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BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

DOCKET NO. 130140-EI

GULF POWER

A SOUTHERN COMPANY

TESTIMONY AND EXHIBIT

OF

P. CHRIS CALDWELL

GULF POWER COMPANY

Before the Florida Public Service Commission
Prepared Direct Testimony of
P. Chris Caldwell
Docket No. 130140-EI
In Support of Rate Relief
Date of Filing: July 12, 2013

Q. Please state your name, business address and occupation.

A. My name is Chris Caldwell. My business address is One Energy Place, Pensacola, FL 32520, and I am the Transmission General Manager for Gulf Power Company (Gulf or the Company).

Q. What are your responsibilities as Gulf's Transmission General Manager?

A. I have responsibility for the planning, design, construction, operation and maintenance activities for Gulf's transmission facilities. On Gulf's system, transmission includes those facilities rated 46 kilovolts (kV) and larger. My responsibilities also include all transmission compliance activities, budgeting, trouble restoration, vegetation management and right-of-way (ROW) management. The transmission department is also responsible for operation, construction and maintenance of distribution facilities located within substations at Gulf.

Q. Please state your prior work experience and responsibilities.

A. I have been Gulf's Transmission General Manager since July 2010. Previous to my current position, I worked for Georgia Power Company. Since June 1999 I have held various roles in the transmission function. I have served in roles as a substation construction engineer and relay

engineer. I have been in leadership roles managing transmission maintenance activities in Atlanta, Georgia and in Augusta, Georgia. I have been in management roles in Georgia where I had responsibility for developing and implementing the maintenance program for all of Georgia Power's transmission facilities. This role included managing the Operations & Maintenance (O&M) budget for the organization and developing proactive projects to replace obsolete equipment and facilities.

Q. What is your educational background?

A. I hold a Bachelor of Science in Engineering with a specialization in Mechanical Engineering from Mercer University's School of Engineering in Macon, Georgia.

Q. What is the purpose of your testimony?

A. My testimony discusses Gulf's transmission system and the process we use to manage the system assets. I explain how we plan the system and develop our transmission budgets. Additionally, I discuss our current transmission investment and its usefulness in maintaining reliable service to our customers. I cover Gulf's projected transmission capital expenditures and O&M expenses for the year 2014. My testimony then addresses Gulf's transmission system performance.

Q. Are you sponsoring any exhibits?

A. Yes, I am sponsoring Exhibit PCC-1, Schedules 1 through 7. Exhibit PCC-1 was prepared under my direction and control, and the information

contained therein is true and correct to the best of my knowledge and belief.

Q. Are you sponsoring or co-sponsoring any of the Minimum Filing Requirements (MFRs) filed by Gulf Power?

A. Yes. I sponsor or co-sponsor the MFRs shown on Exhibit PCC-1, Schedule 1. The information contained in the MFRs I sponsor or co-sponsor is true and correct to the best of my knowledge and belief.

I. DESCRIPTION OF GULF'S TRANSMISSION SYSTEM

Q. What is the purpose and function of Gulf's transmission system?

A. Gulf's transmission system is primarily used to deliver power from generation sources and neighboring utilities to Gulf's substations near Gulf's load centers. Gulf's transmission system utilizes facilities at three voltage levels: 230,000 volts (230 kV), 115,000 volts (115 kV) and 46,000 volts (46 kV). These facilities are tied together in a complex network to transport the power where it is needed.

At the generating facility where the power is produced, the voltage is raised to transmission levels utilizing a transformer. Using the transmission system, the power is delivered to a distribution substation closer to where it will be used and the voltage is reduced as described by Gulf Witness McQuagge. The distribution facilities which branch out from the substation carry the power to the customers. Some large industrial customers receive

service at transmission voltage and have their own internal distribution networks.

Q. What is the makeup of Gulf's transmission facilities?

A. Gulf's transmission facilities consist of approximately 1,600 miles of lines, which are operated at 230 kV, 115 kV and 46 kV. The Company's 230 kV system includes more than 400 miles of line. Gulf's 115 kV system is made up of approximately 1,040 miles of line. Gulf also has a 46 kV system that consists of approximately 100 miles of line. The system (all of the lines regardless of voltage) is connected through over 140 substations, approximately 100 of which are classified as distribution or load serving.

Gulf's 230 kV system delivers large amounts of power, or bulk power, from generation sources and neighboring utilities as well as between transmission substations. These lines allow the bulk power to flow to transmission substations near the various regional areas of demand. At this point the voltage is once again reduced (usually to 115 kV) using an Autotransformer (or Auto Bank) and continues on toward the load centers. The 115 kV transmission facilities move power from the transmission substations to one of Gulf's many distribution substations. Here the voltage is again reduced to a level appropriate for Gulf's distribution network. In these distribution substations, the power is split into individual feeders for distribution to customer load centers. The 46 kV system serves some of Gulf's more remote areas where the load centers are smaller. Gulf also has a number of tie-lines with other utilities. These lines act as conduits for

power to flow both into and out of the transmission network, depending upon the current system conditions.

II. TRANSMISSION OVERSIGHT AND MANAGEMENT PROCESS

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

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

Q. Please describe the responsibilities of Gulf's transmission planning function.

A. Through our transmission planning function, Gulf evaluates the transmission system to ensure it can reliably serve our customers' needs today and into the future. The evaluation identifies potential facility overloads and other system constraints in time to develop solutions and complete projects to mitigate the constraint. This work is done using a complex system model that evaluates potential system conditions and contingencies. Given the complex nature of modeling and evaluating the system, Gulf utilizes the expertise of Southern Company Services (SCS) to run the studies and identify overloads and other system constraints annually. I will discuss Gulf's transmission planning process in detail later in my testimony.

Once a system constraint is identified through the planning process, Gulf uses a diverse team of experts to ensure that all aspects and impacts of the potential solutions are reviewed. Gulf develops the solution with input from experts across the Company. When appropriate, multiple alternatives are developed and evaluated.

Ultimately, a solution is recommended and reviewed by transmission management. At this point a preliminary estimate is prepared. Once the scope and costs are approved, the projects are placed into the budget for the appropriate years. This estimate is further refined during the design phase.

Q. Please describe the design phase.

A. With a solution and scope determined, the final design work can begin. Because of the specialized expertise needed, Gulf utilizes the resources of SCS for engineering design work. By using SCS, Gulf also takes advantage of the expertise within SCS that has developed from their engineering work on projects for other Southern Company operating companies. This helps to ensure the designs have been tested and where needed, best practices are incorporated. The Southern Company Transmission Design and Maintenance Support (SCTD&MS) group is Gulf's primary resource for the design work on transmission projects. Gulf has the ultimate responsibility and oversight for the design and works closely with the designers to ensure customers receive a quality product and that the designs meet our needs. Using SCTD&MS as the design resource for transmission projects allows

for a standardization of design, equipment and materials on the Southern system which allows Gulf to take advantage of cost savings for these components. Additionally, we are able to use the expertise from SCTD&MS to incorporate the latest in designs and technology advancements. Through the design process, estimates for the project are revised, as appropriate, based on a more detailed engineering analysis of the scope and construction needed. The use of SCS to provide transmission modeling and design services are examples of the benefits Gulf's customers receive through its affiliation with Southern Company.

Q. Please describe the construction phase.

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

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

Q. Please describe the operations function.

A. After construction, the new facilities are incorporated into the existing systems for operations. Gulf maintains an operations center locally in Pensacola to perform this function. This center is called the Transmission Control Center (TCC). The TCC is staffed with Gulf employees that monitor and operate our transmission system. Through the TCC, Gulf ensures reliable power and facilitates planned outages on components for construction or maintenance activities. Gulf's operators are North American Electric Reliability Corporation (NERC) certified and are qualified to make critical decisions as contingencies develop.

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

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

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

process that drives a repair program. The repair program is based on issues or abnormal conditions documented during the inspection or otherwise discovered. A maintenance program is optimized for each type of equipment or facility, and maintenance is scheduled based on historical trends with similar equipment or facilities.

III. TRANSMISSION PLANNING PROCESS

Q. Please describe Gulf's process for planning its transmission system.

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

The planning process identifies limiting elements (lines, transformers, breakers or other equipment) where overloads may occur based on the studied loading, generation and contingencies for the various scenarios. In addition to identifying equipment or facility overloads, the planning studies

also identify other reliability and system stability issues related to area voltage support and generation impacts. Gulf's planning process meets the applicable requirements of the NERC standards and the Southeastern Electric Reliability Corporation (SERC) standards.

Q. Please explain NERC and SERC and their involvement in the planning process.

A. In June 2007, the Federal Energy Regulatory Commission (FERC) granted NERC the authority to enforce reliability standards on all users, owners and operators of the bulk power system in the United States and made compliance with those standards mandatory and enforceable. Non-compliance with these reliability standards can result in fines of up to $1,000,000 per day per occurrence. Included in this authority was a provision for NERC to delegate authority for the purpose of proposing and enforcing reliability standards in particular regions of the country by entering into delegation agreements with regional entities. SERC serves as a regional entity with delegated authority from NERC for the purpose of proposing and enforcing reliability standards within the southeastern United States, consisting of all or portions of Missouri, Illinois, Oklahoma, Louisiana, Texas, Arkansas, Mississippi, Alabama, Georgia, Tennessee, Florida, South Carolina, North Carolina, Kentucky and Virginia. Gulf is within the SERC Region. Compliance with the reliability standards is monitored and audited periodically by SERC.

Gulf fosters a culture of compliance with all regulatory requirements through oversight programs and processes. Periodically, Gulf certifies compliance with the standards as required by NERC and SERC. Failure to comply with NERC and SERC requirements could result not only in reliability impacts for our customers but the Company could also be assessed fines and penalties.

The NERC and SERC reliability standards cover many aspects of the bulk power system, including the planning process. The requirements within the planning standards specify transmission system scenarios to be evaluated that ultimately produce projected system or component overloads or voltage issues that must be resolved. For example, the system is studied for a summer peak load and an assumed generation dispatch with two contingencies. In this example, the system must be able to survive a heavy loading condition, the loss of a generator and the loss of a 230 kV line without any impact to customers. These criteria must be met even if that peak is for one hour in one day of the year.

Once a system constraint has been identified by the planning studies, the NERC reliability standards require Gulf develop a project to mitigate the system constraint, budget for the necessary work and ultimately complete the project. The process for a new substation or line can take years; therefore, Gulf must develop a planning process that looks at a horizon far into the future. The changes in system performance are simulated and analyzed for the present and future years to identify existing

and future system constraints. Alternative solutions to these constraints are then developed, analyzed and screened based on system performance. Viable alternatives are compared for their relative merits with respect to community impact, reliability, voltage, capacity, economics and constructability. After all of these comparisons are made, the best solution is selected and any resulting Transmission facility additions such as a new transmission line or addition of substation equipment are budgeted.

The entire Gulf transmission system is studied annually and the 10-year plan is revised. This 10-year plan includes the potential solutions and scope for projects along with the estimated budget requirements for all transmission system improvement needs. This plan is reviewed and approved annually by the Transmission General Manager.

IV. TRANSMISSION CAPITAL ADDITIONS BUDGET

Q. Please describe the transmission Capital Additions Budget process.

A. The Capital Additions Budget for Transmission is developed and updated annually. All Capital Additions are budgeted through Project Expenditure (PE) requests that document the need and details of the budget items. There are two major components that make up the Capital Expenditures budget for Transmission. These components are based on the drivers for the investment. We call these two components or categories, transmission

infrastructure replacement projects and transmission planning generated projects.

Transmission infrastructure replacement projects consist of replacements of poles, transformers, breakers, switches, conductors, protection system relays and other assets. In most cases these projects or expenditures are driven by the need to replace equipment and facilities that have reached the end of their useful life. For the smaller routine infrastructure replacement expenditures the Company budgets using PEs titled Blanket PEs. Blanket PEs reflect repetitive expenditures based on inspection data as well as knowledge of the system and equipment. Blanket PEs include items such as poles, arms, conductors, breakers, regulators and transformer replacements as well as protection system replacement projects. For larger infrastructure replacement projects, the Company budgets using PEs titled Specific PEs. These Specific PEs may cover multiple budget years to allow for project development, design and construction. The transmission planning generated projects are a result of the transmission planning process that I mentioned previously. All transmission planning generated projects are budgeted using Specific PEs and generally cover multiple years to allow for planning, design and construction.

The proposed Capital Additions Budget is reviewed by the transmission management team. Once approved, the transmission management team submits a proposed Capital Additions Budget to the Vice President of Customer Service and Operations. Once reviewed and approved by the

Vice President of Customer Service and Operations, the transmission Capital Additions Budget is presented to Gulf's Corporate Planning Department for inclusion in the Company's Capital Additions Budget. Gulf Witness Ritenour will address Gulf's Capital Additions Budget process within Corporate Planning.

Q. Describe the transmission capital expenditures monitoring process.

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

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

A. In the event a new project or an increase in capital expenditures associated

with an existing project is necessary, Transmission must submit a justification letter to the Customer Service and Operations Vice President. Once approved by the Customer Service and Operations Vice President, the letter is forwarded to the Chief Financial Officer (CFO) for review and approval. If the change is approved, the letter is sent to Corporate Planning where the change is documented and the current budget is updated to reflect the change.

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

A. Yes. The transmission assets, which comprise a total of $467,475,000 of the plant in service in Gulf's 2014 rate base in this case, are used and useful in Gulf's provision of electric service.

Q. Were these transmission costs reasonable and prudently incurred?

A. Yes. This investment includes, but is not limited to, the partially depreciated facilities included in Gulf's last rate case and approved by the Florida Public Service Commission (FPSC or the Commission). Since then, Gulf has continued to follow its planning criteria and commit the necessary resources to continue to meet the demands of its customers. The Company has made the capital investments in the transmission system to continue to provide reliable electric service to its customers. Gulf's planning process ensures that transmission projects are planned, designed and built to

support peak demands under any reasonable set of contingencies and ensure the transmission capacity is there when needed.

Q. What are the amounts of Gulf's planned transmission capital expenditures for 2013 and 2014?

A. Gulf's transmission capital additions budget for 2013 is $85,970,000. For 2014 the Company has budgeted $114,936,000. These budgets and the breakdown by category can be seen in Exhibit PCC-1, Schedule 2, Page 1.

Q. Please discuss the transmission infrastructure replacement project expenditures planned for 2013 and 2014.

A. The budgeted amounts for Blanket PEs for infrastructure replacement in 2013 and 2014 of $10,880,000 and $9,818,000 are consistent with previous years' expenditures and reflect our continuing need to address the routine replacement of equipment and facilities. The PEs, descriptions and amounts can be seen in Exhibit PCC-1, Schedule 2, Page 2. The Company is recognizing a reduction in our capital needs related to routine line infrastructure replacements from 2013 to 2014. This reduction is largely the result of our line inspection and repair program data that reflects fewer capital replacements will be needed going forward.

The budgeted amounts for Specific PEs for infrastructure replacement in 2013 and 2014 are $28,393,000 and $5,525,000 respectively. The PEs, descriptions and amounts can be seen in Exhibit PCC-1, Schedule 2, Page 3. The budgeted expenditures reflect design, material and

construction costs for PEs that Gulf will be working on in 2013 and 2014. In-service dates will vary for each project. These projects have been developed to address specific issues on our system. These projects range from automated switch installations and relay upgrades to complete rebuilds of aging facilities. One project projected to be in service in 2013 is a rebuild of the transmission line from Marianna to Highland City in the Panama City area. This project accounts for $8,988,000 of the total transmission capital expenditures for 2013. The conductor and some of the structures have been in service for 70 years. Proactively completing this project will avoid a potential reliability impact to our customers in these areas. There are a total of twenty-seven (27) other projects that will have capital expenditures in 2013. These projects account for the remaining $19,405,000 of the investment in this category. Likewise there are thirteen (13) projects that will have capital expenditures for Specific PEs related to infrastructure replacement in 2014. These projects total $5,525,000 of investment.

Q. Please discuss the planning generated transmission project expenditures budgeted for 2013 and 2014.

A. In 2013 and 2014, Gulf has budgeted expenditures totaling $46,497,000 and $99,493,000 respectively for projects that were developed through our transmission planning process. These budgeted capital expenditures are planned for seven (7) major area projects across Gulf's system to address potential overloads and voltage issues. The budgeted expenditures for 2013 and 2014 include planning, survey, design, materials and construction

activities to support the project schedules. These projects are shown on Exhibit PCC-1, Schedule 2, Page 4 and are described in more detail below.

In the Pensacola area, Gulf has determined that one of the Company's 115 kV lines will be overloaded under contingency conditions in 2014. After reviewing several options, Gulf has determined that the best solution to this overload is to upgrade substation configurations and equipment at one of our substations in the Scenic Hills area. This project will address the line overload as well as other reliability and operational constraints. The specific PEs for this project are budgeted for a total of $3,660,000 in 2013.

Also in the Pensacola area, the Company will be constructing new transmission facilities to allow Plant Crist to comply with new environmental requirements. These new environmental compliance requirements and Gulf's compliance strategy to meet them are discussed in Schedule 3 of Exhibit PCC-1, which is the testimony and exhibits of James O. Vick and Noel Cain filed in support of Gulf's Environmental Compliance Program Update on April 1, 2013 in Docket No. 130092. The testimony of Mr. Vick and Ms. Cain details Gulf's decision to pursue certain identified transmission projects as a means of complying with the new Mercury and Air Toxics Standards (MATS) rule. Gulf has identified the projects that will be needed to address potential line and equipment overloads as well as voltage issues in the area related to this contingency. These projects include a new 60 mile 230 kV line and terminal from the company's Alligator Swamp substation north to the Florida-Alabama state line near Brewton,

Alabama. This new line will be constructed along existing right of way. The Company also has plans to install the necessary voltage regulation equipment to support the system as needed for this contingency. This will include a Static Var Compensator (SVC) in the Pensacola area as well as an additional Capacitor Bank. Exhibit PCC-1, Schedule 2, Page 4 shows the expenditures related to these projects which total $1,028,000 in 2013 and $37,382,000 in 2014.

Additionally, in the Pensacola area the Company will be working on projects to address projected system needs and operational constraints. These projects involve a new 230 kV terminal and associated line moves at the Company's Alligator Swamp substation. Connecting this line to one of the Company's substations in the Pensacola area will improve operations as well as address potential voltage issues identified in Gulf's contingency planning. This project includes expenditures totaling $200,000 in 2014.

In the Panama City area, Gulf's planning studies indicate that under certain contingencies involving transmission assets around Plant Smith, we will experience an overload on a 115 kV transmission line coming out of Gulf's Laguna Beach substation. To alleviate this overload, make improvements necessary for other transmission planning generated projects and bring a new 230 kV source into the area, the Highland City substation will be rebuilt adding a new 230/115 kV autotransformer and 230 kV terminals. The project will also expand the 230 kV bus at Callaway substation and convert the transmission line between Highland City and Callaway to 230 kV

operation. As part of the solution for contingencies in this area, Gulf will also complete the conversion of the Smith – Laguna transmission line from 115 kV to 230 kV. The expected capital expenditures for this project total $12,850,000 for 2013.

The Company will be constructing new transmission facilities in the Panama City area to allow Plant Smith to remain in compliance when new environmental requirements take effect in 2015. These new environmental compliance requirements and Gulf's compliance strategy to meet them are discussed in Schedule 3 of Exhibit PCC-1. The testimony of Mr. Vick and Ms. Cain included in that schedule details Gulf's decision to pursue certain identified transmission projects as part of its strategy to meet the new MATS rule requirements at Plant Smith. Gulf's planning studies project that there will be overloads and voltage issues in the Panama City area. Gulf's solution team has reviewed options and determined that the optimal solution includes a new 230 kV transmission line along existing transmission ROW from Holmes Creek substation in Holmes County near the Alabama state line to Highland City substation in Panama City. This new 70 mile transmission line along with improvements at Holmes Creek substation to install a new 230 kV ring bus and 230/115 kV autotransformer will alleviate the overload conditions and maintain the transmission system reliability in the Panama City area. This project will also include the installation of voltage control equipment (SVC) in the Panama City area. This project has planned capital expenditures of $26,945,000 in 2013 and $41,900,000 in 2014.

Also in the Panama City area, the Company is making plans to address projected overloading conditions under certain contingencies for facilities that serve a large portion of our customers along the coast from the Laguna Beach area to the Santa Rosa area. The planned solution will involve converting the existing Laguna – Santa Rosa 115 kV line in this area to 230 kV operation as well as installing a new 230/115 kV autotransformer and the associated substation work. This project will bring a strong source into the area that will alleviate the overloading issues and ensure we can continue to meet our customers' reliability expectations under heavy loading and potential contingencies. The budgeted expenditures for this work total $114,000 for 2013 and $20,011,000 for 2014.

Finally, in the Holmes Creek area, planning studies indicate that under certain contingencies Gulf will experience overloads on transmission lines out of the Holmes Creek substation. To eliminate the overload under this contingency situation, the line between Slocomb and Holmes Creek substations will be rebuilt to allow more capacity for power to flow. This project will rebuild about two miles of line and will have capital expenditures of $1,900,000 in 2013.

Q. Are there any other capital expenditures planned for 2013 or 2014?

A. Yes. As shown in Exhibit PCC-1, Schedule 2, Page 1. There are budgeted expenditures of $200,000 for 2013 and $100,000 for 2014 for distribution planning projects. There are no new distribution substations planned to go into service in 2013 or 2014. The budgeted expenditures are related to

planning and design for potential new substations in future years with one exception. The majority of the Holiday substation project in Panama City Beach was completed and placed in service in 2012. In 2013, the final substation improvements will be installed and placed in service with budgeted expenditures of $50,000.

Q. Are there any known and identifiable transmission capital additions that Gulf will be making in 2015?

A. Yes. As I have discussed earlier in my testimony, Gulf has identified transmission expenditures that will be necessary to address the impacts of environmental requirements. Many of these projects occur in the 2015 timeframe. The testimony of Mr. Vick and Ms. Cain included in Schedule 3 of my exhibit details Gulf's decision to pursue certain identified transmission projects as a means of complying with the new MATS rule. Through the transmission planning process that I discussed previously in my testimony, Gulf has identified 9 transmission projects that are necessary to address the impacts of the new MATS rule. Exhibit PCC-1, Schedule 4 contains a list of the projects that are required for MATS compliance, in-service dates and total capital cost for each project. Expenditures for these projects began in 2013 and will continue through 2015.

V. TRANSMISSION O&M BUDGET

Q. Describe how the transmission Operations & Maintenance (O&M) budget is developed.

A. Gulf's Corporate Planning and Budgeting departments provide 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 of the transmission system. Gulf uses data collected through various inspection programs to assist in planning its O&M budget. I discuss these inspection programs later in my testimony. We review the repair work to be completed and estimate the costs of the maintenance programs to develop our budget requests. These repairs make up the majority of the year to year O&M cost variation.

Gulf's other transmission O&M costs are related to equipment, tools and people. We conduct workforce planning reviews to ensure we are staffed appropriately and make adjustments as needed. One of the considerations in the staffing review is to ensure we have adequate resources to respond to trouble and outages on the system in a timely manner.

The five-year O&M budget is scrutinized in a multilayer process that compares historical spends for transmission accounts and cost types. New programs or additional dollar requests must be validated and approved annually. This approval process closely follows our Capital Additions Budget review and approval process. Each responsibility center within Transmission develops a budget for the five year window annually. The total transmission budget is reviewed and approved by the Transmission General Manager. Final review is completed by the Customer Service and Operations Vice President, and the budget continues in the process to approval as outlined in Ms. Ritenour's testimony.

In addition to the rigorous multilayer budgeting approval process, Gulf also uses a detailed process for monitoring, evaluating and justifying current year expenses and capital expenditures. Budget to actual costs are reviewed monthly, and variances are documented. Each month projections are made for the month ahead and for year end. These monthly actual costs, variances, monthly projections and year end projections are reviewed by the Transmission General Manager, Power Delivery General Manager and the Customer Service and Operations Vice President.

Q. Describe the Transmission O&M monitoring process.

A. Each Transmission O&M program is assigned an owner within the Transmission organization. Each owner's responsibility is to monitor expenses against budget. Within each program, all variances are reported to Transmission management for their review on at least a monthly basis.

At the end of each quarter, budget to actual reports are provided to Budgeting along with justifications for variances from budget.

Q. What is Gulf's transmission O&M budget for 2013 and 2014?

A. Gulf's transmission O&M budget for 2013 is $11,935,000 and for 2014 is $13,733,000, as shown in Exhibit PCC-1, Schedule 5.

Q. Are Gulf's projected levels of transmission O&M expenses in 2013 and 2014 reasonable and prudent?

A. Yes. Gulf's projected levels of transmission O&M expense are reasonable, prudent and necessary for Gulf to continue to provide adequate and reliable transmission service to meet our customers' needs. The amounts were developed through Gulf's transmission budget process and include expenses for Protection & Control, Transmission Line Maintenance Programs, Substation Maintenance Programs, Transmission Control Center, Transmission Engineering and Supervision, Transmission Vegetation Management and Smart Grid Investment Grant (SGIG). The primary driver for the increase between 2013 and 2014 is reflective of increased costs for our Vegetation Management program which is discussed later in my testimony.

Q. Please describe Gulf's Protection & Control component of the 2014 O&M budget.

A. Gulf's Protection & Control accounts for $354,000 of the 2014 transmission O&M budget. Transmission is responsible for the systems and equipment

which monitor and automatically respond to abnormal conditions on the transmission grid. These controls and equipment are on a routine maintenance cycle as required by NERC. The maintenance program consists of relay calibration, circuit verification and functional testing of the protection schemes.

Q. Please describe Gulf's Transmission Line Maintenance programs.

A. Gulf's Transmission Line Maintenance programs account for $1,645,000 in the 2014 transmission O&M budget. Gulf's Transmission Line Maintenance programs are responsible for all of the transmission line inspection and maintenance activities.

Gulf's Transmission Line Inspection Program consists of several inspection techniques to ensure the integrity of the system. A comprehensive, systematic transmission line inspection program is essential to the effective and orderly maintenance and safe and reliable operation of the transmission system. The objectives of this program are:

- To maximize plant facility life,
- To gather information to assist in prioritizing repairs, and
- To minimize unscheduled or emergency maintenance.

The program requires that every structure be inspected at least every six years by a ground inspection, climbing inspection or a comprehensive aerial inspection by helicopter. This program is a part of Gulf's Storm Hardening Plan filed with the Commission on May 1, 2013.

Based on data gathered during the inspection program, repairs that are not related to capital infrastructure projects are expensed. The cost of these repairs can be significant and is related to weather, age of infrastructure and other environmental factors. Some examples of these types of expenses are repairing woodpecker holes, replacing rusted or broken guy wires and repairing deteriorated foundations or structure components. Additionally, the data from our inspection programs allows Gulf to identify trends and develop other maintenance programs to optimize the life of the facilities. Some examples of programs needed based on our inspection data include a structure painting program for all steel structures and additional foundation repairs.

The Transmission Line Maintenance Program consists of periodic repairs to facilities including guys, anchors, foundations, poles and wire. The majority of these repairs are initiated based on the results of the Transmission Line Inspection Program. This program also covers reactive repairs to facilities.

Q. Please describe Gulf's Substation Maintenance programs.

A. Gulf's Substation Maintenance programs account for $1,866,000 of the 2014 transmission O&M budget. Gulf's Substation Maintenance programs are responsible for all of the substation inspection and maintenance activities.

Gulf implements a performance and interval based Substation Inspection and Maintenance Program. This program uses periodic diagnostic tests on

equipment to assist in determining the level of maintenance needed. These inspections review the performance of the equipment and review the current conditions of components. Based on conditions observed during the inspection, additional maintenance or repairs may be performed. The expenses to perform the inspections and follow through with the identified repairs are essential to the reliable operation of the system and to the avoidance of unexpected outages.

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

A. The 2014 transmission O&M budget includes $4,619,000 related to the Transmission Control Center (TCC) operation. This expenditure is necessary for the safe and secure operation of Gulf's transmission system. Our TCC operates 24 hours a day, 7 days a week and 365 days a year. The NERC-certified operators are responsible for the reliable operation of the system and take action to mitigate emergent issues. These operators also assist with removing components from service for maintenance or construction activities and use the Energy Management System to monitor and control the transmission system and its components. This system relies on data gathered from field devices, processed by local servers and displayed for the operators' use. This expense item also includes the bulk power operations functions performed by the Power Control Center (PCC).

Q. Please describe Gulf's Transmission Engineering and Supervision.

A. Gulf's Transmission Engineering and Supervision accounts for $2,091,000

of the 2014 transmission O&M budget. These expenses are for engineering, supervision and administrative resources necessary to support the projects and programs in the transmission department.

Q. Please describe Gulf's Transmission Vegetation Management program.

A. Gulf's Transmission Vegetation Management program accounts for $3,023,000 in the 2014 O&M budget projection. Gulf manages the vegetation on Company transmission ROW in a cost-effective manner ensuring high reliability of service and compliance with all environmental laws and regulations.

Gulf manages vegetation on its transmission ROW through the use of an Integrated Vegetation Management (IVM) Program. IVM is a process that balances the use of mechanical, chemical and biological treatments to establish and maintain a vegetative cover type that is environmentally compatible, economically feasible and socially acceptable. The Company's vegetation management program is designed to control the vegetation growing on the ground floor as well as along the sides of the corridor and adjacent to the ROW. Gulf also uses routine aerial inspections and ground patrols to identify danger trees and addresses those trees when found. This program is monitored, audited and enforced by NERC reliability standards. Gulf reports quarterly on vegetation related outages and must certify compliance annually.

The 2014 budget amount of $3,023,000 for Transmission Vegetation Management represents an increase over the 2013 budgeted amount of $1,944,000. Gulf's Vegetation Management program has been successful in ensuring zero preventable tree outages or compliance violations related to Vegetation Management on Gulf's 230 kV system. This increased funding in our Vegetation Management program is needed to ensure Gulf continues to provide reliable electric service. In many areas, Gulf has corridors with tree buffers on the ROW between the lines and adjacent property owners. The Company has experienced increased costs in equipment and resources needed to maintain these corridors and buffers. Maintaining these areas requires specialized equipment and Company resources to ensure we meet our reliability and compliance obligations as well as manage our impact to the communities and the property owners. The additional funding will allow Gulf to incorporate the equipment and resources needed into its Vegetation Management program to continue to mitigate and maintain these buffer zones.

Q. Please describe Gulf's SGIG expense.

A. Gulf's SGIG expenses account for $135,000 in the 2014 transmission O&M budget. These expenses are for the cyber security and project management related to the SGIG program approved in Gulf's last rate case.

Q. Is Gulf's projected level of transmission O&M expenses of $13,733,000 in 2014 representative of a going forward level of transmission O&M expenses beyond 2014?

A. Yes. As shown in Exhibit PCC-1, Schedule 5, Gulf's 2014 O&M budget is in line with the projections for the three years 2015 through 2017. When compared to 2013 the majority of the increase in expenses is related to an increase in Transmission Vegetation Management as discussed earlier in my testimony.

Q. How do Gulf's transmission O&M expenses forecasted for 2014 compare to the O&M benchmark calculation historically employed by the Commission?

A. Gulf's 2014 level of transmission O&M expenses is $1,602,000 above the 2014 O&M benchmark. The O&M benchmark level for Gulf Transmission is $12,131,000. Gulf is projecting to spend $13,733,000 for transmission O&M in 2014. Exhibit PCC-1, Schedule 6 shows the Gulf Transmission Test Year Benchmark versus the 2014 Gulf Transmission Budget divided into the categories mentioned previously.

Q. Please provide an explanation for each of the categories which are over the benchmark amount.

A. Gulf Transmission is over the test year benchmark amount in three categories: Transmission Engineering and Supervision, Transmission Vegetation Management and Transmission Line Maintenance Programs. The Transmission Engineering and Supervision category is $309,000 over the benchmark due to a Commission adjustment in the 2012 Gulf rate case related to vacancies. The dollars and the positions were then and are now required to effectively and efficiently perform the transmission function. Gulf filled the vacancies in Transmission in 2012 and we remain at full staff.

The Transmission Vegetation Management category is $941,000 over the benchmark due to additional work that is needed along our NERC regulated 230 kV corridors as described earlier in my testimony.

The Transmission Line Maintenance Programs category is $583,000 over the benchmark due to an increase in Gulf's maintenance repairs. Gulf's inspection program indicates a shift in the type of repairs needed on our transmission lines in 2014 from total pole replacements (infrastructure replacement capital expenditures) to more minor repairs (maintenance expenses) on the existing structures that will prolong the life of the asset. This reduction in infrastructure replacement capital can be seen in Exhibit PCC-1, Schedule 2, page 2, PE-Item 280201 with a $1,000,000 reduction for 2014 funding level from the 2013 funding level. This shift from capital to maintenance dollars is a good indication that our inspection, ground line treatment and replacement program is working. As the pole replacements decrease, we expect to see this increase in maintenance activities, and with a maturing program we expect this trend to continue into the future.

VI. TRANSMISSION SYSTEM PERFORMANCE

Q. Please discuss Gulf's transmission system performance.

A. Gulf measures the reliability performance from the point of view of the customer. Our customers tell us our reliability has been good through the customer value benchmark scores related to reliability. Gulf has maintained

a strong rating from our customers. Gulf also tracks reliability through our own internal measures. Two metrics are used by Gulf to measure transmission reliability. Gulf tracks System Average Interruption Frequency Index (SAIFI), which measures the frequency of customer outages, and System Average Interruption Duration Index (SAIDI), which measures the duration of customer outages. Each of these metrics uses sustained outages which are defined as outages lasting over five minutes. Also, each index is based on connected capacity and outage time experienced by customers. See Exhibit PCC-1, Schedule 7 for the SAIDI & SAIFI historical results.

Gulf uses a rolling five (5) year average to set performance targets with an ultimate goal to maintain reliability that meets our customers' expectations. Using the rolling average as a guide, our performance has met or exceeded that goal of maintaining reliability over time. Although from year to year there are some ups and downs, Gulf has maintained or improved the rolling average over time.

We also track performance based on a calendar year. Within that specific period there are fluctuations in the performance based on weather, system conditions, construction activities and timing of other conditions. In 2012 we experienced an unusual number of outages due to weather, animal caused outages and equipment failures. The types of events were similar to what we normally see in a given year. These events caused our reliability

performance, as measured by SAIDI and SAIFI, to be unusually worse than our historical trends for a given calendar year.

VII. SUMMARY

Q. Please summarize your testimony.

A. Gulf's transmission system is well planned, and the Company has continued to make the necessary improvements to maintain its reliability. Gulf's transmission planning process is comprehensive, rigorous, and meets all applicable regulatory requirements. Continued commitment to invest in the system to resolve system issues identified by our planning practices is extremely important. These capital investments are necessary for the continued reliability of our transmission system. The Company has a rigorous budget approval and monitoring process to ensure the expenses are necessary and prudent. Gulf has sound maintenance practices for our transmission system and we continue to prioritize major repairs across the system. The transmission O&M expenses will be used to ensure our system continues to operate reliably and help ensure we continue to maximize the life cycle of our current investment.

Q. Does this conclude your testimony?

A. Yes.

AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 130140-EI

Before me the undersigned authority, personally appeared P. Chris Caldwell, who being first duly sworn, deposes, and says that he is the Transmission General Manager 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.

P. Chris Caldwell
Transmission General Manager

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

Notary Public, State of Florida at Large

Commission No. EE166680

My Commission Expires 2/6/16

MONICA A WILLIAMS
MY COMMISSION # EE166680
EXPIRES February 06, 2016
(407) 398-0153 FloridaNotaryService.com

Responsibility for Minimum Filing Requirements

Schedule	Title
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

Budgeted Transmission Capital Expenditures by Category

Budgeted Transmission Expenditures by Category ($1,000s)		
Category	**2013 Budget**	**2014 Budget**
Distribution Planning	200	100
Transmission Planning	46,497	99,493
Infrastructure Replacement - Blankets	10,880	9,818
Infrastructure Replacement - Specific PE	28,393	5,525
Grand Total	**85,970**	**114,936**

Budgeted Transmission Capital Expenditures for
Infrastructure Replacements – Blanket PEs

Infrastructure Replacements- Blanket Pes ($1,000s)			
PE	**Description**	**2013 Budget**	**2014 Budget**
280101	Transmission Substation Infrastructure Projects	650	650
280201	Transmission 230 kV Line Infrastructure Projects	6,000	5,000
281001	115 kV Static Wire Replacements	515	450
282201	Transmission 115 kV Switch Replacement Project	500	500
283001	Transmission Breaker Replacement	200	200
283501	Critical Infrastructure Protection (CIP)	-	238
340101	Miscellaneous Distribution Substation Additions & Improvements	1,000	1,000
342801	Proactive Transformer Replacement	1,000	1,000
345301	Distribution 12 kV Breaker Replacement Program	315	315
370201	Circuit Switcher Improvements	250	250
371401	Protection & Control Infrastructure Projects	100	100
374201	Energy Management System - Transmission	350	115
		10,880	**9,818**

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Budgeted Transmission Capital Expenditures for Infrastructure Replacements – Specific PEs

Infrastructure Replacements-Specific Pes ($1,000s)			
PE	**Description**	**2013 Budget**	**2014 Budget**
281201	Transmission Line Switch Replacement (Smart Grid Investment Grant)	580	-
282401	Marianna - Alford 115 kV Reconductor	8,988	-
282701	Navarre - Live Oak Insulator Replace	500	-
284101	Smith - Shoal River 230 kV Guyed Y Tower Anchor Replacements	1,000	-
284102	Smith - Sinia 230 kV Guyed Y Tower Anchor Replacements	-	1,650
286801	Survey And Renewal Of Transmission Corridor Leases	1,500	-
288901	Crist - Air Products 115 kV Rebuild	500	-
341801	Gulf Breeze Reliability Upgrade	320	-
342001	Destin 115 12 kV Reliability Upgrade	-	50
342201	Ocean City Lowside Bus Rebuild	1,400	-
342301	Hathaway 115 12 kV Reliability Upgrade	50	345
342401	Bluewater 115 12 kV New House And Batteries	125	-
342501	Innerarity 115 12 kV Upgrade	50	665
342701	Fort Walton 115 12 kV Reliability Upgrade	50	710
343001	Marianna Breaker Replacement	-	15
343101	Cantonment Lowside Bus Structure Rebuild	3,750	-
343201	Airport Substation Conversion	2,250	-
343202	Airport Substation Conversion	60	-
343501	Brentwood Ds Reliability Upgrade	1,500	-
343601	Cordova 115/12 kV Substation Protection & Control Infrastructure Upgrade	-	20
345001	Honeysuckle Distribution Substation Reliability Upgrade	500	-
346701	Marianna 115/12 kV Substation Protection & Control Infrastructure Upgrade	50	550
348001	Redwood Protection & Control System Replacement	50	-
348201	Air Products Protection & Control System Replacement	-	200
348401	Bayou Chico Protection & Control System Replacement	50	-
348501	Devilliers Protection & Control System Replacement	450	-
348701	Long Beach Protection & Control System Replacement	160	-
349001	Devillers Lowside Bus Structure Rebuild	3,200	-
349401	Pace 115/12 kV Substation Protection & Control Infrastructure Upgrade	-	35
349601	Northside 115/12 kV Substation Protection & Control Infrastructure Upgrade	-	35
373501	Caryville Tap Overhead Ground Wire Addition	975	-
373502	Ponce De Leon Substation	30	625
373503	Caryville Substation	30	625
374801	Fiber Optic Equip	50	-
375601	Optical Ground Wire (Smart Grid Investment Grant)	225	-
		28,393	**5,525**

Budgeted Transmission Capital Expenditures for Planning Generated Projects

Transmission Planning Generated Projects ($1,000s)			
PE	**Description**	**2013 Budget**	**2014 Budget**
282001	Scenic Hills Bus Modifications	3,400	0
282002	Line Connections	260	0
	Pensacola Area - Scenic Hills Total	**3,660**	**0**
280301	Pensacola Svc (Alligator Swamp)	515	10,753
281301	North Brewton - Alligator Swamp 230 Line	513	26,429
284801	Alligator Swamp 90Mvar 230 kV Cap Bank	0	50
285101	West Pensacola Ring Bus And Cap Bank	0	150
	Pensacola Area - Crist Scrubber Total	**1,028**	**37,382**
282101	Loop Crist - Shoal River Into Alligator Swamp	0	125
282102	Alligator Swamp Sub	0	75
	Pensacola Area - Alligator Swamp Total	**0**	**200**
285302	Highland City Substation	8,856	0
285303	Highland City - Callaway Ring Bus	1,980	0
285304	Highland City - Callaway 230 kV Connections	241	0
287403	Smith-Laguna 115 kV Line Conversation - 230 kV Line Terminal	1,773	0
	Panama City Area -Highland City Total	**12,850**	**0**
282901	Panama City Svc (Highland City)	500	10,500
286701	Holmes Creek - Highland City New 230 kV - Line	18,302	19,251
286703	Holmes Creek - Highland City New 230 kV - Autobank	8,093	8,559
286707	Holmes Creek - Highland City New 230 kV - Cap Bank	50	2,072
286709	Rebuild Holmes Creek - Bonifay Tap Section Double Circuit	0	1,518
	Panama City Area - Smith Total	**26,945**	**41,900**
281403	Laguna - Santa Rosa 230 kV Conversion - New 230 kV Line	114	13,882
281407	Laguna - Santa Rosa 230 kV Conversion - New Substation	0	6,129
	Panama City Area - Laguna - Santa Rosa Total	**114**	**20,011**
289001	Slocomb - Holmes Creek 115 kV Rebuild	1,900	0
	Slocomb - Holmes Creek Rebuild Total	**1,900**	**0**
		46,497	**99,493**

Testimony and exhibits of James O. Vick and the testimony of Noel M. Cain were filed on April 1, 2013 in Docket No. 130092. The testimony and exhibits are incorporated herein by reference and have been assigned the document numbers described in the table below.

Document Number (DN)	Description
01557-13	Direct testimony of Noel M. Cain and direct testimony of James O. Vick with exhibits JOV-1 and JOV-2.
01560-13	Request for confidential classification of DN 01561-13 with attached redacted version and line-by-line/field-by-field justification.
01561-13	(CONFIDENTIAL) Certain portions of environmental compliance program in Exhibit JOV-1 to James O. Vick's testimony.

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MATS – Planning Projects through 2015

MATS - Planning Projects through 2015			Total In Service Budget	
PE	Description	In Service	2014	2015
280301	Pensacola Svc (Alligator Swamp)	2015		16,509
281301	North Brewton - Alligator Swamp 230 Line	2015		34,002
281302	Alligator Swamp Substation	2015		252
284801	Alligator Swamp 90Mvar 230 kV Cap Bank	2015		2,100
282901	Panama City Svc (Highland City)	2015		16,000
286701	Holmes Creek - Highland City New 230 kV - Line	2015		39,790
286703	Holmes Creek - Highland City New 230 kV - Autobank	2014	16,652	
286707	Holmes Creek - Highland City New 230 kV - Cap Bank	2014	2,122	
286709	Rebuild Holmes Creek - Bonifay Tap Section Double Circuit	2014	1,518	
			20,292	**108,653**

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Gulf Transmission O&M Budget by Category
2013 through 2017
($000)

Category	2013 Budget	2014 Budget	2015 Budget	2016 Budget	2017 Budget
Protection and Control	$343	$354	$363	$371	$379
SGIG	$133	$135	$136	$138	$139
Transmission Control Center	$4,348	$4,619	$4,797	$4,968	$5,128
Transmission Engineering and Supervision	$1,955	$2,091	$2,158	$2,227	$2,281
Transmission Vegetation Management	$1,944	$3,023	$3,023	$3,023	$3,023
Transmission Line Maintenance Programs	$1,522	$1,645	$1,600	$1,580	$1,588
Substation Maintenance Programs	$1,690	$1,866	$1,787	$1,800	$1,821
Total	**$11,935**	**$13,733**	**$13,864**	**$14,107**	**$14,359**

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Gulf Transmission Benchmark Comparison
Test Year Benchmark versus 2014 Budget
($000)

Categories	Test Year Benchmark	2014 Budget	Variance
Protection and Control	$444	$354	($90)
Smart Grid Investment Grant	$142	$135	($7)
Transmission Control Center	$4,707	$4,619	($88)
Transmission Engineering and Supervision	$1,782	$2,091	$309
Transmission Vegetation Management	$2,082	$3,023	$941
Transmission Line Maintenance Programs	$1,062	$1,645	$583
Substation Maintenance Programs	$1,912	$1,866	($46)
Total	**$12,131**	**$13,733**	**$1,602**

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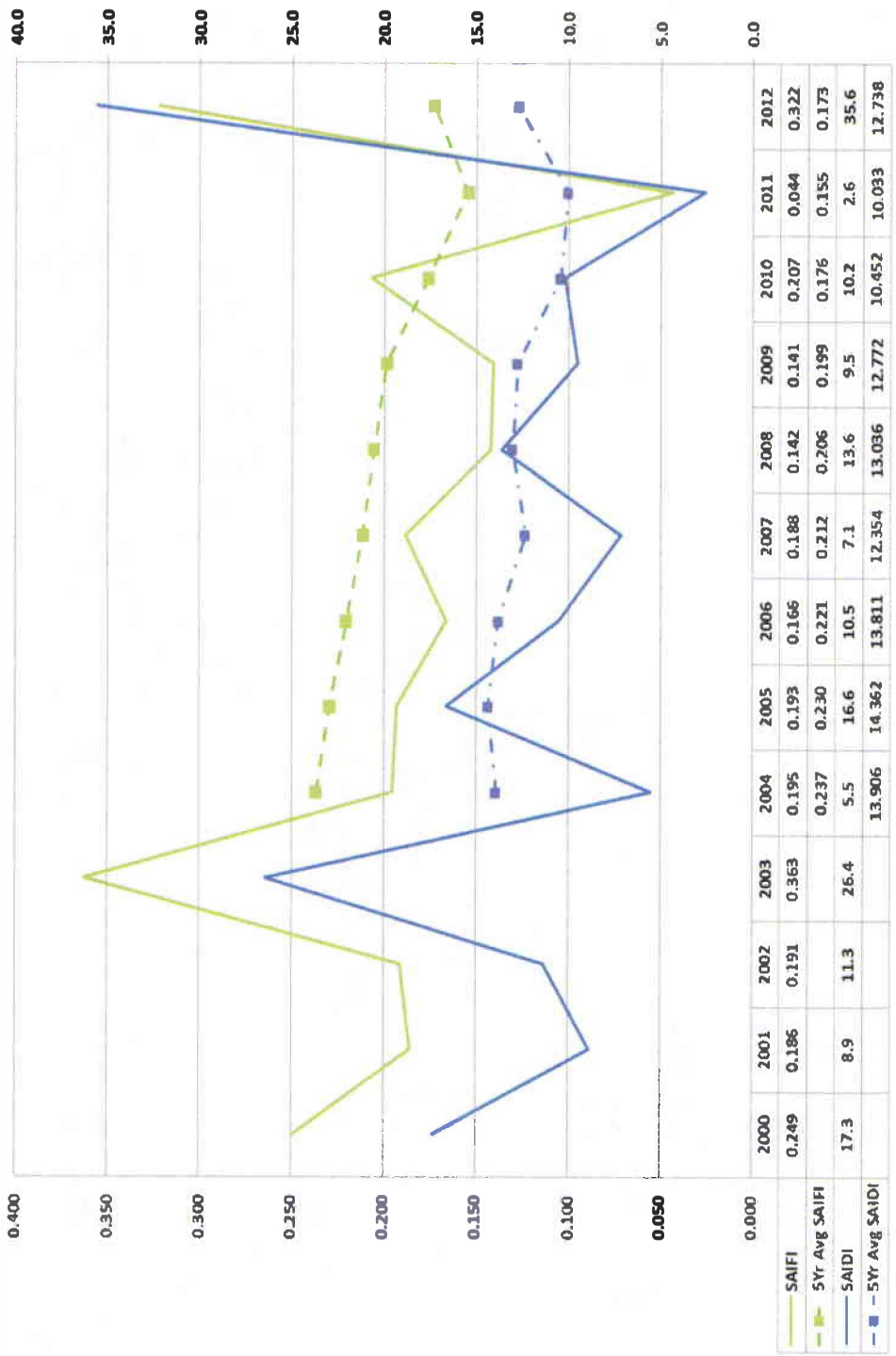
Gulf Power Transmission Reliability History



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
SAIFI	0.249	0.186	0.191	0.363	0.195	0.193	0.166	0.188	0.142	0.141	0.207	0.044	0.322
5Yr Avg SAIFI					0.237	0.230	0.221	0.212	0.206	0.199	0.176	0.155	0.173
SAIDI	17.3	8.9	11.3	26.4	5.5	16.6	10.5	7.1	13.6	9.5	10.2	2.6	35.6
5Yr Avg SAIDI					13.906	14.362	13.811	12.354	13.036	12.772	10.452	10.033	12.738