GULF POWER COMPANY

Before the Florida Public Service Commission

Prepared Direct Testimony of

Michael L. Burroughs

Docket No. 110138-EI

In Support of Rate Relief

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Q. Please state your name and business address.

A. My name is Michael L. Burroughs. My business address is One Energy Place, Pensacola Florida, 32520.

Q What is your position?

A. I am Vice President of Gulf Power Company (Gulf or the Company) with responsibility for Power Generation, and in that capacity I am Senior Production Officer.

Q. What are your responsibilities as Vice President of Power Generation and Senior Production Officer?

A. I am responsible for Power Generation, Fuel, Supply Side Renewable Development and Generation Planning. This includes responsibilities for all of Gulf’s wholly owned and jointly owned plants and all power purchase agreements.

Q. Please state your prior work experience and responsibilities.

A. I was hired by Alabama Power Company in 1991 as a Junior Engineer at Plant Barry in Mobile, Alabama. I progressed through various positions

until I transferred to Gulf, assuming the role of Planning and Engineering Manager at Plant Smith in Panama City, Florida in 1999. During the following eight years, I held positions of Maintenance Manager as well as Compliance and Engineering Manager. In May 2006, I was selected to be the Assistant to the Executive Vice President and Chief Production Officer of Southern Company Generation and Alabama Power Company. In September 2007, I was named Plant Manager of Yates Generating Plant in Newnan, Georgia with Georgia Power Company. I assumed my current position as Vice President of Power Generation and Senior Production Officer of Gulf Power in August 2010.

Q. What is your educational background?

A. I graduated with a Bachelor of Science degree in Mechanical Engineering from the University of Alabama – Birmingham in 1990.

Q. What is the purpose of your testimony?

A. My testimony discusses Gulf’s generation resources used and useful in the provision of electric service to our customers. My testimony also addresses the operation of Gulf’s Power Generation Fleet, including Production Safety Performance and Plant Performance. My testimony explains Gulf’s Production capital additions, Operation & Maintenance (O&M) expense and fuel inventory levels necessary for Gulf’s continued provision of reliable generation. My testimony explains and justifies Gulf’s decision to purchase a generating unit site that preserves a prospective nuclear plant option for Gulf’s customers. Finally, my testimony sets forth Gulf’s approach to renewable generation. Gulf Witness Grove provides more detail regarding Gulf’s generation resources, Production investment, Production O&M expenses and the resource planning process.

Q. Are you sponsoring any exhibits?

A. Yes. I am sponsoring Exhibit MLB-1, Schedules 1 through 8. Exhibit MLB-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 any of the Minimum Filing Requirements (MFRs) submitted by Gulf?

A. Yes. A list of MFRs I sponsor or co-sponsor is included on Schedule 1 of my Exhibit MLB-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. GULF’S GENERATION RESOURCES**

Q. Please describe Gulf’s generating resources.

A. Gulf generates or purchases electricity from a diverse group of resources, including: (a) units owned solely by Gulf; (b) units owned jointly with other Operating Companies within the Southern Electric System (SES); (c) units in the SES available to Gulf through the SES Intercompany Interchange Contract (IIC); and (d) units available to Gulf under power purchase agreements (PPAs). The fuels used for the generation resources available to Gulf include coal, oil, natural gas, landfill gas and municipal solid waste.

Q. Please describe the generation forecasted to be owned, operated and used by Gulf Power Company to serve its retail customers in 2012.

A. Exhibit MLB-1, Schedule 2 provides a list of the units owned and operated or co-owned by Gulf. With the exception of the new Perdido landfill gas- to-energy facility (Perdido), which was placed in service in October of 2010, all of these generating facilities were included in Gulf’s rate base in its last rate case proceeding, and most of their O&M expenses were considered in computing Gulf’s net operating income in Gulf’s last rate case.

Q. Please briefly describe the Perdido facility.

A. The Perdido facility has two 1.6 megawatt (MW) generators connected to internal combustion engines that burn landfill methane gas as their fuel. Gulf submitted a bid for the purchase of methane gas from the landfill in August 2008. The project began commercial operation in October 2010. The investment in the Perdido project will be in service in 2012 and will be used and useful in providing electric service to Gulf’s customers. The associated O&M expenses will be necessary and reasonable to provide

 retail electric service to Gulf’s customers. Mr. Grove will provide a discussion of the analysis used to develop the Perdido project.

Q. What PPAs will Gulf have in place and use to provide electric service in 2012?

A. Schedule 3 of Exhibit MLB-1 provides a list of the power purchase resources available to Gulf during 2012 and information regarding the fuels and technologies used by these generating resources. Mr. Grove, who is responsible for Gulf’s planning process and who assisted in the negotiation of these contracts, will discuss these contracts in detail in his testimony. All of these agreements have been approved by the Florida Public Service Commission (FPSC or the Commission).

Q. Other than the environmental capital projects addressed through Gulf’s Environmental Cost Recovery Clause (ECRC), what major changes have been made to Gulf’s generation resources since Gulf’s last base rate proceeding?

A. Since Gulf’s last rate case, Gulf retired Units 1, 2, and 3 at Plant Crist, added four PPAs, and added the Perdido project. Mr. Grove will provide a detailed discussion of each of these items.

Q. What effect have the changes in your generation resources had on Gulf’s customers?

A. The retirement of Units 1, 2, and 3 at Plant Crist reduced Gulf’s reserve margin by 80 MW. However, there was no discernable impact related to energy production, since these units had very high operating costs and were not routinely run. Each of the four PPAs that were added since the last rate case provides benefits to Gulf’s customers in the form of capacity, energy and fuel diversity. In addition, these contracts avoided capital investments for additional generating capacity that Gulf would have otherwise been required to construct to reach an acceptable capacity reserve margin. Lastly, the Perdido project was constructed at or below avoided cost and has a neutral cost impact on our customers. In addition, Perdido is a renewable resource that enhances fuel diversity and has a positive environmental impact.

**II. GULF’S PRODUCTION SAFETY PERFORMANCE**

Q. Please address Production safety at Gulf Power.

A. Safety is the first priority for every employee at Gulf Power. Safety is a core value, and it is our desire that we work every day and every job safely. The overall objective of our safety program is zero accidents.

 The Power Generation organization is very proud of our safety record. For the ten-year period ended 2010, Power Generation experienced only 28 Occupational Safety and Health Administration (OSHA) recordable incidents, with Plant Scholz having experienced no recordable incidents for over ten years. This compares favorably with the ten-year period ending 1990, when Power Generation experienced 255 recordable incidents, or to the ten-year period ending in 2000, when Power Generation experienced 162 recordable incidents. Over the course of the

 last two decades, Gulf’s Power Generation Safety record has improved by 89 percent.

Gulf’s Production safety performance has not only improved internally but also compares favorably with the industry. Since 2003 Gulf’s OSHA Recordable Incident Rate (RIR) has been 0.77 compared to the industry average RIR of 1.596. Stated differently, Gulf’s RIR has been 51.74 percent better than the industry for the period 2003 through 2010.

 Gulf’s remarkable improvement in safety performance in Power Generation is shown graphically on Exhibit MLB-1, Schedule 4. The success we have experienced is driven by our philosophy that management at Gulf will provide an environment where we send every employee home every day as healthy as when they reported to work. This provides benefits to our employees and our customers through greater productivity.

**III. GULF’S PLANT PERFORMANCE**

Q. Please address the performance of Gulf Power’s power plants since Gulf’s last base rate proceeding.

A. Gulf uses a number of indicators to measure the performance of its units/plants. They include Equivalent Availability Factor (EAF), heat rate, Equivalent Forced Outage Rate (EFOR) (both annual and peak season), and OSHA recordable incidents. Both EAF and heat rate are tracked in the Commission’s Generation Performance Improvement Factor (GPIF) program. Gulf considers heat rate and EFOR to be the primary indicators of efficiency and reliability, respectively, and uses them to evaluate the effectiveness of our planned outage and maintenance programs.

Q. What does EFOR measure?

A. EFOR measures a generating unit’s inability to provide electricity when dispatched and is the primary tool used by Gulf to track unit reliability. EFOR is reported in terms of the hours when a generating unit could not deliver electricity as a percentage of all the hours during which that unit was called upon to deliver electricity. Our customers directly benefit from Gulf’s efforts to minimize EFOR. Whenever a generating unit is forced off line, the energy lost must be replaced, which often increases fuel expense recovered through the fuel clause. Gulf focuses maintenance and outage planning efforts to ensure our units do not experience forced outages and instead remain available for economic dispatch to meet the needs of our customers.

Q. What is economic dispatch?

A. Economic dispatch is the process of dispatching units based on cost. Gulf has units committed and on line to serve existing load in addition to spinning reserves. The spinning reserves are units that are on line (running at less than full load) to support the loss of another unit in the event a unit is forced off line. Spinning reserves are a critical part of ensuring the reliability of the system. As customer demands increase, Gulf commits additional resources to serve those demands. As customer demands decrease, Gulf takes the highest cost units off line first. Economic dispatch is designed to ensure the customers receive the benefits of the least cost units, that is, the units with the lowest incremental operating costs.

Q. Why is it important to ensure units are available for economic dispatch?

A. By dispatching the least-cost units first, Gulf ensures our customers receive the lowest cost resources. This is why it is critical to maintain a low EFOR, particularly in the peak months. Whenever a low cost unit is forced off line, the replacement energy will likely be more expensive, and this impacts our customers through higher fuel costs.

Q. What EFOR measures does Gulf track, and why?

A. Gulf tracks both Annual EFOR and Peak Season EFOR. Plant performance goals are set around Peak Season EFOR. This is the period from May 1 through September 30 each year when the demand for electricity is the highest.

Q. What is a heat rate?

A. Heat rate is a measure of a unit’s ability to convert fuel to energy. It is a measure of the amount of fuel required to generate a kilowatt hour (kWh). The lower a unit’s heat rate, the more efficiently it converts fuel to energy.

Q. Please address why EFOR and heat rate performance are important to customers.

A. Again, EFOR is a measure of a unit’s reliability. A low EFOR ensures that the lowest cost units are producing electricity when called upon to meet the demands of customers. Also, maintaining a low EFOR ensures that units are available to make wholesale power sales when opportunities arise. This results in a reduced fuel cost to our retail customers since more than 80 percent of the gain from these sales is applied as a credit to fuel expense. As discussed earlier in my testimony, heat rate is an efficiency measure. The lower the heat rate, the less fuel consumed to generate electricity. The customer benefits by paying less in fuel costs and having lesser amounts of fuel required in inventory.

Q. What are the Annual and Peak Season EFOR for Gulf’s generating units?

A. Exhibit MLB-1, Schedule 5 shows Gulf’s Annual and Peak Season EFOR.

Q. How does Gulf’s EFOR compare to others in the industry?

A. As shown on Schedule 5, Gulf’s Annual and Peak EFOR performances compare extremely favorably with peer utilities. Schedule 5, pages 1 and 2 show graphically how Gulf’s actual Annual and Peak Season EFOR compare to the peer group averages from 2002 through 2009. Schedule 5, pages 3 and 4 show where Gulf’s actual average performance for the same period compares to each of the peer utilities. Gulf’s results are exceptional, despite three major hurricane events that impacted our plants. Gulf’s excellent performance is indicative of a well managed organization, with great employees, all committed to serving our customers.

Q. What is the source of the data Gulf has used to compare its EFOR performance to that of other utilities?

A. Gulf obtained Annual and Peak Season EFOR data from the North American Electric Reliability Council (NERC). This data became available approximately 12 to 15 months after the end of 2009 and is the latest data currently available. Gulf participates in a NERC benchmark analysis with 19 comparable utilities that have a minimum of 4,000 MW of generation excluding nuclear.

**IV. GULF POWER’S PRODUCTION INVESTMENT**

Q. Gulf Witness McMillan shows a total of $2.6 billion of plant in service investment in Gulf’s 2012 rate base in this case. Other witnesses have testified that these costs are properly recorded consistent with the Uniform System of Accounts and generally accepted accounting principles. Are

the Production assets associated with these costs used and useful in the provision of electric service to the public?

A. Yes. The Production assets, which comprise a total of $1,043,349,000 of plant in service in Gulf’s 2012 rate base in this case, are used and useful in Gulf’s provision of electric service.

Q. Were these Production costs reasonably and prudently incurred?

A. Yes. They were incurred pursuant to our capital budget process as discussed in Mr. Grove’s testimony. These Production investments are also subject to cost controls used to govern budgeted expenditures. The investment in Production plant is reasonable, prudent and necessary to ensure continued excellent reliability.

Q. What is Gulf’s projected Production capital additions budget for 2011 and 2012, excluding Plant Scherer and environmental projects recovered through the ECRC?

A. Gulf Power Company’s Production non-ECRC capital additions budget for 2011 is $68,334,000 and for 2012 is $43,738,000.

Q. Are the Production capital additions, excluding ECRC, for 2012 reflective of the level of capital additions for the five-year budget cycle that began in 2011?

A. No, they are markedly lower. The amount of Production capital additions projected in the 2012 test year is conservative when compared to the five-

year budget cycle. Mr. Grove will provide a summary of major capital expenditures for 2011 and 2012.

**V. GULF’S 2012 PRODUCTION O&M BUDGET**

Q. What is Gulf’s Production O&M budget for 2012?

A. Gulf’s Production O&M budget of $110,888,000 for 2012 is set forth on Schedule 6 of my exhibit.

Q. Is Gulf Power’s projected level of Production O&M expenses of $110,888,000 million in 2012 reasonable and prudent?

A. Yes.

Q Is Gulf Power’s projected level of Production O&M expenses of $110,888,000 in 2012 representative of a going forward level of Production O&M expenses beyond 2012?

A. Yes. Schedule 7 clearly shows the dollars requested in 2012 are representative of expenses expected through our current budget period (2011 through 2015).

Q. Please explain your conclusion that Gulf Power’s projected level of Production O&M expense of $110,888,000 for 2012 is reasonable and prudent.

A. As addressed by Mr. Grove in more detail, Gulf’s 2012 projected level of Production O&M expenses is the result of a rigorous multi-level budgeting process, and these O&M expenses are subjected to demanding cost control programs.

 Unlike Gulf’s 2012 Production capital additions budget, which is lower than 2010 or 2011, Gulf’s 2012 Production O&M expense has risen relative to historical expenses. As Mr. Grove explains in detail in his testimony, this is necessary. In 2009 and 2010, Gulf responded to the economic downturn and held Production O&M expenses below budgeted levels in an effort to forestall a base rate increase. While appropriate at the time, these temporary reductions cannot be sustained over the long term. More Production O&M dollars have to be spent in 2012 and future years to avoid a predictable decline in the unit reliability.

 Mr. Grove’s testimony addresses in detail the numerous drivers of Production O&M cost escalation and justifies Production O&M benchmark variances.

**VI. GULF’S 2012 FUEL INVENTORY**

Q. What recovery amount is Gulf requesting for total fuel inventory, including fuel stock and in-transit fuel?

A. Gulf is requesting a total fuel inventory of $86,804,000 to be included in its 2012 rate base. This includes $76,086,000 for fuel stock and $10,718,000 for in-transit fuel.

Q. How does the request for $86,804,000 in inventory compare to the inventory levels since the last rate case?

A. Exhibit MLB-1, Schedule 8 clearly shows that since 2005, Gulf’s inventory levels have exceeded the inventory level in working capital allowed in Gulf’s last rate case. In fact, since 2008 the inventory levels have been at least twice the amount allowed in the prior rate case.

Q. Please describe Gulf’s coal inventory policy.

A. Gulf’s policy is to maintain coal inventory levels sufficient to safeguard against disruptions in supply, inconsistencies in delivery of coal due to weather conditions and other factors affecting the coal transportation sector. Coal inventory levels for each generating plant are evaluated, and targets are established based on a number of factors such as: plant specific coal handling and storage limitations; market intelligence on coal supply availability; coal transportation/logistics information; and the historical perspective obtained through considerable experience in coal stockpile management in the Southern Company fuel organization. Collectively, the Operating Companies of the Southern Company are among the largest coal consumers in the nation and have a long history of successfully operating coal fired generating plants.

These established coal stockpile targets are further evaluated using the Utility Fuel Inventory Model (UFIM) developed by the Electric Power Research Institute and the electric utility industry. The UFIM model evaluates, among other factors, the economic cost of not being able to serve customer load if coal inventory is depleted and the economics associated with being forced to procure coal and/or replacement energy in the spot market during periods when coal supply is disrupted compared to the financial costs associated with carrying various levels of coal inventory. The economic cost results derived from the UFIM model runs are then evaluated along with specific plant coal logistics issues and other coal market inputs to determine the most economical target plant coal inventory level for a specific plant.

 Once the target coal inventory levels are validated, they are formally approved by the Vice President of Power Generation for use as an input into the SES fuel budgeting model, FUELPRO, to develop a fuel cost of generation budget for all plants in the SES. The fuel burn derived from the hourly load dispatch of each generating unit in the SES fleet and the current fuel price forecast for each fuel type, including transportation rates, are also inputs to the FUELPRO model. The output of FUELPRO is a fuel budget for each plant, which includes monthly fuel purchases, burn and ending inventory expressed in units of measure (quantity), total dollars, and dollars per unit. For the test year the coal inventory evaluation resulted in inventory targets for Gulf’s barge-served coal fired plants of

 approximately 40 normal full load (NFL) burn days and for Gulf’s rail-served plants (excluding Scherer), a range from 20 to 40 NFL burn days.

Q. What is a normal full load (NFL) burn day?

A. A NFL burn day is the normal maximum consumption of fuel at a specific generating facility over a 24 hour period. Normal maximum consumption does not include output maximums that can be achieved for short periods by using supplemental firing to operate at “full pressure” on traditional steam and combined cycle units. The use of NFL burn days allows for the expression of inventory units in common terms so that fuel inventories of generating plants with various capacity sizes and capacity factors can be compared on an “apples to apples” basis. A NFL burn day is calculated by multiplying the total daily energy output (in kilowatt hours or kWh) of a generating plant by the weighted average heat rate (British Thermal Units per kWh or BTU/kWh) of the units at that generating plant. Both the total daily energy output and the unit heat rates are determined by actual plant performance measurements over a period of time. The resulting calculated BTUs per day are then converted to standard units for each fuel type such as tons for coal and gallons or barrels for oil. This method explicitly recognizes Gulf’s heat rate performance in establishing its required fuel inventory levels.

Q. How does the current coal inventory policy compare to the policy used in Gulf’s last case?

A. There is no change in coal inventory policy from Gulf’s last rate case.

Q. Based on this policy, what is Gulf’s forecasted coal inventory level for the test year?

A. For all Gulf plants (excluding Scherer), the 13 month average of the monthly ending coal inventory levels, not including in-transit coal, for the test year, is a stockpile of 693,196 tons ($67,958,000) or 34 days NFL burn supply. This compares to a total of 695,829 tons ($26,800,000) or 36 days NFL burn supply allowed in the last rate case. The increase in coal inventory value (dollars) is due to an increase in the delivered market price of coal since the last rate case.

Q. The Commission previously established a generic fuel inventory guideline in Order No. 12645 in Docket No. 830001-EU which may apply if a utility fails to justify its own inventory policy. For coal inventory, that guideline is 90 days projected burn plus base coal volumes. How does Gulf’s requested coal inventory target expressed in NFL burn days compare to the same quantity of coal expressed in projected burn days?

A. Gulf’s requested coal inventory target for the test year expressed in projected burn days is 64 days, which is less than the Commission approved 90 day burn guideline.

Q. How does the average unit cost of coal inventory compare to the amount used in Gulf’s last rate case?

A. In Gulf’s last rate case, the weighted average unit cost of coal in inventory was $38.51 per ton. Since the last rate case the market prices of coal and coal transportation have increased significantly. The current weighted average unit cost of coal used to project the total cost of Gulf coal inventory in the test year is $98.04 per ton. The increase in the market price of coal is due to a general decline in coal supply combined with higher worldwide market demands for coal (primarily from developing nations), higher production costs associated with domestic coal mining, and higher rail and barge transportation rates charged by coal shippers.

Q. Why does Gulf include an amount in working capital for in-transit coal inventory?

A. Gulf pays its coal suppliers upon loading of the coal into Gulf’s transportation equipment at the coal supplier’s originating facility. Therefore, capital is invested in coal that has not yet been received at the destination generating plants. A major portion of Gulf’s coal supply is delivered by rail and ship (import sources) to an intermediate coal blending/transfer facility located in Mobile, Alabama and then by barge to the Crist and Smith generating plants. A considerable amount of time is involved in the process of transporting coal from the origin mine to the intermediate blending and barge loading location and then transporting the coal to the final destination plant stockpile. This investment in coal that is in-transit should be included in the working capital component of Gulf’s rate base.

Q. How does the amount for in-transit coal you have included in your request for working capital compare to the amount included in the previous rate case?

A. The amount of in-transit coal included in the 2012 test year fuel inventory request is $10,718,000. This compares to roughly $13,000,000 included in Gulf’s last rate case. The decrease is due to a reduction in the average quantity of coal that is projected to be in-transit during the test year.

Q. What is Gulf’s natural gas inventory forecast for the test year?

A. Gulf’s policy is to maintain a certain portion of its natural gas requirements in storage to provide for pipeline balancing and natural gas supply interruptions caused by pipeline and compressor station failures, hurricanes, well freezes, etc. Gas storage for balancing is necessary to avoid penalties imposed by pipelines for large swings in daily and hourly demands when the generating unit is economically dispatched or when other sudden changes, like plant outages, cause a swing in demand. Currently, for Smith Unit 3, a target inventory level of approximately ten NFL burn days supply, or 835,702 MCF (thousand cubic feet), has been set. Gulf has included $4,759,000 in working capital for gas storage.

Q. How does this target natural gas inventory compare to the approved inventory from the last case?

A. There is no change in natural gas inventory target from Gulf’s last rate case.

Q. How does the average unit cost of natural gas inventory compare to the amount used in the last rate case?

A. In the last rate case the average unit cost of natural gas in inventory was $2.21 per MCF. Since the last rate case the market price of natural gas has increased due to higher demand, primarily from the electric generating sector. The current average unit cost of natural gas used to project the total cost of Gulf natural gas inventory in the test year is $5.69 per MCF.

1. What is Gulf’s forecast distillate oil inventory level for the test year?

A. Gulf’s projected distillate oil inventory level, including both lighter oil and combustion turbine generating fuel, for the test year (excluding Scherer) is 49,850 barrels. An amount of $3,370,000 has been included in working capital for distillate oil inventory.

Q. How does this distillate oil inventory request compare to the oil inventory amount approved in Gulf’s last rate case?

A. The amount of distillate oil inventory included in the last rate case was 16,105 barrels, which was primarily for lighter oil inventory. Since the last rate case Gulf has executed three PPAs in which Gulf has the fuel supply responsibility. While the units associated with these PPAs are primarily natural gas fired, Gulf is including combustion turbine generating fuel oil in the 2012 test year inventory amount to allow for the continued operation of these PPA generating units during times of natural gas supply disruption. Natural gas supply is typically disrupted during periods of high demand for natural gas when incremental gas pipeline transportation is unavailable. Gulf will maintain an oil inventory level that will allow the PPA units to operate at full load for approximately 30 hours.

Q. How does the average unit cost of distillate oil inventory compare to the amount used in the last rate case?

A. In Gulf’s last rate case, the average unit cost of distillate oil in inventory was $30.23 per barrel. Since the last rate case the market price of distillate oil has increased due to higher worldwide demand for all oil products. The current average unit cost of distillate oil used to project the total cost of Gulf’s distillate oil inventory in the 2012 test year is $67.60 per barrel.

**VII. LAND HELD FOR FUTURE USE**

Q. Please explain Gulf’s approach to land held for future use.

A. As part of its normal, ongoing planning processes, Gulf Power evaluates a variety of generation resources to meet future needs. Prudence dictates that Gulf consider all viable technology types that have the potential to provide the greatest benefit to customers with regard to economy and reliability. This broad technology evaluation has implications in Gulf’s approach to land held for future use. It provides no value to the customer to have a broad evaluation of resources in the resource planning process if land is unavailable for some of the options being considered. Thus, in order for Gulf to fully consider all types of resource options, we must make appropriate investments in land that would support any or all of those options.

Q. Have Gulf’s recent generating resource additions required the use of Gulf owned power plant sites?

A. No. As Mr. Grove discusses in detail, Gulf has had some unique opportunities related to our most recent generation additions. Neither Gulf’s 2009 to 2014 PPAs nor the recent agreement with Shell Energy North America (SENA) required use of a Gulf-owned plant site. As a result of the PPA with SENA, Gulf’s next planned addition for capacity as reflected in our most recent Ten Year Site Plan is in 2022. One of the many benefits provided by this agreement is the flexibility it provides from a planning perspective.

Q. How has this planning flexibility served Gulf’s customers?

A. The primary benefit of that planning flexibility has been Gulf’s ability to avoid having to commit to specific generation technologies during a time of high uncertainties associated with potential environmental requirements. There are major environmental initiatives being proposed that could change the face of the electric utility industry. Regulations regarding greenhouse gases emissions, hazardous air pollutants (HAPS MACT), coal combustion byproducts, ozone, particulate matter, industrial boilers and water intake structures are all in various stages of the regulatory process. Gulf’s prospective need for new generation may not be limited to just system growth, but could involve the retirement of existing resources driven by regulatory changes. These potential environmental regulatory requirements could drive new generation additions.

 Over the past several years Gulf has had to consider many different scenarios related to the potential impacts of carbon legislation, other pending environmental regulatory proposals and fluctuating fuel prices. Although there are many uncertainties, it is clear that there are situations in which nuclear could be a cost-effective solution for meeting our long-term generation additions. For instance, Florida’s 2008 Energy and Climate Change Action Plan identified nuclear as a means to reduce imported fossil fuel, diversify the state’s fuel supply and reduce greenhouse gas emissions. Gulf Power agrees with this assessment and believes that nuclear technology is a viable option that benefits customers under a range of scenarios.

Q. What has Gulf done to preserve a potential nuclear option for its customers?

A. For all generation technologies, the pool of potential sites is limited. This is especially true of nuclear technology for which there are significantly greater technical requirements to fulfill before a site can be considered suitable.

 In order to preserve the option of meeting future capacity needs with nuclear generation, Gulf began the process of evaluating potential nuclear sites in Northwest Florida. Gulf performed exploration across the region and investigated multiple locations in Northwest Florida to determine sites suitable for nuclear technology. This search was an exhaustive effort that included site specific assessment of geology, geotechnical factors, seismic conditions, water supply, transmission, transportation, topography, environmental factors, emergency planning issues, land availability and other factors.

 Gulf considered over two dozen unique locations across our service area. A subset of these were actively drilled and evaluated for subsurface conditions to determine those that could potentially meet the geological requirements as well as water requirements for a potential nuclear site.

 After careful evaluation, Gulf identified a site in North Escambia County as the only suitable site for a nuclear plant; this site is also suitable for other generation technologies such as coal, gas, or renewable. The site is in relative proximity to transmission, natural gas pipelines, railroad, major highways and access to water, all suitable to meet new generation needs. An additional consideration was the potential number of individuals and home owners impacted by our purchase of their land. This site had only 35 property owners, some of whom owned multiple properties. By far the largest portion of the land was held by timber companies.

 Gulf made the decision to begin the process of procuring this site, and at the end of 2012 we will have procured 100 percent. The site is 4,000 acres and includes property located directly on the Escambia River to support the water supply needs for any future generating facility. Gulf has included $27,687,000 for this site in land held for future use in the 2012 test year rate base. Mr. McMillan discusses in detail the accounting and amount to be included in land held for future use associated with this site.

 Gulf’s decision to purchase land as a site suitable for new generation, including possible nuclear generation, is reasonable, prudent and necessary to continue to provide our customers with the most cost-effective generating resources in the future.

Q. Please describe any other land held for future generating sites.

A. Gulf currently has two additional sites being held as potential future generating sites:

(1) Approximately 2,200 acres of property in Holmes County, Florida (Caryville) with a book value of $1,356,000.

(2) Approximately 250 acres of property in Walton County, Florida (Mossy Head) with a book value of $296,000.

Q. Please discuss the value the Caryville site provides to Gulf’s customers.

A. Caryville is certified under the Power Plant Siting Act and remains one of the few suitable sites in Northwest Florida for a steam electric generating plant to meet Gulf’s future generation needs. Gulf’s customers benefit by having a certified site ready for use when new generation is needed. The geological and other site work which was previously completed will be utilized when a unit is built in the future. It should be noted that Caryville was evaluated for nuclear and determined not to be viable for that option. The Commission agreed with Caryville’s inclusion in rate base as plant held for future use in Docket Nos. 800001-EI, 810136-EU, 820150-EU, 840086-EI, 891345-EI, and 010949-EI.

Q. Please discuss the value the Mossy Head site provides to Gulf’s customers.

A. The Mossy Head site is uniquely located in Walton County in close proximity to both natural gas transportation and transmission. The site was purchased in 1998 and 1999 as a potential future site for simple cycle combustion turbines. Mossy Head was included as plant held for future use in Gulf’s prior rate case and was approved in Docket No. 010949-EI.

**VIII. RENEWABLE GENERATION**

Q. Since Gulf’s last rate case, the Legislature has passed statutes encouraging the development of renewable energy within Florida. What has Gulf Power’s approach been to encouraging renewable generation?

A. Renewable energy continues to be an important topic in Florida and across the nation. Gulf receives inquiries concerning potential providers of renewable energy on a regular basis. Recognizing the importance of minimizing the upward pressure on rates charged to customers, Gulf has chosen not to pursue projects in excess of avoided costs. Gulf will continue this policy until there are clearer rules or requirements. It should be noted that Gulf has successfully added renewable generation at or below avoided cost through its PPA with the Bay County municipal solid waste facility and its Perdido landfill gas-to-energy facility.

**IX. CONCLUSION**

Q. Please summarize your testimony.

A. Gulf maintains and operates a diverse set of generation resources designed to serve our customers economically and reliably. Gulf has made sound generation planning decisions that are clearly in the best interest of our retail customers.

At a time when customer demand has increased, Gulf’s Production operation has continued to provide low cost, reliable electricity to our customers. The reliability of Gulf’s generating units and low EFOR are clear indications that Gulf has executed an effective maintenance program that continues to provide our customers with reliable service. Gulf is committed to maintaining our generating facilities through the effective use of resources that focuses not only on reliability but also efficiency.

Gulf’s Production O&M expenses are carefully controlled and incurred in a manner to ensure high availability. The $110,888,000 budgeted for Production O&M in the test year is reasonable, prudent, and necessary, and it is representative of the levels of costs that will continue to be incurred in the future when new rates resulting from this case are in effect.

Gulf’s Production capital additions are also carefully controlled and are designed to ensure high availability of our generating units. The $43,738,000 budgeted for Production capital additions in the test year are reasonable, prudent and necessary.

The fuel inventory requested by Gulf is reasonable, prudent and necessary to provide fuel inventory levels that will ensure Gulf‘s units are prepared to meet the needs of our customers with the lowest cost generation available.

Over the past several years, Gulf has had to consider many different scenarios related to the potential impacts of carbon legislation, other pending environmental proposals and fluctuating fuel prices. Although there are many uncertainties, it is clear that there are situations in which nuclear could be a cost-effective solution for meeting our long-term need for generation additions. In order to preserve the nuclear option, it was necessary and prudent for Gulf to find and procure a site suitable for nuclear generation.

Q. Does this conclude your testimony?

A. Yes.

AFFIDAVIT

STATE OF FLORIDA ) Docket No. 110138-EI

 )

COUNTY OF ESCAMBIA )

 Before me the undersigned authority, personally appeared Michael L. Burroughs, who being first duly sworn, deposes, and says that he is the Vice President of Power Generation and Senior Production Officer for 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.

The signed original affidavit is attached to the

 original testimony on file with the FPSC.

 s/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Michael L. Burroughs

 Vice President of Power Generation and

Senior Production Officer

 Sworn to and subscribed before me this \_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_, 2011.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Notary Public, State of Florida at Large

Commission No. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

My Commission Expires \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 Florida Public Service Commission

 Docket No. 110138-EI

 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit No. \_\_\_\_ (MLB-1)

 Schedule 1

Responsibility for Minimum Filing Requirements

Schedule Title

B-16 Nuclear Fuel Balances

B-18 Fuel Inventory Balances

C-42 Hedging Costs

F-4 NRC Safety Citations

F-5 Forecasting Models

F-8 Assumptions

 Florida Public Service Commission

 Docket No. 110138-EI

 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit No. \_\_\_\_ (MLB-1)

 Schedule 2

**Owned and Operated or Jointly Owned Generating Capacity**

**2002 Ten Year Site Plan Compared to 2012 Ten Year Site Plan**



 Florida Public Service Commission

 Docket No. 110138-EI

 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit No. \_\_\_\_ (MLB-1)

 Schedule 3

**Power Purchase Agreements**

Agreement Technology Fuel MW Start Date End Date

Bay County Steam MSW 11 July 2008 July 2014

Coral Baconton CT Gas/Oil 196 June 2009 May 2014

Dahlberg CT Gas/Oil 292 June 2009 May 2014

Central Ala. CC Gas 885 Nov. 2009 May 2023

 Florida Public Service Commission

 Docket No. 110138-EI

 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit \_\_\_\_ (MLB-1)

 Schedule 4



 Florida Public Service Commission

 Docket No. 110138-EI

 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit \_\_\_\_ (MLB-1) Schedule 5

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 Witness: Michael L. Burroughs

 Exhibit\_\_\_\_ (MLB-1)

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 Witness: Michael L. Burroughs

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 Schedule 5

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 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit\_\_\_\_ (MLB-1) Schedule 6

2012 Production O&M Budget

($000’s)

 2012

 Test Year

 Description Amount

 Steam Production 98,574

 Other Production 7,801

 Other Power Supply 4,513

 Total Production 110,888

 Florida Public Service Commission

 Docket No. 110138-EI

 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit \_\_\_\_ (MLB-1) Schedule 7



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 Docket No. 110138-EI

 GULF POWER COMPANY

 Witness: Michael L. Burroughs

 Exhibit \_\_\_\_ (MLB-1) Schedule 8

