

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Florida Power Corporation for determination that its plan for curtailing purchases from Qualifying Facilities in minimum load conditions is consistent with Rule 25-17.006, F.A.C.

Docket No. 941101-EQ

**Submitted for filing:
May 2, 1995**

**REBUTTAL TESTIMONY OF
ROBERT D. DOLAN**

**ON BEHALF OF
FLORIDA POWER CORPORATION**

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I. INTRODUCTION AND QUALIFICATIONS

1
2
3 **Q. Please state your name and business address.**

4 **A. My name is Robert D. Dolan. My business address is Post Office Box**
5 **14042, St. Petersburg, Florida 33733.**

6
7 **Q. Have you previously testified in this proceeding?**

8 **A. Yes. I filed direct testimony on behalf of Florida Power Corporation**
9 **("Florida Power" or "the Company") on February 20, 1995.**

10
11 **Q. What is the purpose of your current testimony?**

12 **A. The purpose for my current testimony is two-fold. First, I will show that**
13 **Messrs. Roy Shanker and Kenneth Slater, on behalf of Orlando Cogen**
14 **Limited, L.P. and Pasco Cogen, Ltd. (jointly "OCL/Pasco"), have created**
15 **a self-serving and unsupported analytic framework under which they**
16 **falsely claim that PURPA prohibits the Commission's approval of Florida**
17 **Power's Curtailment Plan. They literally invent a whole new set of**
18 **criteria which do not appear in the statute or the implementing**
19 **regulations and which are all aimed at assuming away any need or**
20 **justification for QF curtailments. These alleged tests find no support in**

1 any of the OCL/Pasco evidence and they would undermine the plainly
2 stated standards of this Commission's and the FERC's rules.

3
4 My second objective is to rebut the claims of Messrs. Shanker and
5 Slater that the minimum load problems being experienced by Florida
6 Power are the result of bad planning by the Company and the failure to
7 insist on QF dispatchability as a pre-condition to purchasing QF power.
8 In fact, the Company has made prudent planning decisions and
9 expressly accounted for the potential need to curtail QF supplies in all
10 of its contracts.

11
12 **Q. Please summarize your rebuttal testimony.**

13 **A. Mr. Shanker has created his own image of what FERC's curtailment rule**
14 **and this Commission's curtailment rule require. I will demonstrate that**
15 **he unreasonably reads specific tests into those rules that cannot be**
16 **found within the rules themselves. These relate, for example, to the**
17 **ability to have foreseen and planned ahead to avoid a minimum load**
18 **curtailment situation, the permitted duration of the problem, specific**
19 **ways to mitigate the problem short of curtailments, etc. While reading**
20 **a series of new standards into the PURPA framework, Mr. Shanker**
21 **conveniently ignores the important PURPA principle that QF purchases**
22 **were never intended to harm the interests of utility ratepayers. In fact,**
23 **Mr. Shanker's framework would necessarily lead to adverse ratepayer**
24 **impacts. Mr. Shanker, like Mr. Slater, also ignores the fact that Florida**

1 Power's QF contracts all dealt with the minimum load problem well in
2 advance by specifically referencing curtailment rights.

3
4 Next, I will show that Messrs. Shanker and Slater erroneously portray
5 the current minimum load problems on Florida Power's system as a
6 result of poor planning and the failure to have insisted on QF
7 dispatchability. They also incorrectly claim that Florida Power rejected
8 the notion of dispatchability because it would have cost the Company
9 (in fact, the Company's ratepayers) more to buy this scheduling
10 flexibility.

11
12 I will show that Florida Power's ongoing planning assumptions have
13 been endorsed by this Commission and have been reasonable. Several
14 factors contribute to the current minimum load problem. First, the
15 Company's peak demand has not grown as rapidly as had been
16 reasonably anticipated. Second, minimum loads, which were expected
17 to grow at about the same rate as peak loads, have in fact increased at
18 a slower rate. Third, reasonable projections of QF project attrition have
19 not panned out because of an active secondary market in which project
20 ownership has been easily transferable.

21
22 While Messrs. Shanker and Slater blame the minimum load problem on
23 Florida Power, they do not offer a shred of evidence showing that the
24 Company was unreasonable in the planning assumptions it made a
25 number of years ago.

1 I will also show that the Company did not act unreasonably when it did
2 not mandate dispatchability as a condition for its QF purchases. The
3 negotiated contracts contained at least two other mechanisms to deal
4 with off-peak operational concerns. One was a performance-based
5 pricing adjustment designed to approximate the effects of economic
6 dispatch. Another was the specific adoption of curtailment rights under
7 Rule 25-17.086. Insisting on economic dispatch rights undoubtedly
8 would have been challenged at the time as an unnecessary mechanism
9 and one which would have the effect of discouraging QF development.
10

11 The minimum load problem is being experienced today by Florida Power
12 in spite of good planning, not because of bad planning. The problem is
13 expected to diminish as the demands grow to match the supply. In the
14 meantime, Florida Power's contracts, including the ones with
15 OCL/Pasco, clearly contemplate and allow curtailments and, through
16 continuation of capacity payments, provide a substantial amount of
17 revenue protection for those QFs who are curtailed.
18

19 **II. REBUTTAL TO OCL/PASCO'S TESTIMONY**
20

21 **A. OCL Proposes An Unsupported And Self-Serving Analytic**
22 **Framework For Evaluating The Curtailment Plan**
23

24 **Q. Do you agree with OCL/Pasco's analytic framework for evaluating the**
25 **sufficiency of the Curtailment Plan?**

1 A. No.

2
3 Q. Why do you object to the OCL/Pasco framework?

4 A. I believe that both Messrs. Shanker and Slater have constructed a self-
5 serving and unsupported analytic framework which assumes away the
6 problem of overgeneration and the legitimate need for QF curtailments.
7 They do so in several notable ways. First, Mr. Shanker presents a
8 biased, overly restrictive reading of PURPA and the regulations under
9 that statute suggesting that they have an exclusive goal of promoting
10 cogeneration and protecting the QF at all costs. While I do not dispute
11 the fact that PURPA sought to encourage cogeneration development,
12 the statute and the related regulations reflect the complementary
13 objective of protecting native load utility customers from increases in
14 their cost of service. OCL/Pasco would evidently read this ratepayer
15 protection aspect entirely out of the PURPA framework. For example,
16 Mr. Slater observes that "PURPA prefers cogeneration . . . From that
17 standpoint alone, FPC's priorities violate the intent of PURPA." (Slater,
18 page 7). Undoubtedly, this Commission understands that ratepayer
19 neutrality is an equally important objective of the PURPA program.

20
21 Q. What else is wrong with OCL/Pasco's framework?

22 A. I also believe that Messrs. Shanker and Slater overlook or ignore the
23 important discretionary function which this Commission must perform
24 in evaluating Florida Power's curtailment practices. The FERC's rules
25 are not as comprehensive or one-sided as the OCL/Pasco witnesses

1 imply. Instead of laying out every detail of the PURPA implementation
2 program, the FERC rules followed Congress' instructions to delegate
3 implementation functions largely to the states. Using that delegated
4 authority, this Commission has issued rules by which it oversees the
5 QF/utility relationships in Florida. Rule 25-17.086 is a part of that
6 oversight function. I believe that rule should be applied in a manner that
7 recognizes the Commission's discretion to evaluate all of the adverse
8 cost and reliability consequences of the minimum load problem and
9 whether Florida Power's Curtailment Plan sets forth necessary and
10 appropriate procedures for notification and corrective action in response
11 to the problem.

12
13 **Q. In what other ways do you question OCL/Pasco's discussion of an**
14 **appropriate theoretical framework?**

15 **A.** The OCL/Pasco testimony is more illustrative in what it does not prove
16 than in what it attempts to prove. Mr. Shanker recites a set of
17 theoretical criteria for applying the applicable curtailment rules as if his
18 statements were direct quotes from the rules. He says no less than 13
19 times that "it is clear" what the rules require, or "it is evident" what
20 they require, or "it is implicit" that they should be read as he would like
21 them to read. But, significantly, the witness does not cite any
22 compelling support for his assumptions. In fact, if anything, his exhibits
23 contradict his own conclusions.

24
25 **Q. Please explain what you mean.**

1 A. Maybe the best example is the way in which Mr. Shanker reads specific
2 tests into FERC's curtailment rule that simply aren't written into the
3 language of that rule. He repeatedly states that Section 292.304(f)
4 applies only to: extraordinary conditions, for which the utility cannot
5 plan and cannot otherwise respond, which consist of short-term
6 operational impacts, that affect utility costs rather than revenues, and
7 which must first be mitigated by every conceivable measure. Obviously,
8 his goal is to repeat these undocumented claims enough times to create
9 the illusion that he is referring to established tests by which curtailments
10 must be evaluated under Section 292.304(f) and Rule 25-17.086.

11
12 Let me very briefly touch on these points. First, while I would not
13 contend that Florida Power's curtailment problem is by any means a
14 routine occurrence, I have read the FERC's curtailment rule and it says
15 nothing about "extraordinary conditions." The actual language of the
16 rule authorizes curtailment during "any period" in which, because of
17 operational circumstances, the utility would incur greater costs by
18 continuing the QF purchases.

19
20 Second, while QF capacity and energy resources are, of course,
21 integrated into the Company's ongoing planning processes, the rule
22 does not say that curtailment conditions must be unanticipated or
23 planned around; I suppose it could be argued that with perfect foresight
24 any contingency could be planned around at some cost. Nevertheless,

1 the evidence in this case shows that Florida Power's planning practices
2 have been reasonable and have been endorsed by this Commission.

3
4 Third, I believe that Mr. Shanker is unilaterally establishing a short-term
5 impact test which also is noticeably missing from the "operational
6 circumstances" language actually used by the FERC in Section
7 292.304(f). Of course, defining what period represents a "short-term"
8 impact is itself highly judgmental depending upon context and
9 circumstances. From a planning perspective, the current minimum load
10 conditions certainly are not long-range in scope.

11
12 Fourth, Mr. Shanker says that this Commission must examine
13 production costs, exclusive of revenues, where again the FERC rule says
14 nothing to that effect. In fact, the FERC "NOPR" which Mr. Shanker
15 includes in his Exhibit__ (RJS-4) (at page 8 of 16) discussed the need
16 to allow curtailments when QF purchases "might result in not increased
17 operating costs to the electric utility" and explained that requiring
18 purchases when avoided cost is zero or less "would not be just and
19 reasonable to the consumers of the electric utility, because it would
20 result in increased costs to the system's ratepayers."

21
22 Finally, on the question of mitigation, I note that Mr. Southwick
23 discusses the significant efforts which the Company has made in that
24 regard. I would like to add two points. Just like the other asserted
25 "tests" advanced by Mr. Shanker, there is no mention in the curtailment

1 rules of an affirmative obligation to mitigate QF curtailments, let alone
2 to follow the specific mitigation practices which OCL/Pasco recite as if
3 they were law. Obviously, this is an area where the Commission's
4 reasonable discretion must come into play.

5
6 My second point relates to OCL/Pasco's assertion that there is an
7 affirmative requirement for a utility to offer all excess energy off-system
8 at any price (*i.e.*, to inflate demand at ratepayer expense) before
9 considering curtailments. I have reviewed Mr. Shanker's
10 Exhibit__ (RJS-5), which summarizes comments received by the FERC
11 on its proposed PURPA rules. That summary, at page 6 of 7, explains
12 that when FERC proposed its curtailment rule "[t]wo public utility
13 commissions recommend[ed] that the utility which is refusing energy
14 from a qualifying facility under this subsection be required to endeavor
15 to resell the energy to interconnected utilities and to wheel the energy."
16 Despite this specific recommendation, FERC did not include such a
17 requirement in Section 292.304(f). In fact, in Order No. 69 (Mr.
18 Shanker's Exhibit__ (RJS-6) at page 6 of 24), after explaining that
19 purchases from QFs are not required during periods described in Section
20 292.304(f) or during system emergencies, the FERC explained that a
21 utility has no obligation to pay for capacity or energy that is not needed
22 to meet its total system load, and further stated that "[t]hese rules
23 impose no requirement on the purchasing utility to deliver unusable
24 energy or capacity to another utility for subsequent sale."

1 Therefore, the off-system sales obligation advocated by Mr. Shanker is
2 hardly as "clear" in the FERC rules as Mr. Shanker contends. In fact,
3 the FERC's discussion in Order No. 69 coupled with its decision not to
4 require off-system sales or wheeling of curtailed energy suggests the
5 exact opposite.

6
7 I should note that this Commission has also considered the kind of
8 circumstances under which a utility should sell unneeded energy to third
9 parties and has said, in Rule 25-17.0832(6), that such sales are
10 "encouraged" -- not required -- and that they should only be made at
11 prices which are "cost effective to the ratepayers."

12
13 **Q. Are there still other problems with OCL/Pasco's analytic framework?**

14 **A. Yes, there are. Unlike the OCL/Pasco witnesses, I believe that minimum**
15 **load conditions experienced in the course of prudent system operations**
16 **which would give rise to increased operating costs in the absence of QF**
17 **curtailments necessarily constitute the kind of "operational**
18 **circumstances" covered by Section 292.304(f) and Rule 25-17.086.**
19 **Again, I don't have to look any further to find support for this**
20 **conclusion than the very same documents that Mr. Shanker relies on.**

21
22 **Q. What do Mr. Shanker's exhibits really show?**

23 **A. In FERC's proposal to establish a curtailment rule, it said that the state**
24 **regulatory agencies would be responsible for determining when the net**
25 **increased operating cost problem arises for a particular utility, and it**

1 cited the low load problem as an "example" of this condition. (Shanker
2 Exhibit__ (RJS-4) at page 8 of 16). Later, in response to comments
3 fearful of potential abuses of the increased operating cost test, the
4 FERC included the "operational circumstances" criterion in Section
5 292.304(f). (Shanker Exhibit__ (RJS-6) at pages 14-15 of 24). But
6 again, FERC used the minimum load condition as a specific illustration
7 of the problem the rule was designed to address. Having twice said
8 that a minimum load condition is, in fact, an "operational circumstance,"
9 it hardly seems that a utility should have to establish this fact yet again.
10 This is especially true since this Commission also used the minimum
11 load example when it established Rule 25-17.086. In Order No. 12634,
12 Docket No. 820406-EU, page 25 (Oct. 27, 1983), this Commission
13 said:

14 We have retained the provisions of the original rule
15 excusing a utility from its obligation to purchase under
16 certain circumstances, and have added to it to make clear
17 that a utility is not required to purchase from a QF when
18 to do so would result in costs greater than those which
19 the utility would incur if it did not make such purchases.
20 We believe this is most likely to happen during a utility's
21 off-peak periods where it may be cycling its base load
22 units and QF purchases would force it to shut down the
23 units altogether.

24
25 If Florida Power was asserting that some other system condition
26 warranted curtailments, then it might be necessary to consider whether
27 that condition met the "operational circumstances" test. However, the
28 "operational circumstances" issue is a red herring in the present case.

1 I would like to make a further point on the subject of "operational
2 circumstances" -- that is, that I find Mr. Shanker's approach to this
3 issue to be hopelessly circular. The witness begins with the proposition
4 that a utility must first establish "operational circumstances" and then
5 "negative avoided costs" as separate pre-conditions for the right to
6 curtail. However, at page 20 of his testimony, he tries to make the
7 second showing a prerequisite for the first showing. Specifically, he
8 claims that:

9 one of the factors relevant to determining the existence of
10 "operational circumstances" must be an increase in costs
11 due to the purchase of QF power during low load periods
12 versus the level of costs the utility would incur in the
13 absence of QF power purchases during such periods.

14 This makes no sense and is misleading. Whether or not a particular
15 system condition is an "operational circumstance" is one question that
16 needs to be answered under the curtailment rule. Whether or not that
17 "operational circumstance" will result in "negative avoided cost" is a
18 distinct question under the rule and is analytically unconnected to the
19 first question.

20
21 Q. According to Mr. Shanker, the fact that FERC's Section 292.304(f)
22 refers to increased power production costs as a result of QF purchases,
23 but excludes a previously proposed reference to increased purchased
24 power costs, means that a utility's firm power purchases (such as
25 Florida Power's purchases from the Southern Companies) have to be
26 ignored in determining whether there are "operational circumstances"

1 which justify a curtailment. (Shanker, pages 34-35). Does this make
2 sense to you?

3 A. No. Mr. Shanker is mixing apples and oranges to reach a desired result.
4 The reference in Section 292.304(f) to the utility's alternative cost of
5 generation applies when comparing the costs of continuing a QF
6 purchase versus curtailing it (*i.e.*, the second test in Section
7 292.304(f)). This reference is not a part of, and is not used to define,
8 the separate requirement that a curtailment must result from
9 "operational circumstances" (*i.e.*, the first test in Section 292.304(f)).
10 As I said earlier, Mr Shanker's analysis is circular and misleading. He
11 uses the "operational circumstances" test as a basis for assuming away
12 the negative avoided cost issue; and then he uses the negative avoided
13 cost test to define away the possibility of an "operational
14 circumstance." These are two distinct rather than intertwined tests for
15 curtailment.

16
17 Q. Can you suggest why the FERC would have focused on the alternative
18 cost of utility generation, and not power purchases, when it was
19 prescribing the negative avoided cost criterion for QF curtailments?

20 A. The FERC rule obviously was designed to fit the minimum load situation.
21 In this situation, FERC evidently recognized that the solution to the
22 problem would require a trade-off between QF generation and utility
23 generation based on their relative costs. The FERC never said that firm
24 (unavoidable) power purchases could not be considered as part of a
25 utility's fixed minimum generation level. However, where the system,

1 after having reached that minimum generation, is still in an excess
2 condition, the addition of short-term discretionary energy purchases at
3 that point would exacerbate, not improve, the condition. Therefore, it
4 is not surprising that FERC would exclude such discretionary purchases
5 from the comparison of utility costs with and without the QF purchases.
6

7 **Q. If you have so many disagreements with the OCL/Pasco analytic**
8 **framework, under what other framework do you believe that the**
9 **Commission should examine Florida Power's proposed curtailment**
10 **practices?**

11 **A. Because we are dealing with exactly the minimum load condition**
12 **envisioned by FERC and this Commission, I believe that "operational**
13 **circumstances" ought to be a non-issue in this case. I further believe**
14 **that the Commission should focus its attention on whether the failure**
15 **to curtail in the minimum load conditions covered by the Plan would**
16 **inappropriately shift system costs to the Company's native load**
17 **customers. This kind of subsidy to the QFs is unwarranted and**
18 **inconsistent with PURPA. If native load customers are adversely**
19 **affected through higher net costs to generate electricity than they would**
20 **incur without the QF purchases, then curtailments should be authorized.**
21 **Florida Power's evidence amply demonstrates that curtailments are**
22 **warranted in the circumstances described in the Curtailment Plan.**
23 **Having reached that conclusion, the Commission can then determine**
24 **whether the Curtailment Plan provides for reasonable notice and**

1 curtailment priorities. There is scarcely any dispute before the
2 Commission on this final question.

3
4 **Q. Do you have any doubt as to whether Florida Power could also justify
5 its Curtailment Plan under the framework put forth by OCL/Pasco?**

6 **A. No. Although I strongly disagree with the OCL/Pasco analytic
7 framework, the evidence clearly establishes that the Commission can
8 and should approve the Curtailment Plan even under their flawed set of
9 criteria. Despite OCL/Pasco's assertions to the contrary, the minimum
10 load problem which Florida Power is trying to address is, in fact,
11 grounded in operational circumstances on the system which result in the
12 course of prudent planning and operation. The ongoing need to match
13 generation and load is a critical reliability concern as well as a material
14 economic concern. The minimum load problem is occurring today
15 despite reasonable planning which this Commission has repeatedly
16 endorsed, and the problem is, in fact, an intermittent one which the
17 Company eventually expects to grow out of. Florida Power's failure to
18 curtail as contemplated by the Plan would result in the uneconomic use
19 of the Company's baseload resources and would, without question,
20 yield negative avoided costs of some magnitude (in addition to
21 threatening reliability). The right to curtail in these minimum load
22 conditions is expressly acknowledged by Section 6.3 and other
23 provisions of the QF contracts; additional "dispatch" rights were not
24 needed for that purpose. In addition, Florida Power has used and is
25 continuing to use extensive measures to mitigate the problem before**

1 calling upon QFs to curtail. The further mitigation measures proposed
2 by OCL/Pasco would cause the Company's ratepayers to incur one
3 added cost burden in order to shift the risk of another cost burden. To
4 date, the Company's mitigation efforts have been very successful in
5 terms of minimizing the number and size of curtailment events. The
6 Plan thus passes muster even under the novel standards set up by
7 OCL/Pasco.

8
9 **B. Florida Power's Planning Has Been Reasonable**

10
11 **Q. Your direct testimony explained that Florida Power will be buying more**
12 **than 1,100 MW of QF power by later in 1995. Is this all firm capacity?**

13 **A. Yes. This figure is based on the committed capacity amounts in all of**
14 **Florida Power's QF contracts. It should be noted, however, that more**
15 **than 100 MW of additional power is routinely supplied to the Company**
16 **on an as-available basis. Normally, the Company has little, if any,**
17 **control over the amounts of as-available energy which the QFs choose**
18 **to deliver to the Company and the amounts which will be delivered at**
19 **any particular time are difficult to predict.**

20
21 **Q. How much of the QF committed capacity was contracted for at one**
22 **time?**

23 **A. In early 1991, the Company signed eight contracts for approximately**
24 **559 MW, or more than half of the total committed capacity. All of this**
25 **capacity was offered to the Company in response to a Request for**

1 Proposals ("RFP") issued on January 11, 1991. The RFP anticipated a
2 capacity need on the order of 450 MW in the 1991-1993 time frame,
3 and the Company received 13 bids totalling 1,026 MW of potential
4 capacity purchases. At about the same time, contracts were signed
5 with Seminole Fertilizer and EcoPeat for an additional 51.5 MW, which
6 have ultimately accounted for approximately 55 MW.
7

8 **Q. What was the basis for the Company's projection that it would need
9 about 450 MW of new generating capacity?**

10 **A. The best information available to Florida Power at the time was the
11 1990 Generation Expansion Plan. That plan was finalized and submitted
12 to this Commission on October 30, 1990. It was the most current
13 comprehensive forecast when the contracts were developed in 1990
14 and during the RFP process in early 1991.**
15

16 **Q. What were the Company's peak load projections in the October 1990
17 Generation Expansion Plan for the 1992-1993 through 1994-1995
18 winter periods?**

19 **A. The Generation Expansion Plan showed forecasted peak loads of 7,094
20 MW during the winter of 1992-1993; 7,319 MW during the winter of
21 1993-1994; and 7,567 MW during the winter of 1994-1995.**
22

23 **Q. How did Florida Power's Expansion Plan forecasts compare to those of
24 other utilities in Florida?**

1 A. Florida Power's forecasts reflected a demand growth rate of
2 approximately 4.0 percent, which was similar to that used by the other
3 utilities in Florida.

4
5 Q. Did the October 1990 Generation Expansion Plan support the
6 Company's projected need for 450 MW of additional capacity?

7 A. Yes. When the eight RFP contracts were approved in Order No. 24734,
8 Docket No. 910401-EQ (July 1, 1991), the Commission found (at page
9 9) that:

10 FPC's need is immediate and they cannot risk obtaining
11 less than 450 MW because of possible QF defaults or
12 delays. Also, FPC's need is probably greater than the 450
13 MW they identified in their 1990 plan because that plan
14 did not anticipate recently requested delays in existing QF
15 projects, or the anticipated one-year delay in FPC's 500
16 kV transmission line . . . Furthermore, FPC needs to
17 purchase capacity and energy from the QFs to meet
18 reliability and reserve margin requirements.
19

20 The 500 kV transmission line has since been delayed indefinitely and the
21 Company has deferred some of its own generation construction plans.
22

23 Q. How has the Company's forecasted load growth changed since the
24 1991 RFP contracts were signed?

25 A. The forecast in Florida Power's Ten-Year Site Plan as of December 31,
26 1994 (as filed with the Commission on March 31, 1995) reflects
27 forecasted winter peaks that range from 144 to 342 MW lower than
28 had been forecast in the October 1990 Generation Expansion Plan.
29

30 Q. Are the lower forecasts supported by actual experience?

1 A. Yes. The actual peak demand during the 1992-1993 winter period was
2 6,219 MW -- or 875 MW less than the October 1990 forecast. During
3 the winter of 1994-1995, Florida Power experienced numerous record
4 system peaks. Still, the largest system peak was 6,955 MW, which is
5 364 MW less than the forecasted value.

6
7 Q. Obviously, Florida Power's peak load has not increased as quickly as
8 forecasted. Has the Company's minimum load increased at the same
9 rate as the peak load?

10 A. No. When the RFP contracts were developed and executed, it was
11 assumed that the minimum load would increase at about the same rate
12 as the peak load. This would have been consistent with the actual
13 experience over the four or five years immediately before the RFP
14 contracts, when minimum loads grew at an annual rate of about 5.0
15 percent. In fact, however, since the contracts were signed, the
16 minimum load has increased at only about half of the historic growth
17 rate.

18
19 Q. At what rate does the Company currently forecast the minimum load to
20 increase?

21 A. Florida Power currently forecasts the minimum load to increase at 1.5
22 to 2.0 percent per year. As a comparison, the peak load is currently
23 forecasted to increase at 3.0 percent per year.

1 Q. You stated that, as a result of the 1991 RFP, the Company signed eight
2 contracts totalling 559 MW. If the Company was projecting a need for
3 450 MW of capacity, then why did it enter into contracts to buy 559
4 MW?

5 A. Florida Power was planning to meet its anticipated capacity needs in a
6 responsible manner. The extra capacity was signed up to avoid
7 capacity shortfalls that could have occurred in the event of reasonably
8 expected QF non-completion contingencies. Throughout the contracting
9 and early development stages, Florida Power believed that as much as
10 25 percent of the contracted QF capacity would not be built because of
11 development failures of one kind or another. This contingency
12 assumption was disclosed repeatedly to the Commission, as for example
13 in Docket No. 910401-EQ, mentioned above, and in Florida Power's
14 certificate of need proceeding to build new generating plants in Polk
15 County (Docket No. 910759-E). It was considered reasonable by the
16 Commission when the eight RFP contracts were approved and again in
17 the Polk County need case.

18
19 Q. How was the 25 percent attrition contingency explained to the
20 Commission?

21 A. In the August 1991 Integrated Resource Study supporting Florida
22 Power's Polk County proposal, the Company explained this contingency
23 assumption (at page 103) as follows:

24 If a source of purchased capacity is still in the
25 developmental stages, there is always uncertainty as to
26 whether it will become operational as planned. For
27 example, Seminole Fertilizer exercised their contract

1 option to lower capacity from 47 MW to 15 MW. This
2 reduction occurred at a date too late to be captured in this
3 Study, which assumed 47 MW for the Seminole Fertilizer
4 contract. Florida Power is also aware that many proposed
5 QF projects are abandoned during the developmental
6 process.
7

8 FPC has elected to account for the uncertainty associated
9 with QF projects by contracting for more capacity than it
10 presently believes is needed. It is difficult to know how
11 much additional QF capacity should be placed under
12 contract, as information and experience with QFs is
13 limited. FPC has elected to contract for approximately
14 25% more capacity than reliability studies indicates is
15 required. This percentage was recently reviewed by the
16 Commission when it approved the contracts comprising
17 Group III. Virginia Power recently has also used this
18 percentage in making QF acquisition decisions.

19 The Commission adopted the Presiding Officer's Recommended Order
20 in that case which found (at page 39) that "Florida Power has
21 demonstrated that it reasonably considered capacity purchases from
22 other utilities and non-utility generators to meet future generation
23 needs." As I noted earlier, the Commission similarly accepted the
24 Company's attrition assumptions when it approved the RFP contracts.
25

26 Q. Has there been as much non-completion attrition as the Company
27 anticipated?

28 A. No. As it turned out, some of the original project developers failed, but
29 the contracts were preserved. The development of an active secondary
30 market for contracts allowed failing developers to sell their contracts so
31 that another developer could then complete the project. As a result,
32 there is more QF energy being supplied today than Florida Power
33 reasonably expected to have available. Nevertheless, throughout the
34 planning and development stages of these QF supplies, Florida Power's

1 contingency assumptions were disclosed to the Commission and were
2 deemed reasonable for planning purposes. Any attempt at this late date
3 to begin second-guessing the validity of those planning assumptions,
4 would be a highly unreasonable exercise in Monday-morning
5 quarterbacking.
6

7 **Q. How does the additional QF capacity which Florida Power was not**
8 **banking on affect the minimum load problem on Florida Power's**
9 **system?**

10 **A. Under most load conditions this additional capacity provides for added**
11 **reliability to the Company's ratepayers. The Commission recognizes**
12 **that a reserve margin of at least 15 percent is prudent. (See Order No.**
13 **940345-EU, Docket No. 94-1256-FOF-EU (Oct. 11, 1994) at page 7).**
14 **The Commission specifically found that Florida Power's purchase of 559**
15 **MW under the eight RFP contracts would assist the Company in**
16 **meeting its reserve obligations as well as a 0.1 days per year loss of**
17 **load probability criterion. (See Order No. 24734, Docket No. 940401-**
18 **EQ (July 1, 1991) at page 9).**

19
20 The capacity was purchased on a long-term basis to contribute to the
21 system's peak load generating requirements. Of course, during
22 minimum load conditions, any additional energy contributes to the
23 problem of over-generation. In fact, the contribution is greater and more
24 frequent than Florida Power reasonably anticipated in the 1990-1991
25 time frame, because as I have said, we were expecting minimum loads

1 to increase at roughly the same rate as peak loads. Because the growth
2 in minimum load has lagged behind expectations, the problem of over-
3 generation is being felt more than expected. Again, if we had the
4 benefit of 20-20 hindsight, we might not have signed up as much QF
5 capacity. This does not mean that the decision was unreasonable when
6 made or when endorsed by the Commission.
7

8 **Q. Are there any other aspects of the QF projects that did not turn out as**
9 **had been assumed and therefore are contributing to the minimum load**
10 **problem?**

11 **A. Yes. In addition to and sometimes because of the buying and selling of**
12 **these projects, the fuel type and size of these projects have changed.**
13 **The changes in fuel type resulted in less fuel diversity than Florida**
14 **Power anticipated. This relative lack of fuel diversity (i.e., an**
15 **unexpectedly high dependence on natural gas) means that when the**
16 **QFs are receiving as-available payments, they may be less likely to**
17 **choose to curtail their deliveries because they previously chose to buy**
18 **their gas supplies and transportation under take-or-pay contracts.**
19

20 **Additionally, many of these projects were built much larger than**
21 **required by their contracts. Florida Power has been able to negotiate**
22 **with many of these QFs so that they will reduce their deliveries during**
23 **off-peak hours. But, there are some QFs that are delivering energy in**
24 **excess of their committed capacities during low load periods.**

1 **C. The QF Contracts Addressed Minimum Load Contingencies**
2 **Without Including Dispatch Rights**

3
4 **Q. In early 1991, when the Company signed the RFP contracts, did it plan**
5 **ahead for potential curtailments?**

6 **A. Yes. To repeat, Florida Power was buying capacity to satisfy**
7 **reasonably projected peak generating needs. Nevertheless, it was**
8 **certainly possible that circumstances could develop where QF purchases**
9 **would have to be curtailed because of system conditions. The**
10 **possibility of requiring curtailments was therefore specifically addressed**
11 **in the RFP contracts by reference to Rule 25-17.086. Also, Section**
12 **6.3 of these contracts states:**

13 **6.3 If the Company is unable to receive part or all of the**
14 **Committed Capacity which the QF has made available for**
15 **sale to the Company at the Point of Delivery by reasons**
16 **of (i) a Force Majeure Event; or (ii) pursuant to FPSC Rule**
17 **25-17.086, notice and procedural requirements of Article**
18 **XXI shall apply and the Company will nevertheless be**
19 **obligated to make capacity payments which the QF would**
20 **be otherwise qualified to receive, and to pay for energy**
21 **actually received, if any. The Company shall not be**
22 **obligated to pay for energy which the QF would have**
23 **delivered but for such occurrences and QF shall be entitled**
24 **to sell or otherwise dispose of such energy; in any lawful**
25 **manner; provided, however, such entitlement to sell shall**
26 **not be construed to require the Company to transmit such**
27 **energy to another entity.**

28 As an accommodation to the QFs, this section provided for the
29 continuation of capacity payments during a curtailment. This
30 preservation of capacity payments was viewed as a way to help the
31 project developers obtain financing because project financing often can
32 be supported by the fixed revenue stream available through capacity
33 payments. However, the contracts made clear that Florida Power would

1 not have to pay for curtailed energy amounts, and that Florida Power
2 would have no obligation to deliver any such energy amounts (directly,
3 or indirectly by making off-system sales of curtailed energy amounts) to
4 any other party.

5
6 **Q. Did the Company consider requiring these contracts to be dispatchable?**

7 **A.** The Company did look at the question of dispatchability, although the
8 concern related more to the economic dispatch of QFs during normal
9 system conditions as opposed to the more narrow need to curtail
10 purchases during extreme minimum load conditions. In other words, we
11 considered in particular whether economies could be achieved by
12 dispatching QFs continuously on a minute-to-minute basis, as we do
13 with all of the Company's own units, within the normal range of our
14 load curve to improve overall energy costs. Ultimately, the Company
15 concluded that only minimal benefits, if any, would have been realized
16 by having this type of dispatch rights, so we never demanded those
17 rights during the RFP or contract process.

18
19 Additionally, at the time, it was believed that the performance
20 adjustment built into the contract's pricing mechanism would
21 approximate the effects of economic dispatch -- by providing an
22 incentive for the QFs to be on-line when they were most needed and
23 off-line when they were least needed. It was anticipated that economic
24 incentives for not generating during low load conditions would help to
25 address these concerns. In practice, this has not been the case because

1 QFs' take-or-pay gas transportation and supply contracts have distorted
2 the way in which the projects otherwise would have responded to the
3 performance adjustment on an hour-to-hour basis.

4
5 Furthermore, it was always clear that QF deliveries could be interrupted
6 if necessary under the criteria of Rule 25-17.086, and the RFP contracts
7 left no doubt as to this right in several provisions, including Section 6.3.
8 Given the applicability of Rule 25-17.086 to the minimum load
9 condition, at the time the contracts were entered into there was simply
10 no need to negotiate additional rights in order to address the minimum
11 load contingency. Dispatch, as I have explained, normally serves a
12 different function.

13
14 **Q. Do you agree with Mr. Shanker's characterization of the RFP Contracts**
15 **as being "must-run" contracts?**

16 **A. No, not in the minimum load conditions described in the Curtailment**
17 **Plan. Under those conditions, curtailments are allowed by the contracts**
18 **and by the PURPA rules.**

19
20 **Q. Is there any merit to Mr. Shanker's contention that Florida Power is**
21 **paying less to QFs than it would have paid if it had negotiated additional**
22 **dispatch rights?**

23 **A. No. Florida Power's pricing was based in a straightforward way on the**
24 **value of deferral of a new generating unit. The Company never**
25 **separately offered more money in exchange for dispatch rights, nor did**

1 **Q. Does this conclude your rebuttal, Mr. Doan?**

2 **A. Yes.**