MCWHIRTER REEVES

TAMPA OFFICE: 400 North TAMPA STREET, SUITE 2450 TAMPA, STREET, SUITE 2450 P. O. BOX, 3350 TAMPA, FL 33601-3350 (813) 224-0866 (813) 221-1854 FAX

PLEASE REPLY TO:

TALLAHASSEE

TALLAHASSEE OFFICE: 117 SOUTH GADSDEN TALLAHASSEE, FLORIDA 32301 (850) 222-2525 (850) 222-5606 FAX

July 12, 2002

VIA HAND DELIVERY

Blanca S. Bayo, Director Division of Records and Reporting Betty Easley Conference Center 4075 Esplanade Way Tallahassee, Florida 32399-0870

Re: Docket No.: 020233-EI

Dear Ms. Bayo:

On behalf of Reliant Energy Power Generation, Inc., enclosed for filing and distribution are the original and 15 copies of the following:

 Reliant Energy Power Generation, Inc.'s Post-Workshop Comments, Subject: Market Design.

Please acknowledge receipt of the above on the extra copy and return the stamped copies to me. Thank you for your assistance.

Sincerely,

Joe Mc Dlot klen

Joseph A. McGlothlin

JAM/mls Enclosure

> DOCUMENT NUMBER DATE. McWhirter, Reeves, McGlothlin, Davidson, Decker, Kaufman & Arnold, P.A.

> > FPSC-COMPLISSION CLERK

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Review of GridFlorida Regional Transmission Organization Proposal

Docket No. 020233-EI Filed: July 12, 2002

POST-WORKSHOP COMMENTS OF RELIANT ENERGY POWER GENERATION, INC. SUBJECT: MARKET DESIGN

Pursuant to Commission Order PSC-02-0865-PCO-EI, issued on June 25, 2002, Reliant Energy Power Generation, Inc. ("Reliant") hereby submits its comments on the subject of market design.

At the outset, Reliant commends the GridFlorida Applicants for their submission of July 2, 2002, in which the Applicants embraced a market design model based on financial transmission rights ("FTRs") and locational marginal pricing ("LMP"). This development demonstrates considerable movement on the part of the Applicants. It will go a long way toward making the consensus approach favored by the Commission feasible and possible.

In these comments, Reliant will attempt to elucidate the basic concepts of the financial/LMP market design; identify the advantages of such an approach over the alternative of physical transmission rights coupled with a requirement of balanced schedules; and, finally, comment on one of the major choices to be made in the implementation of a market design based on LMP/financial transmission rights. In the course of the comments Reliant will attempt to expand upon the remarks that Reliant's John Orr made during the workshop of May 29, 2002.

DISCUSSION

Bear in mind that, regardless of the approach to market design that is adopted, the RTO will operate the system to ensure that firm load is served reliably. That is, under either of the market designs discussed during the May 29 workshop the RTO will dispatch/redispatch the

system as necessary to meet firm demand; the electrons will flow based on the physics of the system rather than any "predesignated" route; generation and load will be balanced; and firm customers will receive the energy they require.

Also unrelated to the choice of market design is the elimination of pancaked rates.

The choice of market design WILL affect the extent to which the RTO will be able to deliver the "least cost" generation to consumers in the most economically efficient manner. The choice WILL affect, in a critical way, the nature and extent of the competitive wholesale market within GridFlorida. The decision WILL affect the extent to which the RTO will send proper economic signals that will facilitate the efficient allocation and expansion of scarce resources. Through the impact of the decision on the quality and quantity of transactional information that will be generated, the choice of market design WILL affect the ability of the RTO and regulators to detect, and act to correct, uneconomic conditions as well as attempts to manipulate the system.

The property of a transmission system that requires a choice of market design to be made is its limited physical capacity. If each generator on the system had an unlimited ability to reach any customer on the system, the RTO's task of delivering "least cost" generation would be simple. Based on the generators' bids, the RTO would dispatch generators in the ascending order of bids until all demand for generation has been met. This is the concept of "economic dispatch" in its purest form -- uncomplicated by the physical inability to deliver the cheapest generation from one point on the system to another at a given point in time.

In reality, of course, the ability of the transmission system to transport generation is not unlimited. There are points at which the physical capacity to transport electricity is constrained -- and "pure economic dispatch" is rendered impossible -- by thermal, voltage, or stability-related limitations. The point of the "market design" debate is to identify and implement the regime that

will deal with the effects of such constraints most economically, most efficiently, and in the most transparent fashion possible.

Consider the following illustration. The cost-conscious Smith family decides to order a large pizza and have it delivered to their home. Their town has two pizzerias. Pizza Man charges \$10 for a large pizza. To deliver to the Smiths, the Pizza Man delivery truck must travel Ravine Way. The other pizzeria, Taste Of Italy, charges \$12 for a similar pizza. Taste Of Italy reaches the Smiths by way of Broad Avenue. If nothing impedes the Pizza Man truck, the Smiths can partake of the more "economically efficient" pizza. However, if a rush hour traffic jam prevents Pizza To Go from accessing Ravine Way, the Smiths will be compelled to call Taste Of Italy and pay \$12 -- even though their friends across town, whom the Pizza Man truck can reach without traveling Ravine Way, will dine for less money.

Having digested this rather saucy illustration, now assume an overly simplified electrical transmission system consisting of a single 50 MW load, located at Boulder Substation; two generators, "Apple" and "Citrus"; and the individual lines that connect each generator to the load. Apple Generation delivers to Boulder *only* via the Apple-Boulder line. Citrus Generation delivers *only* over the Citrus-Boulder segment. The system is overseen by the world's smallest RTO. Apple offers to serve the Boulder load at a price of \$20/MWH; Citrus bids \$35/MWH. If there are no transmission constraints, and Apple can supply the full 50 MW demand at Boulder, then the RTO will dispatch Apple, and the load will be served at a price of \$20. However, if Apple can deliver only 25 MW to Boulder because of a constraint on the Apple-Boulder line, the RTO will "redispatch" and call on more expensive Citrus to deliver the balance. The increment of additional costs necessitated by the departure from economic dispatch -- in this instance the

differential of \$15/MWh times the 25 MW that Apple could not serve, or \$375 per hour--is the "cost of redispatch."

A real transmission system, of course, is far more complicated than the Apple-Boulder-Citrus example. GridFlorida will have hundreds of points at which generation is injected into or taken from the system. Further, the level of demand at a given location varies over time. While these considerations add complexity to the job, the RTO's essential function remains as described in the above illustration. The RTO will dispatch the available generators as necessary to address all constraints on the system and to meet each demand on an ongoing, "real time" basis. To the extent the RTO cannot adhere to true economic dispatch, the system will incur the costs associated with "redispatch."

The function of market design is to attempt to minimize redispatch costs, manage them efficiently, and determine who must bear them. As Mr. Orr described, in order to deliver the least cost generation to the maximum number of consumers, the FERC (through its consideration of a standard market design) and other areas of the country -- including the region that borders Florida -- are moving toward the adoption of the concept of "locational marginal pricing," or LMP. Under this approach, for each point on the system the RTO periodically calculates (based on generators' bids, and taking constraints into account) the specific cost to serve the next increment of demand. (Because of the number of variables and the frequency with which the calculations must be made, a computer is employed for the purpose.) Since the actual flows on the system at any given time may cause the need to redispatch. The LMP approach properly places the responsibility for bearing the cost of redispatch on the party whose decision to flow across a constrained transmission asset causes the cost to be incurred. HOWEVER, the LMP

regime also allows a market participant to manage or mitigate the *risk* of redispatch, and achieve a measure of price certainty, through a system of financial hedges called financial transmission rights, or FTRs.

Assume, for example, that the cost of redispatch (which, again, is a function of the differential between the most economical generation available and that which must be dispatched as a result of constraints, and the quantity of demand that must be met with the more expensive generation) associated with delivery from A to B across a particular transmission component is \$10/MWH. If the transmission customer obtains from the RTO (through an allocation or auction supervised by the RTO or from a secondary market of FTR holders) a financial instrument protecting it from the costs of redispatch associated with the use of a particular transmission component, then the holder of the FTR is insulated from the higher redispatch costs.

On the other hand, if the market participant chooses not to hedge the transaction with the "financial transmission right", then it assumes the risk of higher costs associated with redispatch (in this example, \$10/Mwh if redispatch is necessary to accommodate the transaction).

A principal advantage of locational marginal pricing, in conjunction with a system of FTRs, lies in the *total transparency* of pricing that it provides. Again, under LMP the RTO uses information that includes generators' bids and the impact of congestion to calculate the marginal cost of supplying each point on the system at which generation exits the system to serve load. Under LMP, all generators know rapidly and frequently the cost of supplying each and every point of demand ("node") on the system. This attribute of "transparency", or the availability of comprehensive pricing information to all market participants, regulators, and consumers, is essential to the efficient use and expansion of generation and transmission resources. The detailed, current pricing information identifies opportunities to lower the LMP at a given point

by constructing facilities that will either relieve or bypass the constraint (thereby mitigating market power and enhancing the number of generation alternatives available to serve consumers). LMP sends clear signals regarding the relative economics, and thus the relative desirability, of adding generating assets, retiring inefficient generators, or constructing transmission facilities at specific locations.

Prior to their submission of July 2, 2002, the GridFlorida applicants advocated a system based on "physical transmission rights," or PTRs, combined with a requirement of balanced schedules. Under such a system, an entity that possesses a PTR holds an "entitlement" to flow a certain amount of generation across a specific transmission facility, *regardless of any constraint the facility may have.* One problem associated with the use of "physical transmission rights" is the fictional nature of its underlying premise. A certificate or edict conferring "physical rights" to the use of a component of the transmission system will not amend or alter the laws of physics. Regardless of the number of PTRs that have been issued to a party, the transmission component that is the subject of the "entitlement" will not flow more generation than its physical capacity – as dictated by voltage limits, thermal limits, etc. -- will permit. To avoid exceeding that capacity, the RTO must redispatch generators. In that circumstance, the holder of PTRs will assert a claim to one path and the electrons will flow in another. In short, the "physical rights" model would perpetuate the fiction of a "contract path," complete with the distortions the fiction can create.

A more important shortcoming of the "physical transmission rights" model relates to the placing of responsibility for the costs of redispatch. Recall that LMP recognizes a fundamental economic principle: the entity that causes costs to be incurred should pay those costs. Under LMP, the participant that causes redispatch costs to be incurred will bear them unless it has

hedged its price with FTRs. By contrast, under a system of PTRs, the fiction of a physical entitlement would be used to insulate the holder of PTRs from the effect of the costs of redispatch. Instead, under the PTRs all of the costs of redispatch would be "socialized" -- that is, they would be allocated to, and absorbed by, groups of market participants either upstream or downstream of the interface on which the PTR is designated. Further, unlike the LMP model, under which the costs to serve all points are identified comprehensively on an ongoing basis, under the PTRs the redispatch costs that the holder of PTRs imposes on others would be hidden rather than quantified.

The PTRs would also create a kind of market power, with the attendant risk of abuse, and would introduce the potential for manipulative practices. In theory, the PTRs are to be a commodity -- that is, holders of PTRs that are not in use can sell them to parties who need them for transactions. However, holders of PTRs would have the opportunity and means with which to abuse the system by withholding them from the market -- thereby restricting access to the transmission system and lessening the liquidity of the market. (A reduction in liquidity would prevent potentially economic transactions from occurring. Like transparency of pricing, adequate liquidity is essential to the development of a flourishing, competitive wholesale market.)

During the May 29 workshop, counsel for the GridFlorida applicants alluded to a provision of the prior market design which, he said, would have required holders of PTRs to "use them or lose them." However, he failed to note that under the prior GridFlorida proposal to which he was referring at the time the PTRs acquired as a result of non use *would be subject to the right of the former holder or recall them.* In short, the provision would have been wholly

ineffective in disciplining holders of PTRs from limiting access and diminishing the liquidity of the market.

The potential for manipulations to which PTRs would give rise would require detection/policing efforts on the part of the RTO and/or regulators that may or may not be effective in preventing abuses. The job of monitoring and policing would be infinitely more difficult because of the absence, under PTRs, of point-specific pricing information developed in real time.

The possibility of abuses resulting in a denial of access that exists under PTRs defines a marked structural difference between PTRs and the system of LMP/financial hedges which the GridFlorida applicants have now embraced. Whereas the PTRs would convey entitlements to system capacity, which could be used to deny access to others, the "financial transmission rights," or FTRs, associated with the locational marginal pricing model would confer only price protection; *the possibility to withhold access to the system does not exist with LMP*.

The above discussion treated the problem of *withholding* PTRs to limit access by others. The potential for *manipulation* in the prior GridFlorida proposal lay partly in the fact that the GridFlorida applicants at the time proposed to couple PTRs with the requirement of "balanced schedules."

Under that system, the RTO would require each generator to submit, in advance, a schedule demonstrating that the amount of generation it delivers will match exactly the load to which it has already been committed. In the absence of a prior sale, a generator would not be permitted to schedule generation in advance. (One uneconomic side effect of this aspect of the prior PTR/balanced schedule regime is that potentially economical generation would be sidelined and thus unavailable to respond in time to take advantage of opportunities to engage in

economic transactions, in the form of ancillary balancing services or the spot market for energy, that would lower costs to consumers.) Under PTRs, a load-serving entity could schedule its own generation to meet its load, even though superior alternatives are available. Because the PTRs afford no pricing transparency, the load-serving entity's uneconomic choice would be difficult for the Commission or the RTO to detect. Also, with the requirement of balanced schedules comes the opportunity of load serving entities to deliberately overschedule or underschedule generation, forcing the resulting discrepancies to be reconciled in the volatile hour-by-hour, real time balancing market Since the requirement of balanced schedules would restrict generators without loads from participating fully, load-serving entities could at the same time position themselves to monopolize that balancing market.

Here, again, the system of PTRs/balanced schedules would create the opportunity for abuses-and the concomitant need for detection/disciplinary actions by the RTO and/or regulators-whose ability to monitor or police would be made difficult by the "opacity" of the PTR system. The "balanced schedule" feature formerly proposed by the applicants defines another marked distinction between PTRs and locational marginal pricing. The LMP model advocated by Reliant and incorporated in the GridFlorida Applicants' July 2, 2002 filing does not mandate balanced schedules-LMP relies instead on a "day-ahead market" in which all players may participate and the RTO is in control of economic dispatch. (The same active "day ahead" market would serve to protect against possible over reliance on a spot market; PTRs are not needed for that purpose.)

So far, these comments have focused on features of a PTR system that have no structural counterpart in the LMP model. A feature that appears in LMP, but not under PTR, is so significant that it too should be highlighted separately. As Mr. Orr described during the

workshop, and as was developed earlier in these comments, under LMP the RTO calculates the real cost of serving the next increment of load at each of the hundreds of nodes on the system, achieving through the resulting transparency of pricing the facilitation of competition, the incentive to place assets where needed, and the ability to compare the economics of generation and transmission solutions to existing constraints. By contrast, under a system of PTRs these point-specific marginal prices would not be calculated—so the benefits associated with them *would not exist.* Rather than transparency of pricing, under PTRs the cost of supplying different points of the system would be obscured, at the same time the very real costs of redispatch would be socialized. Consider again the example of a load-serving entity that chooses to ignore more economical alternatives and submit a "balanced schedule" showing that it will supply its own generation to meet its load. Because under the PTR system pricing is opaque rather than transparent, the LSE's customers would bear unnecessarily high costs, but the impact of the uneconomic decision would be difficult for the RTO or the Commission to detect. The system would be inefficient, but the impact of the inefficiency would be obscured from view by the structure of the market.

It is necessary to add to these considerations the disadvantages associated with choosing a model that is fundamentally incompatible with that of neighboring systems. Consumers in Florida will benefit from the ability to engage in transactions with generators outside Florida. Those benefits will be jeopardized by a system of physical transmission rights. The experiment within the Midwest ISO to form a hybrid of the two models is floundering. One can only expect any attempt to develop a "seams agreement" that could accommodate the differences in approaches would be similarly fraught with difficulty.

To summarize the comparison of the LMP market design with the PTR approach :

(i) LMP properly places the cost of redispatch on the party who flows generation across a constrained resource, unless that party has secured price protection through financial hedge instruments. PTRs insulate such a party from bearing the redispatch costs; instead, the costs are socialized in the form of hidden increases in costs borne by others.

(ii) LMP identifies the incremental cost of serving each load on the system, thereby providing transparency of pricing information that will facilitate the development of competition, indicate the relative economics of alternative solutions to constraints, and provide valuable tools to the RTO and to regulators who have responsibility for monitoring the market. The use of PTRs would obscure such cost differentials, leaving consumers and regulators in the dark as to the increased costs that consumers are bearing as a result of resdispatch, as well as to potential opportunities to enhance the economics of the system.

(iii) PTRs, based on the fiction of a "contract path," would introduce the dangers of restrictions on access to the transmission system. The dangers include the possibility of an illiquid market, in which the most economical generating units will not be available to serve consumers, and in which opportunities for economic transactions that would lower consumers' costs will be lost. Such restrictions on access would be impossible under the LMP regime adopted by the Applicants in their July 2, 2002 filing, because FTRs afford the holders only price protection.

(iv) PTRs in combination with the requirement of balanced schedules would enable holders of PTRs to manipulate the system by overscheduling or underscheduling their generation. This would be impossible under the LMPbased model, because it does not mandate "balanced schedules."

(v) LMP is compatible with the systems that can provide Florida consumer benefits in the form of transactions with additional generators. The GridFlorida proposal is *in*compatible with neighboring systems.

For these reasons, Reliant submits that the application of locational marginal pricing with

financial hedges is the better choice with which to reach the RTO's objectives of equity,

efficiency, and competition.

Stated bluntly, the PTR/balanced schedule model is a markedly inferior market design.

Because under each market design the RTO will serve firm load reliably, the PTRs offer no additional 'security' to ratepayers. The availability of a "day ahead" market to ensure the

availability of adequate capacity means PTRs are not needed to avoid overreliance on the spot

market; in fact, PTRs would give rise to risks to ratepayers that the structure of LMP would obviate.

Again, Reliant commends the GridFlorida Applicants for recognizing the advantages of the LMP-based market design. Reliant also commends to the Commission the points regarding market design and planning contained in the post-workshop comments filed by Mirant Americas. Development, Inc., Calpine Corporation, and Duke Energy North America, LLC, with whom Reliant participated in the filing of Joint Comments on May 8, 2002.

Details of Implementation

As Reliant stated at the outset of these comments, the decision of the GridFlorida Applicants to incorporate the LMP-based market design in the GridFlorida filing constitutes a tremendous step in the direction of a consensus approach to market design—and one that will serve ratepayers well. In the balance of these comments, Reliant will support an approach to the *implementation* of the LMP/FTR model that differs from that described by the Applicants in their July 2, 2002 filing. However, the remaining debate over this aspect of the LMP/financial rights model and perhaps other details of implementation should not detract from the profound significance of the agreement on the fundamental concept of LMP/financial transmission rights.

The most significant choice of implementation strategies is the manner in which to distribute the financial transmission rights initially. One school of thought, supported by the Applicants, is that the FTRs should be *allocated* on the basis of existing uses and projected load growth. The alternative to an administrative allocation is for the RTO to conduct an auction of the FTRs. Reliant strongly favors and recommends the auction approach.

The principal problems with an "administrative allocation" of FTRs of the type contemplated by the Applicants are as follows:

1. If the recipients of these rights have not paid anything for them, they will have been given essentially a free option. Such an event would naturally lead to some of the FTRs being left unused. When the rights are left unused, it means that some other parties wishing to move power will be exposed to the price risks of congestion. In order to account for these risks, overall prices to consumers will be forced higher.

2. While LMP achieves pricing transparency, it does not, in and of itself, ensure adequate liquidity. FTRs are used by market participants to control risk. If they are not available to all participants at same price, the result will be to limit liquidity – unless the market is flush with risk takers. An auction will broaden the ability to control price risk and thereby enhance liquidity in the market.

3. Parties receiving "free" allocations will be given an undue advantage in the market over those who cannot hedge the cost of transmission congestion. The advantage can translate to a kind of "market power" in two ways. First, since the "allocated" rights would be specific to certain constrained points, parties with the rights may know that they are the only realistic supplier of transactions to certain points on the system. Second, generators who are "stranded" upstream of a constrained path will be subject to the market power of the "existing firm users" that receive the rights to get to that generator. Auctioning mitigates this market power because parties take on risk when they have to pay something for the right.

4. An administrative allocation of FTRs is a "static" approach. It fails to recognize that usage patterns will change over time, or that economic generating resources will increase or shift location.

These problems are overcome by an auction approach to the initial distribution of financial transmission rights. An auction is consistent with the objective of seeking market-

based solutions where possible. It is economically efficient. It rations scarcity based on the willingness of parties to pay. An auction will allow proper price signals to be sent and will allow those who value the rights the most to receive them.

The key decision to be made within an auction approach is the disposition of the revenues generated by the sale of the financial transmission rights. Essentially, there are three practical possibilities. The RTO could keep the auction revenues as a set-aside in an account used to construct new facilities that will reduce or eliminate congestion; the auction revenues could be returned to "existing transmission customers" or "existing firm users" based on their pre-existing transmission capacity reservations; or an approach could be fashioned that combines these considerations. It would also be possible to "phase in" an auction requirement by beginning with an allocation for the first year; auctioning a percentage of FTRs the second year; and auctioning additional percentages in following years.

In short, the choice of an auction format captures the benefits of a market-based mechanism, but does not necessarily exclude considerations of existing uses, which can be blended into the mix either through the disposition of revenues or through the phasing in of the auction requirement.

In the event a "pure" administrative allocation approach is ultimately chosen—a step which Reliant believes is undesirable and unnecessary — at a minimum it should be accompanied by provisions that will assure a robust secondary market for the financial transmission rights. Further, because loads and resources could change frequently, in the event a pure allocation format is chosen the market design model must fashion a dynamic process for reallocation of the financial transmission rights.

Reliant looks forward to participating further as the Commission and parties analyze the

merits of these proposals in greater detail.

Joseph A. McGlothlan Joseph A. McGlothlin

Joseph A. McGlothlin McWhirter, Reeves, McGlothlin, Davidson, Decker, Kaufman & Arnold, P.A. 400 North Tampa Street, Suite 2450 Tampa, Florida 33601-3350 Telephone: (850) 222-2525 Facsimile: (850) 222-5606 jmcglothlin@mac-law.com

Michael G. Briggs Reliant Energy, Inc. 801 Pennsylvania Avenue, Suite 620 Washington DC 20004 Telephone: (202) 783-7220 Facsimile: (202) 783-8127 mbriggs@reliant.com

Attorneys for Reliant Energy Power Generation, Inc.

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing Post Workshop Comments of Reliant Energy Power Generation, Inc. have been furnished by (*) hand delivery and U.S. Mail to the following this 12th day of July 2002:

(*)W. Cochran Keating Division of Legal Services Public Service Commission 2540 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850 wkeating@psc.state.fl.us

Mark Sundback Kenneth Wiseman 1701 Pennsylvania Ave., NW, Suite 300 Washington, DC 20006 msundback@akllp.com kwiseman@akllp.com

Thomas W. Kaslow The Pilot House, 2nd Floor Lewis Wharf Boston, MA 02110 tkaslow@calpine.com

Lee E. Barrett Duke Energy North America 5400 Westheimer Court Houston, TX 77056-5310 lebarrett@duke-energy.com

James Beasley Lee Willis Ausley Law Firm P.O. Box 391 Tallahassee, FL 32301

David L. Cruthirds Dynegy, Inc. 1000 Louisiana Street, Suite 5800 Houston, TX 77002-5050 dcruthirds@dynegy.com Frederick M. Bryant Florida Municipal Power Agency 2061-2 Delta Way Tallahassee, FL 32303 fred.bryant@fmpa.com

R. Wade Litchfield Florida Power and Light Company P.O. Box 1400 Juno Beach, FL 33408 wade_litchfield@fpl.com

Bill Walker Florida Power and Light Company 215 S. Monroe Street, Suite 810 Tallahassee, FL 32301-1859 b_walker@fpl.com

Kenneth A. Hoffman Rutledge, Ecenia, Purnell & Hoffman, PA P.O. Box 551 Tallahassee, FL 32302 ken@reuphlaw.com

Robert C. Williams Florida Municipal Power Agency 8553 Commodity Circle Orlando, FL 32819-9002

Florida Retail Federation 100 E. Jefferson Street Tallahassee, FL 32301

Paul Lewis, Jr. Florida Power Corporation 106 East College Avenue, Suite 800 Tallahassee, FL 32301-7740 paul.lewisjr@pgnmail.com Thomas J. Maida N. Wes Strickland 106 East College Avenue, Suite 900 Tallahassee, FL 32301-7732 tmaida@foleylaw.com nstrickland@foleylaw.com

Ron LaFace Seann M. Frazier Greenberg, Traurig Law Firm 101 E. College Avenue Tallahassee, FL 32301 lafacer@gtlaw.com

Leslie J. Paugh, P.A. P.O. Box 16069 Tallahassee, FL 32317-6069 lpaugh@paugh-law.com

Bill Bryant, Jr. Natalie Futch Katz Kutter Law Firm 106 E. College Avenue, 12th Floor Tallahassee, FL 32301 natalief@katzlaw.com

Robert S. Wright Landers Law Firm 310 W. College Avenue Tallahassee, FL 32301 swright@landersandparsons.com

James Fama LeBoeuf Law firm 1875 Connecticut Avenue, NW, Suite 1200 Washington, DC 20009 jfama@llgm.com

Beth Bradley Mirant Americas Development, Inc. 1155 Perimeter Center West Atlanta, GA 30338-5416 beth.bradley@mirant.com Gary L. Sasso James Michael Walls Jill H. Bowman W. Douglas Hall c/o Kim Pullen Carlton Fields, P.A. Post Office Box 2861 St. Petersburg, Florida 33731 gsasso@carltonfields.com

Daniel E. Frank Sutherland Asbill & Brennan LLP 1275 Pennsylvania Avenue, NW Washington, DC 20004-2415

Thomas A. Cloud Gray, Harris & Robinson, P.A. 301 East Pine Street, Suite 1400 Post Office Box 3068 Orlando, Florida 32801 tcloud@grayharris.com

Charles J. Beck c/o The Florida Legislature 111 West Madison Street, Room 812 Tallahassee, Florida 32399-1400 beckcharles@leg.state.fl.us

Jon C. Moyle, Jr. Moyle Law Firm The Perkins House 118 North Gadsden Street Tallahassee, FL 32301 jmoylejr@moylelaw.com

Timothy Woodbury Seminole Electric Cooperative, Inc. 16313 N. Dale Mabry Highway Tampa, FL 33688-2000 twoodbury@seminole-electric.com

Linda Quick South Florida Hospital & Healthcare Assoc. 6363 Taft Street Hollywood, FL 33024 lquick@sfhha.com Russell S. Kent Sutherland Asbill & Brennan LLP 2282 Killearn Center Blvd Tallahassee, FL 32308-3561 rskent@sablaw.com

Angela Llewell Tampa Electric Company Regulatory Affairs P.O. Box 111 Tampa, FL 33601-0111 regdept@tecoenergy.com

Suzanne Brownless 1311-B Paul Russell Road, #201 Tallahassee, FL 32301

Michael Twomey PO Box 5256 Tallahassee, FL 32314-5256

Melissa Lavinson PG&E Energy Group Company 7500 Old Georgetown Road Bethesda, MD 20814 Publix Super Markets, Inc. John Attaway P.O. Box 32015 Lakeland, FL 33802-2018

Spiegel & McDiarmid Cynthia Bogoraid David Pomper J. Schwarz 1350 New York Ave, NW, Suite 1100 Washington, DC 20005

Lee Schmudde Walt Disney World Co 1375 Lake Buena Drive Fourth Floor North Lake Buena Vista, FL 32820

Mallothlen seph A. McGlothlin