

BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION

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In the Matter of : UNDOCKETED  
Commission review of :  
Electric Utility Ten-Year :  
Site Plans. :  
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PROCEEDINGS: WORKSHOP

BEFORE: CHAIRMAN JOE GARCIA  
COMMISSIONER J. TERRY DEASON  
COMMISSIONER SUSAN F. CLARK  
COMMISSIONER E. LEON JACOBS, JR.

DATE: Monday, September 27, 1999

TIME: Commenced at 9:30 a.m.  
Concluded at 3:50 p.m.

PLACE: Betty Easley Conference Center  
Room 148  
4075 Esplanade Way  
Tallahassee, Florida

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1     **IN ATTENDANCE:**

2                     **ROBERT ELIAS**, FPSC Division of Legal  
3     Services.

4                     **MICHAEL HAFF**, **ROLAND FLOYD**, **TOM BALLINGER**,  
5     **ROBERT TRAPP** and **CONNIE KUMMER**, FPSC Division of  
6     Electric & Gas.

7                     **ROBERT SCHEFFEL WRIGHT**, Duke Energy NSB  
8     Power Company.

9                     **MATT BLANKNER**, Orlando Utilities Commission.

10                    **LEO GREEN**, **ROBERTO DENIS**, **HENRY SOUTHWICK**  
11     and **STEVE SIM**, Florida Power & Light Company.

12                    **DAVID BYRNE** and **EDWIN FRAZIER**, City of  
13     Tallahassee, Florida.

14                    **GARL ZIMMERMAN**, Seminole Electric Company.

15                    **MARIO VILLAR**, and **KEN WILEY**, Florida  
16     Reliability Coordinating Council.

17                    **BILL POPE**, **MIKE MARLER**, Gulf Power Company.

18                    **BEN CRISP**, Florida Power Corporation.

19                    **TODD KAMHOOT**, Gainesville Regional  
20     Utilities.

21                    **PAUL ELWING**, City of Lakeland.

22                    **MARK WARD**, Tampa Electric Company.

23                    **ROBERT MILLER** and **MYRON ROLLINS**, Kissimmee  
24     Utility Association.

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IN ATTENDANCE CONTINUED:

RICK CASEY, Florida Municipal Power  
Association.

JON MOYLE, JR., PG&E.

RANDY BOSWELL, Jacksonville Electric  
Authority.

## P R O C E E D I N G S

(Workshop convened at 9:30 a.m.)

**CHAIRMAN GARCIA:** Good morning. I'd like to welcome you to today's Commission's workshop on Ten Year Site plans. We're going to hear brief presentations from different groups that have filed with us and we're going to start with the Florida Reliability Coordinating Council which is probably going to make the longer of the presentations.

I would ask you that because I think Staff has some -- a lot of questions, that try to make your presentations as brief as possible, so that they can -- it will be more efficient for the questioning time. Clearly, there's -- I hope there aren't any surprises today, but if there is anything that you want to bring up, please let us know, and then, obviously, Commissioners will probably ask some questions early on, and our hope is to be out of here by 4:00, and if we can do better, that would be even better.

So, if the Commissioners have nothing to add, we're probably going to sit down here and you can -- the Florida Reliability Coordinating Council can begin.

**MR. SOUTHWICK:** Good morning. I'm Henry

1 Southwick with the Florida Reliability Coordinating  
2 Council. I'm the chairman of the Reliability  
3 Assessment Group. And with me on my left is Mario  
4 Villar, who is the chairman of our Resource Working  
5 Group who has done the studies there are going to be  
6 presented here today. And to Mario's left is Ken  
7 Wiley who is the executive director of the FRCC. So  
8 with no further to do, I'd like to turn it over to  
9 Mario.

10 **MR. HAFF:** Excuse me, Mario. I think from  
11 the notice and agenda that went out, we had public  
12 comments going first. I don't know if anyone is here  
13 though. I haven't seen LEAF yet or anyone else. And  
14 if not, we'll just go ahead and go on. But I just  
15 wanted to note that the notice had that first. Seeing  
16 none, I guess, go ahead, Mario.

17 **MR. VILLAR:** Good morning. My name is Mario  
18 Villar. I'm chairman of the Resource Working Group  
19 for FRCC and I will be making the presentation this  
20 morning. Before we get in the specifics of the work  
21 that was done by FRCC, there is some housekeeping  
22 matters that I'd like to cover. They're basically  
23 left over matters from the 1988 review. And I'd like  
24 to give you a little bit of background as to what the  
25 FRCC did last year and how it leads to the work that

1 was done this year.

2 Is there anyway that this can be made a  
3 little bigger? Is there any way to adjust that some?  
4 Well, it's a little washed out, but we'll do the best  
5 we can.

6 In '98 the FRCC adopted a 15% reserve margin  
7 for the peninsula. It conducted a reliability  
8 assessment study and it developed a methodology where  
9 we compared the projected components of the reserve  
10 margin calculation against actual data for the last  
11 five years to analyze the suitability of the 15%  
12 reserve margin. In other words, to conduct a test of  
13 the 15% reserve margin.

14 We presented the results of that analysis at  
15 the 1998 Ten Year Site Plan Workshop and then the  
16 Commission, in it's report to the Department of  
17 Environmental Protection and DCA in December, included  
18 in that report some Staff concerns. These concerns  
19 were basically along four lines.

20 High unit availability. Staff was concerned  
21 that recently there have been a change in unit  
22 availability on the positive side and there were  
23 concerns as to whether that was sustainable or not.

24 We at FRCC believe that utilities have  
25 invested significant dollars to achieve that high unit

1 availability. We believe those units availabilities  
2 are sustainable. We've shown the improvement in  
3 availability and we believe that that will remain.

4 In addition to that the Commission has  
5 started some Staff audits of this particular issue and  
6 I believe those audits are still ongoing.

7 With respect to continued assistance from  
8 Southern Company, I think Staff expressed some concern  
9 as to whether that assistance will continue to be  
10 available in the future. We don't see any reason to  
11 doubt any assistance from the north. There is not  
12 only Southern Company, there is a whole SERC region  
13 and actually the whole eastern interconnection that we  
14 could draw upon.

15 This is not a reserve margin issue. It's  
16 basically considered in the lose of low probability  
17 analysis. And one of the sensitivity analysis that we  
18 have used in that LOLP analysis is no further  
19 assistance from the SERC region or the eastern  
20 interconnection. So we don't think this is an issue  
21 in the future.

22 There were two specific issues that Staff  
23 had also in the report. That was extremely low winter  
24 temperatures in Christmas 1989 and also the Staff had  
25 conducted some probabilistic analyses on the FRCC data

1 and it reached some conclusions in that respect. I'd  
2 like to cover those two issues now.

3           These are some quotes from the Staff  
4 documentation that was presented at the August 25th  
5 workshop. Paragraph 6 basically deals with a  
6 probabilistic assessment results and there Staff  
7 concluded that summer reserves were adequate based on  
8 their analysis and that they had some concern with the  
9 generating capacity during two specific seasons; the  
10 winter of 1999/2000 and 2000/2001.

11           The emphasis there is by us, and basically  
12 that Staff conclusion at the time was the random  
13 number assessment suggests planned summer reserves are  
14 adequate.

15           Paragraph No. 12 deals with the extreme  
16 winter temperatures, and in particular, the Christmas  
17 1989 backcast which was basically a calculation  
18 performed by Staff based on Christmas '89 conditions  
19 from which they attempted to quantify what could  
20 happen under extreme winter conditions.

21           And I'd like to draw your attention to some  
22 language in there that says blackouts will range from  
23 about half as bad to twice as bad as what occurred in  
24 1989.

25           We believe the Staff's analysis in that



1 regard is incorrect and I'd like to turn to that now.

2 Kind of hard to read here. Basically this  
3 is a duplicate of one of the Staff slides from the  
4 August 25th workshop. I believe it was Page 6. These  
5 are Staff numbers, and while we disagree with the  
6 Staff analysis, I won't discuss all the deficiencies  
7 at this time. I'd like to point out a few of those  
8 particular areas where we do have a disagreement with  
9 Staff and take you through what they did.

10 If you look at Row C, that is one of the  
11 assumptions that Staff is using and that is that 23%  
12 of capacity will be unavailable. That is basically a  
13 calculation drawn from the data from 1989 as to the  
14 utility capacity that was available and the amount of  
15 capacity Staff calculated as being unavailable in Row  
16 B. From those two numbers you derive a 23% capacity  
17 unavailable number.

18 I'd like to also call your attention to Row  
19 I, which is the percentage of peak load error that  
20 Staff calculated. Again, that number is drawn from  
21 the row right above it which is the actual peak, which  
22 is not really an actual peak but is an estimated  
23 number based on an aggregation of the load that was  
24 actually served by utilities, plus the estimated  
25 unserved load. So even though it's shown as an actual

1 number, it's not necessarily an actual number.

2 From that the Staff calculates against the  
3 forecasted firm peak a peak error of 16.9%. Again,  
4 this number is based on an aggregated amount on a  
5 noncoincident basis. So it's not necessarily  
6 reflective of reality.

7 The load not served in Row J is also  
8 calculated on a similar basis of aggregation of  
9 utilities of estimates of nonfirm load, again, on a  
10 noncoincident basis.

11 The basic assumption that Staff used is that  
12 nothing has changed since 1989. They then go to the  
13 next column, which is their forecast of what would  
14 happen under Christmas '89 conditions, and apply the  
15 same 23% number that they calculated for Christmas '89  
16 to the 1998/1999 number shown in their last year's  
17 resource plan to arrive at an unavailable utility  
18 capacity of 8,749 because this actually escalated  
19 since it's based on the number right on top.

20 So they're not only assuming that nothing  
21 has changed since 1989, but they're also assuming that  
22 the numbers that were out are going to be even --  
23 there will be even more megawatts out.

24 With respect to the amount of actual peak  
25 that will be experienced, again, they are assuming

1 that 16.9% of the forecasted firm peak from 1999 would  
2 also be unserved yielding the actual percentage peak  
3 here in Row H.

4           Those assumptions are incorrect. This  
5 Commission conducted an assessment of the 1989  
6 Christmas freeze and issued an order, Order No. 22708,  
7 in which they directed that a statewide emergency plan  
8 be adopted for the state of Florida. That plan has  
9 been adopted and has been incorporated into Commission  
10 rule. I think it's rule 256.0813, I believe. That  
11 plan tells you what to do in the event of an  
12 emergency. It contemplates the number of levels of  
13 alert. It provides for public notification,  
14 conservation appeals, et cetera.

15           Also Staff is assuming that the same amount  
16 of megawatts that were out on scheduled maintenance  
17 are going to be out on scheduled maintenance in 1999.  
18 Not only the same amount, but even a greater amount  
19 because, again, this number has escalated since it's  
20 based on a higher base. Utilities have changed their  
21 maintenance practices significantly and no longer  
22 schedule maintenance around the peak periods.

23           In addition to that, there were a number of  
24 megawatts that were out on forced outage in 1989.  
25 Those megawatts were out for different reasons. Some

1 of them were, there was a curtailment of gas supply  
2 into the state of Florida. All of that has been  
3 addressed since then.

4 There were some units that were gas only  
5 units. The firms -- the supplies for those units has  
6 been firmed up so it's not reasonable to assume that  
7 those megawatts will not be available.

8 In addition to that, there were some units  
9 that were dual fired capable units when they were  
10 switched from gas to oil, and those units were run on  
11 oil. There were some problems associated with some  
12 filter problems. Those problems have been corrected  
13 so there's no reason why those units should be assumed  
14 to be unavailable in 1999.

15 There were some problems associated with  
16 freezing water/control lines. The Commission ordered  
17 the utilities to review the winterization plans. We  
18 reviewed the winterization plans and fixed those  
19 concerns. So there's no reason to assume that those  
20 megawatts will be unavailable.

21 As far as actual numbers, the gas only units  
22 represent an approximately 225 megawatts. The fuel  
23 filter problem with dual capability units were about  
24 2,000 megawatts, and the winterization plan issues  
25 effected about 3,100 megawatts of capacity. So this

1 number of 8,749 is highly inflated in our opinion.

2 One major flaw with the analysis is also  
3 that Staff fails to take into account what utilities  
4 call operational measures. That is, conservation  
5 appeals, voltage reduction, availability of nonfirm  
6 purchases from the SERC region, load SCRAM capability  
7 in the DSM units, et cetera.

8 That is significant amount of additional  
9 megawatts can be used in the event of an emergency.  
10 Those are not accounted for in the Staff's conclusion  
11 that there will 8,226 megawatts of unserved load.

12 What I'd like to do now is turn to another  
13 chart which is a corrected version of the one we had  
14 before. And, again, these represent the Staff numbers  
15 with some changes that we made to it. The bold  
16 numbers are additions to the Staff chart.

17 If you look on Row B, what I've done there  
18 is I split the 7,900 megawatts that Staff said was  
19 unavailable in 1989 into two categories; forced  
20 outages of 4,334, and the actual number that Staff  
21 showed in their August workshop was 4,333, but my  
22 staff wouldn't put a number in there that didn't add  
23 up to the full 7,900 megawatts so they rounded it up  
24 by one megawatt.

25 The next number below is the amount of

1 scheduled maintenance outages in effect during  
2 Christmas of '89.

3           And the equivalent amount of megawatts for  
4 1999 is shown on the column on the right-hand side.  
5 It's 3,992 megawatts when you escalate it up from the  
6 Christmas '89 numbers. I have subtracted that number  
7 for illustrative purposes only from the unavailable  
8 capacity because we're not planning on having all that  
9 capacity out during winter peak type conditions.

10           I have made no other adjustments for any of  
11 the other changes that I have discussed that have  
12 taken place or corrected measures like the dual gas  
13 capability issue, the winterization plans, et cetera.

14           That leaves a forced outage amount of 4,757  
15 megawatts or 12.5% utility capacity unavailable.  
16 Again, this is only for illustrative purposes. I'm  
17 not necessarily agreeing with any of the numbers in  
18 here shown by Staff, et cetera. And I am not showing  
19 all the corrections that could be made to this  
20 analysis.

21           That 3,992 megawatts needs to be brought  
22 down in Row F to show the total utility capacity  
23 available from which you can calculate the potential  
24 deficiency.

25           I have also made, like I said before, one of

1 the things that Staff doesn't consider is any changes  
2 that have taken place since 1989. One significant  
3 change that took place since 1989 is the utilities  
4 have changed the forecasted methodology and -- or at  
5 least one utility has. I didn't have figures for all  
6 the utilities so I used an FPL adjustment only.

7 FPL, in 1997, made a change to its forecast  
8 which results in a reduction relative to what was  
9 calculated here by Staff, or about 800 megawatts from  
10 the Staff amount.

11 In other words, what FPL did in 1997 was to  
12 change the low winter temperature calculations,  
13 resulting in an increase in the FPL forecast of about  
14 800 megawatts in this particular year. So in order to  
15 make this 3,566 number shown in Row G for 1999, to put  
16 it on an equivalent basis to the way the forecast was  
17 done in 1989, we needed to have an 800 megawatt  
18 reduction in that forecast. Otherwise, you're not  
19 comparing apples to apples. From that you come up  
20 with an adjusted forecast to put it on the same basis  
21 of 3,486 -- 66 megawatts.

22 **COMMISSIONER CLARK:** Excuse me. Let me ask,  
23 what change allows you to adjust the peak downward? I  
24 don't understand. If you changed your methodology,  
25 what's the justification for that?

1           **MR. VILLAR:** I'm not adjusting the peak  
2 downward. What I am doing, Commissioner Clark, is  
3 basically that, what Staff has done is they have  
4 assumed that everything that took place in 1989 is the  
5 same, and applied those conditions to the peak and all  
6 the other categories that they use in this analysis  
7 for 1999.

8           Now, they use 16.9 forecast peak error and  
9 they applied that same 16.9 forecast peak error to the  
10 1999 data. But because we don't have the forecast  
11 being calculated on the same basis, in order to apply  
12 a 16.9 forecast peak error, you'd need to adjust the  
13 forecast by the increased forecast that FPL had in  
14 order to put it on the same basis.

15           In other words, in order to be comparing  
16 apples to apples and in order to be able to use the  
17 16.9 adjustment, you need to make this 800 megawatt  
18 adjustment. In other words, you're not going to have  
19 a 16.9 forecast error because we have changed the  
20 forecasting methodology. So it's unrealistic to  
21 assume that you're going to have a 16.9% error.

22           **COMMISSIONER CLARK:** What was the change in  
23 methodology that allows you to do that?

24           **MR. VILLAR:** We lower the winter temperature  
25 from -- Leo here? From 37 or to -- what was it?



1 34 degrees, Leo?

2 MR. GREEN: 37 to 34.5.

3 MR. VILLAR: 37 to 34.5.

4 COMMISSIONER CLARK: Okay. So after 1998  
5 you're forecast was based on a lower temperature?

6 MR. VILLAR: That is correct.

7 COMMISSIONER CLARK: All right.

8 MR. BALLINGER: Can I jump in real quick?  
9 This is Tom Ballinger with the Staff. Mario, is what  
10 you're saying is because of the change in  
11 temperatures, you'll never have an error rate as great  
12 as 16.9% in the future?

13 MR. VILLAR: It's unlikely to have one, or  
14 at least under the conditions that you're assuming  
15 here, Tom. That's all we're saying.

16 MR. BALLINGER: But that's what you're  
17 trying to illustrate?

18 MR. VILLAR: That's correct. Yes.

19 COMMISSIONER JACOBS: Is the effect of  
20 lowering temperature, does it broaden the peak -- the  
21 observed peaks that you're looking at so that that  
22 reduces the number of errors that you observed in that  
23 same time?

24 MR. VILLAR: It doesn't broaden the peak.  
25 The peak stays the same.

1           **COMMISSIONER JACOBS:** No. I understand that  
2 the peak stays the same. But you're observing  
3 temperatures over a period of time and because your  
4 temperature now is lower, what you're saying is you're  
5 going to pick up more observations here?

6           **MR. VILLAR:** I don't know if it's in terms  
7 of observation. Maybe it would be better if Leo  
8 addressed the question.

9           **COMMISSIONER JACOBS:** Just tell me how the  
10 lowering of the temperature effects the reduced error  
11 rate.

12           **MR. GREEN:** By assuming the lower  
13 temperature, the fact is that their projected value  
14 goes up. Okay. By having that value goes up, there  
15 is -- it's very unlikely that we're going to miss by  
16 that same amount.

17           **COMMISSIONER JACOBS:** Okay. Thank you.

18           **MR. VILLAR:** With that adjustment to the  
19 forecast firm peak and applying the same 16.9% of  
20 forecast error to this adjusted forecast shown in Row  
21 G, we come up with an actual peak, an adjusted actual  
22 peak, of 40,758 as opposed to the number that Staff  
23 had, which was the 41,694.

24           When you subtract from that the adjusted  
25 available capacity on Row F, looking at Row J right

1 now, you come up with a potential unserved load of  
2 3,298 megawatts. And then when I'm making a final  
3 adjustment which is based on the amount of operational  
4 measures the utility estimates is available is the  
5 year 1999 of 3,844 megawatts, and it results in no  
6 unserved load, in fact, there's some megawatts left  
7 over to serve additional load based on these  
8 estimations only.

9 And, again, this is just for illustrative  
10 purposes. There could be a significant number of  
11 corrections made. We haven't attempted to make all of  
12 those at this point.

13 Conclusions are that we don't believe it's  
14 realistic to assume that during instances of extreme  
15 weather there will be a repeat of the conditions that  
16 existed 1989, and that the lessons learned from the  
17 Commission and utility actions does then need to be  
18 recognized and those have significantly mitigated and  
19 alleviated the potential for unserved load under  
20 extreme weather conditions. And with a set of more  
21 realistic conditions, we don't think that there will  
22 be unserved load.

23 **MR. BALLINGER:** Mario, did I understand that  
24 you just stated that given similar circumstances the  
25 Peninsula would serve all load?

1           **MR. VILLAR:** I'm sorry, Tom?

2           **MR. BALLINGER:** Did you just say that under  
3 similar situations you expect the Peninsula to serve  
4 all firm load?

5           **MR. VILLAR:** We think under similar  
6 circumstances temperaturewise, and even not accounting  
7 for some of the things that are here, we don't expect  
8 that there will be unserved load.

9           **MR. BALLINGER:** Okay.

10          **MR. VILLAR:** Under more realistic  
11 assumptions for forced outages, scheduled maintenance  
12 and taking into account operational measures.

13           I'd like to discuss a little bit the second  
14 remaining issue from 1998 which is the Staff's  
15 probabilistic assessment.

16          **MR. BALLINGER:** Before we move on, I got a  
17 couple of questions on the Christmas as facts have  
18 been brought up. Do you know how much in '89 of  
19 natural gas fired generation did not have oil backup?

20          **MR. VILLAR:** There were 225 megawatts from  
21 what I recall, Tom. It was Cutler 5 and 6, and a  
22 couple of Deerhaven GTEs from Gainesville. And at the  
23 time Cutler 5 and 6 did not have firm gas supplies.  
24 We do have firm gas supplies now. That was the reason  
25 why Cutler 5 and 6 was interrupted, and I don't know

1 whether Deerhaven has firm gas or not.

2           **MR. BALLINGER:** Do you know how much in the  
3 future -- we're adding a lot of natural gas  
4 generation. How much of that is planned not to have  
5 oil backup, roughly?

6           **MR. VILLAR:** I am not aware of the number of  
7 megawatts, Tom, but to the extent that it has a firm  
8 gas supply, that should take care of the issue.  
9 Because the reason why the interruption occurred is  
10 because those contracts, even though the plants were  
11 gas only units, they did not have a firm gas supply at  
12 the time. And if do you have a firm gas supply, it's  
13 not subject to interruption. In 1989 those gas  
14 supplies were subject to interruption.

15           **MR. BALLINGER:** So it wasn't that the wells  
16 were freezing up in Louisiana; it was the fact of a  
17 contractual matter is why they were interrupted?

18           **MR. VILLAR:** The gas was diverted to other  
19 uses because it was not firm.

20           **MR. BALLINGER:** Okay.

21           **MR. VILLAR:** If you don't have it firmed up,  
22 it has the lowest priority on the system and it gets  
23 interrupted.

24           **MR. BALLINGER:** Thank you.

25           **MR. VILLAR:** The Staff's probabilistic

1 assessment is the next issue. And there, this is just  
2 another reminder of what Staff had found before. I'm  
3 not going to dwell on it. But basically Staff found  
4 that there was a very short exposure, I would call it.  
5 This is another replicate of a Staff graph from the  
6 workshop, and I think this was from the September 11th  
7 Commission workshop.

8           And the only thing I'm going to comment on  
9 this is I'm going to use it to say that Staff assumed  
10 that for each -- if you look at the row for FPL, for  
11 example, each one of these data points has an equal  
12 probability of occurrence in order to arrive at the  
13 random number that they use here. They get the same  
14 for, I think -- I believe it was ten utilities.

15           The major point of disagreement that we have  
16 or one of the points of disagreement and one of the  
17 deficiencies that we believe is attended with the  
18 Staff methodology is that they do assume that the  
19 probability of occurrence is equal for each one of  
20 these data points, and it's not.

21           These two charts -- again, they replicate  
22 what Staff did. This is the 1998 Ten Year Site Plan  
23 figures for the summer. And the numbers that Staff  
24 found inadequate under their analysis was zero. No  
25 inadequacies.

1           For the winter, Staff focused on the winters  
2 of 1999 and 2000 with a probability of nonmeeting load  
3 according to their numbers of 6 % and 8.3%. Those  
4 were the areas that they identified as having some  
5 concerns.

6           Specifically where we disagree with Staff  
7 is, like I said, the assumption of equal 20%  
8 probability from each data point. That fails to  
9 recognize that there has been significant change in  
10 the way utilities operate their system; changes in  
11 forecasting techniques, improvements in reliability,  
12 et cetera, that render that assumption invalid.  
13 That's one of the reasons why we disagree with the  
14 Staff analysis.

15           Also, they're drawing from a very small  
16 sample size. Only five years worth of data. And by  
17 drawing from that sample size, coupled with the  
18 assumption that they are assuming the probability is  
19 equal, it renders their conclusions questionable.

20           Also, they're not recognizing that the FRCC  
21 reserve margins are calculated on an aggregated  
22 noncoincident peak basis.

23           What I'd like to do is run through a couple  
24 of very brief examples of what happens, and I'd like  
25 to run through the sample size here real quick.

1 This -- on the left-hand side where you see the Staff  
2 1998 plan evaluation for the winters of 1999/2000,  
3 those were the two winters -- and 2000/2001, those  
4 were the two winters of concern to Staff. They found  
5 that, based on their calculations, that 6% of the time  
6 it would be inadequate for the winter 1999/2000 and  
7 8.3% of the time for the winter of 2000/2001.

8 On the right-hand side you'll see we  
9 replicated the Staff methodology, but added one year  
10 of data, the 1998 data. By adding the 1998 data and  
11 doing the same analysis that Staff did on a random  
12 sampling basis, the numbers changed significantly.

13 Now, all a sudden, we had in 1999/2000 a 6%  
14 inadequate. We dropped that down to 1.6%. For  
15 2000/2001 the number drops from 8.3% to 2.9%. Again,  
16 this is without any change to Staff methodology.

17 So we don't believe that the assumptions  
18 that Staff used because of their major deficiency,  
19 assuming that the probability of occurrence is equal,  
20 that it's an appropriate one to make, particularly  
21 when you have such a small sample size.

22 And, again, just having a greater number of  
23 samples is not going to fix the problem because it  
24 still leaves the probability issue unresolved. That  
25 is, you don't know what probability each one of those



1 events has because of changes that have occurred since  
2 that event took place. And this methodology does not  
3 recognize any of that.

4           There have also been some changes in  
5 generation maintenance schedules. And by making an  
6 adjustment that FRCC did in the 1999 analysis, we  
7 make -- and running the Staff analysis with a  
8 different number of megawatts out, you reach a totally  
9 different conclusion.

10           I'm not going to run through all these  
11 examples that are here because I don't want to take up  
12 too much time.

13           And again, changes in forecasting  
14 techniques; the one we described before that FPL  
15 changed by approximately 800 megawatts. The reason  
16 why you have 750 here is because it's a different  
17 year. All of those affect the conclusions that Staff  
18 reached and the methodology. So the assumption that  
19 the probability of occurrence for each one of those  
20 events is equal, it's unsupported.

21           We believe the methodology is deficient  
22 because of the sample size and the fact that it  
23 assumes an equal probability of occurrence for each  
24 one of the data points and it's mechanical. It does  
25 not consider changes and improvements of various

1 factors and you cannot draw the kind of conclusions  
2 that Staff drew from it.

3 In addition to that, it fails to recognize  
4 the use of operational measures or the fact that they  
5 might have a probability of -- even if the analysis  
6 were correct, that it had a probability of not meeting  
7 200 or 500 megawatts of load.

8 It's incorrect also because it does not  
9 recognize the availability of over 3,000 megawatts of  
10 operational measures.

11 **MR. HAFF:** Mario, I have a question. This  
12 is Michael Haff with the Commission Staff. Weren't  
13 these operational measures available in 1989?

14 **MR. VILLAR:** They were significantly  
15 different, Mike. And if you go back to --

16 **MR. HAFF:** I mean, it's brought up over and  
17 over that we're not going to have any problems because  
18 of these operational measures, and it just seems to me  
19 like these were available in '89 and yet we still had  
20 unserved load.

21 **MR. VILLAR:** They were not available to the  
22 same extent. The reason for that is that in 1989, one  
23 of the biggest contributors to these operational  
24 measures is the DSM features, and the load SCRAM  
25 capability of the DSM programs. That adds significant

1 number of megawatts.

2 In 1989 I believe there were somewhere in  
3 the order of maybe 200 megawatts of DSM measures  
4 available as opposed to the thousands of megawatts  
5 that we have now.

6 In addition to that, the public appeals has  
7 changed significantly since 1989 as a result of the  
8 Commission order to implement a statewide program or a  
9 statewide emergency plan that address the conservation  
10 issues and public appeals process. There have been  
11 changes made to building codes, et cetera. So we  
12 don't believe it's the same basis.

13 If you look at the numbers from '89, there  
14 appear to be a difference between the unserved load  
15 and the -- I think it was the forecasted peak. The  
16 actual difference between the two numbers is like  
17 6,000 megawatts, but you only showed to like 4,744  
18 megawatts of unserved load. Part of the 6,000  
19 megawatts -- I'm sorry. Part of the 4,744 difference  
20 to the 6,000 megawatts, it's what you could call  
21 either operational measures. I believe part of it is  
22 also the fact that you're doing it on a noncoincident  
23 basis. But there were like -- by their own numbers  
24 from 1989, it appeared to be that there were like  
25 1,300 megawatts of what you could call operational

1 measures, if you believe the data.

2 **MR. HAFF:** You say 1,300 megawatts were  
3 available at that time as opposed to 3,800 now?

4 **MR. VILLAR:** Well, let me get the number  
5 here if I can find that.

6 **MR. HAFF:** Ballpark is close enough.

7 **MR. VILLAR:** You got to realize that part of  
8 that is purchase -- nonfirm purchases from other  
9 utilities like Southern Company and stuff like that.  
10 So some of that did come in. I can't find that graph  
11 right now.

12 If you take the difference, Mike -- let's  
13 use this other one. I was trying to get the clean  
14 one. If you take the difference between what you show  
15 as actual peak in 1989, and you subtract that from a  
16 total capacity available, you get a difference of  
17 about 6,000 megawatts. Yet the only amount of  
18 unserved load shown was 4,744 megawatts. So the  
19 difference had to come from somewhere. It was either  
20 purchased from somewhere else, conservation appeals,  
21 et cetera.

22 **MR. BALLINGER:** Mario, I have a couple of  
23 questions. This is Tom. Do you realize or recognize  
24 Staff hasn't used the probabilistic method in the '99  
25 assessment?

1           **MR. VILLAR:** Yes, I do. I was just bringing  
2 it up because it was an unresolved issue from last  
3 year. I did not know whether you were using it or not  
4 because you haven't made your presentation here.

5           **MR. BALLINGER:** And correct me if I'm wrong,  
6 but if you take something and you do a simple  
7 averaging of numbers, doesn't that also assume that  
8 you've got the similar -- same probability for each of  
9 those occurrences?

10          **MR. VILLAR:** No, we're not because we're not  
11 assuming any probability to it. All we're doing is  
12 for testing purposes, Tom. We're not assigning any  
13 particular probability to it. We're only using it as  
14 a test.

15          **MR. BALLINGER:** Okay. But isn't the  
16 mathematical effect the same? That you've taken the  
17 same error rate for each year and given it the same  
18 probability when you simply --

19          **MR. VILLAR:** No. I think the only place  
20 where we wind up being the same is the median may be  
21 the same, but then you calculate a probability in your  
22 analysis and you go off to the extremes and you  
23 attempt to predict what the extremes are. We don't do  
24 that.

25          **MR. BALLINGER:** Okay.

1           **MR. VILLAR:** We have -- in our analysis, and  
2 you'll see that later, we do look at the extremes, but  
3 we just look at sensitivities assuming the worst error  
4 that we had during the time period. We don't assign a  
5 probability to that.

6           **MR. BALLINGER:** Do I also understand -- I'm  
7 back on Page, I guess, 15 of your slide where it shows  
8 the scheduled maintenance put in the 1,000 megawatts.

9           **MR. VILLAR:** Yes.

10          **MR. BALLINGER:** That still shows an  
11 inadequate, a shortfall, if you will, based on the  
12 percent. Now, I understand the megawatts are much  
13 smaller. And are you saying that that shortage would  
14 be made up by inner ties to Southern or other SCRAM  
15 measures, things of that nature?

16          **MR. VILLAR:** Let me go back to slide 15 for  
17 a minute here and make sure I'm on the same page you  
18 are.

19                 Now, we weren't conceding that there were  
20 going to be 1,000 megawatts out. All we were doing is  
21 making an adjustment to show some megawatts out. But  
22 again, based on your analysis, Tom, if you look at  
23 1999/2000, what you're basically projecting there is  
24 that there's a very small probability that you're not  
25 going to be able to serve load based on these

1 assumptions.

2 In other words, 98.5% of the time under your  
3 analysis, I'm okay. I think that's pretty good. And  
4 in addition to that, this doesn't take into account  
5 operational measures or that I have over 3,000  
6 megawatts available to the system.

7 **MR. BALLINGER:** Okay.

8 **MR. VILLAR:** I'd like to turn now finally to  
9 the FRCC load and resource plan and the reliability  
10 assessment.

11 First graph is a projection of what the firm  
12 peak demand is going to be for the state, and again,  
13 the way FRCC compiles the data, this is noncoincident  
14 firm peak demand. We're, at this point, not  
15 calculating any data on the basis of coincident peaks.

16 The change from 1999 to 2008 is roughly 24%  
17 for the winter peak and about 21% for the summer peak  
18 or 900 megawatts per year growth rate for the winter  
19 peak and about 800 megawatts per year for the summer  
20 peak.

21 These are the net capacity additions and you  
22 can see on the right-hand side -- let me see if I can  
23 focus this a little better. Oops.

24 The difference from the 1998 plan to the  
25 1999 plan is a significant number of additional

1 megawatts. We have 9,728 megawatts added through 2008  
2 versus 7,800 megawatts in last year's plan. Roughly  
3 24% higher. Again, this number is only utility  
4 capacity being added. It does not include QF  
5 contracts, imports, et cetera.

6 For the winter term, we have a similar  
7 picture. 8,725 megawatts shown last year versus  
8 10,744 or roughly 23% higher megawatt additions than  
9 last year.

10 **CHAIRMAN GARCIA:** Where does that increment  
11 come from? I'm sure you said it. I just missed it.  
12 Is it just your re-analysis of the situation you're in  
13 and you're going to put more generation into the  
14 ground?

15 **MR. VILLAR:** The plans are not the same,  
16 Mr. Chairman, and also we have a different year. In  
17 addition, we have one additional year, 2008 versus  
18 2007, which is what we had before. I haven't broken  
19 it out specifically for what it is, but the plans have  
20 changed from last year. For example, in FP&L's case  
21 we have additional megawatts.

22 **CHAIRMAN GARCIA:** Right, but, obviously,  
23 this is 10 years out so clearly you always change  
24 them, but that's a significant increase.

25 **MR. VILLAR:** Yes, it is.



1           **CHAIRMAN GARCIA:** Okay.

2           **MR. VILLAR:** Again, this one dispatchable  
3 DSM and it shows existing and cumulative additions at  
4 time of summer peak. And for clarification purposes,  
5 when we say cumulative additions, the numbers in the  
6 white up here is the net additions. It is not a truly  
7 a cumulative number there. Some -- there might be 80  
8 megawatts in the year 2000 added, for example, but  
9 there are some also that go away because of plans that  
10 go away, et cetera. So this only shows a net  
11 increase. This is for summer peak.

12                   We have a similar picture for winter peak.  
13 Again, the numbers above the existing amount are the  
14 net additions in DSM programs. And part of the  
15 reasons why there's a dip in the curve is some  
16 utilities are changing the amount of DSM that they  
17 have. This shows the effected DSM is not as  
18 cost-effective as it used to be perhaps and other  
19 different changes to the system.

20                   This one basically shows the amount of firm  
21 imports coming into the state and they do vary through  
22 time because some of the contracts expire in the early  
23 years. For example, the firm purchases, Tallahassee  
24 has some purchases that are expiring in '99 or 2000.  
25 So the numbers do change through the years.

1           The available transfer capability into the  
2 state is shown on the right-hand side and those will  
3 be available for nonfirm purchases, dialing  
4 assistance, et cetera.

5           **CHAIRMAN GARCIA:** Can I ask you, why is it  
6 so low in 2000? Is that because it's already  
7 committed? This shows what's available. I'm sorry.

8           **MR. VILLAR:** It's only the -- all you show  
9 there is a net after the firm commitments.

10          **CHAIRMAN GARCIA:** Okay. But this isn't new  
11 capacity; just there are no contracts that are going  
12 to be there?

13          **MR. VILLAR:** There are no new firm contracts  
14 in there. It's just a change in the existing  
15 contracts.

16          **CHAIRMAN GARCIA:** Right.

17          **MR. VILLAR:** The one number that's going to  
18 change, I think the owned megawatts that we have shown  
19 on that graph is the shared amount, and in the 1998  
20 plan the number was 867 megawatts. The number of  
21 megawatts has changed since then. So it's a little  
22 higher than that. But again, so have some of the  
23 other contracts in terms of the actual megawatts.

24                 The fuel mix, we have it shown in this  
25 graph. Last year we had a significant number of --

1 not last year. I'm sorry. Relative to 1998, you'll  
2 see natural gas goes from 17% consumption to about 37%  
3 of the mix in the year 2008. That represents  
4 basically the addition of significant amounts of  
5 combined cycle and gas firing capacity into the state.

6 Here are the FRCC reserve margins projected  
7 for the period. And you'll see they all go above the  
8 FRCC standard reserve -- 15% reserve margin standard,  
9 which is the solid line that goes -- cuts across the  
10 middle.

11 And again, it should be understood that  
12 these reserve margins are calculated on a  
13 noncoincident basis. If you were to apply the load  
14 diversity factors, these reserve margins would be  
15 approximately 2% higher.

16 I want to turn now to the reliability  
17 assessment analysis that was done by FRCC this year,  
18 and we focused on two areas; loss of load probability  
19 analysis and reserve margins.

20 The LOLP analysis is different from the  
21 reserve margin analysis because reserve margin only  
22 looks at the time of peak. Loss of load probability  
23 looks at the whole year and the load curve throughout  
24 the year. So we are trying to answer the question as  
25 to how likely are we to have sufficient capacity to

1 serve a load each day as opposed to the peak day,  
2 which is what the reserve margin looks at.

3 It also takes into account what the forecast  
4 load is, the load profile, the availability of units,  
5 both for planned maintenance and forced outage rates,  
6 and it conducts an assessment of the system for each  
7 one of those days and then sums the probabilities of  
8 each one of those days to arrive at a conclusion for  
9 the whole year.

10 We don't consider, in this particular  
11 analysis, the frequency or the duration of the outage,  
12 but just the fact that it actually occurs. And we  
13 measure it against the industry standard  
14 one-day-in-ten-years loss of load probability.

15 The results of the LOLP analysis are  
16 presented here, and I can't focus this thing very  
17 well. The reference case is what the FRCC load and  
18 resource plan contains, and it's based on the most  
19 likely assumptions or what we believe is the  
20 appropriate method of analysis. We showed no  
21 violations and there is a couple of graphs behind this  
22 that shows what the actual numbers are.

23 We conducted an additional set of  
24 sensitivities to the LOLP analysis from the reference  
25 case, and one, which is the item No. 2 there, is we

1 assume that there will be no usage whatsoever of load  
2 management interruptible loads; no direct load  
3 control. That had absolutely no effect on -- had some  
4 effect on the loss of load probability, but it didn't  
5 raise it above the .1 per year standard.

6 We also assume that we had a three  
7 percentage point increase in the steam unit forced  
8 outage rate from the projected forced outage rates for  
9 those units. Again, we showed no violations under  
10 those conditions.

11 We then assumed some changes to the load  
12 forecast. In particular, we simulated some extreme  
13 type winter conditions and more extreme type summer  
14 conditions and we found no violations.

15 Just for clarification purposes, I think  
16 what was assumed for the winter was two, four day  
17 periods during the month of January where the load was  
18 a certain percentage above where we had normally  
19 forecasted. And I think for day one we were assuming  
20 a 5% increase in demand.

21 For the second day of that four day period  
22 we assumed a 10% increase in demand. And the third  
23 day I think it came down to about 7.5%, and the last  
24 day of that came down to a 5% increase over the  
25 forecasted peak and we did that twice in the month of

1 January.

2 So we had two incidents in the month of  
3 January that we looked at or fairly demanding  
4 conditions. Again, we found no violations.

5 For the summer, it was a similar analysis  
6 that was done. There were two, one week periods that  
7 were assumed during the month of August above the  
8 forecasted peaks, and again, there were no violations.

9 The FRCC reference case is -- we consider it  
10 robust enough to all sensitivities examined so that we  
11 don't believe that there is any probability of  
12 concern.

13 I'd like to turn now to the reserve margin  
14 standard.

15 **MR. BALLINGER:** Mario, before we leave that,  
16 can I ask a question? This is the first time you've  
17 actually presented the results, all the sensitivities  
18 to Staff. I noticed in the '99 reserve margin  
19 analysis it just had a statement that they were  
20 similar to '98, but Staff hasn't been made aware of  
21 any of these values yet until today; is that correct?

22 **MR. VILLAR:** As far as I know, that's  
23 correct, Tom.

24 **MR. BALLINGER:** Okay.

25 **COMMISSIONER JACOBS:** I have a question.

1           **MR. VILLAR:** Yes.

2           **COMMISSIONER JACOBS:** This year we had a  
3 sustained period of high temperatures in August. I  
4 think probably a week or two of above average  
5 temperatures. How would that play into your analysis?

6           **MR. VILLAR:** Well, you're comparing forecast  
7 to actuals so it doesn't actually play into it. But  
8 we did do a sensitivity analysis, like I said, for  
9 both the summer and the winter peaks when we  
10 forecasted. And we assumed, in the case of the  
11 summer, two one-week periods during the month of  
12 August where we had exceeded the forecasted peaks at  
13 that time and we saw no violations. But during the  
14 month of August this year we didn't have any  
15 interruptions as far as I know.

16           **COMMISSIONER JACOBS:** No, we didn't. Wasn't  
17 there one week, though, where there were -- wasn't  
18 there one week in August where we had -- we didn't  
19 have interruptions, but we had the reserve?

20           **MR. BALLINGER:** In '99?

21           **COMMISSIONER JACOBS:** Yes.

22           **MR. BALLINGER:** I believe it was April we  
23 got into an alert situation, if I'm remembering  
24 correctly. It was right around -- and it was right  
25 before, I think, TECO had the explosion at Gannon. It

1 was the few days prior to that we were in an alert  
2 status for a day or two. I see Henry nodding his  
3 head. But I think over the summer, so far we've done  
4 okay.

5 **MR. VILLAR:** I think one important thing  
6 here is that, the fact that we have an alert doesn't  
7 mean anything. It's part of our plan. The reason why  
8 we declare an alert is so we pay attention to what's  
9 going on so we can take the appropriate action; make  
10 sure there are units that are available; that we do  
11 have the availability of nonfirm power purchase from  
12 somewhere else if it's necessary; that we have the  
13 ability of operational measures to call them into play  
14 if need be. But the advisories and alerts, et cetera,  
15 is all part of the plan.

16 **COMMISSIONER JACOBS:** Going back to the  
17 original question. When you say you assume two weeks  
18 in August, is that one day of that week or for the  
19 sustained --

20 **MR. VILLAR:** It's the complete week.

21 **COMMISSIONER JACOBS:** Okay.

22 **MR. VILLAR:** I can tell you exactly what it  
23 was that we assumed. For the first day, actually we  
24 had -- for the peak day we assumed a 6% increase over  
25 the forecasted peak; three days of 4% increase; one



1 day at 2%, and two days at 1%. And we did that twice  
2 during the month.

3 **MR. BALLINGER:** I'm sorry. Could you run  
4 through that slower, and also for the winter one? I  
5 missed it the first time through.

6 **MR. VILLAR:** Sure, Tom.

7 **MR. BALLINGER:** For summer first.

8 **MR. VILLAR:** Summer was --

9 **MR. BALLINGER:** First day was plus 6%.

10 **MR. VILLAR:** Well, it was a peak day. I  
11 don't remember whether it was the first day or in the  
12 middle of the week. Dave Dawson here? Mike, do you  
13 recall?

14 **UNIDENTIFIED SPEAKER:** No.

15 **MR. VILLAR:** Okay. For the peak day it was  
16 6% increase, Tom.

17 **MR. BALLINGER:** Okay.

18 **MR. VILLAR:** Then we assumed three days at  
19 4% higher in the fork, and then the forecasted firm  
20 peak; one day at 2%, and two days at 1% for the  
21 summer.

22 **MR. BALLINGER:** Two days.

23 **MR. VILLAR:** And the winter was, the first  
24 day, a 5% increase in the demand. The second day, a  
25 10% increases in demand. Third day, 7.5% increase

1 over forecast. And the fourth day, 5% increase in  
2 forecast. And as you remember, the winter peaks here  
3 traditionally are maybe one, two days; not necessarily  
4 four.

5 **MR. BALLINGER:** So if I understand right,  
6 for winter you did a four day window, if you will, of  
7 a gradually decreasing temperature and then slowly  
8 warming back up. And for summer you did a week period  
9 where it gradually heated up and at peak day it was 6%  
10 over the forecast?

11 **MR. VILLAR:** Well, actually the winter --  
12 the first day for the winter was 5%. The second day  
13 resulted in 10% because of the buildup.

14 **MR. BALLINGER:** Right. And then it starts  
15 warming up?

16 **MR. VILLAR:** And then it starts coming back  
17 down, correct.

18 **MR. BALLINGER:** All right.

19 **MR. VILLAR:** For the reserve margin --

20 **MR. BALLINGER:** Mario, I'm sorry.

21 **MR. VILLAR:** Go ahead, Tom.

22 **MR. BALLINGER:** Did you do a similar  
23 sensitivity on reserve margin using these weather  
24 assumptions?

25 **MR. VILLAR:** I'll get to reserve margins in

1 a minute to show what we did towards the end here.

2 **MR. BALLINGER:** Okay.

3 **MR. VILLAR:** Now, reserve margin  
4 calculations look at the excess of total firm  
5 capability or firm load. For that they assume that  
6 each of the components that go into a calculation is  
7 available 100% of the time or it's there and called  
8 upon at the time of peak.

9 What the FRCC did is, we looked at the five  
10 components that go into reserve margins, which are the  
11 ones listed there; utility-owned generating capacity,  
12 firm QF capacity, et cetera, and we developed a  
13 certainty factor for it.

14 For example, if you take utility-owned  
15 generating capacity, and over the last six years in  
16 this case, because we added one year's worth of data,  
17 utility-owned generated capacity at the time of peak  
18 was available, not 100%, but perhaps 94%. We assigned  
19 a 94% or a .94 certainty factor to that particular  
20 component.

21 We did similar analysis for firm QF  
22 capacity, import capacity, et cetera. We applied a  
23 certainty factor to each of those. What we're  
24 actually doing is trying to measure how well we've  
25 been doing over the last five, six years against what

1 we projected was going to be there at the time of  
2 peak. Just for purposes of testing, how far off we  
3 were from that. And remember, reserve margins are  
4 supposed to account for these uncertainties and the  
5 availability of these factors.

6 The focus of the analysis was twofold. One  
7 was to determine whether the Peninsula's reserve  
8 margin met the FRCC's 15% reserve margin standard.  
9 And two, to confirm whether or not that standard  
10 continued to be adequate given the latest figures that  
11 we have been seeing in terms of certainty factors for  
12 these components, et cetera.

13 Basically test the utility's projected  
14 reserves against recent historical performance and  
15 contingencies, and then combined that information with  
16 engineering, economic judgment to make -- to reach  
17 conclusions from that.

18 Now, these get complicated because we get  
19 into what we actually did, and I'd like you to keep  
20 these in mind.

21 The first item there shown, which is a base  
22 case, is what FRCC believes is the most meaningful  
23 case; the most likely case that we believe will occur.  
24 It contains the 1998 actuals and projections that were  
25 added to last year's database. For last year's

1 analysis we used 1993 to 1997. We added actual data  
2 for 1998 to the analysis to develop these certainty  
3 factors for each one of those components.

4 Then we made a couple of improvements to  
5 last year's approach. We added a noncoincidence  
6 adjustment factor for load forecast to recognize the  
7 fact that there is load diversity in the system, and  
8 it's not currently included in our analysis or was not  
9 done in the 1998 analysis yet as a fact of life.

10 And two, we made an adjustment to the winter  
11 1993 actual and projected data for utility installed  
12 generation. And the reason for that adjustment was  
13 basically that the winter peak in 1993 occurred very  
14 late in the season and the certainty factor is  
15 supposed to measure the unavailability of capacity at  
16 the time of peak due to forced outages, basically, or  
17 my unit is broken.

18 And by that time in March we had scheduled  
19 maintenance of some units so we didn't feel that it  
20 was appropriate to use that figure because it didn't  
21 actually test the brakes for the units. It was very  
22 late in the year and we had sufficient capacity to  
23 take the units out for scheduled maintenance to meet  
24 that peak so we had no problems whatsoever.

25 Scenario 1, it's only shown here for

1 illustrative purposes. It compares the figures with  
2 last year's work. It does not contain any of the  
3 changes that were made in 1999. It only adds one  
4 year's data to the database that was used last year,  
5 but it does not include any of the other changes.

6           Scenarios 2, 3 and 4 are basically the major  
7 sensitivities that we conducted against the base case  
8 and they are focused on the major contributors to  
9 this -- the driving factors that affect the reserve  
10 margin calculations. The biggest drivers are the need  
11 for reserve margins. Basically that is the  
12 availability of utility installed generation capacity.  
13 Where in Scenario 2 we took the worst data point for  
14 the whole six year period and we applied that to the  
15 base case.

16           All the other assumptions remained the same  
17 in terms of the certainty factors. In other words,  
18 for all the other certainty factors, we used the  
19 average number that we had used in the base case.

20           For Scenario 2, for utility installed  
21 generation capacity, we used the worst number from the  
22 six years' worth of data.

23           Scenario 3 applies to, again, the other  
24 major driver of the need for reserve margins, which is  
25 the load forecast error. In Scenario 3, again, we

1 used the worst data point during that six year period  
2 even though that worst data point is -- I believe it  
3 was the winter of 1994, and we have made some changes  
4 to the forecasting methodology that I described before  
5 that change the possibility of that really occurring  
6 again.

7 In other words, I am not going to have as  
8 high a forecast error because I have changed the  
9 methodology by lowering the temperatures. Still we  
10 applied that to the Scenario 3.

11 And then Scenario 4, it's a combination of  
12 Scenarios 2 and 3, where we take the worst case for  
13 utility installed generation and the worst case for  
14 load forecast error and apply both of them at the same  
15 time.

16 This table is very busy, but just basically  
17 tell you what it actually shows. You have the FRCC  
18 reserve margin criterion here on the left. The  
19 numbers right to the right of that are the actual  
20 projected reserve margins by FRCC; what we are  
21 expecting to be. And these numbers, again, they are  
22 shown on a noncoincident basis. So, again, if we  
23 wanted to make a load diversity adjustment to these  
24 numbers, it would be like two percentage points  
25 higher.

1           The base case scenario shows what the needed  
2 reserve margin would be for each -- for the base case  
3 with the certainty factors that we have used in the  
4 analysis. In other words, applying the average of the  
5 six years' worth of data of each one of those reserve  
6 margin components, what reserve margin would I need in  
7 order to account for those certainties -- for those  
8 uncertainties associated with those components.

9           So, for example, in 1999, given those  
10 uncertainties, I could meet the load with only a 6%  
11 reserve margin.

12           Scenario 1, I'm not going to discuss,  
13 because like I said, it was only there for  
14 illustrative purposes for last year's analysis. Let  
15 me go to Scenarios 2, 3 and 4.

16           Scenario 2, again, shows the adjustments  
17 that were made to the base case. In this particular  
18 case for Scenario 2, it was a utility installed  
19 generation capacity. We changed the certainty factor  
20 to put the worst case in there. When you put the  
21 worst case utility certainty factor -- utility-owned  
22 generating capacity certainty factor, you see the  
23 numbers for the needed reserve margins change from the  
24 base case. They go up. I would need a higher reserve  
25 margin in order to meet my -- the certainties under



1 that scenario.

2 The numbers on the bottom here -- the  
3 questions, basically, on the bottom just say, answer  
4 the question of, is a needed reserve margin, for the  
5 first one, to account for the uncertainties less than  
6 15%, yes or no. If it's less than 15%, we're okay  
7 with the 15% reserve.

8 The second question goes against the actual  
9 projected reserves. And then here it shows the  
10 conclusions as to what each one of those different  
11 scenarios show.

12 And I'd like to take a moment for -- to go  
13 through those because you might look at some of these  
14 numbers on the bottom and you might say, well, we got  
15 a problem. Not the case.

16 You not only need to look at what the  
17 scenarios show, but also how it likely is to happen,  
18 when is it likely to happen, and what other measures  
19 do you have available to you in order to mitigate the  
20 effects of this if it were to happen.

21 Let's look at Scenario 4 because it's the  
22 worst combination of them all. And if you look at  
23 Scenario 4, you'll see that the projected reserve  
24 margins for the Peninsula, 16, 18, 20, et cetera,  
25 appear. These are -- if you compare these numbers

1 against the projected reserve margins, we're okay  
2 against what we are currently projecting.

3 And, again, remember that these numbers  
4 could be understated by two percentage points because  
5 they're done on a noncoincident basis. So these year  
6 shouldn't be a concern.

7 So now we're looking at the last years here,  
8 these figures here, which are the last four years of  
9 the analysis. Well, a lot can happen between now and  
10 then. The plans can change significantly. Again, the  
11 reserve margins are calculated on a noncoincident  
12 basis, so if I apply a coincident factor to these  
13 numbers here, I am not really that far off from those  
14 numbers because these numbers are higher by two  
15 percentage points.

16 I also have the availability of operational  
17 measures, which, like I said, is over 3,000 megawatts  
18 available to the utilities.

19 So in summary, Scenario 4, we're looking at  
20 something that we might have some problems way out in  
21 the future. This doesn't take into account the use of  
22 operational measures. It doesn't consider the fact  
23 that these actual reserve margins on this side are  
24 done on a noncoincident basis and we do have the  
25 availability of a lot of other measures to us to

1 mitigate the effects of what could happen. Plus,  
2 we're looking at an extremely unlikely scenario  
3 because if the load forecast scenario, worst case  
4 scenario, basically assumes that we have the worst  
5 forecast error for each one of those years.

6 In other words, we didn't apply just one  
7 factor and we said the worst forecast error was 10%  
8 and applied it for years 1999 to 2008. We took the  
9 worst forecast error that was possible for a forecast  
10 applying to 1999 and put it in that year. The worst  
11 forecast error for a forecast that would apply to this  
12 year, et cetera, for each one of those years. So the  
13 probability of occurrence of those events, it's  
14 extremely unlikely in our opinion.

15 **MR. FLOYD:** Mario, I've got several  
16 questions about that assessment in summer, but I also  
17 have about winter. And I think I'll just let you go  
18 through the winter. And so I won't interrupt this,  
19 but I didn't want to pass that page without letting  
20 you know I got some questions.

21 **MR. VILLAR:** No problem, Roland.

22 The winter scenario presents a similar  
23 picture. Again, I'm not going to take you through  
24 each one of those, but let me explain before you  
25 become totally confused with the fact that I have

1 negative numbers in the base case.

2           That basically what it does is because of  
3 the certainty factors that we have been experiencing  
4 or that we have been seeing applied to the load  
5 forecast error in the winter, we've had very mild  
6 winters. Therefore, the certainty factor applicable  
7 to the winter is a number that reduces the projected  
8 forecast from the one that we have. And what it does  
9 is it basically says that if we applied that certainty  
10 factor and we get the kind of forecast that we would  
11 expect, we could meet the load with less reserves than  
12 we currently have now. So if we have the amount of  
13 reserves that we have now with the kind of load that  
14 we have projected now is here, that would be zero  
15 reserves, we could have -- what the actual forecast  
16 that we could project given the certainty factor would  
17 be done here. So it would be negative relative to  
18 where the zero reserve point is now.

19           I don't know if I've totally confused you  
20 with that, but that's the reason why we have negative  
21 numbers in there. Just basically means that we need  
22 less reserves than what we have now given the  
23 projected forecast that you could get under those  
24 conditions.

25           Again, in the winter, we have similar

1 results where, as each scenario goes, the numbers  
2 increase and you would expect when we apply the worst  
3 forecast error for load to have the one having the  
4 most effect, remember the certainty factor for the  
5 winter normally here is a very low number, resulting  
6 in low reserve margins. So only when you get to  
7 Scenarios 3 and 4 do you actually see something  
8 significant happening. That is because that's where  
9 the winter -- the worst winter load forecast error was  
10 applied in both Scenarios 3 and 4.

11 One of the things that needs to be  
12 considered in looking at this is, again, Scenario 4 is  
13 extremely unlikely and we have two points here where  
14 there might be some concern. These, from here to  
15 about here, are very close to the FRCC's current  
16 projected reserve margins, and again, since this  
17 reserve margins are calculated on the basis of  
18 noncoincident peak, if we were to bump those numbers  
19 up by 2% they would meet or exceed these numbers. So  
20 we don't see it as a concern.

21 This -- that adjustment would also reduce  
22 the difference between these two numbers. The issue  
23 with these numbers is they're so close in time, there  
24 isn't anything we can do about it from a planning  
25 perspective most likely. But, we are also not

1 recognizing here the fact that we have 3,800 megawatts  
2 of available operational measures. So even though  
3 this might look like we might be a little short, we  
4 can do something about it. We can take appropriate  
5 steps to take care of the problem.

6 When we get back out in the later years, we  
7 can take care of it by similar concerns like  
8 operational measures, et cetera. Plus, we're way out  
9 in the future, so the plans can change significantly  
10 between now and then. We shouldn't worry too much  
11 about this.

12 In addition to that, one thing that I  
13 mentioned before that affects our confidence in being  
14 able to meet these numbers, is that these forecasts  
15 and the forecast error that was applied here is based  
16 on the winter of 1994. We have changed, or at least  
17 FPL changed, its methodology so that we do not expect  
18 to see the same kind of forecast error that we saw in  
19 the winter of 1994. I don't recall what the number  
20 was that was applied. Steve? Is he around? Where's  
21 Steve Sim? What was the forecast error that was  
22 applied for the winter, the worst winter?

23 **MR. SIM:** I think it's 13%, subject to  
24 check.

25 **MR. VILLAR:** Somewhere in the 13% range.

1 But since there have been some improvement in load  
2 forecasting methodology, we do not expect to have as  
3 high a load forecast error as we had before, and yet  
4 here we're applying some very hard numbers to these  
5 scenario sensitivities that we've conducted. So we do  
6 not expect that these numbers would, in reality, pan  
7 out.

8 In other words, the likelihood of Scenario 4  
9 occurring is extremely remote based on all the things  
10 that have changed since then, and the fact that if it  
11 did happen, we do have 3,800 megawatts of available  
12 operational measures that we could put in place.

13 **COMMISSIONER JACOBS:** Are you aware if, in  
14 Florida, there is the -- what's been dubbed these hot  
15 spot scenarios? In the problems that have occurred in  
16 other areas of the country they've indicated that  
17 they've had adequate access to capacity but the  
18 problem is that in the hot spots transmission and  
19 distribution issues limited the ability to bring in  
20 much of that capacity. Does that affect Florida, and  
21 if so, has it been accounted to for in the analysis?

22 **MR. VILLAR:** I think you may be talking  
23 about transmission constraints into particular areas  
24 that do not allow assistance from outside that  
25 particular region to come in.

1           In this particular case, we have assumed as  
2 part of the operational measures the availability of  
3 assistance from the rest of the eastern  
4 interconnection to the extent that transmission  
5 capacity was available. So if there were 1,000  
6 megawatts of transmission capability available into  
7 the state, we were assuming that that was available  
8 into the state.

9           We do not see that as a transmission  
10 constraint at this point because that's nonfirm  
11 transmission. However, if it were to happen, that  
12 would still leave us with roughly 2,800 megawatts of  
13 operational measures that we could take account of  
14 within the state to mitigate the potential effects of  
15 this. So I don't see that as a problem.

16           **COMMISSIONER JACOBS:** So as I understand it,  
17 you've assumed that the constraints would exist  
18 outside the region and your analysis would account for  
19 that?

20           **MR. VILLAR:** We assume that there were about  
21 900 to 1,000, depending on the year. I think it was  
22 961 to 1,062 megawatts of tie-line assistance, let me  
23 call it that for simplicity sake, coming in the from  
24 the southern region.

25           If you do away with that number of



1 megawatts, we still have sufficient megawatts and  
2 operational measures in the state in terms of public  
3 appeal, voltage reduction, load control SCRAM to take  
4 care of these issues here.

5 **COMMISSIONER JACOBS:** Okay.

6 **MR. BALLINGER:** Mario, can I ask a question  
7 about the operational reserves within the state?

8 **MR. VILLAR:** Yes, Tom.

9 **MR. BALLINGER:** You said that voltage  
10 reduction and all and conservation appeals. Does it  
11 concern you that that's kind of a reduction in the  
12 quality of service at that time? I understand we're  
13 probably in an emergency situation; it's very cold or  
14 very hot and you're asking people to conserve. But  
15 does it concern you that we're pushing that envelope;  
16 that we're having to ask people, our customers, to  
17 either conserve on their own or reduce voltage to  
18 certain appliance, that they may not run as  
19 efficiently, things of this nature?

20 Doing your load management SCRAM, which is  
21 out of the ordinary from when you normally do it, I  
22 understand it's in the tariffs, but are we getting to  
23 that level where we're starting to rely on those more  
24 and more? And are the customers really aware of it?

25 **MR. VILLAR:** I don't know if the customers

1 are aware of it, Tom, but we don't believe that we're  
2 going to get into that kind of extreme conditions that  
3 we have here shown in these scenarios.

4           What we believe is the most likely to  
5 happen, given the kind of assumptions that we have,  
6 the most reasonable assumptions is the base case. In  
7 the unlikely event that we were to get there, we will  
8 follow what the state emergency plan has, which is to  
9 go out for public appeals, how to mitigate  
10 circumstances to deal with that kind of extreme  
11 temperatures, et cetera.

12           I don't think it's unreasonable to do that.  
13 You know, it's not something that we exercise on a  
14 regular basis or we don't expect to exercise on a  
15 regular basis. It might be an unusual event and to  
16 deal with unusual events in that regard, I think is  
17 prudent.

18           **MR. BALLINGER:** Okay.

19           **MR. VILLAR:** In summary, I think the FRCC  
20 confirmed the continued suitability of its regional  
21 reserve margin standard of 15%. Will maintain better  
22 than 15% reserves for both the winter and summer  
23 through the addition of significant amounts of  
24 megawatts for both summer and winter periods, new  
25 generating capacity.

1           The LOLP analysis confirmed the analysis  
2 that we had done in terms of the reliability of the  
3 state and it looked at the probability of being able  
4 to meet the load on each one of the days rather than  
5 just on the peak periods.

6           And from that we conclude that the existing  
7 and planned resources are sufficient to reliably meet  
8 the needs of Peninsular Florida customers under  
9 reasonably expected conditions. And we believe the  
10 FRCC's load and resource plan is suitable.

11           That concludes my presentation. I'd be glad  
12 to answer questions. Roland.

13           **MR. FLOYD:** I'm passing out a little  
14 handout. It's from this year's reliability assessment  
15 study. Just a few selected pages. And I want to ask  
16 you a question starting out on Page 21.

17           **CHAIRMAN GARCIA:** 21 of your presentation,  
18 right?

19           **MR. FLOYD:** It's Page 21 of their  
20 reliability study.

21           **MR. VILLAR:** Right. Of your handout.

22           **MR. FLOYD:** There should be a Page 21 at the  
23 bottom. Do you have that, Mario?

24           **MR. VILLAR:** I'm trying to put it up here so  
25 the people can maybe try to see it.

1           **MR. FLOYD:** Okay. We've got extra copies.

2           **CHAIRMAN GARCIA:** I think if you turn on the  
3 lights there that are above the --

4           **MR. VILLAR:** Where are you focusing on?

5           **MR. FLOYD:** This Page 21. Look at the  
6 right-hand column where it says "Needed" Reserve  
7 Margin.

8           **MR. VILLAR:** Yes.

9           **MR. FLOYD:** As I understand it, your  
10 methodology or FRCC's methodology produced these  
11 numbers as what was needed in each of the years 1999  
12 through 2008. And I notice in the last three years  
13 it's 13%.

14                   And down below, I'm reading the writing on  
15 this page, it says referring to that column, this  
16 result indicates that both the FRCC's reserve margin  
17 planning criterion of a 15% level and the higher than  
18 15% planned reserve margin for each year are more than  
19 adequate.

20                   Now, I'm assuming when you say that, I'm  
21 looking at this 13% and the 13 is less than 15, and  
22 even less than 17, 18 and 17, so by your methodology  
23 that's adequate. In fact, it's more than adequate  
24 because you got a little room there between 13 and 15.

25           **MR. VILLAR:** From that standpoint, yes,

1 Roland, it's correct. The one thing that I'd like to  
2 clarify is that our methodology does not produce what  
3 the reserve margin ought to be. This is for testing  
4 purposes only. In other words, our methodology is not  
5 designed to come up with what the ultimate reserve  
6 margin ought to be. It's just used for testing a  
7 particular reserve margin that has been arrived at all  
8 ready.

9 **MR. FLOYD:** Can I believe these numbers,  
10 thought, in the right-hand column that that is what  
11 your methodology showed you needed or not?

12 **MR. VILLAR:** When we say needed, we're  
13 referring to, given the uncertainty factors that we  
14 have used in the analysis, we can meet the load -- the  
15 projected load with those uncertainty factors given  
16 these level of reserves in the right-hand column.  
17 That's what it means.

18 **MR. FLOYD:** Let's leave aside the question  
19 right now that you have not determined -- you haven't  
20 come up with a methodology to tell us what the reserve  
21 margin should be. You've only come up with a test for  
22 your 15% that you assume. I'm going to leave that  
23 question aside for now.

24 **MR. VILLAR:** Okay.

25 **MR. FLOYD:** All right. These numbers here

1 say that the 15% is adequate because it's less than  
2 15. Now, what worries me -- it kind of scares me  
3 about this methodology, from years 1999 through about  
4 2004, your methodology says you can get by with 10% or  
5 11%. That's your method.

6 **MR. VILLAR:** Given the certainty factors,  
7 yes. But so what? You know, given what we've seen in  
8 terms of certainty factors over the last few years,  
9 that doesn't mean we're going to operate there.

10 **MR. FLOYD:** Fine. But I know you've got  
11 planned more and your standard is greater than that,  
12 but tomorrow you could vote to have a standard of 10%,  
13 FRCC could if it wanted. Based on your methodology  
14 you could say, well, let's just have 10% or 11%  
15 because we don't need 13 until you get out to 2006.

16 **MR. VILLAR:** Well, Roland, I think we could  
17 speculate as to what could happen and anybody could  
18 vote to until we're -- we stay here for the next 300  
19 years. I don't think -- we're not going to go there.

20 **MR. FLOYD:** You're not speculating, though,  
21 about what your methodology produces. That says about  
22 10% or 11% through 2004 would be adequate. Okay. I  
23 got another handout.

24 What I'm passing out now is last years. No.  
25 I'm sorry. Stay on that same handout. I want to go

1 to winter reserve margins over on page --

2 **MR. VILLAR:** 25?

3 **MR. FLOYD:** Yes, sir. Page 25. I have a  
4 similar question on this. I just want to confirm it  
5 and you seem to be agreeing with me about it.

6 According to this, in 1999/2000 winter,  
7 that's the winter coming up, we only need 5%. By your  
8 methodology we could get by with 5%. Not saying you  
9 would adopt that, but your methodology produced that  
10 number.

11 **MR. VILLAR:** Yes, our methodology produced  
12 that number. But that's not what we're advocating or  
13 anything like that. Just basically says that if you  
14 use the certainty factors that we have, you could  
15 account for all those certainty factors with a 5%  
16 reserve margin. Basically because winters have been  
17 so mild that the winter certainty factor is -- the  
18 adjustment on it is high enough that it wipes out  
19 anything else that might be effected by the  
20 unavailability units or anything like that.

21 **MR. FLOYD:** Let me call your attention to  
22 Page 16 and 17 that I handed out in the first handout.  
23 Do you have Page 16? That was probably the first page  
24 after the cover page?

25 **MR. VILLAR:** 16 is the one that I have here.

1           **MR. FLOYD:** I'm reading a sentence here in  
2 the second paragraph. "The base case is the case  
3 which the FRCC believes is the most meaningful case  
4 analyzed."

5           Over on Page 17 you say something similar.  
6 "The FRCC believes the base case" -- and that's the  
7 case that generated those negative reserve margins.  
8 "The base case is the most meaningful case because of  
9 these two improvements." Well, we're talking about  
10 the two improvements you made.

11           But anyway, "to the approach and because of  
12 the fact that it captures a truly representative set  
13 of values." So your results that were based on a  
14 truly representative set of values and what's the most  
15 meaningful case, you come up with negative reserve  
16 margin, and that's scary to me.

17           **MR. VILLAR:** Why is it scary? We are not  
18 proposing to go there. We look at sensitivity  
19 analysis, looking at the worst case, et cetera, and  
20 we're not changing anything. The numbers are what the  
21 numbers are.

22           **MR. FLOYD:** I tell you why it's scary to me.  
23 We do not control what FRCC says is a standard. And  
24 you can go down there and vote tomorrow that 10% is  
25 your standard based on your methodology. I don't like



1 your methodology because of the numbers it produces.  
2 But, I'm not saying you would do that. I'm just  
3 saying you could do that. And --

4 **MR. VILLAR:** So if I had six years' worth of  
5 data that pro -- I use the exact same methodology, but  
6 the number in there showed 25% you would be happy with  
7 that?

8 **MR. FLOYD:** No. I don't like the mechanics  
9 of your methodology, but I'm not going to go into that  
10 now. We can save that for the hearing.

11 But, anyway, let's move on to the second  
12 handout that I just handed out from last year's study.

13 **MR. VILLAR:** Well, I want to make clear, the  
14 FRCC is not producing to carry negative reserves.

15 **MR. FLOYD:** That's right. And you even have  
16 planned reserve margins much greater than your  
17 standard, but I don't know what would keep anybody  
18 from selling firm capacity outside of the state  
19 because you have more than what your methodology shows  
20 you need. I couldn't prevent somebody from doing  
21 that.

22 **MR. VILLAR:** Well, speculation I don't think  
23 is going to get us anywhere.

24 **MR. FLOYD:** I'm not speculating on what you  
25 will do or might to. I'm just saying you could --

1 utilities can do that, and you could justify it based  
2 on your methodology because it produces numbers that  
3 are so small.

4 I want to go to the second handout for the  
5 1998 study. I think I passed out Pages 9, 10 and 11  
6 from that study. And by the way, that's from the  
7 exhibits in the study. Do you have that?

8 **MR. VILLAR:** You talking about Pages 9 and  
9 10?

10 **MR. FLOYD:** Right. 9, 10 and 11.

11 **MR. VILLAR:** Okay. 9 and 10 is a summer  
12 reserve margin, and 10, it's the winter. They show  
13 similar results to the ones that you were talking  
14 about at some point.

15 **MR. FLOYD:** Exactly. That's it. What I  
16 wanted to ask you about is -- let's look on Page 10.  
17 And in column 16 you have needed reserve margins  
18 component over there. This is similar to what you've  
19 done this year except you didn't put it in quotes last  
20 year.

21 And notice on year 2004 and 2005. You go  
22 all the way over to the right, Column 16, you have 12%  
23 is what your study showed your test, or however you  
24 want to characterize it, when you were testing it  
25 against 15 reserve margin, that came out to be less

1 than 15. You follow me?

2 **MR. VILLAR:** Okay. I'm following what  
3 you're saying, but --

4 **MR. FLOYD:** Okay. Now, what I want to do is  
5 compare what you're study showed for that same year  
6 under the same methodology by adding one year data.  
7 What does it show? Look at this year's study and see  
8 what Scenario 1 showed for year 2004 and 2005. I  
9 think it shows you only need 1%.

10 **MR. VILLAR:** Okay. I don't have it in front  
11 of me, but basically we are looking at 1998 stuff and  
12 you got to remember that we did a couple of things.

13 We removed the winter 1993 data for utility  
14 installed generation because we didn't think it was  
15 representative or has an effect on it.

16 We have an additional year's worth of data  
17 where we also had a very mild winter, so that also  
18 tends to affect the numbers.

19 **MR. FLOYD:** That's the only difference, what  
20 you just said. You added one year of data and you  
21 told me last year --

22 **MR. VILLAR:** No, we did not, Roland.  
23 There's a number of changes that were made which we --

24 **MR. FLOYD:** Scenario 1?

25 **MR. VILLAR:** What's that? I'm sorry.

1           **MR. FLOYD:** Scenario 1 you told us was so we  
2 could compare with last year. You just got through  
3 saying that a while ago.

4           **MR. VILLAR:** Okay. Is this Scenario 1? I  
5 don't know what this is. This is 1998.

6           **MR. FLOYD:** Mario, I told you to compare  
7 that with 1999 Scenario 1.

8           **MR. VILLAR:** I understand that, Roland, but  
9 I don't know what went into this number. I haven't  
10 seen this number in I don't know how long.

11           **MR. FLOYD:** Well, the 12% was what your  
12 method produced last year. Would you agree with that?  
13 You may disavow it now --

14           **MR. VILLAR:** It may be, but I don't know  
15 what winter No. 6 is. I'm taking your word for it. I  
16 can't compare it. I don't know what this number is at  
17 this --

18           **MR. FLOYD:** I'm going to show you how to  
19 compare it. Look at -- on Page 10 you'll get a number  
20 of 12%. Now, this year you gave us a study and said,  
21 Scenario 1 was what we would use to compare with last  
22 year's study because you didn't make your coincidence  
23 factor changes and so forth. And so I looked at this  
24 year's study under Scenario 1 and I found for that  
25 same year you're saying we only need 1%. Now, those

1 are the numbers there. I'm not making these things  
2 up.

3 **MR. VILLAR:** I have not compared these two  
4 numbers, Roland. I would be glad to go back and look  
5 at them or have somebody look them --

6 **MR. FLOYD:** I'm not asking you to do  
7 anything --

8 **MR. VILLAR:** -- and give you an explanation  
9 for them, but I don't what it is at this point.

10 **MR. FLOYD:** All I'm pointing out here is --  
11 and I don't want to get into a debate on -- is your  
12 methodology last year showed, and this is methodology  
13 that's scary to me, but -- and this is the reason.  
14 Last year you say we need 12% in 2004 and 2005. For  
15 the same year, this year, with one year's additional  
16 data, you tell me I need 1%. What that tells me is  
17 you're method is not very stable. You add one year  
18 data and all of a sudden you got reduced from 12% to  
19 1% is what is needed.

20 By the way, that's the problem. You have  
21 the same problem that you said Staff had with only  
22 using five years of data. That's all you used, too;  
23 five data points.

24 **MR. VILLAR:** I understand that.

25 **MR. FLOYD:** And when you added six data

1 points you had a big change in there. That makes me  
2 nervous.

3 **MR. VILLAR:** I understand that that one data  
4 point is going to change. But what it's going to  
5 change is the median and I'm not assigning any  
6 probabilities to any of these numbers, unlike what  
7 Staff did last year. I'm not assuming that anything  
8 is going to occur in any particular way. And we are  
9 also recognizing all the assumptions and the changes  
10 that have taken place. It's just that this is the  
11 only data that's available.

12 **MR. FLOYD:** Well, it's kind of shaky data  
13 when you come in here one year and say we need 12%,  
14 and the next year you come in and say, well, one will  
15 do. It makes me wonder.

16 **MR. VILLAR:** I don't think it's shaky data.  
17 That's what the data shows. But, again, I haven't  
18 compared these two numbers. I'd be glad to take a  
19 look at it.

20 **MR. FLOYD:** All right. Thank you.

21 **MR. BALLINGER:** Commissioners, Staff still  
22 has several questions. I don't know if you want to  
23 take a quick break now because we're about to go  
24 through the packet of information that we handed out  
25 earlier.

1           **CHAIRMAN GARCIA:** Yes. Let's go ahead and  
2 take 15 minutes and then we'll start again with you,  
3 Mark.

4           (Brief recess.)

5                                 - - - - -

6           **MR. BALLINGER:** There's a sign-up sheet over  
7 here on this thing. We need everybody to sign up so  
8 we can keep an accurate attendance list of today's  
9 proceedings. And I understand Mr. Henry Southwick  
10 wanted to say a little bit before we went on with  
11 Staff's questioning.

12           **MR. SOUTHWICK:** Just a little bit. I just  
13 wanted to point out that at the FRCC what we adopted  
14 was a 15% reserve margin standard. We did not adopt a  
15 methodology per se. We recognized that there is no  
16 perfect methodology and that's why we didn't do it.  
17 So what we adopted, as I said, is the standard, and I  
18 wanted to assure you that we have no intention or plan  
19 that I'm aware of at all to change that standard.  
20 Certainly not to lower or raise it at all.

21           **MR. BALLINGER:** Thank you. I told  
22 Mr. Villar he could probably go ahead and sit down for  
23 this because the Staff packet is a little cumbersome  
24 to be putting up on the overheads, but everybody  
25 should have the Staff documents packet we handed out

1 earlier. I know we sent it to the Commissioners  
2 before the workshop. If you need any extra copies,  
3 let me know. And I will get started.

4 Mr. Villar, if you could turn to Page 2,  
5 which kind of summarizes our 1999 concerns of the FRCC  
6 methodology. And I'd like to say that a lot of these  
7 are similar to what we had in '98 in that we're  
8 concerned about the low LOLP values. In other words,  
9 they tended to produce results of reserve margin of 6%  
10 to, 8%, roughly. What that means is that reserve  
11 margin is now the driving factor. Is that again the  
12 same case in '99?

13 **MR. VILLAR:** Yes, it is, Tom.

14 **MR. BALLINGER:** Really, we have had no  
15 experience at 15%. I know utilities have used it as a  
16 planning criteria, but LOLP has been driving -- when  
17 generation has been added, utilities haven't actually  
18 operated near 15% for quite sometime; isn't that  
19 correct?

20 **MR. VILLAR:** Well, part of the reason, among  
21 others, why LOLP was driving the reserve margins that  
22 were needed by the utilities was the fact that we had  
23 not as good unit availability as we have currently.  
24 And because we have made significant improvements in  
25 unit availability, the focus has changed from LOLP to



1 reserve margin and the two methodologies complement  
2 one another. We're not proposing to abandon looking  
3 at prior methodologies.

4 **MR. BALLINGER:** I understand. But basically  
5 now that we've gone to reserve margin being the key  
6 factor, we really haven't had -- sustained experience  
7 having reserve margin being the driving factor.  
8 That's kind of what's concerned Staff, when we get  
9 especially such a low level of 15%. We'll get to a  
10 little later in the packet of why that's a concern.

11 What I'm trying to point out here is that a  
12 lot of these concerns were also raised in '98 and we  
13 still have similar concerns.

14 **MR. VILLAR:** I understand, Tom. I just  
15 wanted to clarify the FRCC standard is a minimum  
16 standard and the projected reserves are higher than  
17 15.

18 **MR. BALLINGER:** I understand.  
19 I think what Roland brought up earlier, our  
20 concern this year is the dramatic changes from the '98  
21 analysis to the '99, basically, with just one year of  
22 additional data; how the results swing significantly.  
23 And I think that gives Staff some concern, much like  
24 the FRCC had concern over our probabilistic method;  
25 that the lack of data can widely influence the

1 results. That gives Staff some concern about relying  
2 on, that of saying something is adequate or not.

3 The reliability during off-peak periods,  
4 this is probably a new one. We didn't have it as much  
5 in the '98 assessment but in '99, it's kind of come to  
6 light that maybe this is an area that needs further  
7 work. And then, again, the Christmas of '89 backcast,  
8 that's kind of an acid test that Staff does. We just  
9 try to see should we be no worse off than we were in  
10 Christmas of '89 as kind of a threshold issue. Again,  
11 I think looking at this year's test, we've come up  
12 with it's really hinging on maintenance, of when  
13 maintenance is scheduled and when the peak would  
14 occur. And, again, that kind of resolves with that  
15 other one with during off-peak periods as well. Those  
16 two interplay. And I think that's really what the  
17 Christmas backcast is telling us, but we'll get to  
18 that more as we go through the packet.

19 Page 3 and 4 basically show projected  
20 reserve margins that came from the FRCC FCG aggregate  
21 plans of years ago and they're indicated there on the  
22 side. And this shows that projected reserve margin  
23 has been declining for some time; isn't that correct?

24 **MR. VILLAR:** The actual reserve margins,  
25 yes. One point I'd like to comment on, Tom, is if you

1 look at the data you have there, a lot of the reasons  
2 why those reserve margins were very high had nothing  
3 to do with being driven by any reliability criteria or  
4 standard. We had a lot of oil backout being put in  
5 place, et cetera, which resulted in excess capacity.  
6 And that's the reason why reserve margins were higher.

7 **MR. BALLINGER:** Wasn't part of it, too, that  
8 LOLP was the driving factor back in those days?

9 **MR. VILLAR:** LOLP might have been the  
10 driving factor at some point, but I don't believe in  
11 the 50 to 40% reserve margin LOLP had anything to do  
12 with that.

13 **MR. BALLINGER:** Would you -- let's go on to  
14 Page 5. This shows some recent experience. Again,  
15 this goes to my questioning about we really haven't  
16 had experience at 15%. What this does, it looks at  
17 each year and it took the prior year's forecast and  
18 showed what the reserve margins were. And really  
19 since 1991 is the only time we had any experience of a  
20 15% reserve margin; everything else has been higher,  
21 18, 24, 19%. And that's what is troubling Staff, is  
22 now that we're adopting this standard of 15%,  
23 historically, though, we haven't had the experience  
24 there and that's why we're a little concerned. We  
25 want to be on the cautious side. And I just wanted to

1 point that out that also, probably, in those earlier  
2 years, as you said, that LOLP was the driving factor  
3 and so units might have been added because of LOLP  
4 violations and not reserve margin violations.

5 Let me go on. I think you stated earlier,  
6 too, the next page that you still believe LOLP to be a  
7 viable tool, don't you?

8 **MR. VILLAR:** Yes, we do.

9 **MR. BALLINGER:** Okay. But now it's no  
10 longer become the driving force because of high unit  
11 availabilities and things of that nature.

12 **MR. VILLAR:** That's correct. And we're  
13 still looking at it. If for some reason unit  
14 availabilities were to decline, LOLP results would  
15 probably show that.

16 **MR. BALLINGER:** Okay. I'm on Page 6 of the  
17 Staff handout, it shows a little table there. And in  
18 1997 the FRCC actually did a comparison, if you will,  
19 of the .1 LOLP to reserve, margin and it showed these  
20 values here of about .1 would equate to about a 6 to  
21 8% reserve margin. Are the results similar for '98  
22 and '99? I couldn't track those numbers down  
23 anywhere.

24 **MR. VILLAR:** We didn't do a computation,  
25 Tom. But given the actual LOLP results we have

1 experienced recently, I would expect the reserve  
2 margins on a LOLP basis to meet just a .1% number to  
3 be significantly lower than the ones that we're  
4 projecting. So it might come in in the same range as  
5 the '97. I just don't know.

6 **MR. BALLINGER:** I'm going to digress real  
7 quick here because of something you handed out today,  
8 which is the first time I saw -- back to your analysis  
9 or your presentation, you didn't show this chart on  
10 the overhead slides, but it's Page 31 of your  
11 presentation. It shows all the results of the  
12 sensitivities on LOLP.

13 **MR. VILLAR:** My pages are no longer in  
14 order. Let me try to find them here.

15 **MR. BALLINGER:** We can --

16 **MR. VILLAR:** Yes, Tom.

17 **MR. BALLINGER:** And I'm looking at the  
18 Column that says "No Direct Load Control."

19 **MR. VILLAR:** Correct.

20 **MR. BALLINGER:** Okay. Now, to me what that  
21 said is that basically what you did is you assumed all  
22 your load to be firm load and did a LOLP analysis,  
23 except for other DSM measures, such as air  
24 conditioning and things like that, but basically load  
25 management and interruptible load were not exercised

1 and you calculated the LOLP values. Is that correct,  
2 that sensitivity?

3 **MR. VILLAR:** I'm sorry. You said something  
4 about air conditioning load? You lost me on that one.

5 **MR. BALLINGER:** Perhaps not. That's already  
6 embedded in the load forecast. But this sensitivity  
7 basically took the nonfirm load.

8 **MR. VILLAR:** The interruptible and the DSM  
9 programs --

10 **MR. BALLINGER:** -- part of your reserve  
11 margin.

12 **MR. VILLAR:** -- not to be available.

13 **MR. BALLINGER:** -- and treated them as firm  
14 load for LOLP calculations. So these numbers being so  
15 low tells me that the peninsula should be able to  
16 serve all of its load management and interruptible  
17 load and never interrupt them. That they are reliable  
18 enough. There's enough reserve margin out there to  
19 serve those people 24 hours a day, seven days a week.  
20 That's what these LOLP numbers tell me.

21 **MR. VILLAR:** No, they don't.

22 **MR. BALLINGER:** Then what do they say?

23 **MR. VILLAR:** That's just a sensitivity to  
24 that.

25 LOLP just looks at a particular set of

1 conditions and produces a result based on those  
2 conditions. It doesn't mean that because LOLP  
3 analysis tells me this particular answer, I am going  
4 to be making all kinds of assumptions as on how the  
5 system is operated and whether I'm going to be able to  
6 serve load under all conditions.

7 **MR. BALLINGER:** I'm not. But from a  
8 reliability standpoint, if LOLP is still a viable  
9 alternative, these numbers tell me that I could serve  
10 all of my firm and nonfirm load and never interrupt  
11 them because the value is less than .1.

12 **MR. WILEY:** This is Ken Wiley, Tom.

13 We discussed this extensively last year and  
14 the prior years, especially in 1997, and I think we  
15 were indicating to you that back when  
16 one-day-and-ten-years LOLP was the significant  
17 planning tool that was driving things, we were  
18 experiencing equivalent availability factors of around  
19 80% in this state. And now we're between -- somewhere  
20 between 88 and 90%; quite a significant increase in  
21 unit availability.

22 And we're not sure what one day -- or what  
23 day per ten years, or whatever, applies when we're up  
24 at the 90% availability. One-day-in-ten-years and 80%  
25 availability was a good combination, and we understood

1 that back in those days. We don't feel that  
2 one-day-in-ten-years is the appropriate number with  
3 these high availabilities which are approaching 90%.  
4 So we don't know what it is.

5 **MR. BALLINGER:** And I apologize, because  
6 this is the first time I've seen this data today.

7 Let me go back to the Staff handout, again,  
8 on Page 6. If I understand correctly, Mario, it  
9 probably is okay to assume that a .1 LOLP would equate  
10 to about a 6 to 8% reserve margin for '98-99.

11 **MR. VILLAR:** I don't know what the actual  
12 number is, Tom. I wouldn't expect it to be  
13 significantly different from there but I don't know.

14 **MR. BALLINGER:** Okay. Given that FPL is  
15 about half of the peninsula system, would you expect  
16 there to be a similar correlation between their LOLP  
17 and reserve margin numbers as compared to the  
18 peninsula numbers? I mean, should they be pretty  
19 close?

20 **MR. VILLAR:** I haven't looked at that.  
21 Perhaps Steve Sim can answer that question better.

22 **MR. BALLINGER:** I'm just asking you from the  
23 FRCC, would you expect that to happen when you  
24 aggregate and look at a total system basis.

25 **MR. SIM:** Tom, if I understand what your



1 question is, would FPL expect to see similar LOLP  
2 results?

3 **MR. BALLINGER:** Yeah.

4 **MR. SIM:** The answer is no.

5 **MR. BALLINGER:** Okay. We'll get there.  
6 Thank you.

7 Mario, I gave you another handout which you  
8 handed out earlier --

9 **COMMISSIONER CLARK:** Well, you can't leave  
10 that pending. Somebody has got to explain that to me.

11 **MR. BALLINGER:** We'll get there. I want to  
12 first prove that they --

13 **COMMISSIONER CLARK:** Can he explain it now,  
14 Tom, while I'm still thinking of it?

15 **MR. BALLINGER:** Well, maybe it would be  
16 helpful to show how different they are and then he can  
17 explain. That's all I was going to do next.

18 **MR. VILLAR:** I'll let Steve get into it in  
19 detail.

20 Part of the reason, Commissioner Clark, is  
21 that there's a significant number of assumptions that  
22 are different, in particular, the number of units, the  
23 availability of the different units, et cetera, which  
24 are different between FRCC and FPL's, but I'll let  
25 Steve comment on that some more.

1           **MR. SIM:** Tom, this was one thing I was  
2 going to touch on very briefly in the FPL  
3 presentation. I would not expect the FPL system to  
4 have similar LOLP values to the Peninsular Florida  
5 simply due to the size differences between the systems  
6 and specifically the number of units, the much greater  
7 of units in Peninsular Florida than there are in the  
8 FPL system.

9           **MR. BALLINGER:** Would you expect several  
10 orders of magnitude?

11           **MR. SIM:** What I would expect for FPL is on  
12 the order of .0-something, .01, .07, something along  
13 those lines for FPL's system. Given exactly similar  
14 circumstances for Peninsular Florida, I would expect  
15 out several more decimal points of zeros before we got  
16 a significant digit.

17           **MR. BALLINGER:** Okay. And these concerns  
18 were raised last year, and I know FPL had some  
19 concerns about the FRCC analysis because their first  
20 take was it should have been much closer. They were  
21 concerned with the very low LOLP numbers that the FRCC  
22 was coming up with and they didn't correspond with  
23 their values.

24           I never got a clear explanation as to why  
25 the difference was. It appears that the FPL and the

1 FRCC agreed on something. Staff has never been made  
2 aware of clearly why the difference is there; never  
3 seen the numbers to justify why the difference is  
4 there.

5 **MR. SIM:** Tom, I think the answer for that  
6 is we didn't have an answer for that last year during  
7 the FRCC presentation. One thing FPL did during its  
8 1998 planning work is we did an independent assessment  
9 of LOLP for different size systems keeping all  
10 assumptions similar and then varying one at a time.  
11 We looked at a generic utility system of about 15,000  
12 megawatts, the FPL system size. We then grew that  
13 system and shrunk it down to 5,000 megawatts and up to  
14 45,000 megawatts to try to convince ourselves that we  
15 could, indeed, believe the validity of the LOLP  
16 results we were getting, both for FPL and for the  
17 FRCC. And we were able to convince ourselves that  
18 those numbers were not only reasonable but should be  
19 expected.

20 **MR. BALLINGER:** Well, perhaps you could  
21 impart that knowledge to Staff and we'd like to mull  
22 over that.

23 **MR. SIM:** We'd be happy to share that with  
24 you at a convenient time.

25 **MR. BALLINGER:** Okay. I'm on to Page 7 now.

1 And what this is is from the -- I guess it was an item  
2 at the agenda of the FRCC basically saying what the  
3 FRCC would do with this standard that's been approved  
4 now or adopted by the FRCC.

5 And the way I understand it is that if a  
6 utility is shown to be below the 15%, that the FRCC  
7 would find out who the offending parties are, notify  
8 them, and also notify the PSC. Is that a correct  
9 summarization of this?

10 **MR. VILLAR:** If you found that a utility was  
11 below the 15%? No, that's not the case, Tom.

12 **MR. BALLINGER:** No. If the Peninsula was  
13 below the 15%, the FRCC would seek out who were the  
14 offending parties to cause the whole Peninsula to drag  
15 down and notify those party or parties and the Staff.

16 **MR. VILLAR:** We would assess the  
17 circumstances and identify how far off we are from the  
18 15% standard; how the various parties are affected et  
19 cetera, and then we would make a report to the  
20 Commission and to the FRCC board.

21 **MR. BALLINGER:** But the FRCC would take no  
22 independent action, if you will, or sanction of a  
23 party. They'd get the parties together and see what  
24 they could work out?

25 **MR. VILLAR:** It would be reported up to the

1 board. I don't know what the board would do. I can't  
2 answer that one at this point in time.

3 **MR. BALLINGER:** Okay. Do you honestly  
4 expect --

5 **COMMISSIONER CLARK:** Let me ask you a  
6 question. Do you think that's likely to change  
7 depending on how -- if the legislation that is being  
8 proposed to change NERC to NAERO, might they take some  
9 action under the new legislation, do you know?

10 **MR. VILLAR:** That might be something that  
11 Ken could probably answer better than I can.

12 **MR. WILEY:** I don't anticipate that the  
13 adequacy issue is going to be handled by the NERC  
14 legislation.

15 **COMMISSIONER CLARK:** Okay.

16 **MR. BALLINGER:** In all honesty, what are the  
17 chances of that happening in the out-years, of  
18 somebody being below 15%, knowing now that it's a  
19 standard?

20 **MR. VILLAR:** I guess it would be remote  
21 but --

22 **MR. BALLINGER:** It would be what?

23 **MR. VILLAR:** Remote.

24 **MR. BALLINGER:** Okay. And if it happened in  
25 the earlier years, say first, second, third year -- I

1 think you said there's really not much we can do about  
2 it from a planning perspective.

3 **MR. VILLAR:** In terms of adding units or  
4 something like that, you're probably correct on that.  
5 As to whether some other measures can be taken, that's  
6 something else. Operationally there's a lot of tools  
7 that are available to utilities to take care of  
8 short-term problems.

9 **COMMISSIONER CLARK:** Tom, let me interrupt  
10 just a minute.

11 I just want to make sure that in the early  
12 years where there's less percentage reserve margin,  
13 that's still only assuming an import of, what, 1400  
14 megawatts?

15 **MR. VILLAR:** What, Commissioner, I'm sorry,  
16 import?

17 **COMMISSIONER CLARK:** What is the import  
18 capability figured into that margin of reserve?

19 **MR. VILLAR:** Import into the state? Ken has  
20 it here. 1999 it's contracted firm interchange of  
21 1640 megawatts.

22 **COMMISSIONER CLARK:** How much more could we  
23 import if we needed to?

24 **MR. VILLAR:** Let me go back and refer to it.  
25 I think we're talking about a thousand megawatts.

1                   **COMMISSIONER CLARK:** Okay.

2                   **MR. BALLINGER:** But my point I was getting  
3 at is in the short term, the FRCC again would notify  
4 or try to find the parties and get them to work it  
5 out, but it would be more operational things; it may  
6 be securing a short-term contract over the interties,  
7 things of this nature.

8                   **MR. VILLAR:** If reserves were to drop blow  
9 15%?

10                  **MR. BALLINGER:** Yeah.

11                  **MR. VILLAR:** They are not below 15%.

12                  **MR. BALLINGER:** If they were. I'm trying to  
13 get a hold on the FRCC's procedures of what they would  
14 do if this standard is violated.

15                  **MR. VILLAR:** Yeah, they would look at it.  
16 And remember, the FRCC also has an Operating Committee  
17 that looks at this stuff on a regular basis; not just  
18 on a long-term planning basis.

19                  **MR. BALLINGER:** I'm going to go through  
20 something that's kind of an example of how I think it  
21 would work and how it has worked in the past and what  
22 happened.

23                  Back in '97 the Staff had some concerns  
24 about a couple of utilities' plans which had  
25 unspecified purchases or unidentified purchases. And

1 the FRCC correctly removed those from its aggregate  
2 plan and that showed reserve margins declining down to  
3 about 8%, or 5% in the out-years.

4 There was a lot of hullabaloo going on about  
5 what to do. The FRCC then, when it did its 1997  
6 reliability assessment, added back in another 1500  
7 megawatts of now committed capacity from various  
8 utilities who had updated their plans.

9 Is that kind of the process that would  
10 happen again, is: One, the FRCC identifies there's a  
11 problem in reserves; two, they get together with the  
12 affected parties; and three, they rework their plans  
13 to make it fit the standard before any formal finding  
14 by the Commission.

15 **MR. VILLAR:** Tom, I wasn't directly involved  
16 in the 1997 study. I was not looking at that kind of  
17 stuff at the time so maybe Ken would be better off --

18 **MR. WILEY:** I wouldn't characterize it as  
19 reworking plans to make it fit the criteria for  
20 Commission purposes, though. So I'd object to that  
21 comment, Tom.

22 But yes, we did in 1997 go back to those  
23 unspecified units and we talked to all of the  
24 utilities that had that in there and indicated that  
25 something had to be more clear than that. And as a



1 result of that, they did provide some clarification to  
2 some of those capacities as to what they were doing in  
3 anticipating without violating some of their  
4 confidential matters, and we ended up including some  
5 of that capacity back in there as a result of those  
6 bilateral conversations.

7           **MR. BALLINGER:** Okay. We can move a little  
8 quick here. Page 8 is just a letter I sent to you  
9 Mr. Wiley, and I also sent to all of the other  
10 utilities last year. And Page 9 is just a summary of  
11 what our concerns were in the 1998 assessment and that  
12 was just to kind of show they are very similar in '99.

13           Up to the reserve margin driving this, that  
14 LOLP is no longer the driving force. The main reason  
15 is high generator availability, if I understand right.  
16 In the last three to five years, we've seen  
17 availabilities increase up into the 90% range; is that  
18 correct?

19           **MR. WILEY:** Yes, that's correct.

20           **MR. BALLINGER:** Okay. And on Page 10 --  
21 this is something -- I'd like you to look down in that  
22 middle box where it has Peninsular Florida and the  
23 in-service dates. And if I do the math right, it  
24 looks to me that about 26% of our capacity is 30 years  
25 or older. And do you still think it's reasonable to

1 assume a high generator availability with such an  
2 aging fleet going forward in the future for the next  
3 ten, 15 years?

4 **MR. VILLAR:** Tom, I haven't seen these  
5 numbers so I can't confirm them, but in general terms  
6 there's a significant amount of dollars that each  
7 utility spends on improving the availability of their  
8 units and performing operation and maintenance on  
9 those facilities to be able to make sure they are  
10 available when they are needed.

11 So to the extent that the utilities have  
12 spent those dollars and continue to maintain those  
13 facilities, yes, I would expect the availability of  
14 the units to continue to be there.

15 **MR. BALLINGER:** Even for old units that are  
16 30, 40 years old?

17 **MR. VILLAR:** There's nothing wrong as long  
18 as you are maintaining the unit with -- the 30, 40  
19 year old unit.

20 **MR. BALLINGER:** Okay. I think Henry stated  
21 earlier, too, that really the FRCC adopted a standard,  
22 not really a methodology, because a methodology  
23 changes; it's a work-in-progress. You're always  
24 updating it and looking at it. Did I characterize  
25 that right, Henry?

1           **MR. VILLAR:** Yes. You know, like data  
2 points, for example, as methods change, et cetera,  
3 some of those prior years data may not be useful  
4 anymore. They may not be representative of what the  
5 future conditions would be like.

6           **MR. BALLINGER:** Right. And this year you  
7 did some things like the noncoincident factor -- or a  
8 coincidence factor, I should say, and removal of the  
9 '93 data to try to improve the methodology.

10          **MR. VILLAR:** That's correct.

11          **MR. BALLINGER:** Okay. On Page 11 --

12          **COMMISSIONER CLARK:** Let me ask a question  
13 on that.

14                 I thought you continued to assume -- you  
15 continued to use noncoincident in your analysis, but  
16 then you said you could assume that the reserve  
17 margins would be 2% higher if you used coincident.

18          **MR. VILLAR:** What we did, when we reported  
19 both the forecasted FRCC reserve margins, we did not  
20 put in a noncoincident factor adjustment. In  
21 performing our analysis in terms of the scenarios that  
22 we looked at, we did include a load diversity factor  
23 in there, a noncoincident adjustment, because we felt  
24 it was the appropriate thing to do.

25          **MR. BALLINGER:** Okay. On Page 11, this is a

1 table I got last year attending one of the FRCC  
2 meetings and going through this process. And it shows  
3 the generation certainty factors, the data that was  
4 used to calculate this. And I raised this at the last  
5 hearing in '98 and I'm wondering, are you still  
6 relying on this basic data again, just adding a 1998  
7 column -- and I understand you removed '93 -- but,  
8 basically, these would be the same numbers?

9 **MR. VILLAR:** I haven't seen these numbers  
10 before but I would assume so. Steve says there might  
11 be some minor corrections, Tom, but otherwise it  
12 should be --

13 **MR. BALLINGER:** Okay. I mean we asked for  
14 the certainty factors a while ago. We still have yet  
15 to receive them. So this is all I've got.

16 If you'd look at the data for Orlando and  
17 Seminole, and they are showing zeros as certainty  
18 factors for their generation compared to peak, and  
19 does that mean they are perfect for five years? Or  
20 does this data give you some question that maybe they  
21 didn't have all of the data they needed?

22 **MR. VILLAR:** That's the data reported, Tom,  
23 as being available at the time of peak.

24 **MR. BALLINGER:** But does it concern you,  
25 from the FRCC, to rely on this data when it looks a

1 little suspicious? That they've had no errors in  
2 their generation availability? And, again, this was  
3 brought up in '98.

4 **MR. VILLAR:** It could happen.

5 **MR. BALLINGER:** Okay.

6 **MR. VILLAR:** I don't see any reason why.

7 **MR. BALLINGER:** Okay. Did you question OUC  
8 and Seminole about this?

9 **MR. VILLAR:** I didn't personally, no.

10 **MR. BALLINGER:** Did anyone at the FRCC?

11 **MR. VILLAR:** Steve says that, yes, that  
12 Seminole was questioned on it.

13 **MR. WILEY:** Tom, this is Ken.

14 You know, you indicated that you haven't  
15 seen this data. And I would just like to, for the  
16 record here, indicate that some of the reasons you're  
17 not seeing a lot of data this year is because the  
18 Commission decided to take these particular matters of  
19 reserve margin, and all these other things surrounding  
20 them, and put them in a docket. And as you know, we  
21 were hoping that you were going to be very involved in  
22 our study this year, but the Staff was not able to  
23 because of a lot of complications surrounding the fact  
24 that we were in a docket. So I just wanted to say  
25 that for the record.

1           **MR. BALLINGER:** Let me move on. Let's look  
2 at this table here.

3           If I recall from what you did, is you  
4 removed the '93 generator availability data because  
5 that peak occurred in March, you had a lot of units  
6 down for maintenance.

7           **MR. VILLAR:** I'm sorry, Tom. What are you  
8 looking at?

9           **MR. BALLINGER:** I'm still on Page 11.

10          **MR. VILLAR:** Page 11 still?

11          **MR. BALLINGER:** Yeah.

12          In the '99 study you removed the 1993 data  
13 because the peak happened in March; you had a lot of  
14 units out for scheduled maintenance.

15          **MR. VILLAR:** The winter data, that's  
16 correct.

17          **MR. BALLINGER:** Looking at the bottom  
18 totals, that had the largest impact on generator  
19 uncertainty, if you will, with 1993's, right?

20          **MR. VILLAR:** Yes.

21          **MR. BALLINGER:** Okay. And then you also in  
22 '99 included a coincidence factor on the peak load for  
23 all of your scenarios.

24          **MR. VILLAR:** Except for scenario two.

25          **MR. BALLINGER:** Right.

1           The combination of these two adjustments,  
2 doesn't that serve to raise the reserve margin? Or  
3 conversely lower your needed reserve margin?

4           **MR. VILLAR:** It will lower the needed  
5 reserve margin because you're taking into account that  
6 load diversity does exist. So you do need less  
7 reserves to meet a low diversified load than you do a  
8 nondiversified load, yeah.

9           **MR. BALLINGER:** And you kept the same  
10 standard of 15% both in '98 and '99 as far as the bar  
11 that your measured --

12           **MR. VILLAR:** The FRCC standard is a 15%  
13 minimum reserve standard.

14           **MR. BALLINGER:** Okay. If you get an extreme  
15 winter like we had in Christmas of '89, or severe  
16 cold, wouldn't you agree that diversity kind of dries  
17 up; that basically all of the utilities are peaking at  
18 the same time?

19           **MR. VILLAR:** Not necessarily, Tom. I looked  
20 at the data you guys had in the '89 report, in the  
21 back of the report, and the only way the data was  
22 reported was by morning and afternoon. You could have  
23 diversity. One utility might have peaked -- for  
24 example, let's take just the afternoon peak. One  
25 utility might have peaked at 3:00 in the afternoon,

1 another one at 5:00. You still have diversity among  
2 utilities in terms of when they actually peaked within  
3 the same day.

4 (Comment from audience.)

5 **MR. BALLINGER:** Well, that's not my  
6 recollection from the '98 data.

7 **COMMISSIONER CLARK:** You know, I think  
8 just --

9 **MR. VILLAR:** '89 data, you mean.

10 **MR. BALLINGER:** '98 data. I'm sorry, go  
11 ahead, Commissioner.

12 **COMMISSIONER CLARK:** In preparation for the  
13 docket, I think it would be useful to understand what  
14 diversity of peak did occur during 1989.

15 **MR. VILLAR:** There's no way of knowing,  
16 Commissioner. Because the data is not reported that  
17 way.

18 **COMMISSIONER CLARK:** I just heard somebody  
19 say that Corp peaked on the 3:00 in the morning.

20 (Simultaneous conversation.)

21 **MR. VILLAR:** Some people might know at what  
22 hour they peaked.

23 **COMMISSIONER CLARK:** I think it would be  
24 helpful to know because --

25 **MR. VILLAR:** All right. We'll try to see if



1 we can come up with that. But all we had was the  
2 actual Staff report from '89, and from that Staff  
3 report it was impossible to come up with what the  
4 coincident peak was.

5 **MR. BALLINGER:** What I recall from the 1998  
6 study, when the FRCC provided Staff all of the data,  
7 is there was very little diversity on winter peak for  
8 these five years that you did for a historic database.  
9 That virtually every utility was peaking on the same  
10 day at the same hour in the winter, and these were  
11 mild winters that we had in historic. I have it back  
12 here in would of my folders. I'll probably have to  
13 dig it out and have it for the hearing that we go for.

14 But it brought to me that when we get a  
15 cold, a severe cold front that gets all the way down  
16 to Miami, everybody's peaking at about the same time.  
17 People still get up about 6 o'clock in the morning and  
18 take shower and turn their heat on and go to work.

19 **MR. VILLAR:** I'll try to look at the data  
20 the Commissioner has requested and see if we can come  
21 up with that, Tom. But we did have a independent  
22 consultant look at the load diversity in the system,  
23 and the numbers we applied were the numbers that the  
24 consultant arrived at based on the data we had, which  
25 was the data from the last six years.

1                   **COMMISSIONER CLARK:** I would only comment,  
2 to the extent you want us to take comfort that you can  
3 take account of load diversity in determining an  
4 appropriate margin of reserve, there should be some  
5 basis for us to conclude that that is appropriate when  
6 you have an extreme weather condition.

7                   **MR. VILLAR:** I understand. We'll see what  
8 we can do there, Commissioner.

9                   **MR. BALLINGER:** Back to the coincidence  
10 factor, my reading is not all of the utilities within  
11 the FRCC agree with using a coincidence number when  
12 aggregating peak demands or testing a reserve margin  
13 analysis. Is that your understanding, too, that there  
14 may be some dissension in the utilities?

15                   **MR. VILLAR:** The RWG looked at the issue and  
16 there was no dissension at the RWG in terms of  
17 conducting the analysis.

18                   **MR. BALLINGER:** Okay. If we go with a  
19 coincidence factor that's applied, how do you suggest  
20 that the Commission compare past FRCC aggregate plans?  
21 That we apply the same coincidence factor to all of  
22 them? Do we ask the FRCC to go back and develop a  
23 coincidence factor for the 1994 plan, '93? How should  
24 we go forward?

25                   **MR. VILLAR:** I don't see any reason why you

1 need to compare to what happened in the past in terms  
2 of comparing loads now. Things change and you  
3 constantly need to adjust. You don't need to be  
4 adjusting prior practices or methods, Tom, I don't  
5 think. You just basically need to recognize what the  
6 future will hold and the basic changes that have been  
7 made and methodologies, et cetera, from here on out.  
8 I don't know what it serves.

9 **MR. BALLINGER:** Okay. On Page 12 now of the  
10 handout, this was basically a compilation of data from  
11 a letter we sent back on Page 8 of all of the  
12 utilities. If you read Page 8 it says, "There's  
13 attached tables. Please fill them out." This is the  
14 compilation of those results.

15 And I'd like to, if you can, from the FRCC  
16 perspective, and all of this load diversity and  
17 everything else, does it give you some concern that --  
18 let's see Seminole, Tallahassee, JEA and TECO have  
19 different temperatures for the same city?

20 In other words -- let me see here. Like for  
21 Seminole and Tallahassee, they forecasted 19 degrees  
22 for their peak in the winter. But the City of  
23 Tallahassee uses 22 degrees for their peak load. For  
24 Seminole, they use 24 degrees in Jacksonville, yet JEA  
25 uses 23 degrees. Seminole uses 32 degrees for Tampa

1 yet TECO uses 31. Does that give you any concern when  
2 trying to do a compilation of data, that the  
3 individual utility forecasts, they are not doing the  
4 same temperature profile for the similar cities?

5 **MR. VILLAR:** I'm not a forecaster. You  
6 need -- perhaps Leo Green can help with that one.

7 But, for example, in the Miami area,  
8 whenever you see the television stations, they report  
9 the temperatures in Miami at five different places in  
10 the Greater Miami area five different temperatures, so  
11 where you measure the temperature might have something  
12 to do with it. I don't know, Tom.

13 **MR. BALLINGER:** But if you're applying a  
14 coincidence factor, I'd assume you'd want to know that  
15 the individual forecasts were accurate to begin with  
16 before you apply a coincidence factor.

17 **MR. VILLAR:** Leo.

18 **MR. GREEN:** It is possible that utilities  
19 might have different temperatures. If Seminole goes  
20 back 30 years and Tampa goes back 20 years, you could  
21 have a different average temperature. And there's  
22 nothing wrong in that because it's a statistical  
23 answer. You want to correlate data with temperatures.  
24 If Seminole is using 30 years and they want to  
25 correlate 30 years of temperature with load data, it's

1 okay. So you can have different temperatures.

2 And I'd like to jump back to the diversity  
3 you mentioned. In Christmas of '89 North Florida was  
4 coldest on the 23rd of December, South Florida was  
5 coldest on the 24th. We do not know when the state  
6 peaked because a lot of load was not served. But if I  
7 look just at temperatures, it would suggest that even  
8 in Christmas of '89 there is some diversity on the  
9 system.

10 **COMMISSIONER CLARK:** Just so I'm clear, it  
11 doesn't matter that each one uses a different  
12 temperature as long as they have correlated it to what  
13 their peaks are.

14 **MR. GREEN:** That's exactly correct,  
15 Commissioner.

16 **MR. BALLINGER:** Again, on this Page 12, I'm  
17 looking over at the column of percent of reserve  
18 margin of nonfirm load. And the data we got in '98  
19 showed that for winter, Florida Power Corporation was  
20 relying on 94%, basically, of their reserve margin was  
21 made up of nonfirm load; that being load management  
22 interruptible load. Tampa Electric Company was 66.8%  
23 of all their reserves was nonfirm load.

24 To me that tells me that they are planning  
25 to interrupt their interruptible customers, they're

1 planning to exercise load management at time of winter  
2 peak. Because virtually everything is in the DSM side  
3 of it. Yet your LOLP numbers for '99, to me, say they  
4 could probably serve everything in the state.

5 Does it concern you having that much nonfirm  
6 load making up reserves for Peninsular?

7 **MR. VILLAR:** I think the nonfirm load has  
8 been something that has been addressed by the  
9 Commission. All of these nonfirm load issues and the  
10 amount of nonfirm load that each utility has on its  
11 own system has been done on the basis of what is  
12 cost-effective to that utility and approved by the  
13 Commission in accordance with the goals. From there  
14 on out, I can't comment anymore because each utility  
15 has its own individual needs and particular  
16 characteristics that I'm not aware of.

17 **MR. BALLINGER:** So from a reliability  
18 standpoint, though, for the Peninsular, it wouldn't  
19 bother you if all of our reserve margins were nonfirm  
20 load if that was proven cost-effective?

21 **MR. VILLAR:** Generally there's a point in  
22 which nonfirm load becomes non-cost-effective before  
23 you reach 100% of reserves. If you do have a certain  
24 amount of reserves in nonfirm load, you ought to use  
25 them.

1           **MR. BALLINGER:** Do you know if the '99 plan  
2 shows similar numbers as far as percentagewise?

3           **MR. VILLAR:** I haven't look at it on an  
4 individual basis. I don't know what the numbers show.

5           **MR. BALLINGER:** Okay. Page 13. I'm really  
6 only going to ask you generally here. This is -- we  
7 had some concerns in 1998 of a heat wave, and power  
8 being sold and bought, people alleging being gouged by  
9 price marketers.

10                   Do you know in 1999 did we have a similar  
11 experience as far as were there any like in -- I guess  
12 it was April of this year, we were under an alert --  
13 was the purchase price of power fairly high?

14           **MR. VILLAR:** I don't know, Tom.

15           **MR. BALLINGER:** Okay. On Page 14 through  
16 16, a letter from Mr. Jenkins to Mr. Adjemian who was  
17 your predecessor, I think, last year with the RWG.  
18 And the two attachments show a historic thing of  
19 temperatures at various cities. And the highlighted  
20 days are when there were two or three consecutive days  
21 below the trigger temperature shown up at the top.  
22 And those trigger temperatures are temperatures in  
23 which a utility would issue an advisory, if you will,  
24 per that emergency plan.

25                   A couple of things I get from this letter

1 and exhibits, is that one, it shows that from 1990 to  
2 date we have had pretty mild winters. And I think you  
3 said that earlier. You could see, like, for Miami,  
4 there's been no advisories up through '94, and then we  
5 had a couple, '95, '96 and '97, but they have been  
6 real close to the trigger temperature of 40 degrees.

7 **MR. VILLAR:** That's correct.

8 **MR. BALLINGER:** And the same has been pretty  
9 much true throughout the state.

10 I think it also shows that there's been --  
11 1, 2, 3, 4, 5, 6, 7, 8 -- 9 coincidences where we have  
12 had two or three cold days in a row. In other words,  
13 that it's just one day that it gets cold and then it  
14 warms back up. It will be a semi-sustained cold  
15 period, at least going back to 1970.

16 **MR. VILLAR:** Yes.

17 **MR. BALLINGER:** And then on Page 17 just  
18 kind of graphically shows that. And basically that  
19 data was taken from this chart and just put it in  
20 graphical form to show the typical trend. It will be  
21 cold one day, it may be cold the second day and start  
22 warming up the third day, much like the sensitivity  
23 you did for LOLP.

24 **MR. VILLAR:** Okay.

25 **MR. BALLINGER:** I'll ask this, I asked



1 earlier: You didn't do a similar sensitivity on a  
2 three-day cold period for reserve margin. What you  
3 did is take the worst uncertainty factor and applied  
4 it to the load forecast and saw what the reserve  
5 margins came out; is that correct?

6 **MR. VILLAR:** We looked at the time of peak.  
7 Reserve margin only looks at the peak.

8 **MR. BALLINGER:** So you don't know what a  
9 three-day sustained cold front would have on reserve  
10 margins?

11 **MR. VILLAR:** A three-day sustained cold  
12 front? I would expect it to be similar to the  
13 analysis that we did in Christmas of '89 where we  
14 showed we could probably meet the load.

15 **MR. BALLINGER:** Okay. Now, we get to  
16 Page 18. This was similar to what you had in your  
17 presentation, which was a Staff chart that we did back  
18 in 1998. This has been updated a little bit more.  
19 Let me walk through and explain what the changes are  
20 before we go.

21 First off, it assumed in the plan side --  
22 let me back up again. The Christmas of '89 column is  
23 data taken from the Staff Report that gathered data  
24 from utilities to present actual forced and planned  
25 outages and expected load that was unserved. So all

1 of those numbers came right from that report and they  
2 are actually what occurred.

3 The second column is from the FRCC 1999 Load  
4 and Resource Plan. Those numbers came directly out of  
5 that.

6 And the third column is what if that plant  
7 had been at a 15% reserve margin? In other words, it  
8 just adjusted utility generation down to a level to  
9 get 15% reserves, and then did the rest of the  
10 calculations.

11 I'll point out up at the top in the small  
12 print -- it may be a little small to read -- that the  
13 availability of utility generation was not the 77%  
14 that was assumed back in '98, but rather was 92.4% and  
15 that came from the certainty factors of generators in  
16 the 1998 study. So basically it assumed that all  
17 utility generation had an availability of 92.4% at  
18 time of peak, which matched up with the FRCC's  
19 certainty factor. That was taken separate after  
20 maintenance was pulled out, as you see in Row B.

21 And, really, all I want to do is a  
22 comparison between 18 and 19, is just to look at the  
23 only difference between the two sheets are that  
24 maintenance is included on Row B. Then the rest of  
25 the calculations follow out in the same methodology.

1           Then what it tells me is if you look at Row  
2 L, I guess it is, that without maintenance -- in other  
3 words, the FRCC did not have any scheduled maintenance  
4 and we had a similar event as in Christmas, and,  
5 again, I know we can argue about the 16.9% load  
6 forecast error, but let's assume that to happen --  
7 that if there was no maintenance plan, that even a 15%  
8 reserve margin should result in less megawatts not  
9 served than Christmas of '89. But, however, if you  
10 had maintenance scheduled during that time much like  
11 you had in Christmas of '89, that there was scheduled  
12 maintenance going on, and we got hit with a cold  
13 front, the number would jump up above what happened in  
14 1989.

15           I guess what I want you to think about of  
16 what I get out of these two is that maintenance is  
17 really critical, especially in a off-peak time when  
18 peak can happen. Do you agree with that statement?

19           **MR. VILLAR:** Maintenance is critical all the  
20 time, yes.

21           **MR. BALLINGER:** And isn't it true that --  
22 you know, you do maintenance in off-peak periods but  
23 you can't tell when a cold front is going to come or  
24 when we're going to get a heat wave like in April. So  
25 those periods are really where utilities are most

1 exposed?

2           **MR. VILLAR:** I wouldn't necessarily agree  
3 with that. Generally, if you are in one of these  
4 valley periods, let's call it, or off-peak periods,  
5 even though you might get a peak during that period,  
6 the peak is generally lower than the peak you would  
7 experience in the peak period. Even though you might  
8 have some units out for maintenance, you probably are  
9 still able to meet the load.

10           **MR. BALLINGER:** Like you said earlier, that  
11 this past five years the utilities peaked -- in '93,  
12 anyway, they peaked in March, not January or February.

13           **MR. VILLAR:** Yes.

14           **MR. BALLINGER:** And Christmas of '89, that  
15 happened over a weekend, which typically has lower  
16 loads than a week day; is that correct?

17           **MR. VILLAR:** For residential load, not  
18 necessarily. Because generally the residential load  
19 tends to drive the winter peak. This is a big  
20 contributor to it.

21           **MR. BALLINGER:** But from a system load,  
22 everything I have seen is that weekdays are your peak  
23 days and weekends tend to drop off.

24           **MR. VILLAR:** Generally, they are. But if  
25 you are in a holiday weekend and everybody is at home,

1 and you have an extreme winter temperature, everybody  
2 is cold; they have their heaters on and the peak may  
3 be more pronounced than it would be when people are  
4 sitting at the office where they have more efficient  
5 systems going on, et cetera, and strip heating at home  
6 is turned off because they happen to be in the office  
7 or at work.

8           **MR. BALLINGER:** Page 20, just to kind of  
9 show you where that number came from the maintenance.  
10 This is a sheet I got from the FRCC that we get  
11 periodically -- kind of sporadically, actually -- that  
12 shows plans for maintenance of utilities. And you can  
13 see there, in December, the third week of December, of  
14 1955 the utilities actually were planning to do some  
15 maintenance in the third week of December. Again they  
16 had zero in the fourth week, and then very little in  
17 January and February, as you would expect. But then  
18 again back in March, the first week in March, they  
19 have almost 2000 megawatts scheduled for maintenance.

20           I guess that's what is concerning me is  
21 these valley periods of scheduling maintenance. Has  
22 the FRCC done anything to look at those periods from a  
23 reliability perspective?

24           **MR. VILLAR:** Tom, one thing that's not  
25 evident from here is you have an August 20th FRCC

1 projection of what reserve margins were going to be  
2 and what units were going to be out for maintenance.  
3 I know in this particular year, by the beginning of  
4 December, there was significantly less number of  
5 megawatts out for -- scheduled for maintenance in the  
6 period in question. And that is based on a shorter  
7 term forecast where you get closer to it and you see  
8 what the projected loads are, et cetera.

9           The FRCC from an Operating Committee and  
10 individual utilities look at what unit maintenance  
11 they need to do on a regular basis and they are  
12 constantly updating the numbers given the projected  
13 conditions at the time, whether the units are out for  
14 maintenance or they have a forced outage, et cetera.  
15 All of that gets taken into account. So no one number  
16 at any particular time is actually representative.

17           **MR. BALLINGER:** I know. This is just the  
18 latest one I had. We don't get them all every week or  
19 every month or anything like that.

20           **MR. VILLAR:** Sure.

21           **MR. BALLINGER:** Okay. Page 21. This goes  
22 back to again what Roland was saying --

23           **MR. VILLAR:** Before we leave this, Tom, I'd  
24 like to make a couple of points on your graphs, on  
25 your charts on 18 and 19.

1           If you just make a couple of minor  
2 adjustments to your numbers here, taking into account  
3 the changes that FPL, for example, made, the 800  
4 megawatt change in the forecast, and still applying  
5 your 16.9% load forecast error to these numbers, and  
6 take into account operational measures, there will be  
7 no unserved load in here. And I would expect similar  
8 conditions to occur on Page 19.

9           **MR. BALLINGER:** So that again goes to your  
10 statement earlier that you would expect if we had  
11 another Christmas freeze of '89, the Peninsula should  
12 be able to serve all firm load.

13           **MR. VILLAR:** Under more reasonable  
14 conditions. I'm not telling you that at any  
15 particular point we're going to be able to serve all  
16 the load all the time. There might be some instances  
17 in which we might be able to. But under more  
18 reasonable assumptions and conditions, we would expect  
19 to be able to serve the load.

20           **MR. BALLINGER:** What more reasonable? I'm  
21 assuming it gets down to, what was it? 23 degrees.  
22 How cold did it get in Miami on Christmas? If we have  
23 temperature like that, you're saying you expect to  
24 serve all firm load.

25           **MR. VILLAR:** Based on the conditions that we

1 have in our analysis, yes.

2 **MR. BALLINGER:** Can I go to 21? This goes  
3 back, again, to what Roland was pointing out, the  
4 difference between the '98 and '99 study and how they  
5 jumped with the addition of one year.

6 Now, these numbers are both the base cases  
7 for both studies. It's not the Scenario One. So in  
8 other words, the 1999 study includes the impact of the  
9 coincident factor and the removal of '93 data, but  
10 it's one the FRCC believes is the most reasonable  
11 case. Okay?

12 All this table really shows is that summer  
13 looks pretty close from what we got last year, at  
14 least the data looks somewhat consistent. I know It  
15 gives Roland some concern in the early years that we  
16 could get by with 8% reserves, but it's close to what  
17 we had last year.

18 What's concerning is in the 1998 study, in  
19 the winter, where you go from the 13% in the out-years  
20 to zero and minus 1%, that's a significant change with  
21 basically adding one year of data and doing these  
22 other improvements that you said.

23 Does that bother you with the methodology  
24 that it's that erratic?

25 **MR. VILLAR:** No, it doesn't. This is what



1 the results show, Tom, and we incorporated some  
2 improvements to the methodology; this is what the data  
3 shows. And, again, we're not saying that because this  
4 is the results that we're changing our reserve margin  
5 standard. Our reserve margin is the minimum 15%  
6 reserve margin.

7 **MR. BALLINGER:** So you think that --

8 **MR. VILLAR:** And we not only look at these  
9 numbers, but we look at sensitivities associated with  
10 those numbers, we look at extremes in the other  
11 direction and we also rely on a LOLP analysis. So we  
12 look at all of the factors in order to arrive at a  
13 conclusion as to whether or not our reserves are  
14 adequate. We think that based on all the factors and  
15 all the circumstances the reserves are adequate.

16 **MR. BALLINGER:** Okay. So it gives you no  
17 heartache at all that a methodology to test a reserve  
18 margin gives you such drastic results from one year to  
19 the next?

20 **MR. VILLAR:** No, it does not.

21 **MR. BALLINGER:** Okay. In general, would you  
22 agree that planned reserves have an impact on  
23 operating reserves?

24 **MR. VILLAR:** Operating reserves are the use  
25 the plan reserves. You plan for something. Once you

1 have it in place, then you operate the reserves you  
2 have planned once you built them.

3 **MR. BALLINGER:** And generally, the more  
4 planned reserves you have probably the more operating  
5 reserves you'd have and vice versa?

6 **MR. VILLAR:** Well, I mean, It depends on  
7 what you do with them, yes.

8 **MR. BALLINGER:** They are at your disposal.  
9 Obviously they are in the ground. They are there.

10 **COMMISSIONER CLARK:** I don't understand  
11 that.

12 **MR. BALLINGER:** If you plan to have 2000  
13 megawatts three years from now versus planning to have  
14 1500 megawatts two years from now, you're going to  
15 have less operating reserves obviously.

16 **COMMISSIONER CLARK:** When?

17 **MR. BALLINGER:** -- going with the lower  
18 amount.

19 **COMMISSIONER CLARK:** When?

20 **MR. BALLINGER:** Two years from now.

21 **COMMISSIONER CLARK:** It depends on what gets  
22 built. I don't see the relationship at all.

23 **MR. BALLINGER:** Let's say this: Let's say  
24 that the plan is to have 4,000 megawatts of reserves  
25 two years from now. That's the plan. But now because

1 of a standard, we're going to say, "No, I'm only going  
2 to plan to have 3,000 megawatts available two years  
3 from now because of a change in a standard." That has  
4 also had an equal, if you will, effect on operating  
5 reserves that you will have available then.

6 **COMMISSIONER CLARK:** At that time.

7 **MR. BALLINGER:** In other words, if you go  
8 from a 20% reserve margin to a 15% reserve margin, you  
9 have less operating reserves as well. Is that a  
10 general movement or principle that you see?

11 **MR. VILLAR:** I would say so. But the  
12 question is whether you need those operating reserves  
13 or those plan reserves. If up don't need them, then  
14 it's fine to have them.

15 **MR. BALLINGER:** I understand. I'm just  
16 trying to get -- there is a correlation, though,  
17 between planned and operating?

18 **MR. VILLAR:** Only from the standpoint that  
19 if I built X number of megawatts and I have it  
20 available on a regular basis, and I can do -- we can  
21 have maintenance on them or to account for forced  
22 outages, et cetera, yes, to some degree there is, but  
23 not very direct.

24 **MR. BALLINGER:** Maybe this would help. If  
25 for the past ten years utilities were planning at 20%

1 reserve margins and were always right about 20%, that  
2 gives you X amount of operating reserves. And now  
3 they decide we don't need to plan for 20%; we can plan  
4 for 15. That would give you X minus some number of  
5 operating reserves on a going-forward basis, would it  
6 not?

7 **MR. VILLAR:** Yes.

8 **MR. BALLINGER:** Okay. That's all -- I mean,  
9 I thought this was pretty simple. I didn't mean to  
10 make it complicated.

11 **MR. VILLAR:** Okay.

12 **MR. BALLINGER:** I'm on Page 22. And what  
13 Staff has done is tried to show this relationship of  
14 planned and operating reserves to try to get some  
15 actual feel. And let me explain a little bit about  
16 what these columns are and what they mean.

17 Is it your understanding when there's a  
18 Peninsular Advisory, does that mean that we've reached  
19 some temperature thresholds per an emergency plan?

20 (Pause)

21 **MR. VILLAR:** I'm sorry, Tom. I was talking  
22 to Ken Wiley here.

23 **MR. BALLINGER:** Okay. When we reach an  
24 Advisory for the Peninsula, does that mean that there  
25 has been certain temperature thresholds reached within

1 the Peninsula?

2 **MR. VILLAR:** I don't recall how the  
3 emergency plan is set up.

4 **MR. WILEY:** Yes. Yes. You can reach either  
5 a temperature threshold or a specific utility might be  
6 calling for conservation measures. Those are two  
7 things that could occasion an Advisory.

8 **MR. BALLINGER:** But generally they are  
9 caused by temperatures.

10 **MR. WILEY:** Yes.

11 **MR. BALLINGER:** What we did, is we got some  
12 actual Capacity Advisories from the FRCC over the last  
13 couple of years on these specific dates and it showed  
14 the operating margin we had. So like in June 16th of  
15 '98, there was an Advisory, which meant it was hot  
16 probably that day, but we had 2600 megawatts of  
17 operating reserves so we were fine. We weren't in  
18 danger of losing any load but we were still kind of  
19 keeping everybody aware of what was going on. Is that  
20 a fair assessment of how it works?

21 **MR. WILEY:** Yes.

22 **MR. BALLINGER:** And you could see that  
23 through 1998 we had several Advisories through the  
24 summer, but we had plenty of operating reserves so  
25 there was no problem of getting into a problem.

1           Now, if we get down to where our operating  
2 reserves are less than the largest unit in Florida,  
3 which is 910 megawatts, that throws us into an alert  
4 state. Is that correct? A little bit more  
5 significant event.

6           **MR. WILEY:** Yes.

7           **MR. VILLAR:** Yes.

8           **MR. BALLINGER:** And that's because when  
9 you're at that level of operating reserves of your  
10 largest unit, that if that largest unit were to trip  
11 off line suddenly, there would be a lot of chaos going  
12 on. There would have to be interchanges going over  
13 the ties, hopefully. Hopefully, Southern would be  
14 there. And if they weren't there, we might have a  
15 disconnect from the southeast interconnect.

16           I mean, I'm trying to get -- is that why an  
17 alert is a critical situation; that you really sit up  
18 and pay attention when you get to an alert status?

19           **MR. WILEY:** An alert level is one that we  
20 take very seriously and it basically just puts red  
21 lights in every control room.

22           **MR. BALLINGER:** And basically what that is  
23 telling you is from a system standpoint, we're  
24 operating pretty close -- you know, if nothing happens  
25 we'll be okay, but if we lose a large unit we might

1 have to be scrambling around. Is that correct?

2 **MR. WILEY:** If we lost the largest unit, we  
3 would be interrupting some firm load, yes.

4 **MR. BALLINGER:** Okay. In 1998 we didn't see  
5 any alerts because we had plenty of operating  
6 reserves. But in '99 we had one alert situation in  
7 April of '99. I think we referred to that earlier  
8 today. That we had some unusually hot weather in  
9 April. There was probably some scheduled maintenance  
10 going on as well, and we got to this level of  
11 operating reserves. Now, we didn't lose any firm load  
12 that I can recall in April of '99. Is that your  
13 recollect as well?

14 **MR. WILEY:** We did not.

15 **MR. BALLINGER:** Okay. Now, what this chart  
16 tries to do is say, all right, look over on the far  
17 left where it shows what the reserve margins were for  
18 that time period. In other words, in 1998 there was  
19 6,260 megawatts of reserves, or 19%, in '98. And this  
20 was taken from FRCC data just the year prior so it  
21 should be pretty close to accurate, I'm hoping, or at  
22 least timely. And then that far right column, it took  
23 that planned reserve margin, it took what the  
24 difference in megawatts would be if you went from 19  
25 to 15%, and then subtracted it from the operating

1 margins shown in the middle column. And what that  
2 does, is it tells me that if we had been at 15%, we  
3 wouldn't have had the operating margins, first off,  
4 that we actually had, and actually we would have been  
5 into alert status quite a few more times than we were.  
6 And, again, I think this just goes to exhibit the  
7 interplay between planned reserves and operating  
8 reserves.

9           **MR. WILEY:** What your analysis shows me,  
10 Tom, is that our 15% planned reserve margin would have  
11 been adequate to get us to this. We would have had an  
12 alert two times during the summer of 1998 and we would  
13 not have lost load.

14           **MR. BALLINGER:** Well, you don't know because  
15 nothing tripped. We don't know actually what  
16 happened, is my understanding. The FRCC doesn't keep  
17 actual results when we go through Advisories of what  
18 happened.

19           We would have been on alert status two times  
20 in '98 and three times in '99. And had we lost a  
21 unit, we would have been in deep trouble. In other  
22 words, what I'm saying is it's pushing it closer to  
23 your operating reserve margin envelope.

24           **MR. WILEY:** I think there's a lot of "we  
25 don't know" in your analysis, not just these three



1 specific ones.

2 **MR. BALLINGER:** And I would agree. Do  
3 you -- like say, for example, let's take April of '99,  
4 we were in an alert status. We lost no firm load.  
5 Now, had we been at 15% we would have really been in  
6 alert status, and if we had lost a unit of 150  
7 megawatts, we would have blacked out, or some  
8 utilities would have blacked out some customers. So  
9 we were operating -- if we had been at 15%, we would  
10 have been operating at a margin of only 150 megawatts  
11 before firm load was lost. That's what that tells me.

12 **MR. WILEY:** Well, that's what your numbers  
13 point out. I think that, first of all, you're  
14 looking -- our 15% planning criteria is a peak load  
15 criteria for summer and winter. It doesn't  
16 necessarily apply to the summer months. However, as  
17 you know, as part of our analysis we do look at all of  
18 the months. You just referred to that a few pages  
19 ago. And we used 15% when we look at things.

20 So we certainly did look at whether or not  
21 we had 15% or greater reserves during April. And as  
22 you know, that particular April was a very hot April.  
23 It was above our forecast expectations; very much so  
24 above it.

25 **MR. BALLINGER:** Okay. I'm going to move on

1 now to the last bit of pages.

2           This is more for clarification for  
3 everything. There's been some confusion about the  
4 Commission's reserve margin rule or the adequacy of  
5 resources, and some utilities seem to rely on it, that  
6 the Commission has adopted a minimum planning reserve  
7 standard, if you will. And what I'd really like you  
8 to do is turn to Page 24, which was a Staff  
9 recommendation, that addressed a clarification that  
10 Tampa Electric brought forward after this rule was  
11 adopted. And, basically, Tampa Electric asked to  
12 clarify this rule was for pricing purposes only, and  
13 not for prudence or planning reserves. And the  
14 Commission agreed with that clarification.  
15 Unfortunately, that did not show up in the Order  
16 adopting the rule. The Order adopting the rule just  
17 said here's the rule. Is that your understanding of  
18 how this rule became into existence?

19           **MR. VILLAR:** I understand that some  
20 utilities are interpreting it the way you said it,  
21 Tom. This is what I recall from the discussions that  
22 took place at the time. That it was for pricing  
23 purposes, but the language of the rule -- it's  
24 definitely -- you can read it absolutely the other  
25 way, that it's not for pricing purposes.

1           **MR. BALLINGER:** Well, how would the FRCC  
2 interpret this rule? Would they see it as a pricing  
3 rule?

4           **MR. SOUTHWICK:** It's my understanding it's a  
5 pricing rule. I don't know that the FRCC has  
6 officially interpreted it at all.

7           **MR. VILLAR:** Yeah. I don't think we have.

8           **MR. BALLINGER:** Well, Henry, are you  
9 speaking on behalf of FRCC or Florida Power  
10 Corporation.

11           **MR. SOUTHWICK:** Actually, I was speaking on  
12 behalf of myself. (Laughter)

13           **MR. VILLAR:** I don't think the FRCC has  
14 addressed the issue, Tom.

15           **MR. BALLINGER:** Okay. That's all the  
16 questions I have, Commissioners.

17           **COMMISSIONER JACOBS:** I have a brief  
18 question.

19           **MR. TRAPP:** Well, Commissioners, before we  
20 moved away from the FRCC presentation, there were just  
21 a very few questions I wanted to ask with respect to  
22 continuing studies and further activity that the FRCC  
23 may or may not be pursuing. And I'm not sure who to  
24 address these so I'll address them to Mario or to Ken,  
25 whoever can best address them.

1 I think Ken mentioned earlier that there is  
2 a lot of uncertainty associated with the LOLP  
3 methodology of calculating reserve adequacy. And he  
4 mentioned we just don't know what we've got anymore  
5 with respect to LOLP.

6 The question I had for FRCC was -- Ken, have  
7 you made any plans or do you intend to take any steps  
8 to further analyze what level of LOLP in Florida is  
9 meaningful?

10 **MR. WILEY:** Our study group has addressed  
11 that question for the last two years, Bob, and I guess  
12 we don't have a precise answer at this stage. We're  
13 thinking about getting involved in something that I  
14 believe the General Electric group is looking at to  
15 see if that could help us answer it. But  
16 specifically, no, we don't have anything on the  
17 drawing board.

18 **MR. TRAPP:** So your plans are not to abandon  
19 the study of LOLP, but to try to see if we can  
20 recalibrate the model?

21 **MR. WILEY:** We're definitely not abandoning  
22 it.

23 **MR. VILLAR:** Bob, I don't know that there's  
24 any need to recalibrate the model at this stage. We  
25 had some discussions on that issue this year, and

1 there was some questions lingering from the 1998 time  
2 frame. And based on the discussions of the members at  
3 that stage, they felt fairly comfortable that the  
4 model at this stage was representative of current  
5 conditions, but it may be something we might want to  
6 look at some more again. I don't know.

7 **MR. TRAPP:** When was the last time the  
8 one-day-and-ten-years was looked at with respect to  
9 its validity? How did you pick one-day-in-ten-years?

10 **MR. VILLAR:** The one-day-in-ten-years has  
11 been around longer than I have been in the utility  
12 industry, I think.

13 **MR. TRAPP:** 1970 arena?

14 **MR. WILEY:** Yes. It was in the '60s and  
15 '70s that we migrated into that. And it was for two  
16 things. It was -- the industry was pretty homogenized  
17 at that time, and I think that was the case of one  
18 size kind of fit all. And actually in the '60s,  
19 and -- I even hesitate on saying this because I  
20 remember this -- is that we actually went back with  
21 some historical data for the peninsula during those  
22 days, and kind of played a "what if" and ran loss of  
23 load probabilities. And sure enough, our actual  
24 experience indicated that one-day-in-ten-years was  
25 about what we were. And we sat there and reflected on

1 those historical years, and said those were pretty  
2 reliable years. Yeah, we liked them. So we kind of  
3 had an anecdotal acceptance of the  
4 one-day-in-ten-years back in the '60s and '70s.

5 **MR. TRAPP:** So it made us feel good and we  
6 adopted it and they've stuck with it for 30 years.

7 **MR. WILEY:** Yes, sir, until these  
8 availability rates climbed up to where they are.

9 **MR. TRAPP:** And I would also remind you that  
10 unit costs have fallen from the 12 to \$2,000 a  
11 kilowatt that were looked at when we calibrated it  
12 back in the 1970s. I would suggest that \$350 a kW or  
13 \$400 a kW is a lot of difference in terms of cost that  
14 one can afford reliability.

15 Anyway, I'd appreciate it if you'd keep us  
16 abreast with respect to your plans to further pursue  
17 the LOLP question.

18 The next question I had, had to do with --  
19 we have had some discussion here today about tightness  
20 of reserves during off-peak and shoulder hours. I'd  
21 like to know what the FRCC has discussed with respect  
22 to the further study of this issue.

23 **MR. WILEY:** When you say "tightness of  
24 peak," exactly what do you mean there, Bob?

25 **MR. TRAPP:** It seems like we have these

1 alerts and these capacity shortfall crises mostly  
2 around off-peak periods, not peak periods. Yet the  
3 reserve margin criterion that we seem to be driving  
4 the system off of is based on a single peak-type  
5 analysis. Has the FRCC studied the shoulder months,  
6 the relationship of maintenance that's taking place in  
7 that period of time and the probabilities of abnormal  
8 weather or circumstances arising that time that seems  
9 to be the reality of what's happening out there? Or  
10 do you plan to study it?

11 **MR. WILEY:** Well, I think our study is once  
12 a month we update our maintenance program for the next  
13 rolling 12-month period of time. And we go through  
14 there and we analyze what the reserve margins -- the  
15 resulting reserve margins are after we maintain them  
16 on a week-by-week basis. Our maintenance schedules  
17 are actually scheduled on a, you know, specific day  
18 that a unit would be taken out, and it would be  
19 brought back in on another specific day, and that's  
20 how detailed we have broken that up.

21 **MR. TRAPP:** I thought I read in some of the  
22 minutes that Roland and Connie had brought back from  
23 the Operating and Engineering Committees that that had  
24 been addressed in one of the committees and it was  
25 going to be looked at further. I guess that's really

1 where I'm going. Is there a more formal study of this  
2 going on or just business as usual?

3 **MR. WILEY:** I was going to get to that.

4 One of the "look sees" that we do is to make  
5 sure that any resulting week that falls below 15%  
6 reserve margin is looked at in detail by the proper  
7 people in our Operating Committee and they are  
8 flagged. And we have been discussing in this  
9 particular group whether or not we want to codify that  
10 15%, because at this stage it was kind of a reference;  
11 it wasn't an absolute. So we are talking about  
12 codifying that.

13 **MR. TRAPP:** I'm sorry, I missed perhaps some  
14 of that. You're looking at making a monthly 15%  
15 reserve margin criteria?

16 **MR. WILEY:** When we go over our operating  
17 reserves after maintenance of putting in there that  
18 anything that is less than 15% will be reviewed in  
19 detail, and I mean very much detail, by our Operating  
20 Reliability Subcommittee. And this is a monthly type  
21 of an analysis.

22 **MR. TRAPP:** Let me move on to my last  
23 question. It has to do with the treatment of  
24 noncommitted capacities.

25 We've heard testimony here today that you're



1 taking into account -- at least in your LOLP  
2 calculations -- noncommitted transmission capabilities  
3 with the Southern Company. And we're witnessing the  
4 growth as a result of Congress acting in 1992 of the  
5 EWG industry. I think the Commission is aware of at  
6 least 3100 megawatts of announced noncommitted  
7 capacity that might be coming into the state.

8 My question to the FRCC is what steps is the  
9 group taking with respect to the identification of  
10 that capacity, the verification of that capacity, and  
11 the assessment of that capacity with respect to  
12 adequacy of the Florida grid?

13 **MR. VILLAR:** I think one of the things that  
14 we talked about this year, Bob, at the RWG was whether  
15 or not to include some nonfirm uncommitted capacity in  
16 our analysis. And the consensus of the group was that  
17 at this time it was unnecessary to do so. We did talk  
18 about including noncommitted capacity in the LOLP  
19 calculation, just like we could include the assistance  
20 from the SERC region. But given the levels of LOLP  
21 that we were experiencing, it was unnecessary to  
22 include them in the calculation at this time. We  
23 could have, but we decided not to. And that could  
24 include --

25 **MR. TRAPP:** Why would you discriminate with

1 respect to the noncommitted capacity in the state?

2 **MR. VILLAR:** I'm sorry?

3 **MR. TRAPP:** Why would you discriminate with  
4 respect to the noncommitted capacity in the state and  
5 its impact on the grid?

6 **MR. VILLAR:** We're not discriminating  
7 against the noncommitted capacity. It was just  
8 unnecessary. The levels of LOLP are so low that all  
9 it was going to do was drive the number even lower.

10 **MR. TRAPP:** Why was it necessary to include  
11 uncommitted transmission capacity?

12 **MR. VILLAR:** It's not that it was necessary.  
13 That's one of the sensitivities that we performed to  
14 exclude that. It has traditionally been included. We  
15 could have included a lot of other stuff in the LOLP  
16 analysis. We could have included nonfirm QF capacity.  
17 We could have included a lot of other things.  
18 Operational measures. There were a lot of other  
19 things that could have been included. It just did not  
20 matter in the LOLP calculation, so we did not include  
21 them at this stage.

22 **MR. TRAPP:** Would you --

23 **MR. VILLAR:** We could include them in the  
24 future, but it's just going to drive the LOLP number  
25 even lower.

1           **MR. TRAPP:** Again, my question has more to  
2 do with reporting requirements. With respect to  
3 reporting and identification, what are the plans of  
4 the FRCC to identify the capacity that's coming into  
5 the state?

6           **MR. WILEY:** Our specific plan is we have put  
7 a group together to discuss this particular issue and  
8 to identify what our going-forward policy should be in  
9 this area.

10           Currently our policy is that when it comes  
11 to the QFs, any QF that has firm contracts, they are  
12 included as part of our firm capacity and it goes into  
13 our reserve margin and calculation. When it comes to  
14 merchant plants, any load serving entity, such as New  
15 Smyrna Beach, that has a contract with a merchant  
16 plant to purchase power, that contracted capacity is  
17 included in the reserve margin calculation and it  
18 is -- that's the case this year. And we know this is  
19 a growing issue and we will be addressing it prior to  
20 putting this report together next year.

21           **MR. TRAPP:** So you anticipate having some  
22 mention of it or addressing it somehow in next year's  
23 Ten Year Site Plan? Is that what I'm hearing?

24           **MR. WILEY:** It will be. Yes.

25           **MR. TRAPP:** Thank you. That's all the

1 questions I have, Commissioners.

2           **COMMISSIONER JACOBS:** I guess it would be  
3 simple to say that -- well, not simple because what  
4 you've done is explained a very complex process. But  
5 to kind of boil it down, you've -- with your certain  
6 analysis and such, you kind of say we looked at  
7 historical data and we determined with a 15% margin it  
8 would be okay, based on what history has taught us.  
9 Is that okay?

10           What I'd like to ask you to do, look at  
11 three trends I have seen, and see if you agree with  
12 those trends as being legitimate, first of all.  
13 Second of all, if you would speculate the impact that  
14 they might have on your analysis.

15           One, I think we've gone through a lot but  
16 just let me say that we've looked at the weather issue  
17 and we've looked at the atypical weather patterns.  
18 But the thing that jumps out at me when I look at  
19 those patterns is that there's a recurrent trend of  
20 extremities over the course of several years. I mean,  
21 if we'd have one year where we have one  
22 out-of-the-norm weather condition I could say see it.  
23 But it seems like we have several years where we have  
24 had weather extremities. And in one or more of those  
25 instances they occurred outside of what you would

1 expect to be a normal peak time.

2           The other thing is low growth patterns. I  
3 don't know if it's going to continue, but I just  
4 happen to notice in your data the total peak demand  
5 from -- I believe it was '97-98 to '98-99, was on the  
6 order of 5,000, close to 6,000 megawatts in one year.  
7 That's probably an unusual event. But my concern is  
8 do we know that that's an unusual event? Do we have  
9 any idea or data that suggests that it would not occur  
10 or reoccur with any frequency in your -- in the time  
11 frame of your analysis?

12           And then the third point that I would be  
13 interested in is, we've heard on many occasions our --  
14 with not much verification -- I take that back. We  
15 have had dockets where companies who have large load,  
16 who are on interruptible or -- I'm sorry, they are on  
17 DSM, who have come in and expressed a very real  
18 hesitance about remaining on those now that they are  
19 seeing increasing patterns of interruptions.

20           For the moment if you accept Staff's  
21 analysis, what you would expect is that those  
22 interruptions would continue at present levels,  
23 perhaps even increase? Therefore, I would sense that  
24 those companies would even have greater concerns. And  
25 perhaps you might lose a few large load customers off

1 of interruptible. And I notice that in your analysis,  
2 there is some decrease -- in your calculation of  
3 reserve margins, there's some decrease for that  
4 component but it's not a large decrease. You  
5 basically stay stable over the ten years.

6 So those three factors, in my mind, are of  
7 interest in this particular plan. I'll be interested  
8 in how you dealt with those.

9 **MR. VILLAR:** Let me comment on at least a  
10 couple of those, and then maybe I can turn one over to  
11 someone else.

12 With respect to the weather extremes, if you  
13 recall, Commissioner, we had an extreme weather  
14 scenario included in there. And I think within the  
15 extreme weather scenario, we capture whatever might be  
16 included within those variations that you were  
17 concerned about. So we have looked at those weather  
18 extremes. In addition to that, the analysis that we  
19 performed with respect to some corrections to the  
20 Staff 1989 Christmas projections for 1999 gives us  
21 comfort that within the existing parameters we can  
22 serve a load under the kind of conditions that might  
23 be expected if the type of temperatures we experienced  
24 in 1989 were to be experienced again.

25 You have to remember, there were a

1 significant number of improvements that have been made  
2 to utility forecasting techniques, to methods of  
3 dealing with the public. Corrections made to reduce  
4 the number of forced outages were experienced.  
5 Changes in schedule, maintenance practices, et cetera.  
6 So all of those give us sufficient comfort, and we  
7 think we'll be able to handle the weather extremes.

8           Let me address the DSM customer issue. We  
9 looked in the 1999 assessment at the certainty factor  
10 we had developed in 1998 for the availability of DSM.  
11 And we asked each utility, given the experience in the  
12 last year or so where some customers had expressed  
13 dissatisfaction with the DSM programs, and there was  
14 some drop-off rates, to give us their expectations for  
15 what they thought they would be able to get in terms  
16 of DSM certainties; to take into account the fact that  
17 some customers were dissatisfied, and whether or not  
18 they had a pool of customers from which to replenish  
19 that DSM supply.

20           Given those instructions, we got back some  
21 data from the utilities that basically allowed us to  
22 reach what we used 1999 as a certainty factor, where  
23 each utility was taking into account if I lose a  
24 certain amount of load based on customer  
25 dissatisfaction with the number of interruptions, I

1 have these many customers that are eligible for the  
2 rate and that I can replenish that DSM load. To the  
3 extent that at some point in the future we might not  
4 be able to get to replenish that DSM capacity, then  
5 there will have to be changes made in the individual  
6 utility plans. But all the utilities are cognizant of  
7 that fact and they will take it into account in their  
8 planning practices.

9 Your middle question had to do with load  
10 growth and I think it may be better if Leo gets into  
11 that one.

12 **MR. GREEN:** Could you please repeat the  
13 question, Commissioner?

14 **COMMISSIONER JACOBS:** Yeah. On that one,  
15 I've tried to find the year here -- there was a year  
16 in your tables where the total peak increased on the  
17 order of close to 6,000.

18 **MR. GREEN:** Last year, summer, right?

19 **COMMISSIONER JACOBS:** Yeah. One year.

20 My concern would be in your data, your  
21 projected data doesn't anticipate that kind of an  
22 increase again in any of the out-years. So I'm  
23 wanting to understand, how did you rule out the fact  
24 that that might not occur again? If there's data that  
25 supports that? If so, how you adjust for that.



1           **MR. GREEN:** Yes. It could happen again. We  
2 do not consider it as a normal situation. We look at  
3 it in the sensitivity analysis. But to give an  
4 example, 1998 was an extremely hot year. And I hate  
5 to bring in FPL data here, but I'm more familiar with  
6 FPL.

7           This year our peak is like 400 or 500  
8 megawatts lower than what it was last year. Our total  
9 sales this year, at the end of the summer, is at 1%,  
10 this year over last year, lower; negative growth in  
11 sales to give an idea how hot it was in 1998. It  
12 could happen again. And that's why we have reserve  
13 margins to take care of those uncertainties that could  
14 happen. And we address them in -- by looking at the  
15 sensitivity analysis that Mario referred to.

16           **COMMISSIONER JACOBS:** Thank you.

17           **COMMISSIONER CLARK:** I think I have a  
18 question he may need to answer.

19           Do you see -- is the gap between, say, your  
20 average demand and your peak demand narrowing or  
21 getting larger?

22           **MR. GREEN:** The gap is getting smaller.  
23 Meaning to say that the nonpeak load is growing faster  
24 than the peak load.

25           **COMMISSIONER CLARK:** Okay. Do you have any

1 percentages you can tell us, or, I guess, I'd be happy  
2 if I saw that in the margin of reserve docket, if I  
3 saw some document that gave average demand and peak  
4 demand and how -- the trend.

5 **MR. GREEN:** I don't have that right now but  
6 I could provide you with that data.

7 **COMMISSIONER CLARK:** All right.

8 **CHAIRMAN GARCIA:** All right. Do any of the  
9 parties have any questions? (No response.)

10 We're going to take a 40-minute break and  
11 reconvene promptly at 40 after. (Lunch break.)

12 (Thereupon, lunch recess was taken at  
13 1:00 p.m. and reconvened at 1:45 p.m.)

14 - - - - -

15 **CHAIRMAN GARCIA:** I think the next presenter  
16 is FP&L. Whenever you are ready.

17 **MR. SIM:** My name is Steve Sim. I'm  
18 representing Florida Power & Light and our Ten Year  
19 Site Plan review. I've got about a dozen pages and  
20 it's broken down into four areas. We are going to  
21 talk about the resource additions that FP&L plans; a  
22 little bit about our LOLP reserve margin projections.  
23 And then we're going to go into two items that Staff  
24 had listed that they'd like to discuss; projections  
25 for winter 2000, winter 2001 and then a brief

1 discussion of nonfirm load.

2 First of all, in regard to our resource  
3 additions for the next ten years. Our current plan is  
4 showing approximately 3,300 megawatts and the numbers  
5 I'm going to give you primarily are going to be summer  
6 megawatt ratings. 3,300 megawatts of supply side  
7 resources over the next ten years. And for  
8 comparison, looking at the last two site plans before  
9 the 1999 site plan, we previously showed 1,600  
10 megawatts back in the '97 filing and 2,600 megawatts  
11 in the 1998 filing.

12 And breaking down the 3,300 megawatts we've  
13 got some changes to existing plants of a little over  
14 300 megawatts. Some of our existing purchases are  
15 going to decline by about 150 megawatts. We'll be  
16 repowering our Fort Myers and Sanford units and the  
17 plan shows that total a little over 1,800 megawatts.  
18 And then we're showing three new combined cycles  
19 coming in totalling a little over 1,250 megawatts.

20 This slide gives a little bit better, I  
21 guess, time view of when these capacity additions are  
22 coming in. We've got some changes to some of our  
23 existing units happening over the next couple of  
24 years, and then in 2001 the Fort Myers repowering  
25 begins.

1           We have about 200 megawatts net capacity  
2 coming in at Fort Myers due to the combustion turbine  
3 additions, while we're working on the steam units.  
4 That becomes compete, the repowering project in 2002,  
5 for a net of a little over what we're showing here,  
6 201 plus 725, so a little over 925 megawatts of net  
7 increase at Fort Myers due to the repowering.

8           A similar situation at Sanford. A phased in  
9 operation with the CTs coming in first followed by the  
10 full repowering. We then show that, primarily on this  
11 page, that the market combined cycle unit addition  
12 No. 5 and No. 6 happening towards the later end of the  
13 time period, and then one additional combined cycle  
14 coming at the tail end of this period for a total of  
15 almost 3,300 megawatts. And these projections assume  
16 that FPL's new DSM goals are achieved.

17           And the recently approved DSM goals amounts  
18 are shown on this page. These are the year-end summer  
19 megawatt reductions. And the note at the bottom is  
20 just kind of a remainder to me that in regard to the  
21 original DSM goals that were set in 1994, to date  
22 we're approximately 250 megawatts ahead of schedule in  
23 meeting those goals.

24           We're not representing that we'll be able to  
25 maintain that pace of achieving more DSM than what we

1 have in our goals, but I think it's a pretty safe  
2 assumption that we'll be able to at least meet the DSM  
3 goals amounts that we're showing here on the top of  
4 the page.

5           Switching gears a bit to our reliability  
6 studies that were a part of the work that went on to  
7 come up with a Ten Year Site Plan, we utilized two  
8 methodologies; the loss of load probability and  
9 reserve margin. And we treat them equally important.

10           The criteria we use are the industry  
11 standard of a maximum of .1 day per year for LOLP, and  
12 we use a minimum reserve margin standard for both  
13 summer and winter of 15%.

14           Using those criteria, this is what we are  
15 projected to have in regard to LOLP in the second  
16 column where we easily meet the .1 day per year LOLP  
17 standard.

18           And the remaining columns show the summer  
19 and winter projected reserve margins which meet, and  
20 all years but one where we meet the 15% reserve margin  
21 we easily exceed the reserve margin standard of 15%.

22           So based on our reliability studies for the  
23 FPL system, we project it to be very reliable. And,  
24 Tom Ballinger, this is the point we were discussing a  
25 little bit earlier.

1           As part of our planning work last year which  
2 led to the resource plan that we show in the 1999 Site  
3 Plan, we undertook on our own an independent analysis  
4 of LOLP for different types of utility systems. And  
5 the objective was to try to evaluate how reasonable  
6 the recent LOLP projections for both FPL and for  
7 Peninsular Florida were because there were a lot of  
8 questions about particularly Peninsular Florida when  
9 we first saw them.

10           We were able to closely approximate both the  
11 FPL projections and the FRCC projections. And we  
12 concluded from this that the current projections are  
13 reasonable and, in fact, should be expected for  
14 systems of those types. And that they should reflect  
15 a higher level of reliability for both types of  
16 systems in regard to LOLP.

17           Moving to the third item of the four, this  
18 was one of the two items that Staff asked us to  
19 present which is not traditionally shown in a Ten Year  
20 Site Plan filing. It was for a projection of unserved  
21 demand for the winter of 2000 and the winter of 2001  
22 based on winter temperatures experienced on nine dates  
23 that Staff selected for the period 1970 through 1989.

24           Our approach to this was, rather than go  
25 through each one of those nine dates, we'd look at the

1 worst situation and see what that showed. So in  
2 Step 1 we selected the worst winter condition  
3 experienced by FPL from these range of dates. And we  
4 developed a new winter load forecast based on the  
5 temperature which was derived on that date, and we  
6 plugged this into our current reserve margin  
7 projection to develop a revised winter reserve margin  
8 projection. And this would tell us whether or not,  
9 based on the temperature alone, we had unserved load.

10 In Step 2, we took it one more step out  
11 where we went back and we looked at recent historical  
12 unavailability at peak values for generation for  
13 purchases, et cetera, to determine if we applied these  
14 reasonable outage factors, would we then have unserved  
15 load.

16 And then finally, we threw in the  
17 operational measures that are traditionally not  
18 counted in reserve margin analysis to see how that  
19 would affect the picture of unserved load.

20 Now, the range of dates or range of years  
21 that Staff had requested that we look at, we  
22 experienced our coldest winter conditions on  
23 December 24, 1989. So we used the temperature  
24 experienced on that date and we developed a new load  
25 forecast for the winter of 2001.

1           Now, Staff had asked us to look at winter of  
2 2000 and 2001, but I elected to use just the winter of  
3 2000 because our reserve margin is projected to be  
4 lower -- excuse me -- for 2001 than it is for the year  
5 2000. So, again, I'm looking at the worst case.

6           Now, this new load forecast we plugged in  
7 and got a new current reserve projection for the  
8 winter of 2001, and it showed that our reserves at  
9 that point, based on the new load forecast, would be  
10 about 640 megawatts. So based on that change alone,  
11 no unserved demand was projected.

12           And, naturally, the projection would be  
13 significantly better for the other eight dates that  
14 Staff selected because the winter temperatures were  
15 not as cold as they were for this selected date.

16           Now, in this step we started with 640  
17 megawatts of capacity that was still available and we  
18 then went back since the '93 time frame and we tried  
19 to select what we thought were representative values  
20 for unavailable at the peak hour for FPL generation,  
21 for QFs and for net imports. And we also used the  
22 most recent value for the confidence level in load  
23 management that our folks had, based on their  
24 experience with it.

25           And we then subtracted those appropriate



1 amount of megawatts from our generation, from QFs,  
2 from net imports, and we lowered the load management  
3 capability that we were projecting in the reserve  
4 margin calculation. And where we were on the plus  
5 side of 640 megawatts of capacity still left to serve,  
6 we now dipped into a theoretical unserved load of 70  
7 megawatts, so we'd be 70 megawatts below what we  
8 thought we would be able to serve at this point.

9           However, these 70 megawatts represent where  
10 FPL would be if they applied none of the operational  
11 measures that we have which are not traditionally  
12 calculated -- included in reserve margin calculations.  
13 And I'll show you that one next.

14           **MR. HAFF:** I got a question before you leave  
15 that slide. This is Michael Haff. Are the  
16 uncertainty factors -- I guess you used uncertainty  
17 factors to come up with these reductions due to  
18 unavailability of FPL generation QFs, et cetera. Are  
19 those uncertainty factors the same ones used by -- the  
20 same number that FRCC used or is that an FPL specific?

21           **MR. SIM:** These are the same FPL values that  
22 fed into the FRCC analysis.

23           **MR. HAFF:** But they're not the same exact  
24 FRCC -- you haven't taken FRCC's value and applied it  
25 to FPL?

1           **MR. SIM:** No, because it wouldn't be  
2 appropriate. We took the FPL values that -- on which  
3 the FRCC total was built and we extracted the FPL  
4 values and applied them here.

5           **MR. HAFF:** All right. Okay.

6           **MR. SIM:** Now, looking at this, the Rows 1,  
7 2 and 3 are what I showed you on the previous page,  
8 where if we applied none of FPL's operational  
9 measures, in theory we'd have unserved load of 70  
10 megawatts.

11           However, FPL's projecting, in its  
12 operational measures, appeals to conserve about 400  
13 megawatts which we actually think is a bit  
14 conservative. Let's get the footnote in here.

15           Residential load control SCRAM in the  
16 winter, about 1,600 megawatts. And voltage reduction,  
17 another 400 megawatts. So we have approximately 2,400  
18 megawatts of operational measures that are not  
19 accounted for in reserve margin projections.

20           When you apply that, on Line 5 we're showing  
21 that we are projecting no unserved load based on those  
22 conditions. And, in fact, we'd have over 2,000  
23 megawatts of capacity or resources available to serve  
24 additional load.

25           Now, the last of the four items that Staff

1 asked us to take a look at was the nonfirm load. And  
2 for FPL's system, our current capability for  
3 residential load control is about 700 megawatts  
4 summer, and almost 1,300 megawatts winter, while our  
5 commercial industrial load control is a little over  
6 400 megawatts, summer and winter rating.

7 The notice provision, pretty typical I would  
8 say for these two types of nonfirm load. One week for  
9 residential and five years for commercial industrial.

10 Exit fees, none for residential. And yes,  
11 there is an exit fee for commercial industrial load  
12 control if a customer desires to leave earlier than  
13 the five year exit period unless certain conditions  
14 are met.

15 There was a question Staff asked about, are  
16 these counted in spending or supplemental reserves.  
17 They're both counted in our supplemental reserves.

18 And regarding the annual times we've  
19 exercised load control either in full or in part, what  
20 this shows is for residential load control, since 1992  
21 it's ranged from zero to nine times; commercial  
22 industrial load control from zero to three times.

23 In regard to nonfirm load, we view it as a  
24 very reliable resource. It's operated very well every  
25 time we've pushed the button. We are not concerned

1   overly regarding dropout rates. Even with residential  
2   load control with customers able to leave after one  
3   week, we estimate that we have at least as many  
4   eligible residential load control potential customers  
5   as we have currently signed up. We also have a number  
6   of customers on the waiting list for commercial  
7   industrial load control.

8           **CHAIRMAN GARCIA:** What do you mean by  
9   residential customers signed up as those waiting to  
10   sign up? You're not allowing anymore to sign up?

11           **MR. SIM:** I wouldn't term it, Mr. Chairman,  
12   as not allowing them to sign up. It's simply  
13   allocating the resources to the contractors that do  
14   the installations.

15           **CHAIRMAN GARCIA:** Got you.

16           **MR. SIM:** So it's more like turning a spigot  
17   on and off. In regard to the actual --

18           **COMMISSIONER JACOBS:** One brief question.  
19   In the -- I'm sorry, but this is FRCC's load  
20   management and interruptible dispatchable table. In  
21   2000/2001 they show not only maintaining the existing  
22   level, but increases. I guess it's 78 megawatts in  
23   one and 73 in the other.

24           What that says is -- and what I'm trying to  
25   do is put it in context of what you're saying. Even

1 if they were to lose some customer that would take  
2 them below that threshold, that 2,750 line, you --  
3 there was collective interest in DSM that would not  
4 only take them back up to that level but even increase  
5 it above to the extra megawatts that's indicated  
6 there?

7 **MR. SIM:** Yes, Commissioner, I believe  
8 that's true.

9 **COMMISSIONER JACOBS:** Okay.

10 **MR. SIM:** I think all utilities, certainly  
11 FPL, attempt to only sign up for load control that  
12 level of customers that is cost-effective.

13 **COMMISSIONER JACOBS:** Okay.

14 **MR. SIM:** But there are additional customers  
15 that are -- at least at FPL, there are in the wings  
16 that would like to get on the program.

17 **COMMISSIONER JACOBS:** Do you anticipate  
18 there would be any impact -- I think I heard today, I  
19 know I've heard it in other instances, that the  
20 cost-effectiveness is being impacted by the cost curve  
21 of building new generation? Would that mean that, to  
22 the extent that more gas capacity comes on line, the  
23 rebate amounts are going to be impacted downwards?  
24 And do you think that would have an impact on your  
25 enrollment?

1           **MR. SIM:** I think the answer to that is yes  
2 for two reasons. No. 1 is the cost of generation  
3 drops. That's what load control is competing with;  
4 the avoided cost of new units. So certainly you're  
5 able to pay less in terms of incentives which shrinks  
6 your potential market.

7           **COMMISSIONER JACOBS:** So if that happens  
8 midstream here, what we'd expect to see would be  
9 additional capacity build as opposed to reliance on  
10 the DSM?

11           **MR. SIM:** And I would say yes, and I believe  
12 you're seeing that in some of the new DSM goals  
13 numbers. I think you're seeing less DSM. Certainly  
14 less load control being signed up by FPL in the coming  
15 ten years than what we projected the last time we sat  
16 down and came up with new goals, in large part due to  
17 the reduced costs of competing generation options.

18           **COMMISSIONER JACOBS:** Thank you.

19           **MR. SIM:** I think the last point I wanted to  
20 make sure was in regard to the actual dropout rates  
21 FPL is seeing. We traditionally have seen about 1% or  
22 less per year for all of the years up there. For  
23 example, if you look for residential load control in  
24 1997, we never exercised it during the year and we saw  
25 roughly 1% dropout rate that year.

1           The next year, 1998 the frequency of use  
2 jumped to eight times per year, and I think the  
3 dropout rate only rose to about 1.5% per year. So we  
4 are not seeing any threat of any significant dropout  
5 from residential load control. And again, in  
6 concluding this slide, we view it as a very reliable  
7 resource.

8           **MR. FLOYD:** Steve, this is Roland Floyd with  
9 Staff. You say here that your load control,  
10 residential and commercial, are not used -- are not  
11 counted towards spinning reserves. I'm just curious  
12 whether, according to FRCC guidelines, could they  
13 qualify for spinning reserve? Are they wired in such  
14 that they can respond quick enough to be called  
15 spinning reserves or do you know?

16           **MR. SIM:** My understanding of spinning  
17 reserve means it has to be on line now, which means  
18 you'd have to have your finger on the load control  
19 button and be reducing load now. So, therefore, I  
20 don't think it would qualify as spinning reserve.

21           **MR. FLOYD:** Okay.

22           **MR. SIM:** And the last slide I've got is a  
23 summary slide. We project our system to be very  
24 reliable, again, from both an LOLP and a reserve  
25 margin perspective. Our projections are significantly

1 better than both respective standards for LOLP and for  
2 reserve margin.

3           And contributing to this projection of a  
4 reliable system are two fairly recent, back in 1997,  
5 changes that we've made to our planning process where  
6 we introduced a 15% winter reserve margin standard,  
7 and we've also, based on the winter of 1996, we've  
8 lowered our load forecast temperature, as Leo Green  
9 mentioned earlier, from about 37.5 degrees to about  
10 34.5 degrees; both of which have contributed a bit to  
11 the increase in capacity additions that I showed you  
12 on the first slide over those that we were projecting  
13 back, say, in 1996. And that concludes my  
14 presentation.

15           **MR. HAFF:** Questions for Florida Power &  
16 Light? Mr. Wright.

17           **MR. WRIGHT:** Steve, right behind you. Schef  
18 Wright. I'm representing Duke/New Smyrna. I have two  
19 questions. Does the 2,400 megawatts of operational  
20 measures shown on your Page 11 correspond to the 3,800  
21 megawatts that Mr. Villar mentioned for the FRCC total  
22 operational measures?

23           **MR. SIM:** Yes. That's the FPL contribution  
24 to the 3,800 that Mario mentioned earlier.

25           **MR. WRIGHT:** Thanks. And the other question



1 is, did FPL implement operational measures during the  
2 June '98 hot spell?

3 **MR. SIM:** Not to my knowledge, but I'm not  
4 100% sure if we did.

5 **MR. WRIGHT:** Thanks.

6 **MR. MOYLE:** I had two quick questions. Jon  
7 Moyle. This is with respect to Sanford and Fort  
8 Myers, I guess, that are coming on in O2 and O3. Do  
9 you anticipate putting the capacity represented by  
10 those out for bid?

11 **MR. DENIS:** Jon, my name is Roberto Denis,  
12 and the answer is no.

13 **MR. MOYLE:** As to the cost-effectiveness of  
14 that, is that going to come through to the Commission  
15 under a need determination petition?

16 **MR. DENIS:** It is not required to come to  
17 the Commission for that purpose, but the management is  
18 quite confident that the cost of those units plus all  
19 of the associated benefits of reducing and doing away  
20 with existing sources of pollution within the state,  
21 air pollution primarily, more than outweigh any  
22 benefits -- when put together more than outweigh  
23 any -- are much better than a new combined cycle  
24 facility.

25 **MR. MOYLE:** And that's because you're

1 displacing older, inefficient plants with newer  
2 combined cycle units; is that right?

3           **MR. DENIS:** That's correct. Using existing  
4 infrastructure, existing disturbed environmental land,  
5 et cetera.

6           **MR. MOYLE:** Thank you.

7           **MR. HAFF:** Any more questions? Seeing none,  
8 let's continue with the presentation by Florida Power  
9 Corporation.

10           **MR. CRISP:** Good afternoon. My name is Ben  
11 Crisp. I'm with Florida Power Corporation. On behalf  
12 of Florida Power Corp. I will be presenting our Ten  
13 Year Site Plan summary and addressing the questions  
14 that were listed on the agenda for the Commission  
15 workshop.

16           We'll be addressing, first of all, the  
17 overview of the Ten Year Site Plan. And second, we'll  
18 be talking about the historical and projected  
19 reserves.

20           Third, we'll talk about the question on  
21 estimate for unserved demand based on specific winter  
22 conditions.

23           And fourth of all, we'll discuss FPC's  
24 nonfirm load capability.

25           Step off first with the planned summary and

1 the overall historical and projected reserves. FPC  
2 utilizes a minimum reserve margin criteria of 15% firm  
3 peak load. In addition, we utilize a loss of load  
4 probability for less than .1 days per year.

5 Next, we'll take a look at our peak demand.  
6 Right here you notice that's actual; actual demand  
7 served and that's for the history. That's this line.  
8 And you see, as you start off on the projection --

9 **CHAIRMAN GARCIA:** You know what? If you  
10 turn off the lights there, the little florescent  
11 lights, we'll be able to see it a little better.

12 **MR. CRISP:** How about that? Okay. This  
13 line depicts actuals, peak demand, and this line  
14 depicts the total demand that's from the Ten Year Site  
15 Plan.

16 The downward trend in between 2001 and 2003  
17 reflects wholesale contracts with Seminole Electric  
18 Coop that are going away. And then as you see the  
19 trend continues along a fairly straight slope.

20 Summer peak demand, same format. Actual  
21 demand served on the left; Ten Year Site Plan total  
22 demand on the right. There's a slight dip in between  
23 19 or -- let's see -- 1999 and 2000 where MEAG  
24 contracts and Southern Company contracts for the  
25 summertime go away. There's an increase, and then the

1 wholesale contracts from Seminole go away.

2 Reserve margin summary. Make a few  
3 highlights. As the 15% reserve margin was established  
4 as a planning criteria it took us about two to three  
5 years before we were up to a point to where we had  
6 passed the 15% criteria. At the 33%, that was the  
7 addition of the Debarry and Intercession City units.  
8 You see a trend right in here from 2000 to 2003. That  
9 is the Seminole peaking contracts as they phase out.  
10 You see a drop from 25% to 21%. That is drop due to  
11 retirements. And then an increase to 23%, the  
12 addition of Hines Unit 2. And from 19% to 22% is the  
13 addition of Hines Unit 3.

14 Addressing demand side management resources.  
15 FPC has exceeded the 1994 Commission approved DSM  
16 goals in 1998. We have included the newly establish  
17 DSM goals for future years 2000 through 2009 in the  
18 plan. We recognize a reduction in nonfirm load as a  
19 part of our plan.

20 Generation additions. As I described for  
21 you in the 15% trend, Hines Energy Complex Combined  
22 Cycle Unit 1 became operational in April of 1999.

23 Intercession City, we're adding three units  
24 to 297 megawatts in December of 2000.

25 Capacity upgrades at Crystal River, our coal

1 units, we'll increase our capacity by 75 megawatts in  
2 December of 2001, and Hines Unit 2, November of 2004;  
3 Unit 3 in November of 2006.

4 **CHAIRMAN GARCIA:** Is that the only addition  
5 from your last submission?

6 **MR. CRISP:** That is correct.

7 This slide depicts the net energy  
8 requirements for the system and how its broken out by  
9 a fuel driver. As you see, natural gas, we're  
10 focusing on dual fuel contracts; dual fuel development  
11 within our fleet. Coal, natural gas, make up the bulk  
12 of our fleet.

13 The QFs are at 14% of energy service.  
14 Nuclear is at 13%, purchases at 7% and oil at 8%.  
15 Once again, this is energy, not capacity.

16 Now, I'm going to address Agenda Item No. 3,  
17 which is the estimated unserved firm demand based on  
18 historical weather.

19 We took a look at two scenarios. The first  
20 was a good operating condition scenario, and that  
21 includes 100% unit availability; normal wholesale  
22 demand and no operational resources. Under those  
23 conditions FPC would not expect any loss of firm load.

24 We looked at a bad operating condition  
25 scenario in which we had average unit availability and

1 we saw or we included a significant increase in  
2 wholesale demand, and we included no operational  
3 resources. And in that instance FPC would expect the  
4 loss of firm load between zero and 10%. I want to  
5 point out, significantly less than the 20% experienced  
6 in the December '89 freeze.

7 Well, one further point there. From the  
8 basis on the FRCC, that would not be an inconsistent  
9 finding. FRCC, looking at the total system, could  
10 very well wind up with a 0% loss of firm load. Us  
11 being in the stand alone analysis, that could wind up  
12 with zero to 10% and that makes perfect sense.

13 Nonfirm load will be the next issue we'll  
14 address. This graph shows an overall history for  
15 years 1990 through 1998 and then a projection from the  
16 Ten Year Site Plan for 1999 through 2007.

17 As you see we do have a reduction in the  
18 program in the Ten Year Site Plan. Most of that is  
19 coming out of our load management area. We went --  
20 started off at 911 megawatts and went up to 1,300  
21 megawatts of total nonfirm load, and in the Ten Year  
22 Site Plan we're dropping it down about anywhere from  
23 12 to 30 megawatts a year.

24 The overall nonfirm load scenario has been  
25 very, very useful product for Florida Power

1 Corporation and --

2 **MR. BALLINGER:** Excuse me. Would you go  
3 back to your previous slide?

4 **MR. CRISP:** Yes. Sure.

5 **MR. BALLINGER:** I've got one question on  
6 this slide. How do you propose to reduce the load  
7 management amount? Are you going to start closing  
8 your residential load management tariff?

9 **MR. CRISP:** We will not close the tariff  
10 itself. We just will not advertise the tariff. We  
11 have had some cancellations. We are learning more  
12 about the system as we go on. We have had some  
13 cancellations based on our utilization of the load  
14 management program.

15 We've utilized the load management program  
16 as has been needed and has been required and to the  
17 best service of our native load customers.

18 **MR. BALLINGER:** Do you know if in your --  
19 you'll be filing new programs soon to meet your new  
20 goals. Do you know if you'll be revising the credit  
21 in the residential load management program to lower  
22 it?

23 **MR. CRISP:** I'm not sure on that, but I can  
24 find that out.

25 **MR. BALLINGER:** Okay.

1           **MR. FLOYD:** This is Roland Floyd with Staff.  
2 Just to be sure on this voltage reduction, and maybe I  
3 should have asked FRCC the same name. Just to be  
4 clear, the Commission has standards on voltage  
5 quality. There's a nominal voltage and you cannot  
6 exceed that by plus or minus 5%, I think. I may be  
7 wrong on the percentages.

8           But when you say voltage reduction, you will  
9 still stay within the Commission rules on -- in other  
10 words, you bring the voltage down but no lower than  
11 what's required by our rules? I'm assuming that.

12           **MR. CRISP:** And I am assuming that that is  
13 correct, Roland.

14           **MR. FLOYD:** Okay. It just will go maybe  
15 from 110 volts to 107 or 106 or whatever; still within  
16 our criteria?

17           **MR. CRISP:** I believe that's correct.

18           **MR. FLOYD:** Okay.

19           **MR. CRISP:** Consistent with the voltage  
20 reduction program, you see that we have taken it out  
21 of our summer months. The reason for that being that  
22 the summer months you see a peak that's much broader  
23 than the winter months. The voltage reduction program  
24 is not considered as effective from the summer months  
25 standpoint so we've taken it out. You see the



1 continued reductions in the total nonfirm load  
2 program.

3 In summary, we believe the FPC plan is  
4 suitable based upon exceeding the 15% minimum reserve  
5 margin criteria and the loss of load probability of  
6 less than .1 days per year.

7 Any additional questions?

8 **MR. BALLINGER:** I've got a couple questions  
9 for you, and I will probably pose them to the other  
10 utilities as they come up as well.

11 We saw an FPL presentation that showed the  
12 number of times they utilized load management and  
13 interruptible load. Are you aware of any time during  
14 those instances that Florida Power Corporation was  
15 selling power outside of the state?

16 **MR. CRISP:** If power was -- Florida Power  
17 Corp. was selling outside of the state, it was a  
18 function of a long-term contract or a term contract  
19 that was made on the basis of 15% reserve margin  
20 criteria or above.

21 Now, the contract could very well have been  
22 made to bring down or create the best possible  
23 economics by bringing down reserve margins to 15% and  
24 then something happened during that period of time  
25 where the sale was actually being executed on a

1 day-to-day basis. And then you could have gone back  
2 in and used load management to satisfy a criteria  
3 where you lost a plant, but you continued your  
4 wholesale contract outside of the state.

5 **MR. BALLINGER:** Okay. And the converse of  
6 that, are you aware of any instances where Florida  
7 Power was interrupting its interruptible customers or  
8 load management, sought to buy from other utilities  
9 within the state and they were selling outside the  
10 state? In other words, it was unavailable and that  
11 forced you to interrupt your interruptible customers?

12 **MR. CRISP:** Come again.

13 **MR. BALLINGER:** Are you aware of any  
14 instances where Florida Power was in a situation where  
15 they were getting ready to interrupt their  
16 interruptible customers, looked around within Florida  
17 for power, and it was unavailable because other  
18 utilities were selling outside the state?

19 **MR. CRISP:** I'm not aware of that situation.

20 **MR. BALLINGER:** Okay. Thank you.

21 **MR. CRISP:** Any additional questions?

22 **MR. HAFF:** Mr. Wright. Behind you.

23 **MR. WRIGHT:** I have a similar question to  
24 the one I asked Mr. Sim.

25 **MR. HAFF:** Turn your microphone on, please.

1           **MR. WRIGHT:** This is Schef Wright  
2 representing Duke/New Smyrna. I have a similar  
3 question to the one I asked Dr. Sim. That is, do you  
4 have a number of megawatts of operational measures  
5 that FPC uses in its planning that would be comparable  
6 to the 3,800 that FRCC uses, or as Dr. Sim put it,  
7 FPC's contribution to that 3,800 megawatts?

8           **MR. CRISP:** Those under -- items are under  
9 consideration right now by FPC. I'll have to get back  
10 with you on that one.

11           **MR. WRIGHT:** You don't have a number today?

12           **MR. CRISP:** No, I don't.

13           **MR. WRIGHT:** Okay. Thank you.

14           **MR. CRISP:** Any additional questions? Thank  
15 you.

16           **MR. HAFF:** Okay. Next we're going to hear  
17 from a presentation by Gulf Power Company.

18           **MR. MARLAR:** My name is Mike Marlar. I'm  
19 the chief forecaster for Gulf Power Company. I'll be  
20 addressing the forecast related questions, and my  
21 colleague, Mr. Pope, will address the resource plan.

22                   This is our '99 Ten Year Site Plan of our  
23 summer peak demand projections. Historically over the  
24 last ten years we have experienced a 2.7% compound  
25 average annual growth rate of summer peak demand and

1 our projected demand growth with the impact of  
2 conservation programs is at 1.4%. Historically it  
3 would have been 3% absent such programs, and our  
4 projected growth would be 2% absent such programs.

5 The winter peak demand forecast is a little  
6 more volatile. Historically, and this is an  
7 end-point-to-end-point calculation of 0.9% compound  
8 average annual growth rate. That's 9 more than  
9 normalized. The projected growth rate is 2.9% under  
10 normal weather conditions. Historically absent are  
11 our conservation programs and we would have  
12 experienced 1.3% and a 3.7% projected growth rate.

13 Our annual net energy for load projections  
14 indicate historical growth rate of 2.4% without  
15 conservation programs. 2% projected -- excuse me --  
16 with our conservation programs. And without those  
17 programs we would have seen a 2.5 historical growth  
18 and a 2.1% projected growth rate.

19 This concludes my forecast presentation. If  
20 there is any questions I'd be happy to address them.

21 **COMMISSIONER DEASON:** One quick question.

22 **MR. MARLAR:** Yes, sir.

23 **COMMISSIONER DEASON:** Why the decline in the  
24 growth rate of summer peak demand?

25 **MR. MARLAR:** You talking about the '99 Ten

1 Year Site Plan projection, the 1.4% --

2 **COMMISSIONER DEASON:** Yes.

3 **MR. MARLAR:** -- versus 2.7 historical?

4 **COMMISSIONER DEASON:** Yes.

5 **MR. MARLAR:** Well, that's primarily due to  
6 impacts of our conservation programs in the  
7 residential sector. We're coming out with a new  
8 program that will significantly impact a lot of the  
9 energy consumption and the demand as well, and we also  
10 have a significant demand reductions that we were able  
11 to achieve under a realtime pricing program.

12 **COMMISSIONER DEASON:** Is your realtime  
13 pricing part of DSM?

14 **MR. MARLAR:** Yes, sir. It's part of our  
15 demand reduction programs.

16 **COMMISSIONER DEASON:** Well, then even if  
17 you're comparing -- if you compare your projections  
18 then without DSM you're still going from a 3% to a 2%.

19 **MR. MARLAR:** Yes, sir, and those projections  
20 without DSM reflect some of the national standards and  
21 improvements and supply sufficiencies and things of  
22 that nature, and increases saturation of higher  
23 efficient heat pumps. Those percentages, the 3% and  
24 2%, reflects things that are absent our efforts that  
25 would occur. Any further questions?

1           **MR. POPE:** I'd like to briefly go over --  
2 I'm Bill Pope with Gulf Power Company. Briefly go  
3 over our basic key assumptions. Mike's already  
4 covered the 1999 load forecast and we used as candid a  
5 technology for our plan, the combined cycles and the  
6 combustion turbines for the F class which is your  
7 nominal 180 megawatt combustion turbines, and we  
8 continued to put in a conventional pulverized coal  
9 unit which is important when you consider fuel price  
10 sensitivities in our plan.

11           Our fuel came from our 1999 budget year fuel  
12 panel. That fuel panel convenes in June of every  
13 year, so they actually met over a year ago.

14           Reserve margin for the Southern Electric  
15 System is 13.5% planning reserve margin, which is  
16 three years out and beyond. Our mixed technology that  
17 we use is PROVIEW. We used to use another mixed  
18 program, but it has long since been replaced by  
19 PROVIEW, a better model.

20           Each go around of the mix process identifies  
21 megawatts of needs in 300 megawatt blocks for all of  
22 the Southern Electric System. As a Southern System as  
23 a whole, these are allocated back to the operating  
24 companies of which Gulf is one, and then the  
25 individual operating company makes a selection based

1 on what best suits their needs from an economic  
2 standpoint. So there's another process that goes into  
3 the Southern Electric System resource plan where we  
4 get to select what is best for us.

5 We also go through a market test for our  
6 selection, our resource selection, which we've done  
7 recently and have been approved on our need  
8 determination back in June.

9 And what that plan revealed in our Ten Year  
10 Site Plan for 1999 through the planning horizon, the  
11 first column being the year, of course, and then the  
12 summer peak demand which is what we planned to. Where  
13 our starting capacity resources are is the next  
14 column. Then we have power purchases. Next column,  
15 capacity additions, which is actually machines on the  
16 ground. And ending capacity, which we can calculate  
17 our percent reserve margin.

18 And this particular reserve margin is Gulf  
19 Power Company's individual reserve margin, which  
20 contributes to the Southern Electric System reserve  
21 margin of 13.5% target.

22 You'll see that Gulf falls below the 13.5%  
23 percent reserve margin until 2002 where our  
24 contracts -- our firm contracts expire and we add a  
25 574 megawatt combined cycle unit. That brings our

1 reserves to 19%, 19.1% above the 13% on until we get  
2 to the year 2006.

3 In 2007 we've got a repowering of one --  
4 three of our plants in Pensacola. Brings our reserve  
5 margin above 13.5% again.

6 **MR. FLOYD:** Bill, this is Roland Floyd of  
7 the Staff. Just to put it on a table so to speak, I  
8 know Southern Company has lowered their standard, I  
9 guess you'd say, as far as reserve margin goes from 15  
10 to 13.5. You know we've been going over that same  
11 type question with Peninsular Florida and we'll also  
12 be looking at it, you know, from Gulf's standpoint,  
13 its relationship with Southern Company, too. So  
14 it's -- I mean, I didn't want that to slip by.

15 Also, we have forecasting people who will be  
16 looking at this. The point that Commissioner Deason  
17 pointed out about the change in the load forecast  
18 where the future looks like has declined for other  
19 reasons, whether it's national standards or whatever  
20 is out there and we haven't completed the analysis of  
21 the plans yet and don't have a specific question to  
22 ask you right now. I just wanted to kind of put that  
23 out there that we are looking at Gulf as well as the  
24 Peninsular Florida.

25 If you want to say anything about how the --



1 why you went from 15% to 13.5%, that would be -- you  
2 can -- you might want to tell us why you did that.

3           **MR. POPE:** Roland, without getting into a  
4 whole lot of detail, and to summarize that, we have  
5 performed reliability studies from time to time and we  
6 did an update back in March of 1977. And considering  
7 factors at that time which drive our need to -- or our  
8 selection of reserve margin, it was appropriate at  
9 that time to select 13.5% from an economic standpoint  
10 as a minimum target. That's not to say that we can't  
11 have more than that as reserves, but our planning  
12 reserve target is 13.5%.

13           And as mentioned earlier this year, we're  
14 continuing to evaluate that in looking at current  
15 trends and market price which will drive that curve  
16 one way or another. So we're still looking at that.  
17 Indications are with what happened in the summer of  
18 1998, the 13.5% from an economic and reliability  
19 standpoint, may not be appropriate, but we have not  
20 reached a conclusion at this time. So that in a  
21 nutshell.

22           One of the other differences, I believe,  
23 between Peninsular Florida and we're not a party -- a  
24 direct interested party in that, but we are monitoring  
25 that. One of the differences, we have more tie-line

1 assistance to rely on than Peninsular Florida and  
2 that's one of the things. We can kind of look at our  
3 reliability a little differently. And you're going to  
4 continue to study it, right?

5 **MR. FLOYD:** Yep.

6 **COMMISSIONER JACOBS:** Can I ask a question?  
7 Looking at the year 2001, that looks like you have  
8 about 22 megawatts. I suspect that -- you could lose  
9 pretty much any one -- any plant in that fleet and  
10 that would cause you to have problems there?

11 **MR. POPE:** It would make our reserves --  
12 actual operating reserves at the time drop to a  
13 negative number; I believe a negative number. But, as  
14 part of the operating -- the Southern operating  
15 system, Southern Electric System, a lot of our year to  
16 year operating dependence is on the Southern Electric  
17 pool, and dropping one of our units is in our planning  
18 criteria and we're still solvent. We're not going to  
19 lose firm load because of that.

20 **COMMISSIONER JACOBS:** Okay.

21 **COMMISSIONER DEASON:** Your column entitled  
22 Power Purchases, is that the Southern System pool?

23 **MR. POPE:** No, sir. Those are outside the  
24 Southern Electric System pool. Those are firm  
25 contracts outside Southern.

1           **COMMISSIONER DEASON:** So those are your  
2 wholesale contracts?

3           **MR. POPE:** These are -- yes. Firm purchases  
4 from outside utilities. These are the ones that we  
5 know at this time to be firm. We are looking at now  
6 next year, just for next summer, to see if there's  
7 anything we need to supplement that with, but these  
8 are the firm ones that we have in place long-term,  
9 more than a year out.

10           **COMMISSIONER DEASON:** How do you factor in  
11 your wholesale contract with Florida Public Utilities?  
12 Do you get a demand forecast from them and factor that  
13 into your wholesale requirements or how is that done?

14           **MR. POPE:** Yes, we do. That's what we do,  
15 as well as delivery points for Alabama Electric Corp.

16           Okay. I've got one other slide. We were  
17 asked to put up a history of reserves and I guess of  
18 note here is the year 1995 and 1997 where our actual  
19 operating reserves at the time of summer peak were  
20 negative. This just highlights once again our  
21 reliance, our ability to rely on the Southern Electric  
22 System for meeting firm demand.

23           **CHAIRMAN GARCIA:** Let me ask you. Are just  
24 the realities of the Southern System so much  
25 different? I mean, do you have larger margins than

1 the rest of the Southern System? Is that why you  
2 don't need to worry about them in your --

3 **MR. POPE:** Besides the Southern, this is one  
4 of the benefits that Gulf derives from being a member  
5 of a large system is that a lot of things can happen  
6 to Gulf or other units on the Southern Electric System  
7 and because of size and resources we can pretty well  
8 just --

9 **CHAIRMAN GARCIA:** Find it.

10 **MR. POPE:** Yes. It's a benefit for being in  
11 the pool.

12 And other than that, as you can see, our  
13 reserves and our reliance on Southern make our plan  
14 suitable and economical as we've demonstrated in the  
15 recent need determination. And I'll answer any  
16 questions if anybody's got any.

17 **MR. HAFF:** I'd just like to request that if  
18 we can get a copy of these slides, a copy of those.

19 **MR. POPE:** I apologize, Michael. And I will  
20 send a copy. As you know, I was out of town last  
21 week.

22 **MR. HAFF:** That's right. Any questions for  
23 Gulf Power? Like to thank you -- we're going to  
24 continue on with TECO, but I'd like to take this point  
25 to announce, I guess we're going to be --

1 Mr. Chairman, we'll be finishing up today about 4:00.  
2 I'd appreciate everyone's brevity in their  
3 presentations and I'd like to get everyone in today,  
4 but just keep that 4:00 time in mind when you're  
5 presenting.

6 **MR. WARD:** Good afternoon. My name is Mark  
7 Ward. I'm representing Tampa Electric and I'll be  
8 reviewing our '99 Ten Year Site Plan, as well as a  
9 brief overview of our 2000 plan that we're currently  
10 wrapping up.

11 Real quickly, this is the outline that I'll  
12 be addressing today and I'll hit each one of these  
13 points as I go through my presentation.

14 I'd first like to talk about our projected  
15 demand forecast. This is our '99 Ten Year Site Plan  
16 forecast. We are looking at about a 2.8% average  
17 annual growth rate for the summer. Roughly 2.9 for --  
18 excuse me. 2.9 for the summer and 2.8 for the winter.  
19 And it equals about 100 megawatts per season in firm  
20 demand growth. Our projected 2000 plan also has a  
21 forecast very similar to this.

22 Next slide is a comparison and overview of  
23 our '99 Ten Year Resource Plan, as well as our 2000  
24 Ten Year Resource Plan. We've added a unit and a  
25 purchase in our 2000 plan and this is due to the

1 additional reserve margin criteria that we're adopting  
2 as part of our planning next year. It's a 7% minimum  
3 supply side reserve margin for the summer and that  
4 requires us to add an additional CT as well as a 90  
5 megawatt purchase.

6 Also like to point out that 2005 we're going  
7 to be building out our Polk site. The site is  
8 currently permitted for 1,150 megawatts.

9 **MR. BALLINGER:** Mark, I'm sorry.

10 **MR. WARD:** Yes.

11 **MR. BALLINGER:** Go ahead.

12 **MR. WARD:** The CTs that we're proposing to  
13 build are also dual fuel, gas and oil.

14 **MR. BALLINGER:** You mentioned that you gave  
15 us a preview to the 2000 plan. Does this reflect the  
16 recent option that TECO exercised with the Hardee  
17 Power Station?

18 **MR. WARD:** Yes, it does.

19 **MR. BALLINGER:** I have that build out. And  
20 that's from -- I understand from the letter I saw from  
21 Mr. Hernandez, that's due in service year 2000?

22 **MR. WARD:** Yes, it is. Summer of 2000.

23 **MR. BALLINGER:** And have they started  
24 construction on that?

25 **MR. WARD:** Yes, they have.

1           **MR. BALLINGER:** Okay. If I understand it  
2 that's going to be -- you have a -- it will be owned  
3 by Hardee Power Partners. I think that's their name.

4           **MR. WARD:** Yes.

5           **MR. BALLINGER:** So they have a purchase  
6 agreement with TECO.

7           **MR. WARD:** Yes.

8           **MR. BALLINGER:** And that hasn't come before  
9 the Commission yet for cost recovery approval?

10          **MR. WARD:** That's correct.

11          **MR. BALLINGER:** Okay.

12          **MR. WARD:** Real quickly, I'd like to just  
13 compare our criteria. '99 we had a 15% minimum firm  
14 reserve margin criteria, as well as a 1% EUE per net  
15 energy for load. We've gone to a year round 15% firm  
16 reserve margin criteria for summer and winter, as well  
17 as the 7% minimum supply side reserve margin for the  
18 summer.

19          **MR. FLOYD:** Let me ask you one question  
20 about this. I don't know if I ever really got a good  
21 answer on this and maybe you don't know historically.  
22 But when I first started working here TECO had a 25%  
23 reserve margin standard. A few years later they went  
24 to 20%. And now last year or year before, I don't  
25 remember which, now it's down to 15%.

1           **MR. WARD:** Yes. We went to that in the  
2 summer of '96, I think. Or sorry. Fall of '96.

3           **MR. FLOYD:** Okay. I just wondered, without  
4 getting into too much detail, if you can explain why  
5 in such a short time you go from 25 to 15. I mean,  
6 you got about -- you know, well, half almost of what  
7 it used to be.

8           **MR. WARD:** I think we've answered that in  
9 some of the interrogatories and I'd kind to like to  
10 leave that to the reserve margin docket.

11           **MR. FLOYD:** Okay.

12           **MR. WARD:** Having a hard time getting this  
13 slide on here. But this is a comparison of our '99  
14 plan, reserve margins winter versus what we're  
15 proposing in 2000. The bottom part of each bar is the  
16 nonfirm load contribution to reserves. The top  
17 portion is the supply side contribution. You can see  
18 an increase in our supply side reserves with our  
19 proposed 2000 plan.

20           **MR. BALLINGER:** Mark, one more question.  
21 I'm sorry. Now, TECO hasn't filed a revised Ten Year  
22 Site Plan.

23           **MR. WARD:** That's correct.

24           **MR. BALLINGER:** So Staff is still reviewing  
25 and our comments will be focused on the '99 plan as



1 filed.

2 MR. WARD: All right.

3 MR. BALLINGER: Which would be the top graph  
4 you've got there.

5 MR. WARD: Okay.

6 MR. BALLINGER: Is that --

7 MR. WARD: That's fine.

8 MR. BALLINGER: Okay.

9 MR. WARD: Again, this is a comparison of  
10 the '99 Ten Year Site Plan for the summer reserve  
11 margins as well as our proposed 2000 resource plan.  
12 Same as the previous chart, we have on the bottom part  
13 of the bar the nonfirm load contribution, and the top  
14 part is our supply side.

15 To address the question about demands  
16 dealing with temperature extremes, Tampa Electric went  
17 back and looked at 50 years of data in the Tampa  
18 region; those temperatures occurring at the time of  
19 our winter and summer peaks. And then we calculated a  
20 reserve margin based on those loads and that's what  
21 we're showing here.

22 MR. BALLINGER: So if I understand this  
23 correctly, if it got to 25 degrees, I guess, in  
24 Tampa --

25 MR. WARD: Yes.

1           **MR. BALLINGER:** -- you'd have about a 4%  
2 reserve margin maybe?

3           **MR. WARD:** That's a 4% reserve margin  
4 without operational measures.

5           **MR. BALLINGER:** Okay. Basically, it could  
6 get down to 20%. Then you wouldn't lose any firm load  
7 and wouldn't have to use voltage reduction or SCRAM or  
8 anything like that?

9           **MR. WARD:** Ask that question again, Tom.

10           **MR. BALLINGER:** If it got down to  
11 20 degrees, to me it looks like you still have some  
12 reserve, and you're saying you could serve that and  
13 not institute operational things such as --

14           **MR. WARD:** No. We would have to do that.  
15 This is assuming that we would have 100% availability  
16 of our supply side resources. So I would expect we'd  
17 have to institute some operational measures.

18           **MR. BALLINGER:** Okay.

19           **MR. WARD:** This is our projected -- our  
20 historical and projected nonfirm load. It includes  
21 interruptible and load management contributions.  
22 These are what we count in our reserves. It's fairly  
23 flat through time.

24           We wanted to try to address the correlation  
25 between reserve margin and load controls. What I'm

1 using as a proxy today is EUE, which is unserved  
2 energy, expected unserved energy.

3 Tampa Electric believes that it's a very  
4 difficult thing to do because of the multiple  
5 variables that affect the relationship that either --  
6 any of those variables that you see in the dark purple  
7 could affect the correlation between reserve margin  
8 and EUE.

9 For instance, you could have relatively low  
10 reserves, very high unit availability and not  
11 institute controls or vice versa. And that's just one  
12 variable that would affect that. You have unit size,  
13 number of units and unplanned outages as well.

14 The items in the center there in the shaded  
15 box, those are the items that are in common with both  
16 expected unserved energy reserve margins. Any  
17 questions?

18 **MR. BALLINGER:** I will ask the same question  
19 I asked the FPC presenter. Are you aware over the  
20 last couple of years any time that TECO has been in a  
21 position, they were getting ready to interrupt their  
22 interruptible customers and looked for power from  
23 other Florida utilities, but found it unavailable  
24 because it was being sold out of state?

25 **MR. WARD:** Not to my knowledge.

1           **MR. BALLINGER:** Okay. I'd like to ask a  
2 favor, I guess, of TECO and Florida Power and Florida  
3 Power & Light. If you all could get together and look  
4 at instances you did this and corroborate those  
5 responses to see if, in fact, this ever happened and  
6 get back to Staff with that.

7           **MR. WARD:** We will. Thank you.

8           **MR. HAFF:** Question, Mr. Wright?

9           **COMMISSIONER CLARK:** Would Staff refresh my  
10 memory on the basis on which customers get  
11 interrupted, because we changed it. At one time it  
12 was that you could get --

13           **MR. BALLINGER:** As a priority?

14           **COMMISSIONER CLARK:** Right. You get  
15 interrupted if power is needed to firm customers on  
16 another utility's --

17           **MR. BALLINGER:** Yes. That's correct.

18           **COMMISSIONER CLARK:** For their firm  
19 customers.

20           **MR. BALLINGER:** Our rules read now, and I  
21 think all the tariffs are corrected, that if a company  
22 needs power to serve its firm load, another company  
23 must interrupt its nonfirm load to serve that load.

24           **COMMISSIONER CLARK:** Okay.

25           **MR. BALLINGER:** In other words, to help out;

1 to use it as an actual generator. But you're correct  
2 in that.

3 **CHAIRMAN GARCIA:** So that shouldn't be  
4 happening.

5 **MR. BALLINGER:** Well, it depends on the  
6 timing, I think, as Florida Power mentioned or other  
7 people, of when that contract was signed. It may have  
8 been a long-term contract signed a month or two ago  
9 and then you get into the situation; well, you've got  
10 a firm wholesale agreement. You've got to oblige by  
11 it. But then we get a heat wave come down here,  
12 you're stuck with operating reserves. But that's a  
13 firm commitment you made a couple months ago maybe.  
14 We're not sure if that's the situation or if it's a  
15 nonfirm transaction going on.

16 **MR. HAFF:** Mr. Wright, did you have a  
17 question?

18 **MR. WRIGHT:** Yes, Mr. Haff, thank you.  
19 Mr. Ward, I have a couple of questions about  
20 operational measures like I asked FPL and FPC's  
21 representatives. Do you have a number of megawatts  
22 that Tampa Electric uses as operational measures  
23 analogous to those represented by Dr. Sim for FPL?

24 **MR. WARD:** I believe what we provided FPL in  
25 that analysis was 70 megawatts and that was tied to

1 voltage control.

2 **MR. WRIGHT:** Okay. And as far as you know  
3 is that all then?

4 **MR. WARD:** That is all I'm aware of.

5 **MR. WRIGHT:** Okay. Did you all implement  
6 voltage control either in June of 1998 during the hot  
7 spell or during the constrained event you had in April  
8 of this year?

9 **MR. WARD:** I can't answer that. I don't  
10 know.

11 **MR. WRIGHT:** Thank you.

12 **COMMISSIONER CLARK:** I have a question. I  
13 don't know if you can clarify it or Staff. Is there  
14 an obligation on the part of a utility that has  
15 capacity, to sell that capacity to another utility so  
16 that they do not interrupt their demand side  
17 management customers? Are they obligated to sell it?

18 **MR. BALLINGER:** Are you asking me?

19 **COMMISSIONER CLARK:** I don't care who  
20 answers it really.

21 **MR. BALLINGER:** My view of it is, if they  
22 have it yes, they have to. But if they prearranged a  
23 sale, let's say --

24 **COMMISSIONER CLARK:** Why are they -- do the  
25 tariffs obligate them to do that? Do you know if you

1 are obligated to sell power to a sister company to  
2 avoid them interrupting their demand side management  
3 customers?

4 **MR. WARD:** Only if it's a firm contract.

5 **MR. BALLINGER:** Right. I don't think  
6 they're obligated for nonfirm for buy-through, that  
7 type of thing.

8 **COMMISSIONER CLARK:** And it would be  
9 appropriate that they would not be if it's supposed to  
10 act like a generating unit, right?

11 **MR. BALLINGER:** Correct.

12 **COMMISSIONER CLARK:** Okay.

13 **MR. HAFF:** Are there any more questions for  
14 Tampa Electric?

15 All right. Next we'll here from the munis.  
16 FMPA is next and we're coming up on 3:00. We need to  
17 wrap it up by 4:00, so make brief presentations or if  
18 you just want to answer questions, I guess, that would  
19 be fine. Yeah, Rick, that's for you too.

20 **MR. CASEY:** That extends to me as well?

21 **MR. HAFF:** Yes. Trying to move this along.

22 **MR. CASEY:** Rick Casey with FMPA. I will be  
23 as brief as I can. Let me switch gears here. Just to  
24 give you an idea, we've got currently 28 members as of  
25 last Friday. City of Quincy joined FMPA as a member

1 and so we have representatives all over the state.

2 We're organized a little bit differently.  
3 We're a wholesale power supplier. I apologize for the  
4 slide. We've got five power supply projects. The  
5 St. Lucie project has a partial ownership in the FPL.  
6 We've got 15 members that participate in that project.

7 Stanton project we have 64 megawatts out of  
8 the OUC Stanton 1 Unit of which six members are  
9 participating in that project.

10 Tri-City, again, is in OUC Stanton 1 coal  
11 power plant. Three separate members have participated  
12 in that project.

13 Stanton II, 100 megawatts of that in the  
14 OUC. Seven members participate there.

15 All-requirements project is where we spend  
16 most of our time. Pardon me. We have ten members now  
17 of that project. We supply all their power supply  
18 needs and that's where I spend most of my time  
19 planning.

20 We anticipate the City of Lakeworth coming  
21 in in the next year or so and so we may instead have  
22 11 members there in the not too distant future.

23 **MR. HAFF:** Rick, is the light coming through  
24 the bottom of that projector or is it coming through  
25 the top?



1           **MR. CASEY:** That's the top. I want to try  
2 that one.

3           **MR. HAFF:** Turn the bottom on only.

4           **MR. CASEY:** Thank you. Just as a matter of  
5 information, the ten cities had hit -- had a new peak  
6 this summer. We were anticipating a peak of 940  
7 megawatts. They instead hit 900 megawatts on August  
8 2nd of this year which is over 4% higher than we  
9 expected.

10           The only significant change in this year's  
11 Ten Year Site Plan compared to last year is that our  
12 2000 summer peak is higher than last year's projection  
13 of 2.6%.

14           Let me go ahead and cut through some of the  
15 other slides and just show you some of our historical  
16 reserve margins.

17           This is our historical summer peak reserve  
18 margins. As actually experienced, as you can see, up  
19 until about two years ago we were planning for about  
20 20% reserves and we were close to that in most cases  
21 on an actual basis. Got a little higher in '96 and  
22 '97 but that's what we experienced on an actual basis  
23 in the summer.

24           Winter peaks being a little more spiky, not  
25 too prolonged are a little more difficult to project

1 but here's what we look like historically on our  
2 winter peaks. They can get real high and they can be  
3 real low when it gets real cold, so that's what that  
4 looks like.

5 On a planning basis we now plan for a 20%  
6 summer -- 18% summer reserve margin and a 15% winter  
7 reserve margin and we have a little excess in next  
8 year but coming down if things go as planned.

9 In terms of anticipated, what we can and  
10 can't serve in the future winters, we don't have a lot  
11 of history to go back and look at. The project was  
12 formed in May of '86. We did experience the December  
13 of '89 winter peak and we did serve all of our load  
14 that particular winter. Didn't have any fuel  
15 rotations or blackouts.

16 We don't have any formal studies to try to  
17 anticipate what we could or couldn't serve, but in  
18 view of the fact that we did serve our load in one of  
19 the most extreme winters that's been experienced we  
20 feel fairly confident that we can probably do so again  
21 should that occur.

22 And in terms of nonfirm load we don't have  
23 any except to speak of two of the cities, Ocala and  
24 Leesburg, do have residential load management and  
25 right now in the summer that represents about four

1 megawatts and in the winter six, and we expect that to  
2 grow a little bit by 2008 to five in the summer and  
3 nine megawatts in the winter. We don't operate it  
4 real frequently, only infrequently, and as needed for  
5 state capacity emergencies.

6 Any questions?

7 **MR. HAFF:** Any questions for FMPA? I'd like  
8 to thank you for your brevity in your presentation.

9 Next let's hear from Gainesville Regional  
10 Utilities if they have a presentation.

11 **MR. KAMHOOT:** My name is Todd Kamhoot. I've  
12 put together a very short handout that addresses  
13 basically the questions in Staff's outline.

14 First, I'd like to show a table, and this is  
15 going to be hard to see on the overhead. Your handout  
16 will be easier. These are our generating resources.  
17 And our current system total is 550 megawatts.

18 Next fall we are planning to repower our  
19 Kelly Unit 8 from a 50 megawatt steam unit to a 110  
20 megawatt combined cycle, so we'll have a new net 60  
21 megawatts for a total of 610. We expect that to be in  
22 service for the winter peak of 2001.

23 The table and graph on the next page show  
24 our capacity and demand at time of winter peak. You  
25 can probably surmise from this graph that GRU is a

1 summer peaking utility and we have a good bit of  
2 excess capacity in the winter time. The dark line at  
3 the top represents available capacity and the bars  
4 represent our peak demand plus 15%.

5 There's a similar table and graph, the  
6 fourth page of your handout, for our summer peak  
7 demand.

8 Try to hit some of the high points. Staff  
9 has identified some historical dates in which extreme  
10 winter weather contributed to extraordinary high  
11 winter loads. I selected what I viewed a worst case  
12 example to discuss today, and on Page 10 of Staff's  
13 handout, if you refer to that, I selected the  
14 January 21, 1985 date.

15 You can see on there for Jacksonville it was  
16 7 degrees Fahrenheit. It was about 10 degrees in  
17 Gainesville at that time and that happened to be a  
18 date that we experienced the highest winter demand per  
19 customer that we ever have. On that date we had a 253  
20 megawatt peak.

21 The following day the temperature increased  
22 a little bit and our peak increased as well. So it  
23 leads that there are probably some factors beyond  
24 temperature that are contributing to the peak.

25 The 255 megawatt peak on January 22nd was

1 31% higher than 1984's Ten Year Site Plan's forecast.  
2 So what I did for this example was apply that forecast  
3 error to the winter peak of 2000/2001 because we would  
4 have a lower reserve margin in that year than we would  
5 this coming winter. And with all available capacity,  
6 GRU would still expect to have a reserve margin of 39%  
7 under that scenario.

8           If our repower of Kelly Unit 8 is not  
9 complete and neither the original steam unit nor the  
10 new combined cycle are available, we would still have  
11 a reserve margin of approximately 14% so we would  
12 still be able to meet a winter demand under a scenario  
13 such as one where our peak exceeded forecast by 31%.

14           GRU has curtailable load agreements with two  
15 customers for a total of approximately two megawatts.  
16 These are new agreements we just entered into this  
17 year. Verification testing was conducted this summer.  
18 These were discussed in the interrogatories in more  
19 detail.

20           And in response to Staff's question,  
21 curtailment alone in this situation is not necessarily  
22 correlated to GRUs reserve margin because there is  
23 adequate capacity without curtailment. However,  
24 curtailment of load is valuable to us for other  
25 reasons. For example, this summer it helped relieve a

1 heavily loaded circuit.

2 That's pretty much all I have in the way of  
3 a presentation, if anyone has any questions.

4 **MR. HAFF:** Any questions for Gainesville  
5 Regional Utilities? Thank you.

6 Next presentation is from Jacksonville  
7 Electric Authority if they're here.

8 **MR. BOSWELL:** I'll be brief, Michael. Randy  
9 Boswell. And I'll correct you. It is no longer  
10 Jacksonville Electric Authority. It is officially  
11 JEA. We changed our name.

12 **MR. HAFF:** Okay.

13 **MR. BOSWELL:** I'll use about five slides out  
14 of the package and you can ask questions.

15 There's our current capacity, 2,700  
16 megawatts. We have a one firm sale and a couple of  
17 purchases that are included in that number.

18 Just quickly, our forecast demand and energy  
19 growth rates are exceeding 3% for summer, winter and  
20 energy which was fairly aggressive, but it mirrors the  
21 Jacksonville economy.

22 Our expansion plan, as listed in our Ten  
23 Year Site Plan, you'll see first we do have some  
24 seasonal purchases in the near term until our capacity  
25 gets built for 2000, 2002, 2008. In 2000 we add our

1 first combustion turbine. Three more units in 2001,  
2 and one unit in 2007. The first four turbines are  
3 purchased. One has been delivered. The other three  
4 are on order and in the pipeline.

5 As part of our plan we are shutting down  
6 some oil-fired units; replacing them with the turbine  
7 gas capacity.

8 Part of our plan includes repowering  
9 Northside 1 and 2 which are large steam turbines  
10 currently. They will be repowered with petroleum coke  
11 fuel at our Northside power plant, but we will lower  
12 emissions out of that plant site in that effort.

13 Going to skip a couple of pages in the  
14 interest of time and go to our nonfirm load. We do  
15 have some nonfirm resources. These are our  
16 interruptible curtailment contract amounts by year.  
17 We purposefully limited the amount of interruptible on  
18 our system. Less than 50% of the reserves we carry  
19 are in interruptibles. One customer accounts for  
20 about 50 megawatts of that. It's a steel mill and  
21 current practice is the rate has a two rate option.  
22 When we're in a high cost day, they get price signal.  
23 They typically self-interrupt. They self-interrupted  
24 numerous times this summer on price, and they're  
25 happy.

1           You had some questions on on-site generation  
2 and so forth and the data is in the pack. There it  
3 is. Notice provisions on the interruptible are a  
4 three year notice or enter into a five year contract.  
5 We do not use it as spinning or supplemental. And  
6 we've only experienced one interruption to date, and  
7 there was when there was an airplane crashed into 500  
8 lines in Florida and reduced the total import into the  
9 state. That's been our only interruption.

10           I think that covers all I intended to say  
11 and I will entertain questions.

12           **COMMISSIONER JACOBS:** On your '98 reserve,  
13 it was fairly thin, and coming into your projections,  
14 what's going to be the major factor in turning that  
15 around?

16           **MR. BOSWELL:** I'm sorry. On our '98  
17 reserves?

18           **COMMISSIONER JACOBS:** Yes. I'm on -- it  
19 doesn't have a page. It's the table that has all the  
20 reserve margins here.

21           **MR. BOSWELL:** Talking about this table?

22           **COMMISSIONER JACOBS:** Yes.

23           **MR. BOSWELL:** Those are actual experience  
24 numbers, not planning numbers. And that was requested  
25 by Staff.



1           **COMMISSIONER JACOBS:** Okay. And what  
2 accounts for the projection for '99 going from a  
3 negative 11 to 15%.

4           **MR. BOSWELL:** Well, it's easier to say what  
5 happened in '98. We had a large unit trip at time of  
6 summer peak and that gave you the negative number.  
7 That's what our reserves are for, to account for that,  
8 and we certainly had no problem, but our projections  
9 are 15% or higher moving forward.

10           **COMMISSIONER JACOBS:** Okay.

11           **MR. HAFF:** Since you brought this rain with  
12 you, would you take it home with you?

13           **MR. BOSWELL:** I sure will.

14           **MR. HAFF:** Thanks.

15           Next presentation on the list is Kissimmee  
16 Utility Authority. Are they still here?

17           **MR. ROLLINS:** I'm Myron Rollins. Robert  
18 Miller had to leave for some PROSIM training this  
19 afternoon so he asked if I would make the presentation  
20 for him. He left me an hour's worth of slides, I  
21 think, but I can pick two or three of them out. But I  
22 think I can summarize it pretty quickly.

23           Kissimmee uses a 15% reserve margin. As a  
24 comment, I think we might be making too much out of a  
25 strict analytical application of reserve margins. The

1 important thing is the reliability of the system and  
2 whatever it takes to provide accurate reliability.

3 They need capacity in 2001 which would be  
4 met by Cane Island 3, and they will need some more  
5 capacity by 2004.

6 I looked at the issue of what would happen  
7 on the cold days in our system, and it will be nip and  
8 tuck if they would be able to serve all their loads  
9 and we don't really have -- they don't really have the  
10 data to do a detail model to try to do that.

11 But a couple of things that nobody's  
12 mentioned about that is, especially when it gets cold,  
13 all the combustion turbine capacity in the state will  
14 produce quite a few more megawatts than is in the  
15 winter capacity ratings. And also load management,  
16 which Kissimmee has about 12 megawatts of currently,  
17 you'll get a lot more load reduction from your load  
18 management than you will out of a normal winter  
19 situation.

20 And I've got plenty of slides if anybody has  
21 any questions, but since we're trying to run short on  
22 time, I'll quit.

23 **COMMISSIONER DEASON:** Can you explain to me  
24 what you mean by the fact that there's going to be  
25 capacity for combustion turbines which are not

1 accounted for on an extremely cold day?

2 **MR. ROLLINS:** Right. In general, the colder  
3 it gets, the more output you'll get from combustion  
4 turbines.

5 **COMMISSIONER DEASON:** Oh, you're talking  
6 about the efficiency of the plant?

7 **MR. ROLLINS:** Right. The plant will put out  
8 more so people will rate their turbines at a standard,  
9 you know, winter temperature or whatever probably, and  
10 then on these very severe days it will be colder than  
11 that and there will be more output come out of those  
12 units than what is shown on the capacity tables.  
13 Thank you.

14 **MR. HAFF:** Thank you, Myron.

15 Next I have the City of Lakeland with a  
16 presentation.

17 **MR. ELWING:** Good afternoon, Commissioners.  
18 Paul Elwing representing the City of Lakeland  
19 Electric. I'll try and keep my presentation very  
20 brief in the interest of time.

21 Just a few highlights on the load  
22 forecasting process. Lakeland has been gathering  
23 Lakeland specific weather data; temperature, rainfall,  
24 humidity data among other things, for over 25 years.  
25 Supplementing that with weather service data for the

1 area gives us a database that stretches in excess of  
2 30 years.

3 We are a winter peaking utility and forecast  
4 ourselves to continue being that for quite some time.  
5 Over our history our average minimum temperature has  
6 been 38.6 degrees in winter with standard deviation of  
7 about 6 degrees. We've only had three years in the  
8 past 25 to 30 years where we've been below what would  
9 be about 24 degrees. Our lowest temperature at peak  
10 of all time has been 19 degrees which occurred  
11 Christmas of '89, and we're currently using 15%  
12 reserve margin with a 30 degree minimum temperature  
13 for winter for our planning purposes.

14 Just real quickly. Lakeland continues to  
15 maintain its efforts in DSM and conservation. On the  
16 residential side we have our SMART load management  
17 program, along with loans for thermal efficiency  
18 upgrades. On the commercial side, we've got  
19 commercial lighting program, thermal energy storage  
20 and high pressure sodium outdoor lighting program.

21 In an effort to address some of the Staff's  
22 questions regarding nonfirm load, Lakeland does have  
23 five interruptible customers that have been on tariff  
24 since 1996, I believe. And they make up a total of 5  
25 megawatts. However, Lakeland has never had the

1 occasion to need to interrupt them. Those customers  
2 do have a 60 month notice in order to leave that  
3 tariff.

4 We do not have any curtailable customer as  
5 defined by curtailable rates. Load management, we've  
6 got a little over 27,000 customers. Almost all of  
7 those are made up as residential. In today's numbers  
8 that equates to about 52 megawatts of reduction in  
9 winter; about 22 megawatts in summer, and we're  
10 expecting that to grow to 63 megawatts in winter, 27  
11 in summer by the end of the planning horizon, 2008.

12 I might note that over the past two years,  
13 we have not had to implement load management at time  
14 of summer or winter peak. We've had sufficient  
15 resources to serve all of our load. We have, however,  
16 used the program in both 1998 and 1999 calendar years.  
17 I believe '98 we used it 18 times and this calendar  
18 year we've used it 19 times for other reasons.

19 Lakeland continues to remain active in other  
20 renewable programs; solar street lighting program, and  
21 two other pilot programs that we're looking at;  
22 distributed generation via solar thermal collectors  
23 and residential photovoltaic systems.

24 **MR. BALLINGER:** Paul, can I interrupt real  
25 quick?

1           **MR. ELWING:** Yes.

2           **MR. BALLINGER:** You use DSM, you said load  
3 management 19 times in '99 --

4           **MR. ELWING:** That's correct, Tom.

5           **MR. BALLINGER:** -- but not at peak. What  
6 were some of the other reasons? Did you interrupt to  
7 sell to other utilities?

8           **MR. ELWING:** I don't know for sure on that.  
9 We did have some instances other times of the year  
10 where weather was warmer than what we had expected,  
11 unit tripped, and so just as a precautionary measure,  
12 we implemented load management, and I know it was  
13 primarily in the afternoons, warm summer days, just to  
14 make sure that we were whole.

15           **MR. BALLINGER:** Does Lakeland have the  
16 ability to use load management as a dispatchable  
17 resource? And in that I mean, can you us dispatch it  
18 like a unit and then make an all systems sale as long  
19 as you stay within your tariff?

20           **MR. ELWING:** I believe we could do that  
21 within the confines of our tariff. I don't know as we  
22 do that on a regular basis, Tom. I think we have made  
23 our load management available to others when others  
24 have been in trouble.

25           Just real quickly, just a little synopsis of

1 where we stand on fuel mix. I got about 205 megawatts  
2 that are solid fuel, coal based. We got two small  
3 diesel units that are captive to a single liquid fuel  
4 No. 2 oil, and then the remainder of our capacity is  
5 dual fuel capability, natural gas or oil. 190  
6 megawatts of that is steam. 249 megawatts of CTs or  
7 CCs, combined cycle.

8 I'm going to skip over the next couple  
9 tables. They're just summary tables of our customers;  
10 our summer and winter demand, unless someone has a  
11 specific question on those.

12 Commissioners, I'm going to jump to Page 10  
13 year, again, to attempt to answer a few of the  
14 questions that staff had asked for today.

15 Forecasted reserve margin. This is looking  
16 out over the next ten-year period. The red line is  
17 15% reserve margin level which is what Lakeland has  
18 been using at present. As you can see our forecasted  
19 reserve margin for both summer and winter is either  
20 right at or above the 15%.

21 Historical reserve margin over the past ten  
22 years, again the red line, there's a 15%. We have  
23 been above the 15% in all but one year. The winter of  
24 '96 we experienced some colder than expected weather.  
25 I think we had temperatures in the 25, 26 degree range

1 and so our reserves dipped down below 10%. However,  
2 all of the load was served.

3 I'm going to jump ahead again here for  
4 time's sake. Jump to Page 16. The other pages in  
5 between are just some updates; where we are with  
6 current capacity projects. I think they are fairly  
7 self-explanatory.

8 Page 16, here again, attempts to answer some  
9 of Staff's questions. What would our load look like  
10 had we had temperatures, weather conditions based on a  
11 specific set of dates. The legend is over there on  
12 the right-hand side with the different dates. The red  
13 line on top is where our available capacity is based  
14 on our current plan. And so even if we experience  
15 weather based on those historical dates, forecasted to  
16 the '99/2000 winter peak, we have sufficient capacity  
17 to serve all of that load.

18 Page 17 is just the extension of that,  
19 looking at the 2002-2001 time frame. And, again, we  
20 have sufficient capacity to meet those loads.

21 That's all I have, if anyone has any  
22 questions.

23 **MR. HAFF:** Any questions for Lakeland?

24 (No response.)

25 Thank you, Paul.



1 Orlando Utilities Commission is the next  
2 presentation.

3 **MR. BLANKNER:** Good afternoon. My name is  
4 Matt Blankner. I'm with the Orlando Utilities  
5 Commission.

6 I apologize I don't have any handouts. I  
7 will forward a copy of the overheads to you, though,  
8 so you'll have those.

9 This is just a layout of the generation  
10 facilities for Orlando Utilities Commission. I  
11 highlight the ones in gray. Those are the steam units  
12 at the Indian River plant. There's a pending  
13 possibility of a sale of those units. That has not  
14 been finalized so I really don't have any more  
15 information on that. What I might add --

16 **CHAIRMAN GARCIA:** It's a sale with a  
17 contract with that, right? Sold with a contract for  
18 OUC to purchase back --

19 **MR. BLANKNER:** Right. There would be a  
20 Purchase Power Agreement with that.

21 So that's the layout of our generation  
22 facilities. And I might add, too, that there hasn't  
23 been any change of that since last year so those are  
24 the same.

25 This is just a review of our generation mix,

1 our fuel mix. As you can see it's fairly well  
2 diversified with coal, steam, oil and gas combustion  
3 turbines and nuclear.

4 These are projections of our reserve margins  
5 as we go out, and we don't foresee any problems with  
6 meeting the 15% reserve margin which we do go by; the  
7 red line at the bottom.

8 We don't have any generation planned out to  
9 2008 right now. (Indicating) The indication of our  
10 summer capacity reserve margin is to the far right.  
11 And the winter capacity.

12 **MR. HAFF:** I have a question. A couple of  
13 slides back the reserve margins where you had the dual  
14 summer and winter.

15 **MR. BLANKNER:** Sure.

16 **MR. HAFF:** You're building no capacity but  
17 the reserve margins seem to be ramping up over time.  
18 Is that because you have firm contracts that are  
19 backing down during that period?

20 **MR. BLANKNER:** Yes, we do. Yes.

21 I'm going to skip along to the list of  
22 requested topics from the Staff. And I'd like to show  
23 that based on temperatures experienced on or around  
24 the different dates as indicated, that OUC basically  
25 has a -- we ran a native load at low temperatures with

1 different ranges.

2 At 22 degrees and below we reach a  
3 saturation point with our load. We also have ranges  
4 from 24 to 26 degrees and 27 to 30 degrees. And all  
5 of those loads indicate in those different years,  
6 especially in 2002-2001, that we're not going to have  
7 any problem meeting those loads. In 1989, which was  
8 the worst year we had as far as temperatures goes and  
9 loads, we were able to meet all loads at that time.

10 We do not have any nonfirm load situations  
11 except for one curtailable customer that's one  
12 megawatt. And in the interrogatories for the reserve  
13 margin we did list in there the times we've curtailed  
14 that customer.

15 I don't have anything else if you have any  
16 questions.

17 **MR. HAFF:** Any questions?

18 (No response.)

19 Okay. Thank you.

20 The next presentation is going to be the  
21 City of Tallahassee.

22 **MR. FRAZIER:** Hello. My name is Edwin  
23 Frazier. I'm with the City of Tallahassee, and here  
24 with me is David Byrne. He will assist me during this  
25 presentation. He's also with the City of Tallahassee.

1 And this is a brief Ten Year Site Plan presentation.

2 Okay. Here we have our demand forecast.

3 We're a summer peaking system. We use a linear  
4 regression model and we include DSM impact. Our  
5 winter 1999-2000 forecast is 485 megawatts and our  
6 summer 2000 forecast is 522 megawatts.

7 Our projected reserve margins as shown here  
8 are for the years 1999 through 2008. That's based on  
9 current resources that are available. But we're  
10 currently evaluating other supply-side plans for the  
11 years 2006 through 2008 where you see the shortage  
12 appears.

13 This is our projected winter reserve margins  
14 for the same period, and as you see we have no problem,  
15 even based on our current resources, of meeting the  
16 15% reserve margin criteria.

17 Our projected resource requirements. We, at  
18 the City of Tallahassee, actually target a reserve  
19 margin of 17%. And in October '99 we're going to  
20 retire two 23-megawatt steam units. And we plan on  
21 having a combined cycle addition in the month, May  
22 2000, Year 2000. And as I said before, we're  
23 currently reviewing options for the years 2006  
24 and through 2008 where we show shortfalls.

25 The issues that the Commission was concerned

1 with the extreme winter forecast. Our forecast model  
2 is temperature driven. The dates that the Commission  
3 Staff reference, our record load appeared for -- the  
4 historical record low for Tallahassee was on January  
5 21st, 1985, which is one of the dates that was  
6 mentioned. And what we did was put the -- it was at 6  
7 degrees Fahrenheit and we put that in our load  
8 forecast model based on today, and we came up with a  
9 forecast of 589 megawatts for the winter 1999-2000.  
10 And if that was to occur, we would have existing  
11 resources of 570 megawatts, which would, in turn, have  
12 a deficit of 19 megawatts. And in the year 2000-2001  
13 we put in the 6 degree Fahrenheit load temperature in  
14 our forecast model and we came up with the demand of  
15 609 megawatts and resources available, 730 megawatts  
16 and no deficit.

17 **MR. BYRNE:** I just wanted to mention one  
18 other thing. Edwin indicated in the extreme  
19 temperature case that there might be a deficit for the  
20 upcoming winter.

21 We do have one new unit coming on line  
22 subsequent to this winter, so the timing is a little  
23 bit behind there but this does represent a worst-case  
24 scenario. And we think if an indication of extreme  
25 cold weather like that was coming in, we have

1 sufficient operating actions that we can take that  
2 would avoid us getting into a problem situation. And  
3 if there was such a case, we would probably have to  
4 consider a load-shed action if we couldn't call on  
5 reserves from other utilities at that time. Also,  
6 about 11 degrees is what we calculate would be the --  
7 kind of the break-even temperature; where we would  
8 have about a 570 megawatt load.

9           **MR. HAFF:** Is your portion of the intertie  
10 with Southern fully subscribed with firm capacity at  
11 this point or during these two winter seasons?

12           **MR. BYRNE:** No, it's not by Tallahassee, and  
13 we don't currently have any firm reservations for that  
14 tie line in that period of time.

15           **MR. HAFF:** So that would be available at  
16 those --

17           **MR. BYRNE:** It could potentially be  
18 available at that time.

19           **MR. FRAZIER:** Nonfirm load. We currently  
20 have two interruptible customers: Florida State  
21 University Magnetic Lab, which is 42 megawatts;  
22 Hermitage Place, which is .63 megawatts, and we have  
23 one current curtailable customer, which is Tallahassee  
24 Memorial Hospital at .6 megawatts.

25           **MR. BYRNE:** I'll just mention that the large

1 interruptible customer is one that we don't include  
2 towards our demand forecast. It's considered to be  
3 operating during off-peak periods only. We generally  
4 call them in advance if we feel like there's going to  
5 be a need for them to curtail their operation. And to  
6 this date we've never had on situation where we had to  
7 actually interrupt them on a short notice. So we  
8 basically don't consider them as part of our load.  
9 The other two customers we do. Although they are a  
10 small quantity, they can be interrupted but never have  
11 been. And that concludes our presentation.

12 Are there any questions?

13 **MR. HAFF:** Any questions for the City of  
14 Tallahassee?

15 (No response.)

16 Thank you. I've get two more. Hear from  
17 Seminole Electric Cooperative, and following them will  
18 be Duke Energy New Smyrna Beach who filed a plan this  
19 year.

20 **MR. ZIMMERMAN:** Good afternoon. I'm Garl  
21 Zimmerman from Seminole Electric Cooperative. I  
22 thought I was going to have a full 20 minutes, but  
23 since there's somebody else to go, I'll be brief.

24 **MR. WRIGHT:** You can have all my time. I  
25 need one minute.

1           **MR. ZIMMERMAN:** This illustrates the history  
2 and forecast of Seminole's demand and resources. This  
3 top line is Seminole's total peak demand; this bottom  
4 line with the -- (Adjust projection machine.)

5           We'll just have to make due with what we  
6 have here.

7           This bottom line is Seminole's obligation.  
8 The rest of the total peak load being handled by  
9 partial requirements and full requirements contracts.  
10 As you can see, the partial requirements contracts are  
11 diminishing over time and are projected to be a very  
12 small percent of Seminole's resource mix, with the  
13 green area being additional resources that Seminole  
14 will be adding.

15           A similar chart for winter. And this just  
16 shows that we had winter peak demand in the  
17 3100-megawatt range and projected to increase over the  
18 planning horizon to about 4200 or 4300 megawatts.

19           Historical and projected reserve margins.  
20 Historically, we had some fairly high reserve margins  
21 because we were planning to -- a 1% EUE, which was the  
22 driver in our planning criterion. As we've added new  
23 resources and diversified some, expected unserved  
24 energy is no longer the driving force. In the future  
25 we'll be planning the 15% reserves. And we're showing



1 to be well above that for -- and in the 20% range for  
2 most of the planning horizon.

3 New facilities that are in our plan. We  
4 have our Payne Creek combined cycle unit coming on in  
5 January of 2002. That is well along with engineering  
6 and ground will be broken very shortly on that  
7 facility.

8 We had a couple of units in here which  
9 caused a little concern, I think, with Staff, where we  
10 had some CTs shown being in service by January of  
11 2000. We have delayed those two CTs a year, with a  
12 combination of a seasonal and year-around purchases,  
13 and subsequent to that, have signed a contract to have  
14 those two units in service in December of 2001 with an  
15 independent power producer.

16 (Inaudible comment.)

17 **MR. ZIMMERMAN:** No. It's rely and energy.

18 The next four units that are shown on there,  
19 we're currently in negotiations and we will fill those  
20 needs probably with a combination of additional  
21 purchases and/or self-build units. We should have  
22 those next four units firmed up by the time we file  
23 our next Ten Year Site Plan.

24 Load management and interruptible. We've  
25 broken it out a little more than possibly we needed

1 to, but we have a certain amount of load management  
2 and interruptible that's in the Florida Power  
3 Corporation control area which only affects our  
4 partial requirements purchases. The load management  
5 and interruptible that's in the FPL control area or  
6 the Seminole direct-serve area, it directly affects  
7 Seminole's obligation and the amount of resources we  
8 have to have.

9           And what we have shown here, the  
10 interruptible is really not -- the interruptible, as  
11 you may think about it, it's actually self-serve  
12 diesel generation, and then the DSM is the residential  
13 and light commercial DSM programs.

14           And finally, load that would be unserved --  
15 I need to go back the other way here. Load that would  
16 be unserved on the various dates in the winter of  
17 '99-2000 and 2000-2001. By 2001, with the additional  
18 resources, we'll have adequate capacity to serve all  
19 of the load on each of those dates. This coming  
20 winter we had, for one of the occurrences, about a 3%  
21 unserved demand; a couple other times where it was  
22 almost in the noise level, one of them less than half  
23 a percent.

24           One comment, we think that our load model is  
25 overforecasting our winter peaks on those extreme low

1 temperatures. It appeared to have a linear  
2 relationship rather than indicating the type of  
3 saturation that we've seen in some of the other  
4 presentations as the temperatures start to bottom out.  
5 So that coupled with operating measures and the  
6 ability to import from our interchange partners, we  
7 would hope the amount of load that we serve -- that  
8 would be unserved would be zero.

9 And that concludes my presentation.

10 **MR. HAFF:** Any questions for Seminole?

11 (No response.)

12 Thank you. Mr. Wright, I guess, next, and  
13 last but not least is Duke Energy New Smyrna Beach.

14 **MR. WRIGHT:** Thank you. I'm Schef Wright  
15 here on behalf of Duke Energy New Smyrna Beach Power  
16 Company. I'll be very brief.

17 Duke's plan is to construct the 514 megawatt  
18 ISO-rated New Smyrna Beach Power Project and to  
19 operate it as efficiently as possible. We expect to  
20 sell around 4 million megawatt-hours per year to other  
21 utilities in Peninsular Florida. At the time of  
22 winter and summer peaks we expect to be selling the  
23 full available capacity of the unit to other utilities  
24 in Peninsular Florida; that's estimated to be 548  
25 megawatts winter and 476 summer. The only change from

1 our filed plan is that due to unanticipated delays in  
2 the permitting process at the cabinet level, we're now  
3 projecting an in-service date for the project of June  
4 2002. Thanks.

5 **MR. BALLINGER:** Schef, I've got one  
6 question. Did you file your plan with the FRCC?

7 **MR. WRIGHT:** I'm sure we sent it to them,  
8 Tom. I don't --

9 **MR. BALLINGER:** Do you know if and how they  
10 incorporate it in the aggregate plan?

11 **MR. WRIGHT:** I don't think they did but I  
12 don't know.

13 **MR. BALLINGER:** Okay.

14 **MR. HAFF:** Any comments?

15 (No response.)

16 Well, we'd like to thank you all for your  
17 brevity and your comments and thank you for your  
18 participation today.

19 Is there any final comments from the  
20 Commission? Thank you all for coming. We'll see you  
21 soon.

22 (Thereupon, the hearing concluded at  
23 3:50 p.m.)

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STATE OF FLORIDA)  
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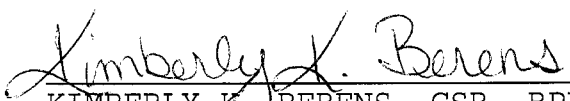
We, JOY KELLY, CSR, RPR, Chief, Bureau of Reporting, Florida Public Service Commission, and KIMBERLY K. BERENS, CSR, RPR, Official Commission Reporters

DO HEREBY CERTIFY that the Workshop was heard by the Florida Public Service Commission at the time and place herein stated; it is further

CERTIFIED that we stenographically reported the said proceedings; that the same has been transcribed by us; and that this transcript, consisting of 212 pages, constitutes a true transcription of our notes of said proceedings

DATED this 4th day of October, 1999.

  
\_\_\_\_\_  
JOY KELLY, CSR, RPR  
FPSC Chief, Bureau of Reporting  
(850) 413-6732

  
\_\_\_\_\_  
KIMBERLY K. BERENS, CSR, RPR  
FPSC Commission Reporter

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