

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

**PURCHASED POWER ARRANGEMENT
REGARDING SMITH UNIT 3**

DOCKET NO. 010827-EI

PREPARED DIRECT TESTIMONY AND EXHIBIT

OF

M. W. HOWELL

JUNE 18, 2001



A SOUTHERN COMPANY

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FPSC-RECORDS/REPORTING

1 GULF POWER COMPANY

2 Before the Florida Public Service Commission
3 Prepared Direct Testimony of
4 M. W. Howell
5 Docket No. 010827-EI
6 Date of Filing: June 18, 2001

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

8 A. My name is M. W. Howell, and my business address is One Energy Place,
9 Pensacola, Florida 32520. I am Transmission and System Control
10 Manager for Gulf Power Company.

11 Q. Have you previously testified before this Commission?

12 A. Yes. I have testified in various rate case, cogeneration, territorial dispute,
13 planning hearing, need determination, fuel clause adjustment, and
14 purchased power capacity cost recovery dockets.

15 Q. Please summarize your educational and professional background.

16 A. I graduated from the University of Florida in 1966 with a Bachelor of
17 Science Degree in Electrical Engineering. I received my Masters Degree
18 in Electrical Engineering from the University of Florida in 1967, and then
19 joined Gulf Power Company as a Distribution Engineer. I have since
20 served as Relay Engineer, Manager of Transmission, Manager of System
21 Planning, Manager of Fuel and System Planning, and Transmission and
22 System Control Manager. My experience with the Company has included
23 all areas of distribution operation, maintenance, and construction;
24 transmission operation, maintenance, and construction; relaying and
25

1 protection of the generation, transmission, and distribution systems;
2 planning the generation, transmission, and distribution systems; bulk
3 power interchange administration; overall management of fuel planning
4 and procurement; and operation of the system dispatch center.

5 I am a member of the Engineering Committees and the Operating
6 Committees of the Southeastern Electric Reliability Council and the
7 Florida Reliability Coordinating Council, and have served as chairman of
8 the Generation Subcommittee of the Edison Electric Institute System
9 Planning Committee. I have served as chairman or member of many
10 technical committees and task forces within the Southern electric system,
11 the Florida Electric Power Coordinating Group, and the North American
12 Electric Reliability Council. These have dealt with a variety of technical
13 issues including bulk power security, system operations, bulk power
14 contracts, generation expansion, transmission expansion, transmission
15 interconnection requirements, central dispatch, transmission system
16 operation, transient stability, underfrequency operation, generator
17 underfrequency protection, and system production costing.

18
19 Q. What is the purpose of your testimony in this proceeding?

20 A. I will support Gulf Power Company's ("Gulf Power" or "Gulf") proposal to
21 include the proposed Smith Unit 3 Power Purchase Agreement ("PPA")
22 as part of our capacity needs.

1 Q. Have you prepared an exhibit that contains information to which you will
2 refer in your testimony?

3 A. Yes. I have one exhibit to which I will refer. It is the proposed PPA
4 between Gulf Power and Southern Power Company ("Southern Power").
5 This PPA was filed with the Commission under a Notice of Intent to
6 Request Confidential Classification in this docket.

7

8 Counsel: We ask that Mr. Howell's Exhibit
9 MWH-1 be marked for identification
10 as Exhibit _____(MWH-1).

11

12 Q. What is the status of the Smith Unit 3 construction?

13 A. Most of the site work and foundations have been completed. The
14 electrical and mechanical work is well underway, and most of the major
15 equipment has been received and is being installed. Everything is on
16 track to have the unit reach commercial operation status by the targeted
17 date of June 1, 2002.

18

19 Q. What led to the need to construct Smith Unit 3?

20 A. For a number of years, Gulf has been purchasing capacity up to
21 approximately 450 megawatts ("MW") per year from the market, because
22 of the surplus of relatively inexpensive capacity available in the Southeast
23 U.S. since the mid-1990s. As this surplus was consumed by load growth,
24 Gulf saw the need to procure capacity under a long-term arrangement for
25 reliability of service to its customers. We performed a number of analyses

1 that determined that building a 540 MW combined cycle unit at Plant
2 Smith was the best economic choice for our customers. To determine if
3 there were power marketers willing to sell Gulf capacity under a long-term
4 contract that would be less expensive than construction of the unit, Gulf
5 issued a Request For Proposals (“RFP”) to over one hundred utilities and
6 marketers. None of the responses was economically competitive with
7 construction of Smith Unit 3.

8

9 Q. Were there any significant factors that impacted the result of the analyses
10 of the RFP responses?

11 A. Yes. Certainly one significant factor was the state of our transmission
12 system, such that we had a significant need for voltage support in the
13 Panama City area. It was clearly specified in the RFP that any capacity
14 bid outside this area would suffer a definite electric transmission cost
15 penalty in the evaluation.

16

17 Q. Why was the need for voltage support such a significant factor?

18 A. Gulf has not added any generating capacity or significant transmission
19 import capability in the Panama City area for over thirty years. With the
20 significant load growth experienced, there are only two solutions to
21 continue to provide reliable service in the area. One is to build a
22 generating unit to provide the voltage support needed. The other is to
23 build significant amounts of new transmission lines to provide the needed
24 support. If a marketer bid an otherwise competitive generation facility, but
25 in accepting his bid, Gulf had to build all the additional transmission, then

1 Gulf's customers would wind up paying more overall. So, we let them
2 know up front the importance of the electric system transmission location.

3

4 Q. Did you perform a total cost analysis on the bids competing against your
5 construction of the unit?

6 A. Yes. Gulf evaluated the cost of the generating capacity, the cost of
7 energy out of the facility, the fuel savings gained when whatever capacity
8 was constructed could displace other more expensive generation,
9 incremental electric transmission facilities needed, and other components
10 appropriate to a total cost evaluation.

11

12 Q. Did this evaluation include the impacts of firm transportation of the natural
13 gas fuel?

14 A. Yes.

15

16 Q. Is Smith Unit 3 in an ideal location with respect to gas transportation?

17 A. No. That was an important part of the evaluation. Gulf was proposing a
18 facility similar to many others being planned at that time. Ideally, one
19 would want to locate a facility near a pipeline offering relatively low cost
20 transportation rates. Smith Unit 3 is not such a location. Because of the
21 pricing structure of gas pipeline transportation in Florida, the cost is higher
22 than for plants located, for example, in Mississippi, Alabama, or Georgia.
23 Consequently, a new twenty-seven mile pipeline lateral would have to be
24 constructed to Plant Smith. As I explained earlier, if the unit were not
25 located in the Panama City area, significant costs would be incurred in

1 building new electric transmission facilities to provide the voltage support
2 in the area. The cost of this electric transmission was significantly higher
3 than the additional gas transportation cost. That made the overall least
4 cost plan favor putting the generation at Plant Smith.

5

6 Q. Have these evaluations been brought before this Commission?

7 A. Yes. We filed a Determination of Need with the Commission on March 15,
8 1999 in Docket No. 990325-EI. On June 7, 1999, this Commission held a
9 hearing on our request pursuant to the Florida Electrical Power Plant
10 Siting Act. The Staff endorsed Smith Unit 3 as the best alternative for
11 Gulf's customers, and the Commission voted unanimously at the hearing
12 to approve the project.

13

14 Q. You mentioned that Gulf has been purchasing capacity from the market in
15 past years. How will this proposed PPA affect that?

16 A. In addition to summer-only firm energy of 153 MW which Gulf will
17 purchase during 2001, we also have firm capacity contracts with two
18 suppliers. One is for 143 MW of annual capacity that expires December
19 31, 2001. The other is for 150 MW of capacity that expires May 31, 2002.
20 Both were purchased primarily for summer needs, which primarily drives
21 our need for capacity. The costs for this firm capacity have been included
22 in our Purchased Power Capacity Cost ("PPCC") recovery clause. The
23 loss of all this capacity, plus the loss of our summer firm energy purchase
24 for 2001 of 153 MW, will be replaced with the Smith Unit 3 capacity as
25 proposed under the PPA.

1 Q. Does all the above-mentioned capacity go through the Intercompany
2 Interchange Contract ("IIC") calculations?

3 A. Yes. Whether the capacity is owned or purchased, Gulf will get credit in
4 the IIC. Any temporary shortage which we, or any of the other Southern
5 operating companies, have is purchased from the other pool members
6 through the IIC.

7

8 Q. Do the IIC capacity transactions go through the PPCC?

9 A. Yes. Just like any other purchased power, whether we are buying or
10 selling, inside or outside the IIC, the capacity dollars flow through the
11 PPCC recovery clause. With the PPA, the cost of the capacity will flow
12 through the clause for ten years. The amount of cost recovered in the
13 clause will obviously be reduced by not having to include the two firm
14 power contracts discussed above. It will also be reduced whenever we do
15 not have to buy capacity through the IIC.

16

17 Q. If Gulf were a net seller of capacity, either inside or outside the IIC, what
18 would happen?

19 A. The dollars received for such sales would be credited to the customer
20 through the same PPCC clause.

21

22 Q. Do you believe that the PPCC clause is good for Gulf's customers?

23 A. Absolutely. Since generating capacity costs are a major portion of the
24 costs utilities incur to provide electric service to their customers,
25 minimizing that cost benefits everyone. When utilities are able to secure

1 lower cost capacity from those who may have it available even for a short
2 period, the PPCC provides an incentive for them to take advantage of
3 those economies. This very fact was recognized by this Commission and
4 made prominent in its Order No. 25773 that created the PPCC. In
5 general, utilities will bid out their capacity needs, and everyone wins when
6 purchasing is more cost effective than building.

7

8 Q. Has there been a change in the wholesale generation market in the last
9 few years?

10 A. Yes, definitely. There has been a significant expansion of competition in
11 the market. The Federal Energy Regulatory Commission ("FERC") has
12 prompted most of this activity. FERC Order No. 888 is perhaps the most
13 notable of FERC's actions. This order essentially opened up the
14 transmission network to any one who desired to use it on a basis
15 comparable to that of the owning utilities. Utilities filed cost-based tariffs
16 such that anyone could pay the tariff and use the system as long as
17 capacity was available. This has led to a huge increase in marketers
18 building, buying, and selling electric capacity and energy through short-
19 term and long-term arrangements. The State of Florida has also
20 addressed issues concerning wholesale competition. The Florida Public
21 Service Commission ("FPSC") has received a number of applications for
22 Determination of Need to certify what have come to be called "merchant
23 plants."

24 What is important to note is that there are competitive market
25 entities out there who are willing to build generation who believe they can

1 make a profit at the same time they bring lower cost electricity to Florida.
2 Mr. Labrato has already addressed the 2020 Study Commission and their
3 preliminary recommendation to secure all new capacity resources by
4 buying capacity, rather than building capacity. Our proposed PPA
5 certainly falls well in line with providing a viable alternative to traditional
6 rate base treatment of new capacity for our customers.
7

8 Q. Southern Power is proposing to own the new Smith 3 unit. Who is
9 Southern Power?

10 A. Southern Power is a corporation organized and existing under the laws of
11 the state of Delaware as an operating company subsidiary of Southern
12 Company. Southern Company Services petitioned the FERC to include
13 Southern Power as a full and equal participant in the IIC to share in the
14 benefits and burdens of the IIC. Approval by the FERC for that
15 amendment to the IIC was based on the new company being viewed as a
16 natural outgrowth of the competitive wholesale market that has been
17 promoted by FERC, and as a consolidation of the wholesale activities that
18 were being conducted on a "piecemeal" basis by the other Southern
19 operating companies. While Southern Power is subject to the Southern
20 electric system power pool's operating, dispatch, and reserve
21 requirements, its generating resources can also be used to meet the
22 needs of wholesale customers in the entire Southeast through bilateral
23 purchased power agreements. It is also intended that Southern Power will
24 be used in the future to simplify resource planning and expedite decision
25 making on the Southern electric system related to generating capacity

1 issues.

2

3 Q. If this PPA is approved by this Commission, are there other regulatory
4 approvals required?

5 A. Yes. Gulf and Southern Power will then seek approval of the agreement
6 from the FERC. FERC, just like the FPSC, must ensure itself that the
7 buyer has chosen the lowest cost supplier from among the options
8 presented, taking into account both price and non-price terms. Where the
9 transactions are between affiliates, FERC must satisfy itself that the
10 affiliated seller has sufficiently demonstrated that the rates under the
11 contract are no higher than the price the affiliated buyer would have to pay
12 to purchase power from a non-affiliate.

13

14 Q. Are there other agreements which will be associated with the PPA?

15 A. Yes. If the PPA is approved by this Commission and the FERC, Gulf and
16 Southern Power would execute a Plant Smith Unit 3 Sales and Transfer
17 Agreement, which Mr. Labrato discussed, in which the ownership transfer
18 details would be specified. Since it is envisioned at this time that Southern
19 Power would contract with Gulf to operate Smith Unit 3, the two parties
20 would also execute a Plant Smith Unit 3 Operating Agreement to specify
21 the obligations and responsibilities of each party related to operation of
22 Smith Unit 3. Also, since Southern Power would own the facility and be
23 interconnecting with our 230 kV transmission system at the Smith Plant,
24 we would execute an Interconnection Agreement that would specify the
25 obligations and responsibilities of each party related to the physical

1 electrical interconnection.

2

3 Q. What is the term of this contract between Gulf and Southern Power?

4 A. The contract has two separate and distinct parts. The first is a ten-year
5 contract for the purchase of the capacity of the unit from Southern Power.
6 This proposed capacity purchase is no different from other purchased
7 capacity arrangements Gulf has entered into with other suppliers with
8 regard to recovery through the PPCC. The capacity charge gives Gulf full
9 rights and first call to the unit's energy output at all times. Just as if we
10 actually owned the unit during the first ten years, we have the right to
11 economically dispatch the unit and take energy when it is cost effective to
12 do so. Just as with similar purchased power arrangements Gulf has
13 entered into in the past, the associated energy cost would be recovered
14 through the fuel and purchased power energy clause.

15

16 Q. What rights does Gulf have after ten years?

17 A. Gulf will no longer have first call on this capacity, and it must make
18 arrangements prior to the expiration of the ten years to secure alternate
19 capacity. We envision that we will put out an RFP, and Southern Power
20 could well be one of the bidders, although there is no obligation on their
21 part to do so. There is a voltage support portion of the contract, which
22 starts in year eleven of the contract, and goes for an additional ten years.

23

24 Q. Why is there a voltage support provision in this PPA?

25 A. As I discussed earlier, Gulf had a definite need for capacity in the Panama

1 City area. If Southern Power sells this capacity to someone else, we will
2 no longer have first call or dispatch rights. But if the unit is not running,
3 and we need it for voltage support, then we need the ability to have
4 Southern Power run the unit for our benefit to provide the needed voltage
5 support to the area. Since the load in the area is expected to increase,
6 and there is no guarantee of additional capacity to be added at Plant
7 Smith, we will need this voltage support to avoid the need for significant
8 amounts of additional electrical transmission.
9

10 Q. So even though Gulf is not paying anything for capacity out of the unit, will
11 it have the right to dispatch the unit for voltage support when needed?

12 A. Yes.
13

14 Q. How is the voltage support feature priced?

15 A. As I covered earlier, the strong need for voltage support in Panama City
16 made it imperative that we locate the capacity there. That resulted in
17 higher gas transportation costs than would have been available
18 elsewhere. The key is that the additional cost for the gas transportation
19 was much less than the cost of additional electric transmission. Thus it
20 was an overall benefit to pay the higher gas transportation costs to avoid
21 the higher cost of electric transmission. The PPA proposes that Gulf pay
22 the differential higher cost of the gas transportation during the voltage
23 support term. Otherwise, Southern Power would have no incentive to take
24 ownership of the facility and attempt to compete with other entities who
25 are free to locate their units where gas transportation is less costly. As

1 proposed, Southern Power is not disadvantaged during the first twenty
2 years of the facility with higher gas transportation costs than their
3 competitors, and Gulf is able to get the voltage support it needs to avoid
4 the higher cost of electric transmission.

5

6 Q. What happens after this twenty-year term of the PPA?

7 A. Neither party has an obligation to extend the contract. If Gulf still has a
8 transmission need for voltage support, then the parties will negotiate to
9 attempt to satisfy Gulf's need. But Southern Power is free to bid the
10 power to us or anyone else at the end of the twenty years.

11

12 Q. How do you determine the "differential" higher cost of gas transportation?

13 A. Gulf compared the firm gas transportation cost at Plant Smith with the cost
14 at another Southern electric system plant which is more typical than Plant
15 Smith regarding where a competitive generating plant might locate to be
16 near a pipeline. We then set the voltage support charge equal to that
17 difference.

18

19 Q. What are some of the advantages to Gulf's customers of the proposed
20 PPA?

21 A. Perhaps the biggest plus for Gulf's customers in this PPA is that it is
22 limited to a ten-year capacity purchase term. An immediate advantage is
23 that the cost of the capacity, while not fixed, does contain price and
24 levelization features that are important. Any unexpected failures on the
25 unit, such as unplanned outages, gas quality damage, damage due to

1 operation outside specifications, temperature excursion damage, boiler
2 tube failures, water quality damage, damage to motors and pumps, and
3 others would be the cost responsibility of Southern Power, and our
4 customers would not face rate increases to cover these. If Gulf is not able
5 to take advantage of the PPA, it would be effectively closing any
6 opportunity our customers would have for less costly market capacity at
7 the end of the ten years. While no one can tell the future, the trend in the
8 electric industry is towards a more competitive wholesale market for
9 generation. Industry analysts have been predicting this for years, and it
10 appears it is finally happening. At the end of this ten-year term, Gulf
11 would meet its needs by returning to the market and soliciting competitive
12 wholesale bids to replace this capacity. Any reduction in rates, such as
13 those resulting in technological advances, productivity improvements, or
14 other decreases, would directly benefit our customers.

15

16 Q. Please summarize your testimony.

17 A. Smith Unit 3 has previously been shown to be the best economic
18 alternative to meet the growing electric service needs of our customers.
19 This Commission issued a unanimous approval of that on June 7, 1999.
20 The unit is now under construction. We now have a single decision before
21 us: Should we choose to rate base the unit for its full life, or should we
22 choose to purchase its output for ten years under the proposed PPA, thus
23 allowing our customers the advantages inherent in the proposal? I
24 strongly recommend that the Commission approve the PPA as the best
25 option for our customers.

1 Q. Does that conclude your testimony?

2 A. Yes.

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Florida Public Service Commission
Docket No. 010827-EI
GULF POWER COMPANY
Witness: M. W. Howell
Exhibit No. ____ (MWH-1)

A copy of the Smith Unit 3 Power Purchase Agreement was filed under Gulf's
Notice of Intent to Request Confidential Classification in this Docket.

AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF ESCAMBIA)

Docket No. 010827-EI

Before me the undersigned authority, personally appeared M. W. Howell, who being first duly sworn, deposes, and says that he is the Transmission and System Control Manager of Gulf Power Company, a Maine corporation, that the foregoing is true and correct to the best of his knowledge, information, and belief. He is personally known to me.

M. W. Howell
M. W. Howell
Transmission and System Control Manager

Sworn to and subscribed before me this 14th day of June,
2001.

Rollanda R. Cotthran
Notary Public, State of Florida at Large

Commission No. _____

My Commission Expires _____

