Gulf Power

April 12, 2019

Mr. Adam Teitzman, Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee FL 32399-0850

Re: Docket No. 20190016-EG

Dear Mr. Teitzman:

Attached for electronic filing in the above-referenced docket is:

1. Petition for Approval of Numeric Conservation Goals by Gulf Power Company.

2. Prepared direct testimony and exhibit of John N. Floyd.

Sincerely,

C. Shane Boyett

C. Shane Boyett
Regulatory Issues Manager

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Attachments

cc: Florida Public Service Commission
Rachael Dziechciarz, Office of the General Counsel (6 copies)
Gulf Power Company
Russell Badders, Esq., VP & Associate General Counsel
Beggs & Lane

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In Re: Commission review of numeric conservation goals (Gulf Power Company)	Docket No.: 20190016-EG Date: April 12, 2019

PETITION FOR APPROVAL OF NUMERIC CONSERVATION GOALS BY GULF POWER COMPANY

Gulf Power Company ("Gulf Power," "Gulf," or "the Company"), by and through its undersigned attorneys, files this petition with proposed numeric conservation goals and requests that the Florida Public Service Commission ("Commission") accept, approve and adopt Gulf Power's proposed numeric conservation goals as the numeric goals established by the Commission for Gulf Power Company pursuant to sections 366.81 and 366.82, Florida Statutes, and Rules 25-17.0021 and 28-106.201, Florida Administrative Code. In support of this petition, the Company states:

1. Gulf Power is a public utility subject to the jurisdiction of the Commission pursuant to Chapter 366 of the Florida Statutes. Gulf Power's General Offices are located at One Energy Place, Pensacola, Florida 32520. The Commission will establish conservation goals for Gulf Power in this proceeding. The conservation goals established in this proceeding will establish the target for Gulf Power to meet in its subsequent filing of a demand-side management plan. Therefore, Gulf Power's substantial interests will be determined in this proceeding.

2. Copies of all notices and pleadings with respect to this petition and docket should be furnished to:

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3. The agency affected by this petition is:

Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

4. Gulf Power is subject to section 366.82, Florida Statutes, part of the Florida Energy Efficiency and Conservation Act ("FEECA"), which requires the Commission to adopt appropriate goals to increase the efficiency of energy consumption, increase the development of demand side renewable energy systems, reduce and control the growth rates of electric consumption and weather sensitive peak demand, and encourage the development of demand side renewable energy resources.

5. Docket No. 20190016-EG is one of seven that has been opened by the Commission to establish numeric conservation goals pursuant to section 366.82, Florida Statutes, and Rule 25-17.0021, Florida Administrative Code for each of the seven utilities subject to the requirements of FEECA ("FEECA Utilities"). As a result of Gulf's evaluations, the Company proposes the following numeric conservation goals which Gulf has determined to be reasonably achievable in the residential, commercial and industrial classes within Gulf Power's service area

over a ten-year period.

6. Gulf Power Company's proposed conservation goals for years 2020 through 2029 are set forth below:

Residential

Year	Summer Peak MW Reduction (at Generator)	Winter Peak MW Reduction (at Generator)	Annual GWh Reduction (at Generator)
2020	0	0	0
2021	0	0	0
2022	0	0	0
2023	0	0	0
2024	0	0	0
2025	0	0	0
2026	0	0	0
2027	0	0	0
2028	0	0	0
2029	0	0	0
Cumulative Total	0	0	0

Commercial/Industrial

Year	Summer Peak MW Reduction (at Generator)	Winter Peak MW Reduction (at Generator)	Annual GWh Reduction (at Generator)
2020	1	1	0
2021	1	1	0
2022	1	1	0
2023	1	1	0
2024	1	1	0
2025	2	1	0
2026	2	1	0
2027	2	1	0
2028	2	1	0
2029	2	2	0
Cumulative Total	15	11	0

7. The testimony of John N. Floyd, filed contemporaneously with this petition, along with the exhibit and schedules attached thereto, sets forth the Company's ten-year projections of the total cost-effective winter and summer peak megawatt ("MW") demand reduction and the annual gigawatt-hour ("GWh") savings which are reasonably achievable through implementation of demand side measures in Gulf Power's service area for the residential, commercial and industrial classes. Gulf Power is also co-sponsoring the testimony and applicable exhibits of Nexant, Inc. ("Nexant") witness Jim Herndon. Mr. Herndon presents and summarizes the methodology, input data and findings contained in the studies of technical potential, economic potential and achievable potential for cost-effective energy efficiency, demand response, and demand side renewable energy sources for Gulf Power. Nexant was retained by the FEECA Utilities to independently analyze the technical potential for energy efficiency, demand response and demand-side renewable energy across their residential, commercial and industrial retail customer classes. In addition, Nexant was retained by five of the seven utilities to estimate the economic potential and achievable potential for their respective service areas.

8. As demonstrated by the testimony of witnesses Floyd and Herndon, the Company's proposed numeric conservation goals for the period 2020 through 2029 are the result of a robust and comprehensive analysis. The Company's proposed goals are appropriate and are consistent with the requirements of section 366.82, Florida Statutes, and Rule 25-17.0021, Florida Administrative Code.

9. Gulf knows of no material facts in dispute regarding the relief requested herein. There is no agency decision, so Gulf cannot state when or how it received notice of the agency decision.

10. Gulf is entitled to relief pursuant to Sections 366.81 and 366.82, Florida Statutes, and Rule 25-17.0021.

WHEREFORE, Gulf Power Company requests that the Florida Public Service Commission enter an order approving and establishing the Company's proposed numeric conservation goals for the period 2020 through 2029 pursuant to section 366.82, Florida Statutes, and Rule 25-17.0021, Florida Administrative Code, and grant such other relief as is just and reasonable under the facts and law as determined by the Commission.

Respectfully submitted this 12th day of April, 2019.

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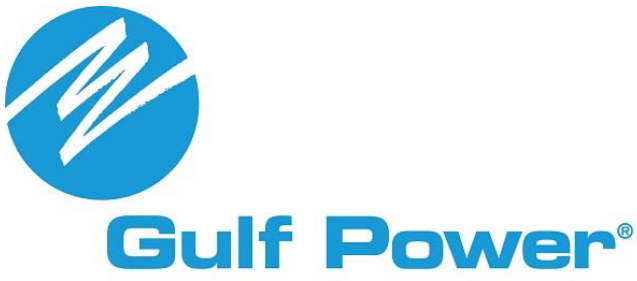
BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

COMMISSION REVIEW OF NUMERIC CONSERVATION GOALS

Docket No. 20190016-EG

Prepared Direct Testimony & Exhibit of
John N. Floyd

April 12, 2019



Gulf Power Company

Before the Florida Public Service Commission
Prepared Direct Testimony of
John N. Floyd
Docket No. 20190016-EG
Commission Review of Numeric Conservation Goals
Date of Filing: April 12, 2019

Q. Will you please state your name, business address, employer and position?

A. My name is John N. Floyd, and my business address is One Energy Place, Pensacola, Florida 32520. I am employed by Gulf Power Company (Gulf Power, Gulf, or the Company) as the Manager of Strategy and Market Intelligence.

Q. Mr. Floyd, please describe your educational background and business experience.

A. I received a Bachelor Degree in Electrical Engineering from Auburn University in 1985. After serving four years in the U.S. Air Force, I began my career in the electric utility industry at Gulf Power in 1990 and have held various positions with the Company in Power Generation, Metering, Power Delivery and Marketing. In my present position, I am responsible for the development and implementation of Gulf's customer program offerings including the programs included in the Company's Demand-side Management (DSM) Plan.

Q. Have you previously testified before this Commission?

A. Yes.

Q. Mr. Floyd, what is the purpose of your testimony?

A. The purpose of my testimony is to propose seasonal peak demand and annual energy conservation goals for Gulf Power for the period 2020 through 2029.

Q. Please describe how your testimony is organized.

A. My testimony is organized as follows:

Section 1: Proposed Goals and Accomplishments

Section 2: Overall Process to Develop Goals

Section 3: Statutory Adherence

Section 4: Sensitivities

Section 5: Additional Supporting Information

Section 6: Conclusions

Q. Have you prepared an exhibit in support of your testimony?

A. Yes, I have. I am sponsoring Exhibit JNF-1, which includes the following schedules:

Schedule 1 Table of Proposed Goals for 2020-2029

Schedule 2 Current DSM Program Details

Schedule 3 Technical Potential Results

Schedule 4 Economic Potential Results

Schedule 5 Achievable Potential Results

Schedule 6 Economic Potential Fuel Sensitivity

Schedule 7 Economic Potential Payback Sensitivity

Schedule 8 Annual Bill Impact for 1,200 kWh/Month Residential Customer

Section 1: Proposed Goals and Accomplishments

Q. What residential and commercial/industrial goals are appropriate and reasonably achievable for Gulf Power Company for seasonal peak demand and annual energy conservation for the period 2020 through 2029?

A. The Company's proposed seasonal peak demand and annual energy conservation goals for the period 2020 through 2029 are contained in Schedule 1 of my Exhibit (JNF-1). In total, Gulf is proposing a summer peak demand goal of 15 megawatts (MW), winter peak demand goal of 11 MW, and cumulative annual energy conservation goal of 0 gigawatt-hours (GWh). These goals are based upon Gulf's planning process and the results of technical, economic and achievable potential studies conducted by Nexant, Inc. (Nexant). The goals represent the total cost-effective winter and summer peak MW demand reductions and the annual GWh savings at the generator which are reasonably achievable through implementation of DSM programs in Gulf Power's service area for the residential and commercial/industrial customer classes. The primary basis for the goals are the MW and GWh associated with estimated maximum adoption of measures that passed both the Rate Impact Measure (RIM) and the Participant's Test (PT) as reflected in the achievable potential results prepared by Nexant for Gulf Power.

Q. What is the primary driver behind the decrease in Gulf Power's proposed goals relative to its current DSM goals?

A. The primary driver is reduced cost-effectiveness of energy efficiency (EE) potential. In total, the avoided cost benefits associated with EE measures have decreased since 2014. The largest change is in avoided fuel benefit, with decreases in transmission and distribution benefits as well. These factors, when incorporated into the cost-effectiveness calculations for EE measures, result in lower overall cost-effectiveness for EE as a resource in meeting the Company's loads over the 2020-2029 period.

Q. Please elaborate regarding the relationship between the level of avoided cost benefits and DSM goals.

A. Avoided costs are the benefits of DSM initiatives. These benefits are in the form of capital and O&M costs that are avoided by implementation of DSM initiatives. These benefits are quantified based on both the demand and energy savings of a DSM measure, as well as the timing and cost of the capacity and O&M costs being avoided. The avoided cost benefits relate to the level of DSM goals through the cost-effectiveness evaluation process. That process is essentially comparing the benefit of avoiding supply costs with the cost of implementation of a DSM initiative. So, higher avoided cost savings translate to more potential DSM initiatives and correspondingly higher goals. Likewise, lower avoided cost savings translate to less potential to offset with DSM initiatives and correspondingly lower goals.

Q. Does a reduction in DSM goals indicate that the objectives of the Florida Energy Efficiency and Conservation Act (FEECA) are not being met?

A. No. The objectives of FEECA are being accomplished not only by demand and energy reduction goals for subject utilities, but also through building codes, appliance efficiency standards, and an overall increase in the availability of energy conserving products in the marketplace.

Q. How are building codes accomplishing the objectives of FEECA?

A. Building codes establish minimum construction standards for new homes and businesses. These construction standards include energy standards that ensure newly constructed facilities meet minimum energy efficiency performance requirements. For homes, these standards generally relate to thermal performance which impacts heating and air conditioning energy consumption. This is particularly important in Florida, as the state has one of the highest number of cooling degree days of any state in the country. These standards currently specify minimum insulation and window thermal performance requirements and other requirements, including air duct performance testing, to ensure these aspects of home construction are contributing to improved energy use in the state.

Q. Similarly, how do appliance efficiency standards accomplish the objectives of FEECA?

A. Appliance efficiency standards are federal manufacturing standards for energy consuming appliances including lighting, refrigeration, heating and cooling, water heating and other devices. These standards drive

development of new technologies and manufacturing processes that result in improved efficiency of appliances. These standards complement building codes to improve energy efficiency in homes and businesses, benefiting consumers through reduced energy consumption. Appliance efficiency standards are extremely effective in achieving energy savings. Through 2028, appliance efficiency standards are projected to reduce Gulf's expected energy sales in the residential and commercial sectors by 892 GWh below what they would have been absent these standards. Nationally, the collective impact of building codes and appliance efficiency standards is projected to reduce energy consumption in the residential, commercial, and industrial sectors by 8.6% by 2025, as compared to projected baseline electricity consumption.

Q. How do utility programs and initiatives complement these codes and standards?

A. Utilities play two key roles in improving the overall efficiency of energy utilization. The first role is through education. Gulf Power provides information to customers about ways to save energy through our energy audit programs, on the Company website, through our call center, through community events and presentations, and through various other media channels. Since 2010, the Company has completed over 124,000 energy audits, providing education and information about specific ways customers can reduce energy consumption. Second, utilities offer specific programs that are designed to encourage adoption of technology that is above these minimum codes and standards to the extent the benefits in avoided or

deferred generation, transmission, and distribution investment costs exceed the cost of implementing the program. Since participation in these programs is voluntary, it is important to avoid subsidization of these costs by customers who cannot or elect not to participate.

Q. Are there other ways customers learn about energy efficient products or ways to save?

A. Yes. Beyond the educational initiatives of utilities, consumers are exposed to a wide array of educational resources and products that can help them save. These include governmental resources, product manufacturers and retailers. For example, many lighting manufacturers include energy saving information on product packaging to assist a consumer in evaluating the benefit of purchasing one product over another. Ultimately the consumer chooses the product that best fits their judgement of cost and benefit.

Q. Please discuss the Company's current DSM program offerings, including the measures included in each program, participation rates, cumulative savings, and program impacts relating to building code and appliance efficiency standards.

A. Gulf Power's current DSM program offerings are included in the DSM Plan approved by the Commission via Order No. PSC-15-0330-PAA-EG. Program details can be found in Schedule 2 of my Exhibit.

Section 2: Process to Develop Goals

Q. Please provide an overview of the process used to determine the proposed goal levels.

A. Gulf Power developed proposed goals based on a progressive process of:

- Determining the full technical potential for energy and demand savings (technical potential).
- Determining the subset of that potential that is cost-effective under both the RIM and Total Resource Cost (TRC) cost-effectiveness screens as compared to Gulf's resource needs from the most recent integrated resource plan (economic potential).
- Determining the reasonably achievable potential of energy and demand savings over the next ten years considering the circumstances of the company's service area, existing programmatic activity, and historical experience (achievable potential). Gulf Power also reflected consideration of the Participant cost-effectiveness test and the two-year payback screen during the Achievable Potential.
- Nexant assisted all or some of these analyses for the seven Florida utilities subject to requirements of FEECA (FEECA Utilities)

Q. Why did the FEECA Utilities engage a consultant to assist in this process?

A. The last full Technical Potential Study for each utility was conducted in the 2009 Goals docket. Since that time, there have been changes in the available technical potential due to baseline technology changes, market saturation of technologies, and utility program adoption. The utilities

collectively agreed to seek the expertise of an industry expert consultant to evaluate the current technical potential for each utility's area. An industry expert consultant brings independence to this process, as well as a broad base of experience to ensure a thorough, comprehensive study is completed.

Q. Why did the utilities work together in this process?

A. The approach used in this goal setting process had several benefits. It offered an opportunity for consistency across the utilities in development of the Technical Potential Study. The FEECA Utilities successfully developed a common scope for the study and jointly selected Nexant to conduct portions of the study specific to their needs. This approach also provided an opportunity for each of the participating utilities to gain insight from experiences of the others, which has led to more robust results along each phase of the study.

Q. In general, what was the scope of Nexant's work in preparation of goals for this filing?

A. Nexant completed the Technical Potential Study for each of the FEECA Utilities. This study includes an assessment of technical potential for demand and energy savings from EE, Demand Response (DR) and Distributed Energy Resources (DER). Nexant Witness Herndon describes in his direct testimony the particular steps Nexant performed for each of the FEECA Utilities.

Q. Is Gulf utilizing Nexant to assist with any other steps in the process of developing the proposed goals?

A. Yes, as discussed later in my testimony, Nexant quantified the economic potential (MW and GWh) associated with the measures that were determined by Gulf to pass the RIM and TRC tests. Nexant also performed the achievable potential analysis associated with the proposed goals for Gulf.

Q. Please describe what is meant by technical potential for energy and demand savings and how it is used in the goal setting process.

A. Technical potential represents the amount of energy and demand savings that is technically feasible without regard to cost, customer acceptance, cost-effectiveness or other real-world constraints. Technical potential begins with a comprehensive list of DSM measures that are technically feasible to implement. The energy and demand savings of each measure is multiplied by the applicable customer base to calculate what is technically possible without any regard to whether it is in the best interest of the customer or if a customer would even voluntarily adopt the measure. In this sense, technical potential is a theoretical construct that merely provides a starting point for the balance of the process. It certainly does not represent cost-effective potential for utility-sponsored DSM that could be reasonably achieved.

Q. How was the comprehensive DSM measure list developed for the Technical Potential Study?

A. The starting point for the current measure list was the measures analyzed in the 2014 FEECA Technical Potential Studies. These lists were independently reviewed by each FEECA Utility and suggestions for modifications to the list were aggregated into the list of measures provided to Nexant.

In addition, Nexant worked with the FEECA Utilities to review the initial measure list to determine applicability for the 2020 to 2029 period based on current technologies and codes and standards. Nexant also incorporated measures from other recent potential studies conducted around the country, as well as their experience designing, implementing, and evaluating DSM programs throughout the U.S.

Additionally, the Southern Alliance for Clean Energy (SACE) reviewed the measure list and provided comments on measures included in the residential, commercial and industrial lists, as well as other non-measure specific comments which the FEECA Utilities considered.

Ultimately, the study included 278 unique EE, DR, and DER measures in the development of Gulf's proposed goals. A full listing of these measures can be found in the Appendix of Nexant's Market Potential Study (MPS) reports. Each measure was evaluated in multiple building-types and

against multiple base cases resulting in over 4,000 individual measure permutations.

Q. How were the measure savings impacts and costs for the participant developed?

A. A description of the process used to develop measure savings impacts and costs for the participant is included in Section 4.2 of the MPS of Demand Side Management for Gulf Power and Nexant Witness Herndon's testimony.

Q. How were DR measure savings impacts identified for technical potential?

A. A description of the process used to develop DR measure savings impacts is included in Section 4.3 of the MPS of Demand Side Management for Gulf Power and Nexant Witness Herndon's testimony.

Q. How were renewable technologies' savings impacts identified and evaluated?

A. A description of the process used to develop renewable technologies savings impacts is included in Section 4.4 of the MPS of Demand Side Management for Gulf Power and Nexant Witness Herndon's testimony.

Q. Did Nexant consider the interactions between EE, DR and DER in their assessment of technical potential?

A. Yes. Nexant interactively analyzed the impacts of EE, DR, and DER in order to avoid overstating the potential. This analysis is described in

Section 5.1.4 of the MPS of Demand Side Management for Gulf Power and Nexant Witness Herndon's testimony.

Q. What are the results of the Technical Potential Study for Gulf?

A. The Technical Potential Study projects a total savings potential for EE measures of 621 MW Summer demand, 328 MW Winter demand, and 2,568 GWh annual energy. The technical potential for DR measures is 958 MW summer demand and 1,098 MW winter demand. The technical potential for DER measures is 452 MW summer demand, 472 MW winter demand, and 4,267 GWh annual energy. A breakdown of these results can be found in Schedule 3 of my Exhibit.

Q. What is the next step in the process?

A. The next step is to determine preliminarily the amount of the technical potential that may be cost-effective to pursue. This is called the economic potential.

Q. Please describe what is meant by economic potential.

A. Economic potential is the amount of technical potential determined preliminarily to be cost-effective by applying Commission-approved cost-effectiveness tests to the measures in the technical potential. These are the RIM, TRC, and PT. The Commission has requested two sets of economic potential, one based on a set of measures that pass the RIM and the PT test and another based on a set of measures that pass the TRC and the PT test.

Q. Please describe the three cost-effectiveness tests in more detail.

A. The PT, as the name implies, measures cost-effectiveness from the perspective of the participating customer. This test considers bill savings and incentives as benefits and the participant's out-of-pocket expenses as costs. It is important that any measure included in any final DSM Plan is cost-effective to the participant.

The RIM test evaluates the cost-effectiveness of a measure from both a participant's and non-participant's perspective. In this way, it measures whether a cross-subsidy occurs between non-participating and participating customers that ultimately results in upward rate pressure. The RIM test considers avoided capacity and fuel costs as benefits compared to costs of program implementation, including customer incentives and reductions in utility unrecovered revenue requirements (which contribute towards fixed cost recovery). When benefits exceed costs in the RIM test, implementation of the DSM measure or program will not result in cross-subsidy and will cause downward pressure on utility rates. This is why the test is sometimes referred to as the "no-losers test." Use of the RIM test in goal setting is essential to ensure that cross-subsidy and upward rate pressure do not occur.

The TRC test looks at cost-effectiveness of an efficiency measure from the joint perspective of the utility and customer base as a whole. In this way, TRC measures only whether aggregate total costs are increased or decreased. The TRC test considers the same benefits as the RIM test

while including just program implementation (not including customer incentives) and incremental equipment expenses as costs. Importantly, the TRC test does not provide any measure of rate pressure or cross-subsidy. For this reason, the TRC test should never be used without simultaneous consideration of the RIM test results to ensure non-participating customers are not subsidizing customers who are voluntarily participating in an efficiency program.

Q. How was the economic potential for the measures determined?

A. Utilizing the list of measures and their associated energy and demand savings benefits as well as measure costs, Gulf began assessing the cost-effectiveness of these measures. Gulf used the avoided cost data associated with its most current integrated resource plan as the basis for these evaluations.

Q, What avoided unit did Gulf use in its evaluations?

A. Consistent with Gulf's April 2019 Ten Year Site Plan filing, a 595 MW combined cycle unit with an in-service date of 2024 was used for the cost-effectiveness evaluations.

Q. Please describe the other "base case" assumptions used in this analysis.

A. The base case analysis for evaluating the cost-effectiveness of measures in this study includes projections of fuel costs, load and energy sales, and generation costs over the planning period. The fuel cost projections used for this evaluation were updated consistent with Gulf's 2019 Ten Year Site

Plan and are associated with the technology of the next avoided unit. The load and energy forecast was developed based on a number of inputs, including projections of economic growth, customer growth, and energy savings. The energy savings incorporated resulted from both market-driven forces, such as codes and standards, as well as Gulf's DSM programs. Generation costs were based on current projections of capital, operating, and environmental compliance expenses associated with the next planned generation unit needed to satisfy the load requirements. No carbon costs were assumed in the development of Gulf's resource plan; therefore, no such costs were included in evaluation of the DSM measures. These cost inputs were used to develop the avoided cost values used in evaluation of the measures included in the Technical Potential Study.

Q. How were the measure costs and savings evaluated in Gulf's analysis?

A. Utilizing a spreadsheet-based model, Gulf Power compared the measure savings impacts and costs against a series of avoided cost projections in accordance with the formulas for the RIM and TRC tests. In developing the list of measures comprising the economic potential, no administrative costs, incentives, or free-ridership assumptions were included. This was done in order to provide the largest set of measures for further consideration.

Two lists of measures were developed: a set that passed RIM and a set that passed TRC. These lists were then provided to Nexant in order to

enable Nexant to calculate the economic potential MW and GWh associated with each measure. Since the lists only included measures that passed RIM or TRC, the resulting MW and GWh potential is considered the economic potential.

Q. What is free-ridership and how did Gulf take into account the effects of free-ridership in its analysis?

A. In this context, a free-rider is a customer whose adoption of a DSM measure would have occurred even in the absence of any utility program or incentive. As required by Commission rule, the goals set for energy and demand reductions must account for the effects of free-ridership. Measures that have a customer payback of less than two years without any utility incentive are considered to already present the customer with a reasonable economic proposition and, therefore, are not included in the proposed goal. If included as part of a utility's goal, the expense associated with promotion of these measures would be an unnecessary cost burden on the non-participating utility customers because an economically rational participant would adopt these measures even without a utility program.

The Commission has consistently endorsed the two-year payback screening mechanism as an appropriate means of addressing the free ridership regulatory requirement. Most recently, in its 2014 Goals docket order, the Commission stated the following: "We have consistently approved goals based on this methodology in our previous DSM goals

setting proceedings. While the selection of the most appropriate approach to account for free riders as required by Rule 25-17.002(3), F.A.C., is discretionary, the overwhelming evidence in this case suggests that the discretionary balance point continues to be a two-year payback period." See Order No. PSC-14-0696-FOF-EU at page 25.

Q. What is the economic potential associated with the RIM and TRC passing measures?

A. Nexant calculated the economic potential for EE to be 75 MW Summer demand, 39 MW Winter demand, and 114 GWh annual energy for the measures passing RIM. The economic potential for EE measures passing TRC is 348 MW Summer demand, 297 Winter demand, and 1,762 GWh annual energy. For DR, the economic potential is 958 MW Summer demand, 1,098 Winter MW demand for both RIM and TRC. For DER, the economic potential for the measures passing RIM is 65 MW Summer demand and 222 MW Winter demand. The economic potential of DER for TRC is zero, as no measures pass. Again, this represents the subset of technical potential that is cost-effective considering only the measure impacts and some of the costs associated with a measure, and it does not represent the amount of energy and demand savings achievable in the market over the next ten-year period. A breakdown of these savings is shown in Schedule 4 of my Exhibit.

Q. Was there additional screening performed on the measure list?

A. Yes. Gulf performed additional screening which included consideration of typical administrative costs in order to ensure any measures passing through for achievable potential modeling would be cost-effective in each of the RIM and TRC portfolios. In addition, measures that had cost/savings combinations that resulted in customer payback of less than two years without any incentives were removed by Gulf at this stage of the analysis.

Gulf then conducted further screening of the measures to determine which measures also passed the PT. For measures not initially passing the PT in the RIM portfolio, incentive dollars were applied to increase the PT score to the point the RIM score fell to 1.0. Measures that still did not pass the PT with these maximum incentives were eliminated from further consideration. For the TRC screen, the incentive is not considered in the test, so Gulf increased the incentive level to a maximum amount that brought the customer payback to two years. If this incentive level did not bring the PT score to at least 1.0, the measure was eliminated from further consideration.

Upon completion of this screening process, Gulf Power provided Nexant with the remaining RIM and TRC-passing measures, along with each measure's maximum incentive level, to be modeled for achievable potential.

Q. What was the next step in the process of determining Gulf Power's proposed DSM goals?

A. The next step was to determine the achievable potential. This step involved projecting likely customer adoption of the remaining DSM measures in order to establish a cost-effective goal for demand and energy savings.

Q. How was the achievable potential estimated in this study?

A. Utilizing the incentive levels developed by Gulf in the process previously described, Nexant estimated the achievable potential for Gulf using their adoption modeling tools. Historical Gulf program participation was utilized to form a baseline of potential adoption of similar programs and measures. Nexant also considered adoption of similar programs and measures in other utility areas as an input to what could be feasible for Gulf. More details about this process are described in Section 7 of the MPS report for Gulf included with Nexant Witness Herndon's testimony.

Q. What are the results of the achievable potential analysis performed by Nexant?

A. Nexant's achievable potential analysis estimates the achievable potential over the period 2020-2029 in the RIM portfolio is 5 MW Summer demand, 2 MW Winter demand, and 6 GWh annual energy for EE measures; 15 MW Summer demand and 11 MW Winter demand for DR measures; and zero for DER measures. The potential in the TRC portfolio is 40 MW Summer demand, 29 MW Winter demand, and 222 GWh annual energy

for EE measures; 15 MW Summer demand and 11 MW Winter demand for DR measures; and zero for DER measures. The sum of the achievable potential for EE and DR is shown on Schedule 5 of my Exhibit.

Q. Do the Company's proposed goals reflect the full achievable potential as estimated by Nexant?

A. No. Gulf Power's proposed goals for residential energy and demand reduction and commercial/industrial demand response match the results contained in Nexant's Achievable Potential Study. As noted previously, Nexant's projection of achievable potential for EE measures in the commercial/industrial sector totaled 5 MW Summer demand, 2 MW Winter demand, and 6 GWh energy over the ten-year scope of the study.

Q. Why is Gulf proposing a commercial/industrial goal that does not include the 7 MW of demand savings and 6 GWh of energy savings associated with the EE measures reflected in Nexant's Achievable Potential Study?

A. The Achievable Potential Study projects adoption of each specific measure for any and all building types for which the measure is cost-effective. In this case, the small handful of EE measures that comprise the achievable potential in the commercial/industrial sector are only cost effective in very limited building types and have very low adoption projections. For example, the Energy Recovery Ventilation System measure is cost-effective in only 2 of 13 building types and has annual adoption projections ranging from 0 to 31 participants over a ten-year period. For the industrial measures, no individual measure has an

adoption projection greater than 1 participant per year. If Gulf Power's commercial/industrial goal was set at the level reflected in the Achievable Potential Study, Gulf would ultimately need to design a DSM program which was comprised of the handful of EE measures identified in the Achievable Potential Study. Developing and implementing a DSM program centered upon such a small number of measures which are, in turn, limited in application to a very few uniquely situated commercial customers would be highly impractical from a cost, administrative and customer adoption perspective.

Section 3: Statutory Adherence

Q. Has Gulf Power provided an adequate assessment of the full technical potential of all available demand-side conservation and efficiency measures, including demand-side renewable energy systems?

A. Yes. Through the utility-sponsored study performed by Nexant, a robust and comprehensive assessment of the full technical potential of all available demand-side conservation and energy efficiency measures, including demand-side renewables has been completed. This assessment included the evaluation of 278 individual EE, DR and DER measures.

Q. Does Gulf Power's Technical Potential Study evaluate supply-side conservation and efficiency measures?

A. No. Consistent with past DSM Goals proceedings, Gulf Power's technical potential analysis does not include an assessment of supply-side

conservation and efficiency opportunities. In past DSM Goals proceedings, this Commission has recognized that supply side measures require substantially different analytical methods than do demand-side systems and provide results that are difficult to combine with conservation goals. As a consequence, the Commission has consistently determined that evaluation of opportunities for supply-side efficiency improvements is better addressed in other contexts, such as the Commission's review of utility Ten Year Site Plans. Although supply-side efficiencies were not considered in the Company's technical potential analysis, Gulf Power routinely considers energy efficiency in its ongoing generation, transmission, and distribution planning process.

Q. Please discuss how supply-side efficiencies are incorporated in Gulf's planning process.

A. Supply-side efficiencies are considered in many parts of Gulf's generation, transmission, and distribution planning processes. First, efficiency is at the core of the integrated planning process. It is through this process that the most efficient resource plan is put forth to meet Gulf's load requirements. This process considers all resources available to meet the company loads and selects any required generation technologies based not only on capital costs, but also on the variable costs of production including fuel. The resulting analysis selects the most cost-efficient alternative. The concept of efficiency carries through to operations of the generation fleet as well. The dispatch of generating units includes each unit's fuel efficiency, or heat rate, in the economic dispatch equations such

that the most cost-efficient mix of generators is meeting supply at any point in time. Similarly, analysis of the transmission and distribution system considers improvements that resolve thermal issues thereby reducing line losses. Capacitor banks are an example of such an improvement.

Q. How do these supply-side efficiencies impact demand-side management programs?

A. Supply-side and demand-side alternatives are both intended to produce the most cost-efficient resource plan to satisfy the Company's loads. Since they are both compared in the integrated resource planning process, the more efficiently the supply-side operates, the less cost-effective demand-side alternatives are to pursue.

Q. Has Gulf Power provided an adequate assessment of the achievable potential of all available demand-side conservation and efficiency measures, including demand-side renewable energy systems?

A. Yes. Through the Achievable Potential Study performed by Nexant, a robust and comprehensive assessment of the full achievable potential of demand-side conservation and energy efficiency measures, including demand response and demand-side renewables, has been completed. This assessment included modeling projections of achievable potential in both a RIM/PT and TRC/PT portfolio.

Q. Should the Commission establish separate goals for demand-side renewable energy systems?

A. No. In past FEECA proceedings, the Commission determined that it was appropriate to set goals equal to zero in cases where no DSM measures were found to be cost-effective. See Order Nos. PSC-00-0588-FOF-EG; PSC-00-0587-FOF-EG; PSC-04-0768-PAA-EG; PSC-04-0767-PAA-EG. Given that no renewable measures passed the Commission's approved cost-effectiveness criteria, setting renewable goals at a level above zero in this proceeding would not be appropriate.

Q. Aside from establishing separate goals for demand-side renewable energy systems, are there other actions that Gulf or the Commission has taken, or can take, to encourage the development of demand-side renewable energy systems?

A. In 2008, the Commission adopted amendments to Rule 25-6.065, F.A.C. providing for expedited interconnection of small customer-owned renewable generation and allowing for net metering of excess energy. In its 2014 DSM Goals order, the Commission declined to establish separate goals for renewable systems and held that "the rule is an appropriate means to encourage the development of demand-side renewable energy, as it expedites the interconnection of customer-owned renewable energy systems and benefits customers through net metering." See Order No. PSC-14-0696-FOF-EU at p. 48. As evidence of this rule's effectiveness in increasing the adoption of demand-side renewable energy systems, since 2008 over 1,200 residential and commercial renewable energy systems

have been interconnected on Gulf's grid with a capacity over 7,500 kW. Also, Gulf does, and will continue to, provide education concerning renewable energy technologies, including solar, on its website and through customer advisors across Northwest Florida.

Q. What cost-effectiveness test or tests should the Commission use to set DSM goals for Gulf Power?

A. Consistent with its precedent, the Commission should continue to use the combination RIM and PT cost-effectiveness tests coupled with the two-year payback criterion to set goals for Gulf Power. This combination of tests provides an appropriate balance between participating and non-participating customer benefits and ensures downward pressure on overall electric rates while still supporting appropriate levels of conservation activities over the period 2020 through 2029.

Using the combination of RIM and PT cost-effectiveness tests to establish goals for Gulf Power is consistent with the requirements of section 366.82(3), Florida Statutes, to consider impacts to participating customers as well as non-participating customers, together comprising the general body of customers.

Q. Do Gulf Power's proposed DSM goals appropriately reflect consideration of free riders?

A. Yes. Consistent with the Commission's precedent, Gulf Power utilized a two-year payback criterion to screen for free ridership.

Q. Do Gulf Power's proposed DSM goals adequately reflect the costs and benefits to customers participating in the measure?

A. Yes. The measures included in development of the goals reflect the costs and benefits to the participating customers. This is done by performing the PT cost-effectiveness test and ensuring that all measures contemplated for inclusion in the goals pass this test.

Q. Do Gulf Power's proposed DSM goals adequately reflect the costs and benefits to the general body of ratepayers as a whole, including utility incentives and participant contributions?

A. Yes. By passing the RIM test, Gulf's proposed goals reflect costs and benefits that minimize overall rate impacts for the general body of customers, whether or not they adopt one of the DSM measures. In addition, by only including measures that also pass PT, these proposed goals adequately consider participant contributions as a component of overall customer impact. RIM is also the only test that considers utility-provided incentives in the evaluation of costs and benefits.

Q. Do Gulf Power's proposed DSM goals adequately reflect the costs imposed by state and federal regulations on the emission of greenhouse gases?

A. Yes. Gulf is not currently incurring costs associated with existing state or federal regulations on the emissions of greenhouse gases and, therefore, Gulf has appropriately not included assumptions of costs for greenhouse gas emissions in the development of proposed goals.

Q. What is Gulf Power's position relative to the Commission establishing incentives to promote both customer-owned and utility-owned energy efficiency and demand–side renewable energy systems?

A. Historically, the Commission's preference for relying on the combination of RIM and PT in the evaluation and approval of utility conservation programs has provided the necessary structure to ensure that the interests of all stakeholders are balanced. In practice, these tests provide incentives to customers through the payment of rebates, to the general body of customers by preventing cross-subsidization between DSM program participants and non-participants, and to the utility by ensuring that incorporation of DSM in the resource planning process results in net benefits that put downward pressure on rates. Therefore, reliance on the RIM test in goal-setting obviates the need for utility incentives.

Section 4: Sensitivities

Q. Has Gulf completed any sensitivities v. the RIM and TRC Base Cases?

A. Yes. Gulf and Nexant performed additional economic potential screening on the DSM measures included in the technical potential for alternative fuel cost projections and free-ridership periods as requested in the Order Establishing Procedure in this docket. The purpose of these additional evaluations was to determine how sensitive the economic potential is to these factors. The first sensitivity was performed for two additional fuel cost scenarios, "low fuel" and "high fuel." Since fuel cost projections are an input in the cost-effectiveness evaluations, different fuel cost assumptions can increase or decrease the avoided cost benefits of each

measure's savings, and, consequently, the cost-effectiveness results. Each of these fuel cost projections represents a planning scenario utilized by Gulf Power in the normal integrated resource planning process. A summary of these results can be found in Schedule 6 of my Exhibit.

The second sensitivity was for shorter and longer free-ridership periods. For this evaluation, Nexant calculated the economic potential utilizing a one-year (shorter) and three-year (longer) payback period to determine how sensitive the economic potential was to these alternate free-ridership periods. This evaluation was completed by removing measures from the economic potential for which customer payback was less than one or three years without any utility-provided incentive. A summary of these results can be found in Schedule 7 of my Exhibit.

Section 5: Additional Supporting Information

Q. For Gulf Power, what is the projected annual bill impact on residential customers using 1,200 kWh/month resulting from these proposed goals?

A. The annual bill impact associated with Gulf's proposed goal (RIM portfolio) and TRC portfolio is reflected in Schedule 8 of my Exhibit. These bill impacts reflect the projected costs associated with achieving the goals associated with EE, DR, and DER measures addressed in this proceeding. In summary, the annual bill impact of the RIM-based proposed goal is $5 less than the TRC portfolio in 2020, growing to over $15 per year less than the TRC portfolio in each of the years 2026 to 2029.

Section 6: Conclusions

Q. What are Gulf's proposed DSM Goals for 2020-2029?

A. Gulf proposes that the Commission approve the DSM Goals set forth in Schedule 1 of my Exhibit. The goals represent the total cost-effective winter and summer peak MW demand reductions and the annual GWh savings at the generator which are reasonably achievable through implementation of demand-side programs in Gulf Power's service area for the residential and commercial/industrial customer classes. These goals are based on measures passing the RIM and PT cost-effectiveness tests and avoid free-ridership through application of the two-year payback criterion.

Q. Has Gulf Power used a sound and reasonable process consistent with Florida's statutory and rule-based requirements to determine its 2020 through 2029 DSM goals?

A. Yes. Gulf Power has proposed goals based on a full assessment of technical, economic, and achievable potential for demand-side conservation and efficiency measures, including demand response and demand-side renewable energy systems in a manner consistent with requirements of section 366.82(3), Florida Statutes, and FPSC Rule 25-17.0021.

Q. Does this conclude your testimony?

A. Yes.

AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 20190016-EG

Before me the undersigned authority, personally appeared John N. Floyd, who being first duly sworn, deposes, and says that he is the Manager of Strategy and Market Intelligence of Gulf Power Company, a Florida corporation, that the foregoing is true and correct to the best of his knowledge, information, and belief. He is personally known to me.

John N. Floyd
Manager of Strategy and Market Intelligence

Sworn to and subscribed before me this 12th day of April, 2019.

Notary Public, State of Florida at Large

MELISSA DARNES
MY COMMISSION # FF 912698
EXPIRES: December 17, 2019
Bonded Thru Budget Notary Services

Schedule Index

Schedule	Contents
Schedule 1	Table of Proposed Goals for 2020-2029
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Schedule 3	Technical Potential Results (by sector, etc.)
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Schedule 8	Annual Bill Impact for 1,200 kWh/Month Residential Customer

Schedule 1

Proposed Numeric Conservation Goals -- Savings at the Generator

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Residential											
Summer System Peak (MW)	0	0	0	0	0	0	0	0	0	0	0
Winter System Peak (MW)	0	0	0	0	0	0	0	0	0	0	0
Annual Energy (GWh)	0	0	0	0	0	0	0	0	0	0	0
Commercial/Industrial											
Summer System Peak (MW)	1	1	1	1	1	2	2	2	2	2	15
Winter System Peak (MW)	1	1	1	1	1	1	1	1	1	2	11
Annual Energy (GWh)	0	0	0	0	0	0	0	0	0	0	0
Total											
Summer System Peak (MW)	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**15**
Winter System Peak (MW)	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**11**
Annual Energy (GWh)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Note: Totals may not add due to rounding.

GULF POWER COMPANY
Current DSM Program Details

(Including measures, participation rates, cumulative savings, program impacts relating to building codes and appliance effeciency standards)

	Program	Description	Measures	Participation 2015 - 2018	Cumulative 2015-2018 Savings at the Generator Summer MW	Winter MW	GWh	Impacts Relating To Bldg Codes and Appliance Efficiency Standards
	Residential Conservation Programs:							
1.	Residential Energy Audit and Education	This program is the primary educational program to help customers improve the energy efficiency of their new or existing home by providing energy conservation advice and information that encourages the implementation of efficiency measures and behaviors resulting in energy and utility bill savings.	None	37,073	0.00	0.00	0.00	None
2.	Community Energy Saver	This program assists low-income families with managing their energy costs. Through this program, qualifying customers receive the direct installation of conservation measures at no cost to them. The program also educates families on energy efficiency techniques and behavioral changes to help control their energy use and reduce their electricity expenses.	Energy assessment, compact flourescent bulbs, hot water pipe wrap, water heater temperature check, low-flow faucet aerators, low-flow shower heads, HVAC filters and energy efficiency education	9,251	0.56	1.30	7.50	None
3.	Residential Custom Incentive	This program is designed to increase energy efficiency in the residential rental property sector. This program promotes the installation of various energy efficiency measures available through other programs, such as HVAC maintenance and quality installation, high performance windows, reflective roofing and Energy Star window A/Cs. Additional incentives will be included, as appropriate, to overcome the split-incentive barrier which exists in a landlord/renter situation. Moreover, this program promotes the installation of measures included in the Community Energy Saver Program by the landlord of multi-family properties.	To be determined	0	0.00	0.00	0.00	None
4.	HVAC Efficiency	This program is designed to increase energy efficiency and improve HVAC cooling system performance for new and existing homes. These efficiencies are realized through HVAC maintenance, Duct repair and HVAC Quality Installation	Refrigerant check & adjustment, air flow check & adjustment, duct repair and coil cleaing	11,102	2.85	3.71	6.10	None
5.	Residential Building Efficiency	The Residential Building Efficiency Program is designed as an umbrella efficiency program for existing and new residential customers to encourage the installation of eligible equipment and materials as a means of reducing energy and demand. The goals of the program are to increase awareness and customer demand for energy saving measures; to increase availability and market penetration; and to contribute toward long-term energy savings and peak demand reductions.	High Performance Window, Reflective Roof and Energy Star Window A/C	2,488	0.80	0.48	1.49	Mininum efficiency
6.	Energy Select	The overall program is designed to provide customers with a means of controlling their energy purchases by conveniently programming their heating and cooling systems and major appliances, such as electric water heaters and pool pumps, to respond automatically to prices that vary during the day and by season in relation to the Company's cost of producing or purchasing energy.	Programmable thermostat and water heater/pool pump relay	4,023	8.93	5.30	3.11	None
			Residential Subtotal*		24.61	22.56	51.20	
	Commercial / Industrial Conservation Programs:							
7.	Commercial / Industrial Audit	This program is designed to provide professional advice to Gulf's existing commercial and industrial customers on how to reduce and make the most efficient use of energy. This program covers from the smallest commercial customer, requiring only a walk-through survey, to the use of computer programs which will simulate several design options for very large, energy-intensive customers. Customers may participate by requesting a basic Energy Analysis Audit (EAA) provided through either an on-site survey or an on-line survey. A more comprehensive analysis can be provided by conducting a Technical Assistance Audit (TAA).	None	997	0.00	0.00	0.00	None
8.	HVAC Retrocommissioning	This program offers basic retrocommissioning at a reduced cost for qualifying installations of existing commercial and industrial customers. It is designed to diagnose the performance of the HVAC cooling unit(s) operating in commercial buildings with the support of an independent computerized quality control process and to make improvements to the system to bring it to full efficiency. This program includes air cooled and water cooled equipment - identified as A/C, heat pump, direct expansion (DX) or geothermal cooling and heating.	Refrigerant check & adjustment, air flow check & adjustment and coil cleaning	339	0.13	0.00	0.35	None
9.	Commercial Building Efficiency	This program is designed as an umbrella efficiency program for existing commercial and industrial customers to encourage the installation of eligible high-efficiency equipment as a means of reducing energy and demand. The goals of the program are to increase awareness and customer demand for high-efficiency, energy-saving equipment; increase availability and market penetration of energy efficient equipment; and contribute toward long-term energy savings and peak demand reductions. These goals will be accomplished through commercial geothermal heat pumps, ceiling/roof insulation, and reflective roofs.	Commercial Geothermal Heat Pump	87	0.03	0.03	0.07	Minimum efficiency
			Ceiling/Roof Insulation and Reflective Roof	733,636 square feet	0.56	0.01	1.20	Mininum efficiency
10.	Commercial / Industrial Custom Incentive	This program is designed to establish the capability and process to offer advanced energy services and energy efficient end-user equipment to Commercial/Industrial customers. These energy services include comprehensive audits, design, and construction of energy conservation projects. Specifically, projects covered under this program would be demand reduction or efficiency improvement retrofits that are beyond the scope of other programs.	To be determined	0	0.00	0.00	0.00	None
			Commercial Subtotal*		7.03	4.27	15.22	
			Total*		**31.64**	**26.83**	**66.42**	

* includes savings from 2010 DSM Plan through August 2015 when the 2015 DSM Plan became effective.

Table 1
Summary of Energy Efficiency Technical Potential Results

	Summer System Peak (MW)	Winter System Peak (MW)	Annual Energy (GWh)
Residential	391	199	1,464
Commercial/Industrial	231	129	1,105
Total	**621**	**328**	**2,568**

Table 2
Summary of Demand Response Technical Potential Results

	Summer System Peak (MW)	Winter System Peak (MW)	Annual Energy (GWh)
Residential	465	667	N/A
Commercial/Industrial	493	430	N/A
Total	**958**	**1,098**	**N/A**

Table 3
Summary of DER Technical Potential Results

	Summer System Peak (MW)	Winter System Peak (MW)	Annual Energy (GWh)
Residential	89	326	2,072
Commercial/Industrial	363	147	2,195
Total	**452**	**472**	**4,267**

Note: Totals may not add due to rounding.

Table 1
Summary of Energy Efficiency Economic Potential Results

	Summer System Peak (MW)		Winter System Peak (MW)		Annual Energy (GWh)	
	RIM	TRC	RIM	TRC	RIM	TRC
Residential	0	182	3	173	4	836
Commercial/Industrial	75	167	36	124	110	926
Total	**75**	**348**	**39**	**297**	**114**	**1,762**

Note: Totals may not add due to rounding.

Table 2
Summary of Demand Response Economic Potential Results

	Summer System Peak (MW)		Winter System Peak (MW)		Annual Energy (GWh)	
	RIM	TRC	RIM	TRC	RIM	TRC
Residential	465	465	667	667	N/A	N/A
Commercial/Industrial	493	493	430	430	N/A	N/A
Total	**958**	**958**	**1,098**	**1,098**	**N/A**	**N/A**

Note: Totals may not add due to rounding.

Table 3
Summary of DER Economic Potential Results

	Summer System Peak (MW)		Winter System Peak (MW)		Annual Energy (GWh)	
	RIM	TRC	RIM	TRC	RIM	TRC
Residential	65	-	222	-	-	-
Commercial/Industrial	-	-	-	-	-	-
Total	**65**	**-**	**222**	**-**	**-**	**-**

Note: Totals may not add due to rounding.

Schedule 5

Summary of Energy Efficiency & Demand Response Achievable Potential Results - RIM

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Residential											
Summer System Peak (MW)	0	0	0	0	0	0	0	0	0	0	0
Winter System Peak (MW)	0	0	0	0	0	0	0	0	0	0	0
Annual Energy (GWh)	0	0	0	0	0	0	0	0	0	0	0
Commercial/Industrial											
Summer System Peak (MW)	1	1	1	2	2	2	2	2	2	2	20
Winter System Peak (MW)	1	1	1	1	1	1	1	2	2	2	13
Annual Energy (GWh)	0	0	1	1	1	1	1	1	0	0	6
Total											
Summer System Peak (MW)	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**20**
Winter System Peak (MW)	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**13**
Annual Energy (GWh)	**0**	**0**	**1**	**1**	**1**	**1**	**1**	**1**	**0**	**0**	**6**

Note: Totals may not add due to rounding.

Summary of Energy Efficiency & Demand Response Achievable Potential Results - TRC

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
Residential											
Summer System Peak (MW)	1	1	1	2	2	2	2	3	3	3	20
Winter System Peak (MW)	1	1	1	1	2	2	2	3	3	3	19
Annual Energy (GWh)	5	5	6	7	9	10	12	14	15	15	98
Commercial/Industrial											
Summer System Peak (MW)	2	3	3	3	4	4	4	4	4	4	36
Winter System Peak (MW)	2	2	2	2	2	2	2	2	2	2	21
Annual Energy (GWh)	9	10	12	13	15	16	15	14	11	9	124
Total											
Summer System Peak (MW)	**3**	**4**	**4**	**5**	**6**	**6**	**7**	**7**	**7**	**6**	**55**
Winter System Peak (MW)	**2**	**3**	**3**	**3**	**4**	**4**	**5**	**5**	**6**	**6**	**40**
Annual Energy (GWh)	**14**	**16**	**18**	**21**	**23**	**26**	**27**	**27**	**26**	**24**	**222**

Note: Totals may not add due to rounding.

Schedule 6

Summary of the Economic Potential Fuel Sensitivity Results - Energy Efficiency

	# of Passing Measures		Summer System Peak (MW)		Winter System Peak (MW)		Annual Energy (GWh)	
	RIM	TRC	RIM	TRC	RIM	TRC	RIM	TRC
Residential								
Base	1	45	-	182	3	173	4	836
Low Fuel	-	39	-	167	-	155	-	751
High Fuel	1	48	2	215	9	200	13	922
Commercial/Industrial								
Base	21	121	75	167	36	124	110	926
Low Fuel	20	111	75	164	36	124	110	877
High Fuel	22	124	87	171	70	125	194	959
Total								
Base	22	166	75	348	39	297	114	1,762
Low Fuel	20	150	75	331	36	279	110	1,628
High Fuel	23	172	89	386	79	325	207	1,882

Note: Totals may not add due to rounding.

Schedule 7

Summary of the Economic Potential Free-Ridership Sensitivity Results

	# of Passing Measures		Summer System Peak (MW)		Winter System Peak (MW)		Annual Energy (GWh)	
	RIM	TRC	RIM	TRC	RIM	TRC	RIM	TRC
Residential								
1 year Payback	-	25	-	150	-	135	-	646
2 year Payback	-	16	-	146	-	133	-	612
3 year Payback	-	12	-	140	-	128	-	549
Commercial/Industrial								
1 year Payback	11	93	10	91	14	77	46	607
2 year Payback	9	72	2	50	2	36	13	370
3 year Payback	7	60	-	31	2	21	3	219
Total								
1 year Payback	11	118	10	240	14	212	46	1,253
2 year Payback	9	88	2	196	2	168	13	981
3 year Payback	7	72	-	170	2	149	3	768

Note: Totals may not add due to rounding.

Schedule 8

Annual Bill Impact for 1,200 kWh/Month Residential Customer

		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
RIM Portfolio/Proposed Goals		$ 0.08	$ 0.16	$ 0.25	$ 0.36	$ 0.47	$ 0.61	$ 0.76	$ 0.93	$ 1.13	$ 1.35
TRC Portfolio		$ 5.09	$ 6.17	$ 7.76	$ 9.62	$ 11.82	$ 14.07	$ 15.91	$ 17.02	$ 17.39	$ 16.93

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

IN RE: **Commission review of numeric conservation goals (Gulf Power Company)** Docket No.: **20190016-EG**

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true copy of the foregoing was furnished by electronic mail this 12th day of April, 2019 to the following:

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