the Direct Testimony and Exhibit of Gulf Power Company Witness Wendell E. Smith.

(Document 17 of 29)

Sincerely,

A handwritten signature in blue ink that reads "Robert L. McGee, Jr.".

Robert L. McGee, Jr.
Regulatory & Pricing Manager

**BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION**

DOCKET NO. 160186-EI



Gulf Power

**TESTIMONY AND EXHIBIT
OF
WENDELL E. SMITH**

1 GULF POWER COMPANY

2 Before the Florida Public Service Commission

3 Direct Testimony of

4 Wendell E. Smith

5 Docket No. 160186-EI

6 In Support of Rate Relief

7 Date of Filing: October 12, 2016

8 Q. Please state your name, business address, and title.

9 A. My name is Wendell Smith. My business address is One Energy Place,
10 Pensacola, Florida 32520. I am Power Delivery Vice President of Gulf
11 Power Company (the Company, Gulf Power, or Gulf).

12 Q. What are your responsibilities as Power Delivery Vice President?

13 A. I provide executive leadership over the Power Delivery function at Gulf,
14 which includes Transmission, Distribution, Supply Chain Management,
15 Safety and Health, and Customer Operations Support. I oversee the
16 development and implementation of initiatives, goals, and performance
17 indicators for each of the functional areas of Power Delivery. My
18 responsibilities include promoting safety as a core value throughout Power
19 Delivery, setting expectations and holding employees accountable for
20 working safely every day. In addition to safety, special emphases are placed
21 on the promotion of customer value and increased customer satisfaction,
22 electric service reliability, workforce productivity and employee
23 development, and effective management of budgets.
24
25

1 Q. Please state your prior work experience and responsibilities.

2 A. I joined the Southern Company at Georgia Power Company in March 1984.
3 I have held a variety of positions within Georgia Power Company including
4 Distribution Engineer; Construction and Maintenance General Manager;
5 Distribution and Operations General Manager; Transmission Construction
6 Manager; and numerous other positions. I was elected Gulf Power
7 Company Power Delivery Vice President in March 2014.

8

9 Q. What is your educational background?

10 A. I have a Bachelors of Science degree in Electrical Engineering from the
11 Georgia Institute of Technology.

12

13 Q. What is the purpose of your testimony?

14 A. My testimony provides a brief overview of the Company's Power Delivery
15 business functions directly involved in the delivery of electric service to our
16 customers. My testimony discusses Gulf's transmission and distribution
17 systems and the processes we use to manage the systems' assets. I
18 explain our current transmission and distribution investment and its
19 usefulness in maintaining reliable service to our customers. I discuss Gulf's
20 transmission and distribution capital expenditures for the years 2013
21 through 2017 and projected operation and maintenance (O&M) expenses
22 for the 2017 test year. My testimony then addresses Gulf's transmission
23 and distribution system performance and its impacts on customer
24 satisfaction.

25

1 Q. Are you sponsoring any exhibits?

2 A. Yes, I am sponsoring Exhibit WES-1, consisting of 10 schedules. Exhibit
3 WES-1 was prepared under my direction and control, and the information
4 contained therein is true and correct to the best of my knowledge and belief.

5

6 Q. Are you sponsoring any of the Minimum Filing Requirements (MFRs)
7 submitted by Gulf?

8 A. Yes, I am sponsoring the MFRs listed on Schedule 1 of Exhibit WES-1. The
9 information contained on the MFRs I sponsor is true and correct to the best
10 of my knowledge and belief.

11

12

13

I. GULF'S POWER DELIVERY

14

15 Q. Please discuss the role of Power Delivery at Gulf.

16 A. Our customers are at the center of everything we do. Gulf delivers electric
17 service to our customers around the clock. As a result, certain functions in
18 Power Delivery must be staffed 24 hours a day, 7 days a week in order to
19 operate the electric network effectively and respond to customer needs when
20 they arise.

21

22 Gulf's Power Delivery team is comprised of five distinct functions:

23 Transmission, Distribution, Supply Chain Management, Safety and Training,
24 and Customer Operations Support. Transmission's function is to deliver
25 power from generating sources to the distribution substations through lines

1 and substations at voltages of 46 kV, 115 kV, and 230 kV. Distribution
2 receives electric power from Transmission and steps down the voltage to 12
3 kV or 25 kV for providing service from the distribution substations to the
4 customer's metering point. Supply Chain Management provides
5 procurement, contracts, inventory management, and materials support for
6 Gulf. Safety and Training develops safety and training programs and
7 provides oversight of the Company's overall safety and training functions.
8 Customer Operations Support is responsible for the effective management
9 of budgets and business controls.
10

11 Q. Please describe Gulf's commitment to safety.

12 A. Gulf's first priority is the safety of employees and the customers we serve.
13 Gulf's corporate safety program, Target Zero, is based on the expectation
14 that employees experience zero unsafe acts both while on the job and off
15 duty. Employees participate in general and job specific safety training,
16 weekly safety meetings, website safety topics, and other safety related
17 resources and wellness programs for personal health and wellbeing.
18

19 Q. Please provide an overview of Gulf's service area.

20 A. Gulf Power serves customers in a significant portion of eight counties: Bay,
21 Escambia, Holmes, Jackson, Okaloosa, Santa Rosa, Walton, and
22 Washington. These counties cover approximately 7,550 square miles and
23 encompass 71 towns and communities in Northwest Florida. Gulf's service
24 area spans from the Alabama border, 153 miles to the east, and from the
25 Northwest Florida coast of the Gulf of Mexico, north to the Alabama/Florida

1 border. Gulf's customer base includes approximately 450,000 residential,
2 commercial, and industrial customers located in three districts: Pensacola,
3 Ft. Walton, and Panama City.

4
5 Q. Are there any distinctive aspects or characteristics of Gulf's service area
6 that affect Gulf's Power Delivery system?

7 A. Yes. There are geographic and climatic characteristics that affect Gulf's
8 service area and the Power Delivery system.

9
10 A significant part of Gulf's service area is adjacent to coastal waters and
11 numerous natural bays, intra-coastal waterways, rivers and wetlands. This
12 subjects Gulf's Power Delivery system to the effects of salt contamination
13 and tropical weather impacts. Tropical weather impacts consist of storm
14 surge up to 20 feet or more and high winds. A map showing the potential
15 wind field impacts is included on Exhibit WES-1, Schedule 2. The wind
16 loading lines on the drawing are based on the National Electric Safety Code
17 extreme wind loading standards. These impacts have resulted in Gulf
18 adopting more stringent standards and specifications for its material and
19 equipment. For example, Gulf has adopted the more stringent Grade B
20 construction standard for all new distribution facilities and the use of
21 stainless steel transformers in coastal regions to minimize the adverse
22 effects from salt contamination and corrosion.

23
24 Another distinctive characteristic of Northwest Florida that affects Gulf's
25 Power Delivery system is the frequency of lightning strikes. Vaisala's

1 National Lightning Detection Network (NLDN) indicates that the cloud to
2 ground lightning incident rate in Northwest Florida is among the highest in
3 the nation. See Exhibit WES-1, Schedule 3. To address this high incidence
4 of lightning strikes, Gulf's design standards and specifications require an
5 increased number of lightning arrestor installations and associated
6 grounding enhancements.

7
8
9 **II. TRANSMISSION SYSTEM AND MANAGEMENT**

10
11 Q. Please provide an overview of Gulf's transmission facilities.

12 A. Gulf's transmission facilities consist of approximately 1,670 miles of lines,
13 which are operated at 230 kV, 115 kV and 46 kV, an increase of 70 miles
14 since Gulf's 2012 test year rate case. The Company's 230 kV systems
15 include approximately 595 miles of line, an increase of 158 miles since
16 Gulf's 2012 test year rate case. Gulf's 115 kV systems are made up of
17 approximately 1,020 miles of line, a decrease of 40 miles since Gulf's 2012
18 test year rate case. Gulf also has a 46 kV system that consists of
19 approximately 56 miles of line, a decrease of 58 miles since Gulf's 2012 test
20 year rate case. The decreases in the 115 kV and 46 kV are the result of
21 upgrades to higher voltage lines. The system (all of the lines regardless of
22 voltage) is connected through approximately 130 substations that provide
23 power to our customers.

1 Q. Please describe Gulf's method for oversight and management of its
2 transmission system.

3 A. Gulf manages the transmission system through five major functions:
4 planning, design, construction, operations, and maintenance. Through each
5 of these functions, we provide the oversight needed to ensure that Gulf
6 maintains reliable service to our customers.

7

8 Q. Please describe the transmission planning process.

9 A. A primary objective of the transmission planning process is to identify
10 system constraints that could impact Gulf's ability to maintain reliable
11 service to its customers in sufficient time to develop the optimal solution and
12 complete the project. Gulf develops a 10-year plan based on load
13 forecasting and other operational considerations. The transmission system
14 is planned to meet the needs during peak system conditions while
15 considering various contingency scenarios so that lines or equipment do not
16 experience overloads or other system constraints. Planning must allow
17 enough time for design and construction activities to be completed, thus
18 ensuring the system can continuously meet our customers' needs.

19

20 The planning process identifies limiting elements (lines, transformers,
21 breakers or other equipment) where overloads may occur based on the
22 studied loading, generation and contingencies for the various scenarios. In
23 addition to identifying equipment or facility overloads, the planning studies
24 also identify other reliability and system stability issues related to area
25 voltage support and generation impacts. Gulf's planning process meets the

1 applicable requirements of the North American Electric Reliability
2 Corporation (NERC) standards and the Southeastern Electric Reliability
3 Corporation (SERC) standards.

4
5 Gulf's entire transmission system is studied annually, and the 10-year plan
6 is revised accordingly. This 10-year plan includes the potential solutions
7 and scope for transmission projects, along with the estimated budget
8 requirements for all transmission system improvement needs. This plan is
9 reviewed by me and approved annually by the Transmission General
10 Manager.

11
12 Q. Please describe the transmission design process.

13 A. With a solution and scope determined, the final design work can begin.
14 Because of the specialized expertise needed, Gulf utilizes the resources of
15 Southern Company Services (SCS) for engineering design work. This
16 allows Gulf to take advantage of the experience SCS has developed from
17 its engineering work on projects for other Southern Company operating
18 companies. This helps to ensure the designs have been tested and, where
19 needed, best practices are incorporated. The Southern Company
20 Transmission Design and Maintenance Support (SCTD&MS) group is Gulf's
21 primary resource for the design work on transmission projects. Gulf has the
22 ultimate responsibility and oversight for the design and works closely with
23 the designers to ensure customers receive a quality product and that the
24 designs meet our needs. Using SCTD&MS as the design resource for
25 transmission projects allows for a standardization of design, equipment and

1 materials on the Southern Company system. This standardization results in
2 cost savings to Gulf and its customers. Additionally, we are able to use the
3 expertise from SCTD&MS to incorporate the latest advancements in
4 designs and technology. Through the design process, estimates for the
5 project are revised, as appropriate, based on a more detailed engineering
6 analysis of the scope and construction needed. The use of SCS and
7 SCTD&MS to provide transmission modeling and design services are
8 examples of the benefits Gulf's customers receive through Gulf's affiliation
9 with the Southern Company.

10
11 Q. Please describe the transmission construction phase.

12 A. Gulf is responsible for all construction activities to ensure the transmission
13 projects are completed according to budget and schedule targets. The
14 Company utilizes external contract construction resources to complete
15 almost all of the transmission construction. The use of contract construction
16 resources allows Gulf to vary the number and type of crew and equipment
17 according to the amount of work being performed and the needs of the
18 specific projects.

19
20 Gulf also has a rigorous inspection program for all projects to ensure its
21 transmission facilities are constructed as designed and are built with the
22 quality needed to provide reliable service. The Company uses Gulf Power
23 Transmission employees to manage the contractors, the inspection
24 process, and quality. Beyond quality control, these Company employees
25 control project scope and costs, and ensure that project deadlines are met.

1 Q. Please describe the transmission operations function.

2 A. After construction, the new facilities are incorporated into the existing
3 system for operations. Gulf maintains an operations center, the
4 Transmission Control Center (TCC), in Pensacola to perform this function.
5 The TCC operates 24 hours a day, 7 days a week, and it is staffed with Gulf
6 employees who monitor and operate our transmission system. Through the
7 TCC, Gulf ensures reliable power and facilitates planned outages on
8 components for construction or maintenance activities. Gulf's operators are
9 NERC certified and are qualified to make critical decisions as contingencies
10 develop.

11
12 The TCC uses an Energy Management System (EMS) to monitor the
13 transmission system and to operate devices in the field to control power
14 flow as needed. The EMS is critical to ensure the operators are aware of
15 field conditions and can make adjustments to mitigate contingencies. The
16 EMS provides a digital display of Gulf's lines and substations, along with
17 data about voltages, current and power flows. This system also provides
18 alarms to indicate when and where there is trouble with system equipment
19 and other facilities.

20
21 Q. What is the process for maintaining Gulf's transmission facilities?

22 A. All facilities are incorporated into our transmission maintenance programs.
23 The goals of Gulf's transmission maintenance programs are to provide
24 reliable operations for our customers and to optimize the life of the
25 transmission assets. These programs generally consist of an inspection

1 process that drives a repair program. The repair program is based on
2 issues or abnormal conditions documented during the inspection or
3 otherwise discovered. A preventative maintenance program is optimized for
4 each type of equipment or facility, and maintenance is scheduled based on
5 both manufacturer's recommendations and historical trends with similar
6 equipment or facilities.

7
8
9 **III. TRANSMISSION CAPITAL**
10 **ADDITIONS BUDGET PROCESS**

11
12 Q. Please describe the Transmission Capital Additions Budget process.

13 A. The Capital Additions Budget for Transmission is developed and updated
14 annually. All Capital Additions are budgeted through Project Expenditure
15 (PE) requests that document the need for and details of the budget items.
16 There are two types of PE requests: Blanket PEs and Specific PEs. Blanket
17 PEs reflect repetitive expenditures based on inspection data as well as
18 knowledge of the system and equipment. Blanket PEs includes items such
19 as poles, arms, conductors, breakers, regulators and transformer
20 replacements, as well as protection system replacement projects. Specific
21 PEs addresses larger projects and may cover multiple years to allow for
22 project development, design and construction.

23
24 There are two major components that comprise most of the Capital
25 Additions Budget for Transmission. These two major components are

1 (a) transmission infrastructure replacement projects, and (b) transmission
2 planning-generated projects.

3
4 Transmission infrastructure replacement projects consist of replacements of
5 poles, transformers, breakers, switches, conductors, protection system
6 relays, and other assets. In most cases, these projects or expenditures are
7 driven by the need to replace equipment and facilities that have reached the
8 end of their useful life. For smaller routine infrastructure replacement
9 expenditures, the Company budgets using Blanket PEs. For larger
10 infrastructure replacement projects, the Company budgets Specific PEs.
11 Specific PEs may cover multiple budget years to allow for project
12 development, design and construction.

13
14 Transmission planning-generated projects are a result of the transmission
15 planning process that I mentioned previously. All transmission planning-
16 generated projects are budgeted using Specific PEs.

17
18 In addition to these two major categories of transmission capital
19 expenditures, there is another minor category referred to as distribution
20 planning. Distribution planning projects consist of transmission projects that
21 interconnect with distribution facilities.

22
23 The proposed Capital Additions Budget is reviewed by the Transmission
24 management team. Once approved, the Transmission management team
25 submits a proposed Capital Additions Budget to me. Once I have reviewed

1 and approved the proposed budget, the Transmission Capital Additions
2 Budget is presented to Gulf's Corporate Planning department for inclusion
3 in the Company's Capital Additions Budget. Gulf Witness Mason addresses
4 Gulf's Capital Additions Budget process within the Corporate Planning
5 department.

6

7 Q. Describe the transmission capital expenditures monitoring process.

8 A. After the Capital Additions Budget has been approved, each transmission
9 PE is assigned an owner within the Transmission organization. Each
10 owner's responsibility is to monitor expenditures against the budget. Within
11 each PE, General Work Orders (GWO) are created, approved and
12 authorized for construction. GWOs are created by field engineers and
13 approved and authorized by the appropriate level of management based on
14 the estimated cost of the GWO. Each month, the Transmission
15 management team reviews each capital project in detail, reviewing
16 expenditures and any budget variance for projects. Each project owner is
17 responsible for explaining budget variances. Budget variances may result
18 in the reallocation of overall capital expenditures within the Transmission
19 organization. On a quarterly basis, Corporate Planning requires a detailed
20 explanation of all budget variances greater than 10 percent or \$250,000
21 (whichever is lower). Variances less than \$10,000 do not require a variance
22 explanation.

23

24

25

1 Q. How are new capital projects or changes to existing projects incorporated in
2 the current year budget?

3 A. In the event a new project or an increase in capital expenditures associated
4 with an existing project is necessary, Transmission management must
5 submit a justification letter to me. Once I have reviewed and approved the
6 request, the letter is forwarded to the Chief Financial Officer (CFO) for
7 review and approval. If the request is approved, the letter is sent to
8 Corporate Planning where the request is documented, and the current
9 budget is updated to reflect the change.

10

11 Q. Were Gulf's Transmission Capital Additions Budgets for 2013 through 2017
12 developed by this budget and cost control process?

13 A. Yes. The projects included in Gulf's Transmission Capital Additions Budget
14 were approved pursuant to this rigorous evaluation and approval process.
15 Gulf's effective capital budgeting and cost control process has helped to
16 ensure that our transmission assets perform as designed and continue to
17 provide reliable and efficient operation. The budgeted amounts included in
18 the Capital Additions Budget for Transmission are reasonable, prudent, and
19 necessary. Gulf will continue to evaluate the benefits of additional capital
20 projects in the future to ensure that we are able to provide our customers
21 with reliable, cost-effective and efficient electric service.

22

23

24

25

1 **IV. TRANSMISSION CAPITAL ADDITIONS INVESTMENT**

2

3 Q. Gulf Witness Ritenour shows a total of \$3.458 billion of plant in service
4 investment in Gulf's 2017 rate base in this case. Are the transmission
5 assets in rate base costs used and useful in the provision of electric service
6 to the public?

7 A. Yes. The transmission assets, which comprise a total of \$698 million of the
8 plant in service in Gulf's 2017 rate base in this case, are used and useful in
9 Gulf's provision of electric service.

10

11 Q. How does the test year level of transmission plant in service compare with
12 the level of transmission plant in service in Gulf's 2012 test year rate case?

13 A. The projected level of transmission plant in service in Gulf's 2012 test year
14 rate case was \$381,385,000. The projected level of transmission plant in
15 service in Gulf's 2017 test year is \$697,815,000.

16

17 The Transmission Capital Additions Budgets for the years 2013 through
18 2017 are shown on Exhibit WES-1, Schedule 4. These capital additions
19 total approximately \$340 million, but the impact on rate base in the 2017
20 test year is smaller due to some of the capital expenditures in the annual
21 budgets not closing to plant in service until after the 2017 test year.

22

23 As I noted earlier, the two major drivers in Transmission Capital Additions
24 Budgets subsequent to the 2012 test year are Transmission Planning
25 (\$202,394,000) and Infrastructure Replacement (\$131,280,000). The

1 remainder of the 2013 - 2017 Transmission Capital Additions Budgets
2 (\$6,445,000) is associated with Distribution Planning.

3
4 Q. Please address the Transmission Planning Capital Budgets for the years
5 2013 through 2017 in more detail.

6 A. Gulf's Transmission Planning Capital Budgets for the period 2013 through
7 2017 were necessary to meet regulatory requirements, absorb major
8 transmission disturbances, import generation from other sources, and to
9 improve the overall operation of the transmission system. Gulf continues to
10 follow its planning criteria and commit the necessary resources and capital
11 investments to continue to meet the demands of its customers. Gulf's
12 planning process ensures transmission projects are planned, designed and
13 built to support peak demands under any reasonable set of contingencies
14 and ensure the transmission capacity is available when needed.

15
16 Most of the Transmission Planning capital budget expenditures over the
17 period 2013 – 2017 were associated with the transmission projects
18 recognized as reasonable and prudent and approved in the Stipulation and
19 Settlement Agreement (2013 Settlement Agreement) and the Order
20 Approving Stipulation and Settlement Agreement (Order No. PSC-13-0670-
21 S-EI) issued by the Florida Public Service Commission (FPSC or
22 Commission) on December 19, 2013. As the Commission is aware, much
23 of this investment was driven by the Mercury and Air Toxic Standards
24 (MATS) that became effective in 2015. The MATS required additional
25 environmental standards for coal fueled plants. The planning process I

1 previously described indicated significant transmission investment was
2 required to ensure Plants Crist and Smith remained in compliance and to
3 prevent line and equipment overloads while the plants were operating under
4 MATS regulations. All projects with a required date within the Settlement
5 planning window were completed on time and under the total cost
6 allowance in the order approving the 2013 Settlement Agreement.

7
8 In addition to the transmission capital budget additions being dramatically
9 impacted by MATS compliance, Gulf had other Transmission Planning
10 projects that increased the transmission capital budget additions. These
11 included substation modifications and 115 kV line rebuilds to support
12 transmission load. An upgrade of the transmission line from Plant Crist to
13 Plant Barry will be added in 2016 and 2017. That project is forecast to cost
14 \$1,945,000. These projects were identified as necessary through Gulf's
15 transmission planning process, and the costs will be monitored in Gulf's
16 transmission monitoring process.

17
18 Q. Please provide more detail regarding the Infrastructure Replacement
19 Capital Additions Budgets for the period 2013 through 2017.

20 A. The Company's Transmission Infrastructure Replacement requires
21 continuing investment for ongoing maintenance and replacement, as some
22 of our assets have been in service for 40 years or longer. For example, 28
23 percent of Gulf's transmission poles and towers, 58 percent of Gulf's
24 transmission conductors, 34 percent of Gulf's transmission transformers,
25 and 6 percent of Gulf's transmission breakers are over 40 years old.

1 Additionally, most of Gulf's transmission facilities are in service in corrosive
2 environments, which leads to rust and, without timely replacement, failure.
3 Some of our line facilities are in wetlands and, therefore, challenging to
4 access, which increases the cost of repair and/or replacement. Because of
5 the age and location of these facilities, the Company continually prioritizes
6 its capital expenditure requirements for pro-active infrastructure
7 replacements in an effort to maintain reliable service for our customers.

8
9 The amounts for Specific PEs for Infrastructure Replacement in 2013, 2014,
10 2015, 2016 and 2017 are \$26,043,000, \$10,885,000, \$3,556,000,
11 \$11,778,000 and \$13,444,000, respectively. These budgeted costs reflect
12 design, material and construction costs for the infrastructure replacement
13 projects during these years. In-service dates vary for each project. These
14 projects were developed to address specific issues on our system.

15
16 The amounts for Blanket PEs for Infrastructure Replacement in 2013, 2014,
17 2015, 2016 and 2017 are \$13,480,000, \$13,239,000, \$10,280,000,
18 \$12,927,000 and \$15,648,000, respectively. As previously noted, Blanket
19 PEs for Infrastructure Replacement reflect repetitive expenditures based on
20 inspection data as well as knowledge of the system and equipment.
21 Blanket PEs includes items such as poles, arms, conductors, breakers,
22 regulators and transformer replacements, as well as protection system
23 replacement projects.

1 Q. Has Transmission had any new capital projects or adjustments which arose
2 after the completion of the budget on which the 2017 test year is based?

3 A. Yes. As Ms. Ritenour states in her testimony, Transmission has five capital
4 projects which arose after the completion of the budget. These five projects
5 are:

- 6 • Guyed Y Tower Anchor Replacements. Gulf currently has
7 approximately 900 guyed Y tower structures on its transmission
8 system. Gulf inspects approximately 150 of the 900 guyed Y towers
9 annually. During our inspection, Gulf discovered several guyed Y
10 tower anchors having corrosion or rust issues. The guys and
11 anchors are critical to the support of the tower structures. Gulf has
12 included an adjustment of \$1,000,000 in 2016 and \$2,500,000 in
13 2017 to replace guys and anchors on guyed Y tower transmission
14 structures.
- 15 • Guyed Y Tower Replacements. Gulf is planning to replace guyed Y
16 towers over the next several years. Gulf's most recent schedule is to
17 replace two guyed Y towers per year with H frame construction over
18 the next three years, 2017 through 2019, with the ultimate goal of
19 increasing the number of annual replacements of these towers.
20 Beginning in 2020, Gulf plans to replace approximately 120 of the
21 remaining 896 towers over the subsequent 10 years. The towers to
22 be replaced will be prioritized by risks such as interstate crossings,
23 wet lands, and other difficult terrain. Gulf has included an adjustment
24 to the budget of \$500,000 in 2017 to replace two guyed Y towers.

25

- 1 • Transmission Right of Way Acquisition and Initial Clearing. The
2 increased dependency on the transmission system and NERC
3 compliance requires Gulf to purchase additional rights of way (ROW)
4 and/or clear previously acquired, but yet to be cleared, ROW through
5 the capital expenditure program. In many areas, Gulf has corridors
6 with tree buffers on the ROW between the lines and adjacent
7 property owners or has insufficient ROW to prevent a tree-related
8 outage on its transmission system. Utilizing this program, Gulf would
9 purchase additional ROW to ensure proper and adequate vegetation
10 clearance. Most of these corridors and buffers are located in remote
11 areas. The terrain often presents challenges requiring intensive
12 contractor resources and associated specialized equipment to
13 ensure we meet our reliability and compliance obligations and
14 minimize impacts to communities and property owners. This
15 program required a budget adjustment of \$2,000,000 each year for
16 2016 and 2017.
- 17 • New Distribution Substation and Line. As Gulf Witness Burroughs
18 states in his testimony, Gulf's Plant Scholz was closed in April 2015.
19 As a result of the plant closure, a new distribution substation,
20 Appalachee Substation, and a new 115 kV line, Sinai-West Grand
21 Ridge, are necessary to provide service to distribution voltage
22 customers in the northern portion of the Panama City District. This
23 project required an adjustment to the budget of \$312,000 in 2016 and
24 \$2,010,000 in 2017 for a total of \$2,322,000 for this project.

25

- Transmission Line ROW. During 2016, Gulf negotiated a lease for transmission line ROW with Eglin Air Force Base. The lease requires a payment of \$155,000 in 2017. Gulf has included an adjustment to the budget for this amount in 2017.

Q. Were the transmission assets added to rate base between the 2012 and 2017 test periods reasonable and prudently incurred?

A. Yes. These assets were identified and justified in the Transmission Capital Additions Budget process described earlier in Section III of my testimony. These projects were planned, designed and constructed as explained in my process description in Section II of my testimony.

V. TRANSMISSION OPERATIONS AND MAINTENANCE BUDGET PROCESS

Q. Describe how the Transmission O&M Budget is developed.

A. Gulf's Corporate Planning department provides a Budget Message with budget guidelines for preparing the five-year budget cycle request. Following receipt of the Budget Message, Gulf's Transmission O&M Budget is developed through a multi-step process implemented by employees who are well-experienced and very knowledgeable of the transmission systems they operate and maintain. Each year Gulf's Transmission organization develops a five-year O&M budget based on historical experience and projected maintenance in order to continue the safe operation and integrity

1 of the transmission system. Gulf uses data collected through various
2 inspection programs to assist in planning its Transmission O&M Budget. I
3 discuss these inspection programs later in my testimony. We review the
4 repair work to be completed and estimate the costs of the maintenance
5 programs to develop our budget requests. These repairs comprise the
6 majority of the year-to-year O&M cost variation.

7
8 The O&M budget is scrutinized in a multilayer process that compares
9 historical spending for transmission accounts and cost types. New
10 programs or additional requests must be validated and approved annually.
11 This approval process closely follows our Capital Additions Budget review
12 and approval process. Each responsibility center within Transmission
13 develops an O&M budget annually. The total transmission budget is
14 reviewed and approved by the Transmission General Manager, forwarded
15 to me for review and continues through the process to approval as outlined
16 in Mr. Mason's testimony.

17
18 In addition to the rigorous multilayer O&M budgeting approval process, Gulf
19 also uses a detailed process for monitoring, evaluating and justifying current
20 year O&M expenses. Budget-to-actual costs are reviewed monthly, and
21 variances are documented. Each month, projections are made for the
22 month ahead and for year end. These monthly actual costs, variances,
23 monthly projections and year-end projections are reviewed by the
24 Transmission General Manager and me.

25

1 Q. Describe the transmission O&M monitoring process.

2 A. Each transmission O&M program is assigned an owner within the
3 Transmission organization. Each owner's responsibility is to monitor
4 expenses against budget. Within each program, all variances are reported
5 to Transmission management for their review on at least a monthly basis.
6 At the end of each quarter, budget-to-actual reports are provided to
7 Corporate Planning along with justifications for variances from budget.

8

9

10 **VI. TRANSMISSION OPERATIONS AND**
11 **MAINTENANCE BUDGET**

12

13 Q. What is Gulf's Transmission O&M Budget for 2017?

14 A. Gulf's Transmission O&M Budget for 2017 is \$16,568,000, as shown in
15 Exhibit WES-1, Schedule 5.

16

17 Q. Are Gulf's projected transmission O&M expenses for 2017 reasonable and
18 prudent?

19 A. Yes. Gulf's projected 2017 transmission O&M expenses are reasonable,
20 prudent and necessary for Gulf to continue to provide adequate and reliable
21 transmission service to meet our customers' needs. The amounts were
22 developed through Gulf's transmission budget process and include
23 expenses for Protection and Control, Transmission Line Inspection
24 Program, Transmission Line Maintenance Program, Substation

25

1 Maintenance Program, Transmission Control Center, Transmission
2 Engineering and Supervision, and Transmission Vegetation Management.

3

4 Q. Are there any Net Operating Income (NOI) adjustments in your areas of
5 responsibility?

6 A. Yes. Adjustment 26 shown on Schedule 4 of Exhibit SDR-1 and discussed
7 in the testimony of Ms. Ritenour was made to adjust Gulf's expenses to
8 reflect an increase in transmission expenses because of an annual
9 transmission payment to Georgia Power Company. The impact is an
10 increase to the transmission budget of \$1,123,000. I will discuss this in
11 more detail as a benchmark variance later in my testimony.

12

13 Q. Please describe the Protection and Control component of the 2017 O&M
14 budget.

15 A. Gulf's Protection and Control accounts for \$743,000 of the 2017 Transmission
16 O&M Budget. Transmission is responsible for the protection and control
17 systems and equipment which monitor and automatically respond to
18 abnormal conditions on the transmission grid. These controls and equipment
19 are on a routine maintenance cycle as required by NERC. In addition, NERC
20 requires certain Critical Infrastructure Protection (CIP) substations to be
21 compliant with CIP rules regarding Bulk Electric System (BES) protective
22 systems. These rules require prescriptive maintenance intervals and
23 frequencies for critical transmission systems such as protective relays,
24 substation battery banks, and other critical equipment. The CIP program is
25 comprised of rules requiring substations considered high or medium impact to

1 BES be identified and compliant with current standards. Specifically, CIP
2 version five requires the establishment of a physical security perimeter, an
3 electronic security perimeter, and the development of business practices
4 which address each CIP standard for each impacted substation. The
5 remainder of Gulf's protection and control system consists of maintenance
6 programs such as relay calibration, circuit verification and functional testing of
7 the protection schemes at Gulf's substations.

8
9 Q. Please describe Gulf's Transmission Line Inspection Program budget line
10 item.

11 A. Gulf's Transmission Line Inspection Program consists of several inspection
12 techniques to ensure the integrity of the system. The Line Inspection
13 Program accounts for \$1,379,000 in the 2017 Transmission O&M Budget.
14 A comprehensive, systematic transmission line inspection program is
15 essential to the effective and orderly maintenance and safe and reliable
16 operation of the transmission system. The objectives of this program are:
17 • To maximize plant facility life,
18 • To gather information to assist in prioritizing repairs, and
19 • To minimize unscheduled or emergency maintenance.

20
21 The program requires that every structure be inspected at least every six
22 years by a ground inspection, a climbing inspection, or a comprehensive
23 aerial inspection by helicopter. This inspection program is a part of Gulf's
24 Storm Hardening Plan filed with the Commission on May 1, 2016.

25

1 The data from our inspection program allows Gulf to identify trends and
2 develop other maintenance programs to optimize the life of the transmission
3 facilities. For example, data obtained from Gulf's inspection program
4 identified a need for a structure painting program for all steel structures and
5 any necessary foundation repairs.

6

7 Q. Please describe Gulf's Transmission Line Maintenance Program budget line
8 item.

9 A. Gulf's Transmission Line Maintenance Program accounts for \$313,000 of
10 the 2017 Transmission O&M Budget. The Transmission Line Maintenance
11 Program consists of periodic repairs to transmission line facilities, including
12 guys, anchors, foundations, poles, structures, and wire. The majority of
13 these repairs are initiated based on the results of the Transmission Line
14 Inspection Program. The costs of these repairs can be significant and are
15 related to weather, age of infrastructure and other environmental factors.
16 Some examples of these types of expenses are repairing woodpecker
17 holes, replacing rusted or broken guy wires and repairing deteriorated
18 foundations or structure components.

19

20 Q. Please describe Gulf's Substation Maintenance Program budget line item.

21 A. Gulf's Substation Maintenance Program accounts for \$1,732,000 of the
22 2017 Transmission O&M Budget. Gulf's Substation Maintenance Program
23 is responsible for all of the substation inspection and maintenance activities.

24

25

1 Gulf implements a performance and interval-based Substation Inspection
2 and Maintenance Program. This program uses periodic diagnostic tests on
3 substation equipment to assist in determining the type and level of
4 maintenance needed. These inspections review the performance and
5 condition of the substation equipment and the components thereof. Based
6 on conditions observed during the inspection, additional maintenance or
7 repairs may be performed. The expenses to perform the inspections and
8 make the identified repairs are essential to the reliable operation of the
9 system and to the avoidance of unexpected outages.

10
11 Q. Please describe what is included in the Transmission Control Center O&M
12 budget line item.

13 A. The 2017 Transmission O&M Budget includes \$3,857,000 related to the
14 Transmission Control Center (TCC) operation. This expenditure is
15 necessary for the safe and secure operation of Gulf's transmission system.
16 As I mentioned previously, our TCC operates 24 hours a day, 7 days a
17 week. The NERC-certified TCC operators are responsible for the reliable
18 operation of the system and taking action to mitigate emergent issues.
19 These operators also assist with removing components from service for
20 maintenance or construction activities and use the Energy Management
21 System to monitor and control the transmission system and its components.
22 This system gathers data from field devices, which is then processed by
23 local servers and displayed in the TCC for the operators' use. This expense
24 item also includes the bulk power operations functions performed by the
25 Southern Company Power Coordination Center.

1 Q. Please describe Gulf's Transmission Engineering and Supervision budget
2 line item.

3 A. Gulf's Transmission Engineering and Supervision accounts for \$5,521,000
4 of the 2017 Transmission O&M Budget. These expenses are for
5 engineering, supervision and administrative resources necessary to support
6 the projects and programs in the Transmission department. These
7 expenses also include several new programs since Gulf's 2012 test year
8 rate case. As I previously mentioned, Gulf must remain in compliance with
9 NERC's reliability assurance programs and associated standards.
10 Compliance with these standards has required Gulf to develop and
11 implement a formal program for documenting, monitoring, and testing of
12 internal control activities associated with high-risk NERC requirements. The
13 Company is also in the engineering and construction phase of its
14 cybersecurity program. This program will be used to detect and monitor
15 cyber threats. Gulf's engineering and supervision budget line item
16 encompasses other critical programs such as compliance support, grid
17 operations, and substation support; all of these programs require
18 employees with specialized technical experience.

19

20 Q. Please describe Gulf's Transmission Vegetation Management budget line
21 item.

22 A. Gulf's Transmission Vegetation Management accounts for \$3,023,000 in the
23 2017 O&M budget projection. Gulf provides ongoing vegetation
24 management on Company transmission ROW in a cost-effective manner to
25 ensure high reliability of service to our customers, compliance with all

1 environmental laws and regulations, and compliance with NERC reliability
2 standards. As a result of NERC's revised reliability standards, Gulf is
3 required to annually inspect all transmission lines subject to the standards
4 and to complete 100 percent of its annual vegetation management work
5 plan. This requirement applies to all transmission lines with voltages above
6 200 kV.

7
8 Q. Is Gulf's projected level of transmission O&M expenses of \$16,568,000 in
9 2017 representative of a going forward level of transmission O&M expenses
10 beyond 2017?

11 A. Actually, Gulf's projected level of transmission O&M expenses of \$16,568,000
12 in 2017 is lower than Gulf's projected transmission O&M expenses for the
13 years 2018, 2019 and 2020. Those projected levels of transmission O&M
14 expenses are \$17,097,000, \$17,414,000 and \$18,183,000, respectively.

15
16 Q. How do Gulf's transmission O&M expenses forecasted for 2017 compare to
17 the O&M benchmark calculation historically employed by the Commission?

18 A. Gulf is projecting to spend \$16,568,000 for transmission O&M expenses in
19 2017. The O&M benchmark level for Gulf transmission O&M expenses is
20 \$12,964,000. Therefore, Gulf's 2017 level of transmission O&M expenses is
21 \$3,604,000 above the 2017 O&M benchmark.

1 Q. Please provide a summary justification of why Gulf's 2017 transmission
2 O&M expenses have increased at a rate higher than the growth in the
3 Consumer Price Index (CPI) and growth in customers between 2012 and
4 2017.

5 A. The primary reasons Gulf is above the transmission O&M benchmark in the
6 2017 test year are (1) program expansions and compliance with NERC and
7 Federal Energy Regulatory Commission (FERC) regulatory requirements
8 and (2) contractual delivery obligations associated with transmitting Scherer
9 Unit 3 power from Georgia to retail customers in Florida. These contractual
10 and new regulatory requirements have led to O&M expenses above the rate
11 of growth in CPI and customers in the following areas:

12	• NERC Critical Infrastructure Program compliance	\$ 269,000
13	• Line inspections	\$ 572,000
14	• NERC high-risk programs and cybersecurity costs	\$ 842,000
15	• NERC 230 kV corridor requirements	\$ 798,000
16	• Scherer 3 delivery obligation	\$1,123,000
17	Total Justifications	\$3,604,000

18
19 Q. Please address the O&M benchmark variance attributable to NERC CIP
20 compliance.

21 A. Gulf's protection and control program is over the benchmark by \$269,000
22 because of increased CIP compliance requirements imposed by NERC. On
23 November 22, 2013, FERC approved version 5 of the CIP Cyber Security
24 Standards, which are intended to minimize the risk against compromises of
25 Gulf's systems that could lead to instability in the BES.

1 In CIP version 5, which became effective July 1, 2016, Critical Cyber Assets
2 have now been defined as BES Cyber Systems to include the identification
3 and security of Gulf's critical facilities. Gulf has four locations that were
4 subject to the previous versions of the CIP standards, and appropriate
5 protections were required under the former version of CIP to be
6 implemented for the cyber assets that supported those Critical Cyber
7 Assets. However, the CIP version 5 standards establish more rigorous
8 criteria that dictate which assets are critical and must be afforded increased
9 cyber security protections. Under the new version of the CIP standard, Gulf
10 has four locations that contain High Impact BES Cyber Systems, three that
11 contain Medium Impact BES Cyber Systems, and approximately 60 that
12 contain Low Impact BES Cyber Systems.

13
14 Gulf is committed to the physical and cyber protection of all critical
15 transmission substation facilities. This requirement will be an ongoing
16 expense to establish, inspect, monitor, document, and report Gulf's
17 compliance with CIP standards. Gulf takes an approach that incorporates
18 resiliency, redundancy, and the ability to recover should an event occur.

19
20 Q. Please address how NERC reliability standards have resulted in line
21 inspection costs exceeding the growth of CPI and customers between 2012
22 and 2017.

23 A. Line inspections are \$572,000 over the benchmark because of increased
24 inspection activity and associated costs to ensure a reliable transmission
25 system. Transmission pole line inspections are accomplished through

1 aerial, ground, and climbing patrols. Many of Gulf's pole lines are in
2 corrosive environments and are in remote locations which are difficult to
3 access. Additionally, Gulf's line miles of 230 kV has grown by 36 percent
4 since Gulf's 2012 test year rate case. The increase in line miles of 230 kV
5 facilities, together with the necessity to perform comprehensive inspections
6 of all 230 kV lines, results in an ongoing obligation of increased line
7 inspection costs.

8
9 Gulf's inspection program is designed to proactively prevent failures of its
10 transmission line system. Line inspections are a critical component of
11 providing a comprehensive, systematic program to ensure the effective and
12 orderly maintenance and safe and reliable operation of the transmission
13 system.

14
15 Q. Please address the O&M benchmark variance attributable to FERC and
16 NERC reliability standards relating to transmission O&M expenses for high-
17 risk programs and cybersecurity.

18 A. New FERC and NERC reliability standards have resulted in additional costs
19 related to the identification, establishment, documentation, and monitoring
20 of internal control processes of high-risk NERC programs and cybersecurity
21 costs. The new reliability standards have caused an increase in compliance
22 activity, which requires the utilization of specialized engineering and
23 supervision resources to ensure Gulf's compliance with these standards.
24 The increased ongoing costs for engineering and supervision are \$842,000.

25

1 Q. Please address how NERC's new 230 kV corridor requirements have
2 caused Gulf's vegetation management transmission O&M expenses to
3 increase at a rate higher than CPI and customer growth since 2012.

4 A. Vegetation management costs are \$798,000 over the benchmark as a result
5 of additional NERC inspection requirements and subsequent clearing along
6 our NERC-regulated 230 kV corridors. The revised reliability standard
7 establishes a minimum vegetation clearance distance for transmission
8 corridors. Additionally, the new standard requires Gulf to develop and
9 implement an annual vegetation management work plan and to complete
10 100 percent of its annual vegetation work plan for the transmission lines
11 subject to the new standard. As Gulf's 230 kV line miles have increased,
12 the associated corridors will need to be maintained in accordance with
13 NERC's reliability standards. Gulf's lines which were converted from 115
14 kV to 230 kV necessitated the acquisition of additional ROW which will also
15 require ongoing vegetation management. Gulf also cleared ROW to include
16 the entire legal ROW to prevent the potential of a tree-related outage on its
17 230 kV system. The increased acreage of 230 kV corridors, together with
18 new NERC standards, requires an additional ongoing commitment to
19 manage vegetation along Gulf's 230 kV corridors. Failure to ensure
20 compliance would result in substantial fines for a vegetation related outage.

21
22
23
24
25

1 Q Please address how Scherer 3 delivery costs have caused transmission
2 O&M expenses to increase from 2012 through 2017.

3 A. Because Scherer 3 was previously committed to wholesale sales, Gulf did
4 not incur delivery costs chargeable to retail customers for the delivery of
5 power from Georgia to Gulf's service area. As a result of Gulf's
6 rededication of Scherer 3 to serve native load, an annual transmission
7 payment to Georgia Power Company is required. The transmission
8 payment of \$1,123,000 for 2017 will continue as an expense to transport
9 transmission level voltage to Gulf's retail customers.

10

11 Q Are Gulf's 2017 transmission O&M expenses above the O&M benchmark
12 fully justified?

13 A. Yes. As discussed above, Gulf's entire transmission O&M benchmark
14 variance is due to (a) program expansions and regulatory requirements that
15 are new since the 2012 test year, and (b) contractual obligations that were
16 not properly chargeable to retail customers in the 2012 test year.

17

18

19 **VII. DISTRIBUTION SYSTEM AND MANAGEMENT**

20

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

22 A. Gulf's distribution facilities consist of approximately 5,846 miles of overhead
23 primary lines and 1,881 miles of underground primary lines. Gulf's
24 distribution system consists of 95 distribution substations and 299

25

1 distribution feeders to provide service to our customers at distribution
2 voltage.

3

4 Q. Please describe Gulf's method for oversight and management of its
5 distribution system.

6 A. Gulf manages the distribution system through five major functions: planning,
7 design, construction, operations and maintenance. Through each of these
8 functions, we provide the oversight needed to ensure that Gulf maintains
9 reliable service to our customers at the distribution voltage level. Except for
10 the planning process, the distribution functions follow essentially the same
11 processes as transmission. Because the distribution planning process
12 differs from the transmission planning process, I will describe the
13 distribution planning phase in more detail.

14

15 Q. Please describe Gulf's distribution planning process.

16 A. Gulf's distribution planning process is used to determine the most reliable,
17 practical, and economical expansion of the distribution system. Gulf
18 performs "Long Range Area Distribution Studies" (Studies) to identify issues
19 that could adversely impact the delivery of power across the distribution
20 system. The Studies are continually performed such that each operating
21 area is studied on a three- to five-year cycle, depending on customer growth
22 and distribution changes. For these Studies, Gulf uses analysis software by
23 CYME® International, which is recognized as one of the industry leaders in
24 this field.

25

1 The Studies are initiated by modeling the relevant distribution system and
2 the distribution system loading in their current states. Long-range forecast
3 information, based on historical data trends, marketing data and actual field
4 information, is compiled to determine system growth in each geographic
5 district of Gulf's service area. This information is then applied to each
6 feeder to establish a forecast demand. The Study projects a seven-year
7 horizon window, and each year is then analyzed to determine the operating
8 conditions and their potential impacts to the distribution system.

9
10 The Studies identify the operating conditions that require adjustment, along
11 with the most practical and economical solutions. The final
12 recommendations from the Studies are reviewed and approved by
13 Distribution management, who possess knowledge of the district, the
14 distribution system, and any unique characteristics of the area served.
15 When a significant change occurs in an area that is not currently under
16 study, the distribution planning group performs a "Special Distribution
17 Study." An example of a significant change would be a large new business
18 customer or a business adding significant electrical load. The latest Long
19 Range Study of that area is adjusted for the change to determine any
20 potential impact to the distribution system. If an operating condition
21 requiring adjustment occurs, then a solution is determined, and a
22 recommendation is generated. The final recommendations from the Special
23 Distribution Study are reviewed and approved by Distribution management.

24
25

1 Distribution management performs an annual review of all current planning
2 Studies. The proposed justification for each project is compared to the
3 latest actual load to ensure the recommended timing for construction is
4 appropriate. If the recommendations have changed, the project justification
5 and construction schedule are adjusted accordingly. Careful consideration
6 is given to those projects that require longer construction lead times such as
7 new distribution substations, which have a two year or more construction
8 timeframe. This timeframe is impacted by equipment availability, permitting
9 and land acquisition, all of which are major considerations for construction
10 projects.

11
12
13 **VIII. DISTRIBUTION CAPITAL BUDGET PROCESS**

14
15 Q. Please describe the distribution capital budgeting process.

16 A. The distribution budgeting process follows the same processes as I
17 described in the transmission budgeting process in my testimony for both
18 capital additions and O&M budgets. The Distribution management team
19 reviews and approves the proposed capital additions and O&M budgets
20 before the budgets are reviewed by me. The input into the corporate
21 budget follows the guidelines described by Mr. Mason. The subsequent
22 review of budget to actual costs and the process for budget changes are
23 exactly as described in the transmission portion of my testimony.

1 **IX. DISTRIBUTION CAPITAL ADDITIONS INVESTMENT**

2

3 Q. Ms. Ritenour shows a total of \$3.458 billion of plant in service investment in
4 Gulf's 2017 rate base in this case. Are the distribution assets in rate base
5 costs used and useful in the provision of electric service to the public?

6 A. Yes. The distribution assets, which comprise a total of \$1.260 billion of
7 plant in service in Gulf's 2017 rate base, are used and useful in Gulf's
8 provision of electric service.

9

10 Q. Are these distribution investments reasonable and prudent?

11 A. Yes. They are the product of Gulf's distribution planning process, as well as
12 the rigorous budgeting and monitoring process I have previously described
13 in my testimony.

14

15 Q. How does the test year level of distribution plant in service compare with the
16 level of distribution plant in service in Gulf's 2012 test year rate case?

17 A. The projected level of distribution plant in service in Gulf's average rate
18 base in 2017 is \$1.260 billion. This compares to the 13-month average
19 projected level of distribution plant in service in Gulf's 2012 test year rate
20 case of \$1.030 billion, resulting in an increase of \$230 million, or 22 percent.

21

22 Q. Please describe Gulf's Distribution Capital Additions Budgets for the years
23 2013 through 2017.

24 A. Gulf continues to invest in its distribution system capital programs to ensure
25 reliable service to its customers. I will briefly describe some of the more

1 significant customer focused programs. Gulf continued to invest in
2 infrastructure improvements and has adopted Grade B construction
3 standards to ensure its distribution grid is resilient to storms. Gulf has also
4 made investments in grid modernization and smart grid initiatives to ensure
5 a more modern, automated and self-healing grid. Gulf has experienced
6 moderate customer growth which has resulted in increases in new business
7 expenditures along with more undergrounding of distribution cable.
8

9 Q. What are Gulf's Distribution Capital Additions Budgets for 2013 through
10 2017?

11 A. Gulf's Distribution Capital Additions Budgets for the years 2013 through
12 2017 are shown on Exhibit WES-1, Schedule 6. For each of these years,
13 the Distribution Capital Additions Budget includes the following types of
14 expenditures: Distribution Infrastructure Improvements, Storm Hardening,
15 Asset Management, New Business, Highway Improvements/Joint Use,
16 Distribution Transformers, and General Plant.
17

18 Q. Describe Gulf's Distribution Infrastructure Improvements Capital Additions
19 Budgets for 2013 through 2017.

20 A. Gulf's Distribution Infrastructure Improvement expenditures for the years
21 2013 through 2017 are shown on Exhibit WES-1, Schedule 6. Distribution
22 Infrastructure Improvement expenditures are for the replacement of
23 equipment that is currently operating at maximum capacity or will potentially
24 be exposed to circumstances in which the equipment will have insufficient
25 capacity. These expenditures also include modifications and additions to

1 the overhead distribution system that are necessary to protect the reliability
2 of distribution feeders and laterals and to maintain voltage levels on the
3 distribution system. These modifications are identified, evaluated, and
4 constructed based on recommendations from Gulf's distribution planning
5 process.

6
7 Q. Describe Gulf's Storm Hardening Capital Additions Budgets from 2013
8 through 2017.

9 A. The Storm Hardening Capital Additions Budgets for 2013 through 2015
10 were pursuant to a storm hardening plan approved by the Commission.
11 The 2016 through 2018 Storm Hardening Capital Additions Budgets are
12 consistent with Gulf's 2016 – 2018 Storm Hardening Plan, which was filed
13 with the Commission on May 1, 2016. This Plan incorporates the 10-Part
14 Storm Preparedness Plan Initiatives that were originally approved in Order
15 No. PSC-06-0781-PAA-EI, Docket No. 060198-EI, in September 2006.
16 These capital expenditures include the upgrade of strategic critical
17 infrastructure to Grade B construction standards, along with the continued
18 installation and construction of a portion of Gulf's distribution automation
19 equipment.

20
21 Q. Describe the impacts of Gulf's storm hardening programs.

22 A. Gulf's storm hardening measures have improved the reliability for our
23 customers during the seasonal weather systems typical for Northwest
24 Florida. The implementations of Distribution Supervisory Control And Data
25 Acquisition (DSCADA) and distribution automation have greatly decreased

1 the number of customers affected by minor storm events and reduced the
2 restoration time following an event. Fortunately, Gulf has not experienced a
3 major weather event since the inception of our storm hardening plan. Gulf
4 provided Witness Harris an opinion of the expected impacts from the
5 Company's storm hardening programs. In Gulf's opinion, storm hardening
6 programs could have a positive impact on storm damages and associated
7 recovery costs for those areas which have been storm hardened. However,
8 because only a small portion of Gulf's distribution system has been
9 hardened to date, Gulf's estimate provided to Mr. Harris of storm restoration
10 savings was limited to one percent of total storm restoration costs.

11
12 Q. Describe Gulf's Asset Management Improvement Program Capital Additions
13 Budgets from 2013 through 2017.

14 A. Gulf's Asset Management Capital Additions Budgets for the years 2013
15 through 2017 are expenditures for the purchase and installation of
16 equipment necessary to continue the reliable operation of the distribution
17 system. Lightning protection devices on feeders and laterals are also
18 included in this activity. As I mentioned previously, Gulf's distribution system
19 is exposed to a higher than average frequency of lightning strikes, which is a
20 distinctive characteristic of Northwest Florida. Vaisala's National Lightning
21 Detection Network indicates that the cloud to ground lightning incident rate in
22 Northwest Florida is among the highest in the nation. See Exhibit WES-1,
23 Schedule 3. To address this, Gulf's design standards and specifications
24 require an increased number of lightning arrestor installations and
25 associated grounding enhancements on distribution feeders and laterals.

1 Q. Describe Gulf's New Business Capital Additions Budgets for the years 2013
2 through 2017.

3 A. Gulf's New Business Capital Additions Budgets for the years 2013 through
4 2017 are shown on Exhibit WES-1, Schedule 6. New Business includes
5 expenditures for distribution facilities necessary to construct additions,
6 extensions, and improvements related to the connection of new residential,
7 commercial, or industrial customers. These expenditures include
8 installation of poles, conduit, wires, and lighting which are necessary to
9 serve additional customers and their associated loads. New Business
10 includes distribution facilities installed to serve new residential subdivisions
11 or new commercial developments. Also included are expenditures for the
12 purchase and installation of municipal street lighting and other outdoor
13 lighting facilities.

14

15 Q. Describe Gulf's Highway Improvements/Joint Use Capital Additions Budgets
16 for 2013 through 2017.

17 A. Gulf's Highway Improvements/Joint Use Capital Additions Budgets for 2013
18 through 2017 are shown on Exhibit WES-1, Schedule 6. These
19 expenditures are used to relocate lines as required by state and county
20 agencies for street and highway construction. In addition, this includes the
21 cost associated with the replacement of poles where additional height is
22 needed to meet joint use clearance requirements and work on Gulf's
23 equipment that is attached to a joint use pole owned by a communication
24 company.

25

1 Q. Describe Gulf's Distribution Transformers Capital Additions Budgets for
2 2013 through 2017.

3 A. Gulf's Distribution Transformers Capital Additions Budgets for 2013 through
4 2017 are shown on Exhibit WES-1, Schedule 6. Distribution Transformers
5 include expenditures associated with the purchase and installation of
6 overhead and underground distribution system transformers as a result of
7 new customers or service improvements.

8

9 Q. Are you responsible for any General Plant capital expenditures?

10 A. Yes. While Ms. Ritenour discusses General Plant capital expenditures in
11 her testimony, I am responsible for certain corporate General Plant capital
12 expenditures related to the purchase of Gulf's fleet of transportation
13 equipment (Fleet), replacement of the Southern Linc radio system at Gulf,
14 and warehouse equipment. I am also responsible for General Plant capital
15 expenditures related specifically to Power Delivery. The 2013 through 2017
16 General Plant capital expenditures for which I have responsibility are shown
17 on Exhibit WES-1, Schedule 7.

18

19 Gulf's Fleet currently consists of 230 light vehicles (pickups and vans), 8
20 medium/heavy non-mechanized units, 126 mechanized units (bucket and
21 pole trucks), 179 trailers, and 49 off-road units (forklifts, dozers, and boats).
22 Gulf's General Plant expenditures associated with Fleet for 2016 are
23 \$3,309,000 and for 2017 is \$3,360,000. These capital expenditures are
24 incurred as a result of a standard replacement plan based on a 10-year
25 cycle for light vehicles and a 12-year cycle for mechanized equipment.

1 These expenditures are necessary to maintain an adequate and reliable
2 Fleet in service for Gulf's operations.

3
4 As part of a Southern Company initiative, the existing radio system,
5 Southern Linc, was designed and installed across the Southern Company
6 footprint in 1993. That radio system used the latest in 800 MHz technology
7 at the time and has served Gulf Power and Southern Company well for over
8 24 years. The age of the system, discontinued manufacturer support,
9 unavailability of replacement parts and equipment, and technological
10 limitations of the system caused Southern Company to begin looking for a
11 replacement system in 2013. Southern has begun the process of replacing
12 the existing system with an updated 4G Long-Term Evolution (LTE) system
13 to support operations. Gulf will invest \$16.5 million for the construction of
14 the LTE system over the period 2016 through 2020, which includes \$1.5
15 million in 2016 and \$11.4 million in 2017. The budgeted amounts through
16 2017 are listed in Exhibit WES-1, Schedule 7. The LTE system will support
17 voice and data communication with field employees, Transmission and
18 Distribution operations, Generation, DSCADA, SmartGrid assets, Advanced
19 Metering Infrastructure (AMI), and other applications and employees across
20 the Company.

21
22 I also have responsibility for the purchase and/or replacement of
23 transmission and distribution warehouse equipment. This program is to
24 either purchase or replace forklifts, pallet jacks, and other mechanized
25 equipment used in the transmission and distribution warehouse facilities to

1 move and transport material and supplies. The budgeted amounts for the
2 years 2013 through 2017 are shown on Exhibit WES-1, Schedule 7.

3

4 Lastly, I have responsibility for General Plant expenditures associated with
5 Power Delivery-specific expenditures. These capital expenditures total
6 \$4,838,000 for 2017 and are listed on Exhibit WES-1, Schedule 6. These
7 expenditures are made up of tools and test equipment - \$396,000,
8 technology improvements - \$473,000, training yard additions and
9 improvements - \$202,000, cybersecurity - \$350,000, electric vehicle
10 charging stations - \$417,000, and the Pine Forest facility roadway
11 construction project - \$3,000,000.

12

13 Q. Has Distribution had any new capital projects or adjustments which arose
14 after the completion of the budget on which the 2017 test year is based?

15 A. Yes. As Ms. Ritenour states in her testimony, Distribution has a capital
16 project which arose after the completion of the budget.

17

18 Because of additional capital expenditures associated with Florida
19 Department of Transportation Highway Projects, an adjustment was
20 required in the amount of \$402,000 in 2016 and \$260,000 in 2017, for a
21 total of \$662,000. These capital expenditures are necessary to meet the
22 statutory requirements for relocation of utility facilities associated with
23 county and state highway projects.

24

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**X. DISTRIBUTION OPERATIONS AND
MAINTENANCE BUDGET**

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Q. What is Gulf's Distribution O&M Budget for 2017?

A. Gulf's Distribution O&M Budget for 2017 is \$45,874,000.

Q. Is Gulf's projected level of distribution O&M expenses of \$45,874,000 in 2017 reasonable and prudent?

A. Yes. The 2017 distribution O&M expenses were approved as a result of Gulf's robust budgeting process described earlier in my testimony. The 2017 distribution O&M expenses are reasonable, prudent and necessary for Gulf to provide adequate and reliable electric service to our customers. As shown on WES-1, Schedule 8 of my exhibit, the 2017 budget for distribution-related O&M expenses include the following major activities: Asset Management - \$21,796,000, Minor Storms - \$745,000, Load Dispatch - \$1,679,000, Meters - \$3,787,000, Storm Hardening - \$225,000, Vegetation Management - \$5,949,000, and Engineering and Supervision - \$11,693,000.

Q. Are there any NOI adjustments in the distribution area of your responsibility?

A. Yes. Adjustment 27 shown on Schedule 4 of Exhibit SDR-1 and discussed in the testimony of Ms. Ritenour was made to adjust Gulf's expenses to reflect a decrease in distribution expenses related to LTE system expenses. As a result of reviewing budgets, we identified that both SCS and Gulf

1 budgeted the same O&M component of the LTE project. Gulf reduced its
2 O&M budget by \$2,100,000 by deleting the Gulf O&M component of LTE,
3 instead allowing the SCS O&M allocation to Gulf.
4

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

6 A. The Asset Management activity accounts for \$21,796,000 in the 2017
7 distribution budget. This includes expenses related to equipment
8 inspection, maintenance, and repair programs to ensure safe and effective
9 operation of Gulf's distribution equipment. This activity includes Gulf's
10 inspection, maintenance, and repair of major distribution equipment such as
11 poles, overhead and underground transformers, regulators, transclosers,
12 and vaults on the distribution system. Gulf's pole inspection program is
13 based on an eight-year cycle, as approved by the FPSC in Order No. PSC-
14 07-0078-PAA-EU, Docket No. 060531-EU, with a goal to inspect one-eighth
15 of Gulf's in-service pole inventory annually. Other expenses include Gulf's
16 annual inspection of mainline feeders using both visual observations and
17 infrared technology is included in this activity. Also included in this activity
18 are the expenses associated with outage-related distribution switching (load
19 transfer or isolation); repair of damaged underground cables, overhead
20 feeders, laterals, services, and transformers; and outage restoration efforts.
21 This activity also includes maintenance expenses for Gulf's distribution
22 automation program, which includes repair and maintenance of line devices
23 and their associated communication equipment.
24
25

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

2 A. The Minor Storm activity accounts for \$745,000 in the 2017 Distribution
3 O&M Budget and includes expenses involved in restoring electric service to
4 Gulf's customers after weather events such as thunderstorms or winter
5 storms. This activity includes repairing downed feeders or laterals and
6 other equipment damaged by weather events not covered by the Property
7 Damage Reserve.

8

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

10 A. Gulf's Load Dispatch activity accounts for \$1,679,000 in the 2017
11 Distribution O&M Budget and includes expenses related to non-outage
12 distribution switching. An example of non-outage distribution switching is
13 the safe transfer of load between feeders or laterals to facilitate construction
14 or maintenance.

15

16 Q. Please describe Gulf's Meters activity.

17 A. Gulf's Meters activity accounts for \$3,787,000 in the 2017 Distribution O&M
18 Budget and includes expenses related to Gulf's meter inspection and testing
19 programs. These programs are part of the ongoing support of the "Gulf
20 Power Company Test Plan for Revenue Metering Devices" that is filed with
21 the FPSC, outlining meter test schedules.

22

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

24 A. Gulf's Storm Hardening activity accounts for \$225,000 in the 2017
25 Distribution O&M Budget and includes part of the O&M expenses

1 associated with Gulf's Storm Hardening Plan filed with the Commission on
2 May 1, 2016. This budget item covers the O&M component of pole
3 replacement and equipment repair associated with Gulf's pole and feeder
4 inspection programs outlined in Gulf's Storm Hardening Plan.
5

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

7 A. Gulf's distribution Vegetation Management activity accounts for \$5,949,000
8 in the 2017 Distribution O&M Budget and includes expenses to clear, trim
9 and maintain the distribution ROW. The test year request is for costs
10 associated with maintaining the tree trim cycles established in Gulf's Storm
11 Hardening Plan, which was approved by the Commission in Order No. PSC-
12 10-0688-PAA-EI, Docket No. 100265-EI.
13

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

15 A. Gulf's Engineering and Supervision expense accounts for \$11,693,000 in
16 the 2017 Distribution O&M Budget and includes the salaries and expenses
17 associated with supervisors, engineers, and other employees engaged in
18 the operation and maintenance of the distribution system.
19

20 Q. Is Gulf's projected level of Distribution O&M expenses of \$45,874,000 in
21 2017 representative of a going forward level of Distribution O&M expenses
22 beyond 2017?

23 A. Actually, Gulf's 2017 Distribution O&M expenses of \$45,874,000 are lower
24 than the Distribution O&M expenses for the years 2018, 2019 and 2020,
25 which are \$48,532,000, \$49,008,000 and \$49,835,000, respectively.

1 Q. How do Gulf's Distribution O&M expenses forecasted for 2017 compare to
2 the O&M benchmark level of Distribution expenses?

3 A. Gulf's 2017 level of Distribution O&M expenses is \$206,000 above the O&M
4 benchmark. The O&M benchmark level for Distribution provided to me by
5 Ms. Ritenour is \$45,668,000. Gulf is projecting to spend Distribution O&M
6 in 2017 of \$45,874,000.

7

8 Q. Please justify why total Distribution O&M expenses exceed the O&M
9 benchmark by \$206,000 in the 2017 test year.

10 A. As I previously mentioned in my testimony, the safety of our employees is a
11 core value at Gulf Power Company. Gulf's Distribution 2017 O&M budget is
12 over the test year benchmark because of increased costs in the Overhead
13 and Underground Line Operation and Maintenance activity, specifically
14 expenses related to the safety of the Company's employees.

15

16 Gulf provides Personal Protective Equipment (PPE) for employees working
17 in hazardous conditions. A part of this PPE program is an annual allotment
18 to employees to purchase Company-approved flame retardant clothing.
19 Subsequent to Gulf's 2012 test year rate case, Gulf reviewed its policy for
20 the flame retardant clothing program and increased the annual allotment for
21 certain classifications of employees. This resulted in an annual increase of
22 \$181,000 since Gulf's 2012 test year rate case. In 2015, the Company began
23 a new safety footwear program, similar to the flame retardant clothing
24 program, whereby field employees are eligible to purchase safety footwear
25 utilizing an annual allotment. This resulted in an annual increase of \$25,000.

1 **XI. POWER DELIVERY PERFORMANCE**

2

3 Q. How does Gulf assess the value and quality of its Power Delivery system's
4 service to its customers?

5 A. Gulf evaluates its Power Delivery system performance from the perspective
6 of our customers. As Gulf Witness Terry describes in her testimony, one of
7 Gulf's goals is to score in the upper quartile in customer value when
8 measured against a peer group of utilities. Gulf utilizes the Customer Value
9 Benchmark to compare itself to 16 peer utilities in the Southeast and
10 nationally. Gulf was recognized as the number one ranking utility overall.
11 Within the survey, Gulf's reliability scored second among peer utilities
12 across all three customer classes: residential, general business, and large
13 business. I am proud of the accomplishments from Gulf's Power Delivery
14 team in producing these outstanding results.

15

16 Q. Does Gulf use any other measures to value Power Delivery system
17 performance?

18 A. Yes. Consistent with Rule No. 25-6.0455, Gulf also uses the following
19 Distribution reliability measures: System Average Interruption Frequency
20 Index (SAIFI), System Average Interruption Duration Index (SAIDI),
21 Momentary Average Interruption Event Frequency Indicator (MAIFIE),
22 Customer Average Interruption Duration Index (CAIDI), and Customers
23 Experiencing More Than Five Interruptions (CEMI5). Gulf's Distribution
24 system performance on these reliability measures between 2012 and 2015
25 has been relatively consistent.

1 Exhibit WES-1, Schedule 9 shows Gulf's Distribution SAIDI & SAIFI for the
2 2012 through 2015 periods. Exhibit WES-1, Schedule 10 shows
3 Transmission reliability measures SAIFI and SAIDI for the 2012 through
4 2015 periods.

5
6 Another measure of Gulf's Power Delivery system performance is the
7 number of reliability-related complaints the Commission receives from our
8 customers. According to the data available from the Commission from 2002
9 through 2015, Gulf has two infractions or rule violations, but neither was
10 related to Power Delivery reliability.

11 12 13 **XII. CONCLUSION**

14
15 Q. Please summarize your testimony.

16 A. Gulf's transmission and distribution systems planning processes are
17 comprehensive, rigorous, and meet all applicable regulatory requirements.
18 The Company has a strong commitment to invest in its transmission and
19 distribution systems to prevent and resolve potential reliability problems.
20 Gulf's capital investments and operations and maintenance expenses are
21 necessary for the continued reliability of our transmission and distribution
22 systems. Gulf has sound maintenance practices for our transmission and
23 distribution systems and we continue to inspect and prioritize major repairs
24 across the system. The transmission and distribution O&M expenses will
25 be used to ensure our system continues to operate in a reliable manner and

1 to help ensure we continue to maximize the life cycle of our current
2 investments. With the customer at the center of everything we do, Gulf is
3 committed to the safe and reliable operation of its system and meeting the
4 needs of our customers.

5

6 Q. Does this conclude your testimony?

7 A. Yes.

8

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AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 160186-EI

Before me the undersigned authority, personally appeared Wendell E. Smith, who being first duly sworn, deposes, and says that he is the Power Delivery Vice President of Gulf Power Company, a Florida corporation, and that the foregoing is true and correct to the best of his knowledge, information, and belief. He is personally known to me.

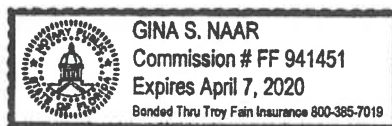
s/ *WE Smith*
Wendell E. Smith
Power Delivery Vice President

Sworn to and subscribed before me this 3rd day of OCTOBER, 2016.

Gina S. Naar
Notary Public, State of Florida at Large

Commission No. FF 941451

My Commission Expires APRIL 7, 2020



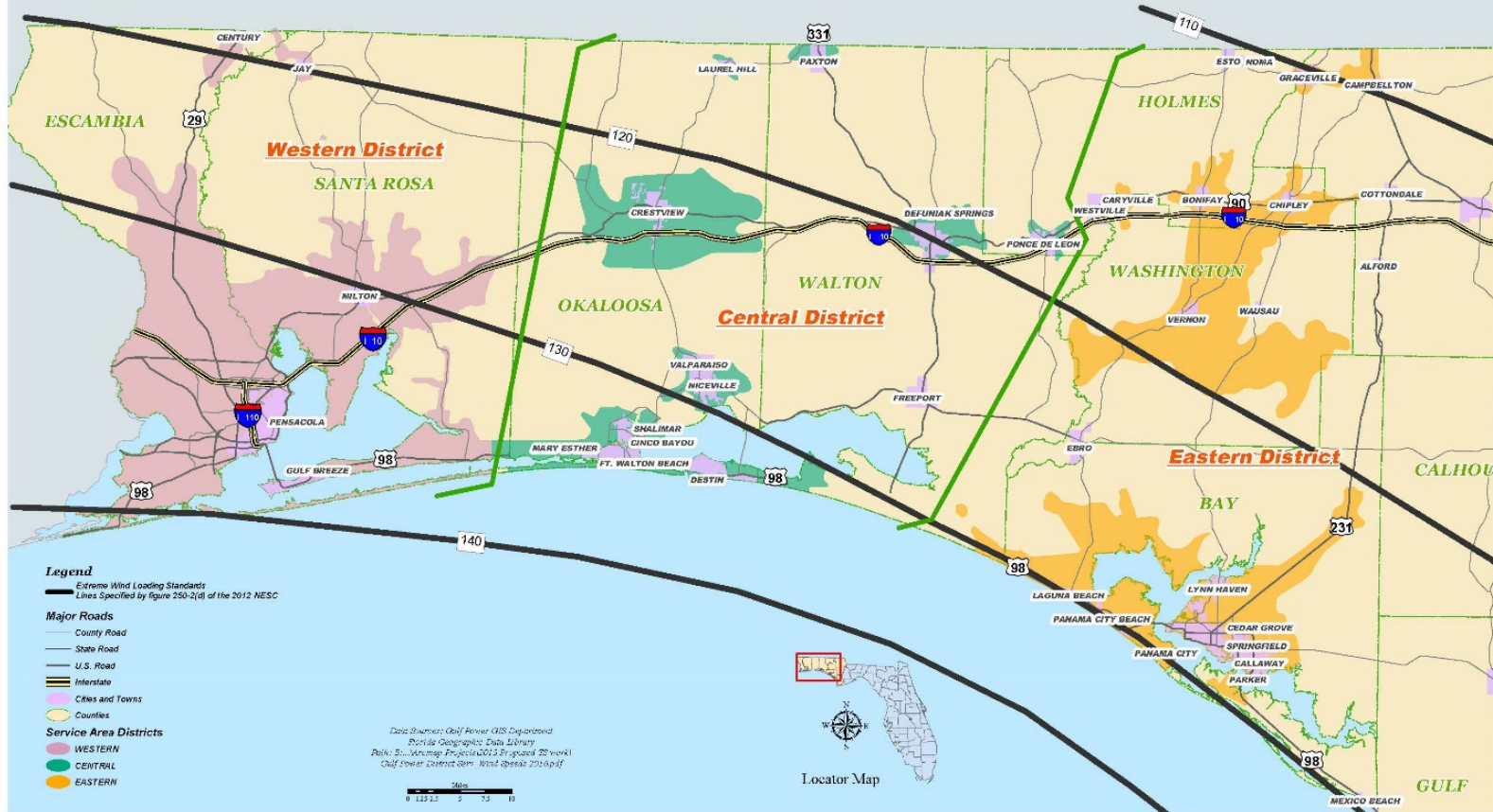
Exhibit

Responsibility for Minimum Filing Requirements

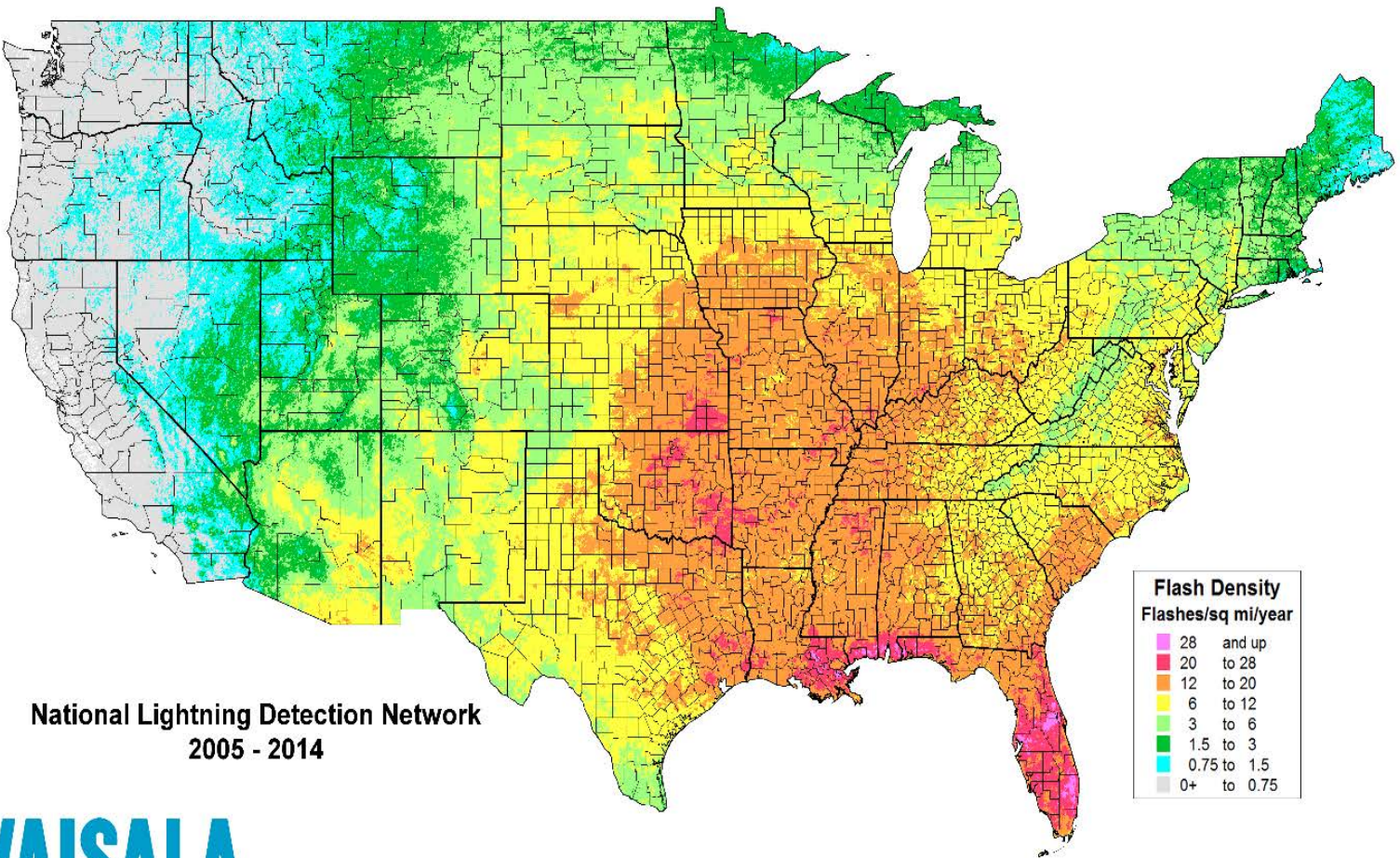
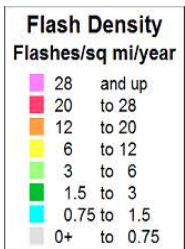
<u>Schedule</u>	<u>Title</u>
B-11	Capital Additions and Retirements
C-6	Budgeted Versus Actual Operating Revenues and Expenses
C-8	Detail of Changes in Expenses
C-9	Five Year Analysis – Change in Cost
C-34	Statistical Information
C-41	O&M Benchmark Variance by Function
F-8	Assumptions



Map of Northwest Florida with Extreme Wind Loading Standards GULF POWER DISTRICT SERVICE AREAS



Florida Public Service Commission
 Docket No. 160186-EI
 GULF POWER COMPANY
 Witness: Wendell E. Smith
 Exhibit No. _____ WES-1
 Schedule 2
 Page 1 of 1



National Lightning Detection Network
2005 - 2014



Transmission Capital Additions Budget						
2013 to 2017						
(\$000s)						
Category	2013	2014	2015	2016	2017	Total
Infrastructure Replacement	39,523	24,124	13,836	24,705	29,092	131,280
Distribution Planning	150	85	310	2,385	3,515	6,445
Transmission Planning	47,200	112,672	40,577	189	1,756	202,394
Total Capital	86,873	136,881	54,723	27,279	34,363	340,119

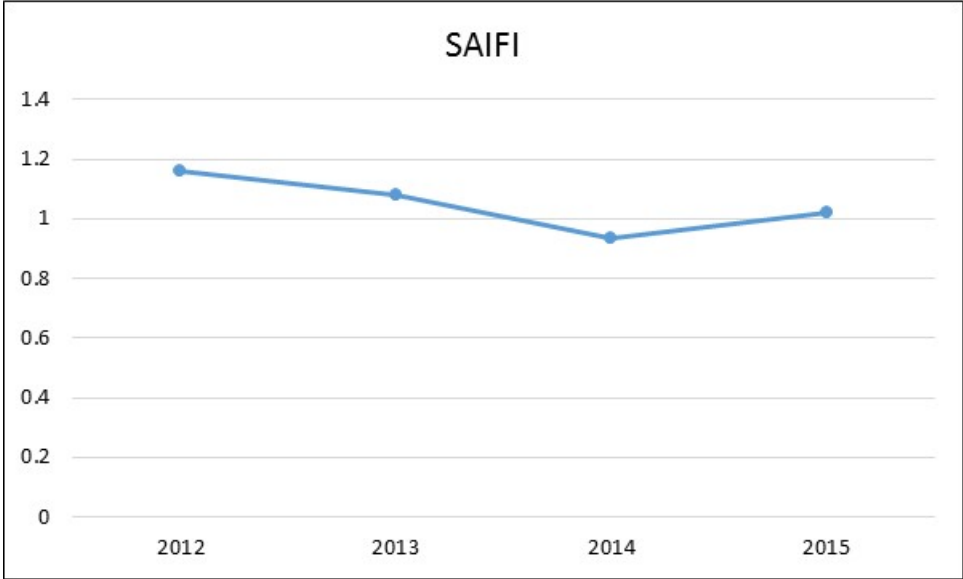
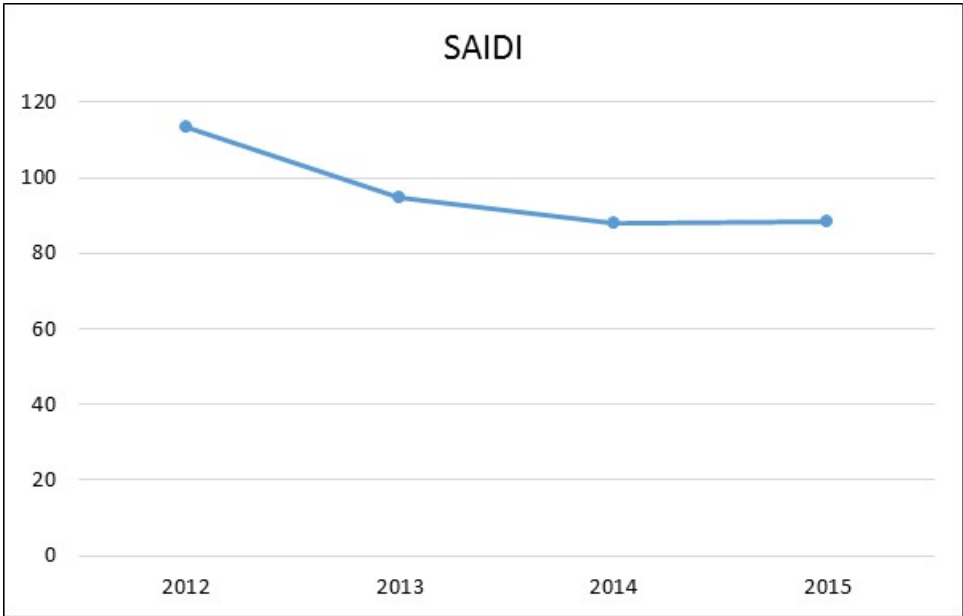
Transmission O&M Budget	
(\$000s)	
Category	2017
Protection and Control	743
Transmission Line Maintenance Program	313
Transmission Line Inspection Program	1,379
Substation Maintenance Program	1,732
Transmission Control Center	3,857
Transmission Engineering and Supervision	5,521
Transmission Vegetation Management	3,023
Total O&M	16,568

Distribution Capital Additions Budget						
2013 to 2017						
(\$000s)						
Category	2013	2014	2015	2016	2017	Total
Distribution Infrastructure Improvements	19,271	15,001	16,214	20,148	22,467	93,101
Storm Hardening	2,080	2,180	2,105	2,168	2,244	10,777
Asset Management Improvement Program	1,993	1,995	1,466	1,439	2,006	8,899
New Business	14,090	14,251	15,382	23,343	24,556	91,622
Highway Improvements/Joint Use	1,174	1,000	1,222	1,484	2,225	7,105
Distribution Transformers	7,532	7,873	7,674	8,718	9,180	40,977
General Plant - Distribution	1,437	1,145	1,484	4,503	4,838	13,406
Total Capital	47,577	43,445	45,547	61,802	67,516	265,887

Corporate General Plant Budget						
2013 to 2017						
(\$000s)						
Category	2013	2014	2015	2016	2017	Total
Automobiles, Trucks and Equipment	3,002	3,340	3,264	3,309	3,360	16,275
Long-Term Evolution (LTE) System	0	0	352	1,500	11,400	13,252
T&D Warehouse Equipment Replacement	150	150	147	147	150	744
Total Capital	3,152	3,490	3,763	4,956	14,910	30,271

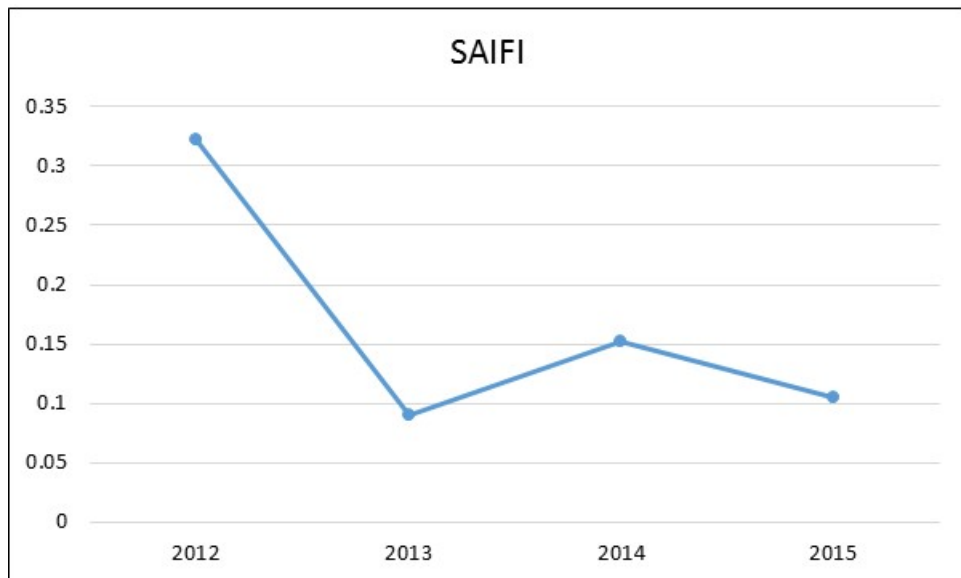
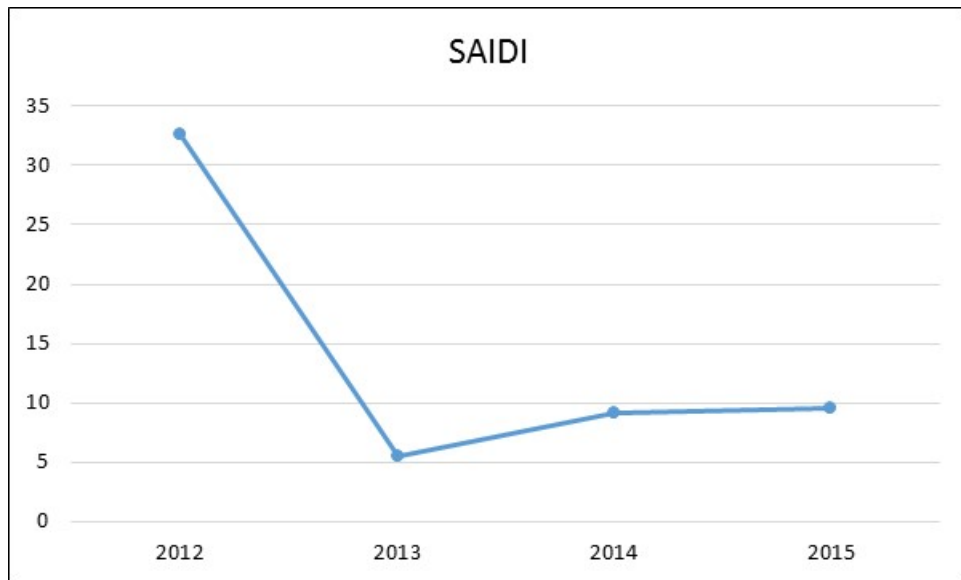
Distribution O&M Budget	
(\$000s)	
Category	2017
Asset Management	21,796
Minor Storms	745
Load Dispatch	1,679
Meters	3,787
Storm Hardening	225
Vegetation Management	5,949
Engineering & Supervision Overhead	11,693
Total O&M	45,874

Distribution Reliability 2012-2015



* Lower scores indicate better reliability.

Transmission Reliability 2012-2015



* Lower scores indicate better reliability.