

BEFORE THE  
FLORIDA PUBLIC SERVICE COMMISSION

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In the Matter of  
REVIEW OF TEN-YEAR SITE  
PLANS OF ELECTRIC UTILITIES.

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PROCEEDINGS:           WORKSHOP

BEFORE:               CHAIRMAN BRAULIO L. BAEZ  
                          COMMISSIONER J. TERRY DEASON  
                          COMMISSIONER RUDOLPH "RUDY" BRADLEY  
                          COMMISSIONER LISA POLAK EDGAR

DATE:                   Wednesday, August 3, 2005

TIME:                   Commenced at 9:30 a.m.  
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PLACE:                 Betty Easley Conference Center  
                          Room 148  
                          4075 Esplanade Way  
                          Tallahassee, Florida

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CERTIFICATE OF REPORTER

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

1  
2 CHAIRMAN BAEZ: Good morning, everyone. I want to  
3 welcome you to the 2005 Ten-Year Site Plan Workshop.

4 Mr. Keating, would you read the notice, please.

5 MR. KEATING: Pursuant to notice, this time and place  
6 have been set for a Commission workshop concerning the  
7 undocketed matter, the Commission's review of ten-year site  
8 plans for electric utilities.

9 CHAIRMAN BAEZ: Did you read that or did you know  
10 that by heart?

11 MR. KEATING: I ad-libbed.

12 CHAIRMAN BAEZ: Once again, welcome to the Ten-Year  
13 Site Plan Workshop. I am going to hand it over to Mr. Haff in  
14 about a second. As you can tell by the agenda, we have  
15 actually changed it up a little bit this year to try and focus  
16 our attention on highlighted matters.

17 Anyway, Mr. Haff, can you go ahead and work us  
18 through it?

19 MR. HAFF: Thank you, Chairman. A brief agenda for  
20 today's workshop was with the notice, and there is also a few  
21 copies left over here on the rail. We are going to have the  
22 representatives of the FRCC present the load and resource plan,  
23 the reliability assessment, and then we're going to have a  
24 panel of persons to discuss issues related to coal-fired  
25 generating units.

1           And I would just ask if whoever speaks to make sure  
2 they give their name for the court reporter. We would  
3 appreciate that. With that, I'm going to turn it over to the  
4 FRCC. I think Mr. Wiley is here from the FRCC.

5           MR. WILEY: Thank you, Michael. I'm Ken Wiley with  
6 the Florida Reliability Coordinating Council, known as the  
7 FRCC, and I just want to introduce our panel here today or our  
8 speakers. The FRCC has conducted a ten-year load and resource  
9 review, and we do this through a group that we call our  
10 resource working group. Mr. Paul Elwing is the chairman of  
11 this group for us, and he comes from the City of Lakeland  
12 Electric Utility, and also Mr. Leo Green will be working with  
13 him today. And Leo is with Florida Power and Light, and his  
14 specialty is in the economic and forecasting area. And along  
15 with them is a member of our staff, Mr. Scott Beecher. So the  
16 three of them through our resource working group will make this  
17 presentation and answer your questions today.

18           Thank you, Mr. Chairman.

19           CHAIRMAN BAEZ: Thank you, Mr. Wiley.

20           MR. ELWING: Good morning, Commissioners, staff. I  
21 want to thank you for the opportunity to come and present the  
22 FRCC's resource adequacy review to you this morning. I'm going  
23 to focus on two portions, the load and resource plan and the  
24 reliability assessment.

25           The slide in front of you this morning shows our



1 forecasted firm peak demand for summer and winter for the  
2 coming ten years. We're projecting a summer annual average  
3 growth rate of 2.74 percent and a winter annual average growth  
4 rate of 2.69 percent.

5 Looking at the summer in a little more detail,  
6 comparing it to the 2004 presentation that we made to you last  
7 year, we see that growth is consistent with what we have seen.  
8 Growth for 2005 is slightly higher, the 2.74 percent for 2005,  
9 and 2004 we had projected 2.52 percent. Winter we are seeing  
10 similar. Growth is forecasted to be slightly higher again this  
11 year, 2.69 percent versus 2.59 percent from 2004's plan.

12 This slide shows you a breakdown of the capacity that  
13 is forecasted for the ten-year period. The blue on the bottom  
14 is the existing utility capacity. The red represents the  
15 cumulative additions by the utilities. The green is the  
16 nonutility generation capacity that is under contract to the  
17 utilities, and the remainder of the need is met with firm  
18 interchange.

19 Slide 7 shows our capacity mix by fuel type for the  
20 winter peaking season for 2005 and the '06 season, and again  
21 for the 2014 and 2015 season. You see the changes in gas is  
22 the largest change, representing the addition of gas-fired  
23 units. We also see a change in coal, as indicated by  
24 individual utility plans that are indicating future coal  
25 additions.

1           The next slide, please.

2           From an energy standpoint, we see the breakdown here  
3 that in 2005 energy is expected to be met 32 percent by  
4 gas-fired generation, 13 percent oil-fired generation, 25  
5 percent coal, 13 percent nuclear, 14 percent other, and 3  
6 percent nonutility generation. By 2014 that is expected to  
7 change to 45 percent of the state's energy to be met by  
8 gas-fired generation, coal increasing to 27 percent, oil down  
9 to 7 percent, nuclear at 11 percent, other in nonutility  
10 generation as represented there.

11           MR. HAFF: Paul, before you leave that slide, what  
12 makes up the other category?

13           MR. ELWING: That could be other -- either solid  
14 fuels that are described explicitly by the utilities, maybe  
15 some municipal solid waste, biomass type fuels, renewable fuels  
16 that are included in the utility counts.

17           MR. HAFF: Would pet coke be in there?

18           MR. ELWING: Imports are part of that.

19           MR. HAFF: No, pet coke?

20           MR. ELWING: If the utilities are reporting that  
21 separately from their coal, pet coke would be included in that  
22 also.

23           COMMISSIONER DEASON: I'm sorry. I have a question  
24 on Slide 7, which is the capacity mix. The nonutility  
25 generation, I see a significant decline. Is that actually

1 nonutility generation which is disappearing, or is it just the  
2 fact that their contracts are expiring, and that they would  
3 have to be renewed at some point in the future?

4 MR. ELWING: I was looking at that this morning,  
5 Commissioner, and I did not see a, quote, unquote, disappearing  
6 of nonutility generation. Most of the decline is just the fact  
7 that it's a constant number over an ever-increasing amount of  
8 energy, so it becomes a smaller amount as a percentage basis.

9 COMMISSIONER DEASON: Well, I understand that, but if  
10 you look at nuclear, which is pretty much fixed, and because of  
11 the higher base in the future, it does decline, but it only  
12 declined from 7 percent to 6 percent. And for the nonutility  
13 generation we are talking about a decline from 10 percent to 3  
14 percent. So it has to be more than just the fact that the base  
15 is getting larger.

16 MR. ELWING: Yes, sir. If you turn back to Slide 6,  
17 the previous slide, you will note that the NUG generation  
18 there, represented in green, it is declining somewhat, and that  
19 is the amount that is under contract. So the other portion of  
20 that would be contracts that are expiring and not being  
21 renewed.

22 COMMISSIONER DEASON: Okay. Do we know at this point  
23 they will not be renewed, or is it possible that they could be  
24 renewed?

25 MR. ELWING: I would say that it is a possibility

1 that they could be renewed, they just haven't been reported as  
2 such by the utilities.

3 COMMISSIONER DEASON: Thank you.

4 MR. ELWING: Slide 9 shows our interruptible and load  
5 management capabilities at time of winter peak. The  
6 interruptible load being on the bottom there in blue, with the  
7 load management stacked on top of that remaining fairly  
8 consistent throughout the time period.

9 Slide 10 is the FRCC planned reserve margin for  
10 summer and winter. You see that in every year we exceed the  
11 FRCC's aggregate target of 15 percent. There are only three  
12 years where we actually drop below 20 percent, and that is just  
13 in the summertime, the summer of '08, '09 and 2010. Otherwise,  
14 all other years and seasons we are above 20 percent on an  
15 aggregate basis for the state -- I'm sorry, for Peninsular  
16 Florida, which is the FRCC region.

17 One of the functions of the reliability working group  
18 at FRCC is to do what we call a reliability assessment, and  
19 that assessment focuses on a reserve margin review, an analysis  
20 of forced outage rates and availability rates for the utilities  
21 units, load forecast evaluation and review of natural gas  
22 pipeline adequacy.

23 Addressing the reserve margin review, we are to  
24 ensure that the regional planning reserve margin meets the 15  
25 percent FRCC standard. As you saw a couple of slides back, we

1 do, indeed, meet that over the planning period.

2 For analysis of forced outage rate and availability,  
3 the working group compares the trends in forced outage rates  
4 between utilities, and this year we looked at 2001, 2002, 2003  
5 and the 2004 planning studies. And we also compare the trends  
6 in availability between utilities for those same time periods.  
7 Those results are shown on the next two charts.

8 This chart represents that comparison of the  
9 megawatt-weighted forced outage rates of the utilities. The  
10 2004 planning study results are the blue dotted line with the  
11 diamonds on it, showing consistent results with previous year's  
12 analysis.

13 COMMISSIONER DEASON: I have a question on that one.  
14 I see the trend seems to be fairly stable. But for the 2004  
15 planning studies there seems to be an increase in the starting  
16 point to do the trend. Is that a significant increase in  
17 forced outage rates from the -- it looks to be about three and  
18 a half up to 3, well, 3.9?

19 MR. ELWING: The working group does not feel that  
20 that is considered a significant increase. We did poll the  
21 utilities, and there were a couple of utilities that did make  
22 adjustments to their forced outage rates just due to the age of  
23 their fleets.

24 COMMISSIONER DEASON: So this is not  
25 hurricane-related?

1 MR. ELWING: No, sir. We did poll the utilities  
2 regarding that question that you asked us last year, and all  
3 utilities came back and responded back that there were no  
4 long-term effects, negative effects from the hurricanes.

5 COMMISSIONER DEASON: Thank you.

6 MR. ELWING: Page 15 represents the megawatt-weighted  
7 availability factor for the units. And, again, we see similar  
8 trending over the time period. Again, the 2004 is the blue  
9 dotted line with the diamond symbol on it.

10 COMMISSIONER DEASON: I guess I have the same  
11 question for this one. The trend certainly is positive for the  
12 2004 planning studies, but the beginning point seems to be much  
13 lower than previous studies. Is there some -- is that  
14 significant? Should that be something of a concern or is that  
15 just the way the data works out?

16 MR. ELWING: I think it is mostly the way the data is  
17 working out. There may have been some minor adjustments by the  
18 utilities. I know in my particular utility's case we are  
19 finding that gas turbine availability is less than what has  
20 been told to us by the manufacturers just due to the length of  
21 time it takes to do maintenance. Not that the machines are any  
22 less reliable, it just takes longer to do maintenance on these  
23 larger machines than what we initially thought. And so I know  
24 in my own utility's case our availability is down slightly over  
25 what we forecasted just due to increased length of maintenance.

1           CHAIRMAN BAEZ: Is that something that we can expect  
2 to be present across the board for other utilities?

3           MR. ELWING: I would be hesitant to speak in regards  
4 to the other utilities in specific. I would not expect this to  
5 be a continuing downward adjustment. As we gain experience in  
6 these new technologies, we should find a stabilizing point and  
7 be moving forward from that.

8           CHAIRMAN BAEZ: Right.

9           MR. ELWING: I think this is just due to the newness  
10 of the technologies.

11           Another part of the reliability working group's task  
12 is to review the natural gas pipeline adequacy. This year an  
13 interim high-level methodology indicated that there was no  
14 significant concerns for the region over the short-term  
15 planning horizon, and that activities in progress for  
16 development of gas flow models to finitely simulate steady  
17 state and transient gas flow conditions. That simulation will  
18 provide a detailed assessment of the impact of gas pipeline  
19 conditions that could adversely affect electric system  
20 reliability. And the results of those studies, we are  
21 anticipating to have those completed for next year's review.

22           CHAIRMAN BAEZ: Mr. Elwing, the results of the study,  
23 will they produce recommendations, or will they produce -- you  
24 know, with an assessment comes some comparison to an optimal  
25 situation. I mean, is that anticipated to be part of the

1 study?

2 MR. ELWING: I would think that if the study  
3 indicated there were deficiencies that, certainly,  
4 recommendations would come with that. Mr. Wiley may be able to  
5 better speak to that issue as he is actually heading up that  
6 gas and electric interdependency effort within the FRCC.

7 CHAIRMAN BAEZ: There's a question that we are going  
8 to -- oh.

9 MR. WILEY: Mr. Chairman, in prior years we would  
10 look out at our future natural gas needs, and we would go to  
11 the -- the pipeline at that time, which was Florida Gas  
12 Transmission, and ask them, what do you think about this? Are  
13 you going to have the ability to serve this? And they would  
14 give us their letter that said, yes, they could. And then we  
15 got a new pipeline, as you know, Gulfstream, coming across the  
16 Gulf of Mexico, and now we have two companies to go to. And at  
17 the same time, over about a nine or ten-year period, our amount  
18 of energy that is being produced in natural gas went from  
19 around 17 or 18 percent, as you saw in this report, to about 48  
20 percent I think it was. And that is when we decided that we  
21 needed to get involved in analyzing how reliable are we in  
22 Florida on getting that fuel delivered to our natural gas  
23 plants.

24 So we are beginning next week, as a matter of fact,  
25 with a rather detailed gas flow study for the entire Peninsular



1 Florida, looking at all of our generation points of delivery.  
2 And I think it would be speculation as to what we are going to  
3 find on that, but we are going to be going out looking out to  
4 the end of this time period and assessing it. And if, in fact,  
5 the results of this study shows that we need to change things  
6 such as inventory policies or perhaps even regulatory policies  
7 regarding firm gas transmission, I think that those results  
8 will be highlighted, and our board of directors would make the  
9 appropriate decision on that and make it known to this  
10 Commission.

11 CHAIRMAN BAEZ: Commissioner Bradley, did you have a  
12 question?

13 COMMISSIONER BRADLEY: Yes.

14 CHAIRMAN BAEZ: Thank you, Mr. Wiley.

15 COMMISSIONER BRADLEY: In your prognosis or  
16 prediction as it relates to the availability of natural gas,  
17 what do you -- where did he go?

18 CHAIRMAN BAEZ: Mr. Wiley, I think you were still on  
19 the deck, sir.

20 COMMISSIONER BRADLEY: I didn't mean to run you off.  
21 Maybe this is the wrong question.

22 MR. WILEY: I'm sorry.

23 COMMISSIONER BRADLEY: In your prediction as it  
24 relates to the supply of natural gas, how much of your focus  
25 was based upon -- well, let's see how can I break out supply,

1 cost and its impact upon availability. I'm assuming that when  
2 you say that supply is going to be adequate that you are  
3 speaking of that from a quantitative perspective or the supply  
4 itself. But what about the supply and the cost of natural gas?  
5 Are those two factors that are intertwined, or are they  
6 separate issues?

7 MR. WILEY: As far as our analysis are concerned,  
8 they are separate issues. We go on the premise that individual  
9 utilities make their own economic assessments of different  
10 forms of generation and the supply picture of natural gas. So  
11 once they have made those decisions, which is taking us to  
12 about 45 percent of our kilowatt hours being generated by  
13 natural gas in the outer years, then our concern becomes  
14 deliverability of natural gas. And that is the only thing that  
15 we are focusing on, and we are very distinct about that.

16 COMMISSIONER BRADLEY: Okay. Thank you.

17 CHAIRMAN BAEZ: Thank you.

18 MR. ELWING: Okay, going on to Slide 18. In summary,  
19 the planning reserve margins remain at or above 20 percent for  
20 all but three years, and that was those three summer years we  
21 pointed out earlier for the ten-year forecast period. The  
22 general trend in forecasted forced outage rates is downward  
23 over time, which is good. Projections of generating unit  
24 availability remains high and continues to generally trend  
25 upward. The accuracy of the FRCC's load forecast has remained

1 high, and natural gas supply is expected to be adequate.

2 So, in conclusion, the results of this year's review  
3 indicate that Peninsular Florida's electric system is reliable  
4 for the next ten years from a planning perspective.

5 CHAIRMAN BAEZ: Commissioners, questions?

6 COMMISSIONER DEASON: Are we going to be reviewing  
7 the particulars of the load forecast? Is that going to be a  
8 separate presentation?

9 MR. ELWING: Yes, sir. Dr. Leo Green will be coming  
10 up in just a moment.

11 COMMISSIONER DEASON: Very well.

12 CHAIRMAN BAEZ: I have a question, and maybe Mr. Haff  
13 can answer it. There is a Slide 10 where it shows the planned  
14 reserve margin. Now, I understand that in the aggregate FRCC  
15 holds to -- or maintains a 15 percent reserve margin as a goal.  
16 And, clearly, based on their assessments they are forecasting  
17 that margin, that reserve being met. But, in particular,  
18 Mr. Elwing did point out year eight, nine and ten, or 2008  
19 through 2010, there is a summer reserve that is less than 20  
20 percent. And I guess I'm curious as to how -- what the  
21 relationship between these forecasts and the agreement that is  
22 in place with the investor-owned utilities and the Commission  
23 to maintain reserve margins at or above 20, how that plays into  
24 it.

25 And my question specifically is this: I realize that

1 there have been -- you know, this being a ten-year forecast, in  
2 essence, we do carry years. It is not uncommon to carry years  
3 where the forecasted reserve falls below 20 percent because  
4 there is a lag in terms of when generation comes on line, and  
5 so forth. My question would be is there anything new about  
6 these particular three years that weren't there before, or has  
7 this been expected, and we have been carrying it for some time?

8 MR. HAFF: No. Let me see where to start. In those  
9 three years the FRCC forecasts the Peninsular at 19 percent, so  
10 it could be 19.2 or 19.3.

11 CHAIRMAN BAEZ: Right. Okay.

12 MR. HAFF: The three investor-owned utilities that  
13 are subject to the stipulation have the 20 percent minimum  
14 requirement, and each of their plans forecast at least 20  
15 percent in those years, and that could be 19.8 or 20.1. But on  
16 the other hand, there are municipals and Seminole that are part  
17 of Peninsular and aren't subject to that stipulation. Most of  
18 them carry anywhere -- a criteria of anywhere from 15 to, I  
19 think, 19 percent.

20 CHAIRMAN BAEZ: Right.

21 MR. HAFF: And so you would expect it to be weighted  
22 heavily toward the IOUs because of their size. But I  
23 wouldn't -- I'm not concerned about 19 percent for the  
24 Peninsular, because the IOUs are still at 20 percent.

25 CHAIRMAN BAEZ: And they are maintaining their 20 and

1 whatever. I'm sorry, Mike. I guess to answer your question --  
2 to answer my own question, whatever shortfall may appear to be  
3 in the forecast is not attributable to any of the utilities  
4 that are subject to the stipulation.

5 MR. HAFF: No, sir.

6 CHAIRMAN BAEZ: Okay.

7 COMMISSIONER BRADLEY: Are you finished?

8 MR. ELWING: I was just going to add, Commissioner,  
9 while you were asking that question, I was looking at our  
10 detailed data that the utility submitted, and some of it is a  
11 timing issue in those years. There is capacity being added,  
12 and I'm noticing here that some of the capacity is being added  
13 in the fall of that year. So, therefore, it doesn't get  
14 counted for the summer peak.

15 CHAIRMAN BAEZ: Thank you.

16 Commissioner Bradley, you had a question of  
17 Mr. Elwing?

18 COMMISSIONER BRADLEY: Yes. And my question is  
19 related to fuel supply. You only mentioned the fact that the  
20 natural gas supply is expected to be adequate. What about the  
21 adequacy of the other fuel types? Was that part of your study  
22 or is that something that needs to be discussed?

23 MR. ELWING: We have not specifically addressed other  
24 fuels at this time. The focus has been on the relationship  
25 between natural gas and electric generation. That is something

1 that we can look at in future years.

2 MR. WILEY: I think I'm going to stay up here.

3 (Laughter.)

4 CHAIRMAN BAEZ: You are getting a good work out at  
5 least.

6 MR. WILEY: I wanted to respond to Commissioner  
7 Bradley's question. As a routine we don't get into an analysis  
8 of coal or oil fuel supply unless, of course, we have an  
9 emergency where something is being shorted for whatever reason.  
10 As you are aware, we have a long-term fuel emergency plan which  
11 this Commission has ordered on us. But most recently you  
12 probably read in the news about a disruption in rail supply out  
13 in the Powder River Basin, and they are getting less coal out  
14 of there due to the railroad system, to the tracks, actually.

15 And so we have performed an assessment, and completed  
16 it last week, about the impacts of that Powder River Basin coal  
17 and would that have any impact on Florida. And we have  
18 determined that its impact is very minimal. The only coal  
19 capacity that Florida is dependent upon out of the Powder River  
20 Basin is some generation capacity outside of the state of  
21 Florida, which is firm capacity to us on imports. And that  
22 represents 4 percent of our generation capacity in the state.  
23 So that is about all that would be affected.

24 And an assessment of that particular capacity was  
25 such that we anticipate that the coal inventories at those

1 particular sites are going to be adequate through the summer  
2 and on into the end of the year, which is when they predict  
3 that the train tracks will be most likely repaired. So we have  
4 looked at that assessment.

5 CHAIRMAN BAEZ: Commissioners, any other questions?

6 Thank you, Mr. Elwing.

7 MR. ELWING: That concludes my portion of the  
8 presentation. Dr. Green will come and talk to you about the  
9 load forecast.

10 COMMISSIONER BRADLEY: I have one other question.  
11 I'm sorry. On the last page in your conclusion it says the  
12 results of the review indicate that Peninsular Florida electric  
13 system is reliable for the next ten years from a planning  
14 perspective. And I realize this is purely a planning document,  
15 but is there anything that comes to mind as it relates to your  
16 professional expertise that might have an -- well, that might  
17 have an adverse impact upon our planning process that would  
18 prevent us from achieving our goals from a planning  
19 perspective, to planning the actual generation to meet our  
20 needs?

21 MR. ELWING: No, sir, I'm not aware of any issues or  
22 problems that would affect the utilities in that time frame.  
23 Utilities are very cooperative in providing their data to the  
24 FRCC and helping us make these assessments, so there is nothing  
25 that leads me to believe anything differently.

1 COMMISSIONER BRADLEY: Okay. Thank you.

2 DR. GREEN: Good morning, Commissioners. My name is  
3 Leo Green. I work for Florida Power and Light. Today I'm  
4 appearing on behalf of FRCC. I'm going to address the portion  
5 regarding the load forecast that is the other piece of the  
6 equation.

7 We just saw the resource plan, and that resource plan  
8 is as good as the load that it is planned to serve. We wanted  
9 to ensure that we had a very representative picture of what the  
10 future is going to be like. So the load forecast, as expected,  
11 is just a projection of what we expect the total demand of  
12 electricity is going to be in the state of Florida.

13 The way we put together this forecast is we take all  
14 the utilities load forecast and we aggregate it. And then we  
15 spend some time examining each utility's assumptions, their  
16 methodologies, their inputs. And this year, more than ever, we  
17 believe there are quite a few uncertainties out there that  
18 needed to be addressed.

19 We seem to be having some technical problems here.

20 Last year, the state of Florida grew by 455,000 new  
21 people. That is the highest growth rate in the last 35 years,  
22 maybe more years, but I didn't have the data available to  
23 confirm that information. Last year we also experienced four  
24 hurricanes that impacted the state of Florida.

25 Florida remains the job leader in the nation. Eleven



1 percent of the jobs that are created in the nation are created  
2 in Florida. There is an amazing statistic that came out of the  
3 Federal Reserve Bank of Atlanta that says between the last  
4 recession, which ended around 2002, and October of last year,  
5 40 percent of payroll gains in the United States were in  
6 Florida. Forty percent of payroll gains in the United States  
7 were in Florida.

8           We have the best economy in the nation by far. We  
9 are creating more jobs than any other state. For example,  
10 there are smaller states like Arizona, Nevada and New Mexico  
11 that might have a higher growth rate in job creation, but if  
12 you add the absolute number of jobs that those states are  
13 creating, it falls short of the amount of jobs that are being  
14 created in Florida.

15           And I'm glad to report today that the jobs that are  
16 being created in Florida are not the typical busboy jobs. They  
17 are high-tech jobs, they are pharmaceutical jobs, financial  
18 services, film industry, high-paying jobs. This has a  
19 repercussion on what happens to the load in Florida. That  
20 would cause load to grow substantially.

21           On the other side, the other uncertainty that we  
22 wanted to address is the price of fuel. Between July 2005 or  
23 July 2004, the price of oil has increased by 43 percent. The  
24 price of gas has increased by approximately 13 percent. A  
25 substantial amount of increase there which would translate into

1 the higher price of electricity, which has the opposite effect  
2 to dampen load.

3           Also, in this year's demographic estimating  
4 conference, the University of Florida and the Governor's  
5 Office, and to a certain extent the Legislature, are all  
6 agreeing that the 455,000 that we saw last year will probably  
7 drop to about 355,000 this year or almost 100,000 less people  
8 because of the impact of the hurricanes. So we are having a  
9 balancing act that we have to do at the level of the  
10 forecasting group.

11           In my presentation I'm going to address these issues.  
12 What was the reason for us to do this? As I said, some things  
13 why we needed to do this, but basically we reviewed all the  
14 companies' methods, we look at history and compare it with  
15 forecast. And I would like to speak some about what the  
16 forecast findings were, and then I would like to address how we  
17 handled, how we tackled those uncertainties that I mentioned  
18 before.

19           Why we did it? Because the reliability assessment  
20 plan is as good as the load forecast is. It doesn't matter  
21 what Mr. Paul Elwing said here. If he is planning a system to  
22 meet the incorrect load, it doesn't matter what his reliability  
23 measures are. He needs to have the correct load forecast in  
24 there so we can say this is a reliable system.

25           And, finally, in NERC's planning standards it says

1 the load forecast of each of the regions that make up NERC need  
2 to be evaluated to ensure no biases.

3           When we reviewed each individual company, we looked  
4 at their historical forecast accuracy, what kind of consistency  
5 across utilities were there in the assumptions and inputs. Are  
6 we using state of the art in the forecasting models? How do  
7 the forecasts compare to history? And, once again, how were  
8 the uncertainties treated?

9           I'm glad to report to the Commission today that we  
10 did not -- at FRCC's level, we did not detect any biases in any  
11 of the utilities to take a consistent underforecasting or a  
12 consistent overforecasting. In fact, it was a random event,  
13 meaning to say there were going to be some years that were  
14 higher than normal, some years that are lower than forecast.  
15 I'm sorry. And these deviations were attributable to  
16 short-term deviations in the economic growth or short-term  
17 deviations in weather patterns from long-term normals.

18           Anyway, the process that the utilities use is  
19 self-correcting to the point that the very last observation is  
20 the starting point. So if one year was underforecasted, it  
21 does not carry into the following year because they will start  
22 out at the last actual value.

23           The next one.

24           I mentioned something about the strong economic  
25 performance and about the volatility of the fuel price. But in

1 addition to that, Florida is experiencing a boom in  
2 construction. Prices of homes have skyrocketed. There is an  
3 issue of affordability. There is a study from the University  
4 of Colorado that says that of the top five cities, Florida,  
5 Miami specifically, is one of the cities with jobs that are  
6 paying over \$100,000 per year that cannot attract people to  
7 come to Florida because of the affordability of housing in the  
8 state of Florida. That has the impact of reducing the amount  
9 of people that we see coming to Florida. There is the issue of  
10 the real estate market. Is there going to be a burst in that  
11 bubble or is it going to continue? Just uncertainties and  
12 certainties that we have to address.

13           The 2000 hurricane season. As I said, last year was  
14 a record growth in population, considering the last 35 years.  
15 However, once we had the hurricanes last year, after September  
16 the population or customer growth began to drop real fast.  
17 However, starting this year, for some reason, it seems as if  
18 our population forgot about the hurricanes and once again we  
19 are experiencing good growth. The point, however, that I would  
20 like to make is following the hurricanes there was a  
21 considerable drop in the amount of people coming to Florida,  
22 and even so we had a record growth last year in population. A  
23 lot of uncertainties that we need to address. These are  
24 findings.

25           As I mentioned before, the forecast is suitable if we

1 do not have a pattern of over or underforecasting. Second, we  
2 do not want that divergence, the difference between actual and  
3 forecast to get larger over time. Just the opposite is what we  
4 will expect. We want that forecast error to be reducing over  
5 time, and that was our major finding. We did not find any  
6 trend of over or underforecasting, and that divergence, the  
7 forecast variance is getting smaller over time.

8 I have a very busy table here, but I would like to  
9 call your attention to the bottom part of that table. And what  
10 it shows is the forecast errors. If we look at that line going  
11 diagonal, okay, from 1997 the forecast error was approximately  
12 4.8 percent. And if we move along that diagonal line, that  
13 number is getting smaller and smaller and smaller.

14 I should explain that each one of these columns  
15 represents forecasts corresponding to ten-year site plans  
16 starting in 1995. So the first column is actuals, then the  
17 forecast that was done in 1995, and so forth. This table  
18 refers to the summer peak. A positive number will mean that we  
19 underforecasted, a negative means we overforecasted.

20 This is the summer, right? Could you leave it there  
21 just for a second?

22 If you look at the last, very last line to the  
23 bottom, starting in approximately 2001. In 2001, the forecast  
24 error that was done in 2001 for 2004 was off by approximately 1  
25 percent. The forecast that was done in 2002 for 2004 was off

1 by .4 percent, and so forth. So a forecast that was done four  
2 years ago is off by 1 percent. Considering that the  
3 reliability standard for the state of Florida is 15 percent, if  
4 we can expect that the forecast is going to be off by one  
5 percent four years out, I think that the contribution toward  
6 that reserve margin, the part that is made up by the forecast  
7 variance is well within the limits if we consider that we are  
8 just off by .1 percent.

9           These numbers are amazingly close? And I say  
10 amazingly, because if you compare with other regions that make  
11 up NERC, they are much larger. Furthermore, these numbers are  
12 actual values. If we were to normalize these values for normal  
13 weather, the forecast variance would even be smaller.

14           I'm not going to spend too much time here because  
15 this is the winter peaks. In Florida we experience a winter  
16 peak like once every five years or something like that.  
17 However, the forecast assumes every year that we are going to  
18 have a winter peak, and that is for reliability purposes. We  
19 do not want to give the planners a forecast that assumes only  
20 one winter peak in five years, because we do not know when that  
21 is going to happen. So we assume that every year there is  
22 going to be a forecast -- there is going to be a winter peak  
23 and that is provided to the planners. Because of that, you are  
24 going to see some sizeable overforecasting in the winter peaks,  
25 but that is an error that we want to live with, considering

1 that we will experience that winter peak only once every four  
2 or five years.

3 I'm going to speak about some of the results now.  
4 I'm going to compare history with forecasts, and I want to  
5 compare last year plan with this year plan.

6 This is the summer peak. It cannot be seen very  
7 clearly in that graph, but the first two years of this plan is  
8 slightly lower than the forecast that was provided last year in  
9 the ten-year site plan. And the reason for that, there are two  
10 reasons. The first one is relying on the University of Florida  
11 assumptions, the University of Florida Bureau of Economic and  
12 Business Research that publishes the population figures,  
13 because they are saying that this year we will have 100,000  
14 less people than last year. That has the effect of dampening  
15 in the short-term that forecast.

16 The other reason is that the fuel price in the near  
17 outlook is substantially higher than what we were saying last  
18 year. Therefore, in the first one and two years, the forecast  
19 this year is slightly lower than what we were saying last year.  
20 Out there in the future, in year ten, however, the forecast is  
21 like 600 megawatts higher than what we were saying last year,  
22 and that is because of the economic boom that we are  
23 experiencing in Florida.

24 Could you put it back just one second?

25 To the bottom in that table to the left, it shows

1 that historically we have grown at the rate of 1,241 megawatts  
2 per year. The current plan assumes that we are going to grow  
3 by 1,222, I think. Very similar growth rates in absolute  
4 number. And considering that the first number, the history is  
5 not weather normalized and the forecast is weather normalized,  
6 the forecast is slightly higher than what history is.

7 COMMISSIONER BRADLEY: One question.

8 DR. GREEN: Yes.

9 COMMISSIONER BRADLEY: So this number reflects the  
10 loss of population growth in terms of megawatts?

11 DR. GREEN: That's correct.

12 COMMISSIONER BRADLEY: Okay. Thank you.

13 DR. GREEN: With regard to the winter peak, the  
14 winter peak is higher than last year's forecast throughout the  
15 ten-year horizon. And the reason why it is higher and not  
16 lower in the first two years, as it was in the summer peak, is  
17 that the price of electricity does not affect winter peak. On  
18 that winter morning when it is cold, you don't care what the  
19 price of electricity is. You are going to heat your home. So  
20 the price of electricity is not a factor when you speak of  
21 winter peak. It is a short two peaks per year or two days per  
22 year, and you are going to warm your home. Therefore, the  
23 higher peak that this plan contemplates is based primarily on  
24 the assumptions of a better economy and a higher population  
25 growth rate in the long-term.



1           I spoke some about the forecast uncertainty. What  
2 the forecasting task group of FRCC wanted to ensure was that  
3 all of these uncertainties were contemplated in each utility's  
4 forecast. We were pleased to report that, yes, all of them  
5 were contemplated. In some cases we said we will rely on the  
6 University of Florida population projections. They are looking  
7 at the same factors that we are. We will rely on what they are  
8 saying.

9           With regard to the economy and the price of fuel, we  
10 relied on reputable firms like Global Insight, which is DRI --  
11 which was formerly DRI, Economy.com. Some are also using the  
12 University of Florida. There are a variety of sources.  
13 However, there is a consensus on all consulting firms that  
14 Florida will remain the leader in the U.S. in job creation and  
15 economic output.

16           The impact of the 2004 hurricanes. All the utilities  
17 work with realtime data. The University of Florida lags by one  
18 year. We will provide the University of Florida our customer  
19 hookup data. And this is very valuable for them in between  
20 census years. They rely on that data plus other surveys to do  
21 their projections of demographic growth. However, we do have  
22 that realtime data. We know what is happening today on  
23 customer growth. So the adjustments that we made for the year  
24 2005 and 2006 preceded the population numbers released by the  
25 University of Florida. We were pleased to see that the

1 University of Florida agreed with our assessment of the impact  
2 of population growth caused by the hurricanes of 2004.

3 I mentioned this already, so we will go over this  
4 slide. We'll skip that one.

5 I would like to mention just shortly something about  
6 weather. Weather is a short-term impact. We have not detected  
7 so-called global warming in our system. If this year is hot,  
8 there is no certainty that next year is also going to be hot.  
9 It seems to be a random event. So we have weather fluctuating  
10 above and below. Each utility did a tremendous amount of  
11 research regarding how weather affects their load. And as  
12 such, different utilities will use 20 years of historical data  
13 to define what is their normal. Some will use 30, and some  
14 will use even longer periods.

15 A phenomena that we are experiencing, however, is a  
16 migration inland and a migration north. And both areas, inland  
17 and north, seems to have more adverse climate. The net effect  
18 is that they increase the use per customer, and that is a  
19 driver in the higher use per customer that we are projecting;  
20 not necessarily that there is global warming in Florida or  
21 something like that, but just where the population growth is  
22 occurring. It is growing away from the beach. There is no  
23 more beach land, and it is growing farther north.

24 Last one.

25 Based on this exhaustive review that we did at FRCC,

1 we concluded that the forecast is reasonable and realistic. It  
2 is unbiased. It is objective. As good a picture that we could  
3 produce for the future in Florida. There are going to be  
4 short-term deviations, and these are driven primarily by  
5 economic deviations and by short-term weather deviations. And  
6 most importantly, the forecasts are self-correcting as I  
7 explained before. They take off from the very last value.  
8 There is no consistent underforecasting or overforecasting.  
9 And based on this analysis, we deemed that the forecasts were  
10 suitable for our reliability assessment.

11           If there are any questions, I will gladly attempt to  
12 answer those.

13           CHAIRMAN BAEZ: Questions of Dr. Green,  
14 Commissioners?

15           COMMISSIONER DEASON: I have a question.

16           CHAIRMAN BAEZ: Commissioner Deason.

17           COMMISSIONER DEASON: Yes. Doctor, could you refer  
18 to -- well, it's Figure 6 in this booklet, but you had the same  
19 information in your slides. It would be Slide Number 10. This  
20 is the summer peak forecast, comparison of forecasts to  
21 actuals.

22           DR. GREEN: Right.

23           COMMISSIONER DEASON: Okay. And I agree with you, it  
24 appears that these forecasts, particularly over the last five  
25 years, that there is no -- I mean, they're accurate. There

1 doesn't seem to be any biases in this, particularly, since this  
2 is not weather normalized, these are just the actual results.

3 DR. GREEN: That's correct.

4 COMMISSIONER DEASON: But just so I can get a sense  
5 of the sensitivity of load forecasts as it affects the ultimate  
6 determination of reliability and determination of reserve  
7 margins, my specific question pertains to -- I have looked at  
8 the last five years, and it appears that the largest  
9 underforecast was 3-1/2 percent, and that is in the year 2001,  
10 the forecast for the year 2002, I believe.

11 DR. GREEN: That's correct.

12 COMMISSIONER DEASON: Okay. And in the previous  
13 presentation, we had information given to us as to what the  
14 anticipated reserve, summer reserve margins would be. And in  
15 the year 2000 -- I believe it was 2008, '09, and '10, or 2007,  
16 '08, and '09, the reserve margin still exceeded 15 percent, but  
17 it was under 20.

18 I'm getting to my question. If we were to -- for  
19 example, in the year 2008, if we were to see actual load 3-1/2  
20 percent higher than we are forecasting right now, what would  
21 that do to that reserve margin? Would it cause it to go below  
22 15 percent, or would it still be above 15 percent, even if we  
23 experienced a 3-1/2 percent actual growth higher than the  
24 forecast?

25 DR. GREEN: Yes. At 3-1/2 percent it would be still

1 about 15 percent. Because we are carrying around 20 -- just  
2 over 20 percent in those years, and 3-1/2 percent would not be  
3 sufficient to bring it down to 15 percent. In addition, there  
4 are several things that enter into the calculation. For  
5 example, I'm speaking of the utility where I work, FPL.  
6 Reserve margin is calculated on the basis of a firm load. That  
7 is after you have applied load control or you get credit for  
8 load control.

9 We choose not to use load control in 2002, okay. Had  
10 we used load control, the underforecast would have disappeared,  
11 and in the reserve margin calculation it would have been even  
12 less than 3-1/2 percent. So to answer your question, because  
13 we are over 20 percent, 3-1/2 percent load forecast would not  
14 bring it down to 15 percent.

15 COMMISSIONER DEASON: And you would still have the  
16 availability of demand control if you found yourself in that  
17 situation?

18 DR. GREEN: That's correct. Plus, there are other --  
19 what we have talked about here are planning reserves. There is  
20 also another set of tools the operators have that we call  
21 operating reserves, and that is not contemplated here. And  
22 just to add onto this information, the way that we do this is  
23 we aggregate all the utilities, and we have what is called a  
24 non-coincident peak. We don't care when the utilities peak.  
25 We do know that they don't peak at the same time. Had we used

1 a coincidence factor, which is at 1-1/2 percent, because all  
2 the utilities don't peak at the same time, we have an  
3 additional 1-1/2 percent in the reserve margins that we don't  
4 claim in the reliability assessment because of the way we do  
5 it. We just aggregate the peaks whenever they occur. Had we  
6 taken into consideration when the Peninsular is peaking, we  
7 would have had an additional 1-1/2 percent reserve that should  
8 be added onto that 20 percent that Paul presented shortly.

9 COMMISSIONER DEASON: Thank you.

10 CHAIRMAN BAEZ: Commissioner Bradley, you had a  
11 question?

12 COMMISSIONER BRADLEY: Right. On Page 17, you dealt  
13 with the issue of migration to more adverse climates, and I'm  
14 assuming that that means that those climates are more adverse  
15 in the winter as well as in the summertime. But my question is  
16 this. How have you factored in -- and this ties into what  
17 Commissioner Deason just asked as it relates to our reserve  
18 margin. Just by the mere fact that we are having more  
19 migration into the interior of Florida, and you consider that  
20 to be more adverse in terms of climate, what impact is that  
21 going have upon the reserve margin? It would seem to me that  
22 because the climate within the interior is more adverse, that  
23 that is going to cause the usage to go up. Is that --

24 DR. GREEN: That's correct, Commissioner. And we  
25 contemplated that in the load forecast calculation. We have

1 projected an increasing use per customer. And one of the  
2 primary reasons for that increase in use per customer is  
3 because of exactly what you have mentioned. We contemplated  
4 that, we included that into the forecast, and the numbers that  
5 the planning group worked off of had those values included in  
6 there.

7 COMMISSIONER BRADLEY: Okay. Did you also -- how  
8 does that -- well, I'm not going to ask the second question  
9 because it deals with cost, and I think the other gentleman  
10 covered cost from the perspective of -- well, he stated that  
11 each individual company is going to have to make a business  
12 decision as it relates to the cost of fuel.

13 DR. GREEN: Right.

14 CHAIRMAN BAEZ: Commissioners, any other questions of  
15 Dr. Green?

16 Thank you, sir.

17 DR. GREEN: Thank you very much.

18 COMMISSIONER DEASON: Let me say one thing. I have  
19 listened to the doctor make presentations over the years, and  
20 he always does an excellent job. Your expertise and your  
21 presentations are very much appreciated. I want you to know  
22 that.

23 DR. GREEN: Thank you very much.

24 COMMISSIONER BRADLEY: Ditto.

25 CHAIRMAN BAEZ: Mr. Haff.

1 MR. HAFF: We are going to next have a presentation  
2 from some members of utilities that are proposing coal-fired  
3 generating units, but I was just going to ask if you wanted to  
4 take a couple of minutes and let them come up.

5 CHAIRMAN BAEZ: Actually, let's break for five  
6 minutes.

7 (Brief recess.)

8 MR. HAFF: We are going to go ahead and continue the  
9 workshop. We have some members of the electric utilities who  
10 have proposed coal projects in their plans, and it's sort of  
11 something new we are doing this year. And I guess we'll just  
12 kind of go in order across the table here, and, you know,  
13 briefly give your name and who you are with, and just, I guess,  
14 a brief summary of what you are proposing, issues you dealt  
15 with in coming to that decision, and we'll just kind of ask  
16 questions as they arise.

17 CHAIRMAN BAEZ: We can start to my left. If you will  
18 just introduce yourselves, and then maybe we can discuss who is  
19 going to go first.

20 MR. ROLLINS: My name is Myron Rollins. I'm with  
21 Black and Veatch. I'm representing the Orlando Utilities  
22 Commission.

23 CHAIRMAN BAEZ: Welcome.

24 MR. REGAN: My name is Ed Regan. I'm the assistant  
25 general manager for strategic planning for Gainesville Regional



1 Utilities.

2 MR. LAWSON: I'm Mike Lawson, and I work for JEA, but  
3 I'm representing the four utilities for our coal joint solid  
4 fuel plant.

5 MR. MAHAFFEY: I'm Lane Mahaffey in charge of  
6 corporate planning for Seminole Electric Cooperative.

7 MR. SCROGGS: I'm Steve Scroggs with Florida Power  
8 and Light.

9 CHAIRMAN BAEZ: Is there any particular order you  
10 gentlemen might have discussed to go in? Do all of you have  
11 comments or presentations to make? We can start with  
12 Mr. Rollins.

13 MR. ROLLINS: Okay. I'm not exactly sure what you  
14 are looking for in our presentation, but we will take a shot at  
15 that.

16 CHAIRMAN BAEZ: Well, this is -- and the truth is, we  
17 aren't, either. I think one of the things that we were trying  
18 to do, as you heard Mr. Haff mention, is to try and focus in on  
19 what is really current issues, you know. And, at least in my  
20 opinion, I'm pleased to see that there are efforts out there at  
21 diversifying our generation mix and, you know, particularly  
22 coal. So that is why you all have been chosen to stand before  
23 the firing squad, as it were.

24 But I think what I would be interested, I hope I can  
25 speak for the rest of the Commissioners, would be interested in

1 hearing a little bit about what your proposals are to the  
2 extent that we don't get into, you know, merits of future  
3 cases.

4 But what you are looking at, what kind of issues you  
5 are facing, the impetus behind your decisions to pursue certain  
6 projects generally speaking might have been, things like that.  
7 I don't want to put too much pressure on you gentlemen, but I  
8 certainly -- I know Commissioner Deason has been with the  
9 Commission long enough to have developed an interest or at  
10 least seen enough reason for interest before to, you know,  
11 really be concerned. And we have certainly spoken about it  
12 prior, and we would love to hear -- obviously, this is a  
13 reaction of some sort, and we would like to hear why and how.

14 MR. ROLLINS: Okay. Let me start. Orlando Utilities  
15 Commission and Southern Company were awarded a DOE clean coal  
16 grant in the latter part of 2004 for \$235 million to do an  
17 integrated coal gasification demonstration project under the  
18 clean coal initiative. The site is Stanton Energy Center where  
19 there are two twisting coal units already and a combined cycle  
20 unit. Orlando Utilities Commission and Southern Company had  
21 jointly built and built a combined cycle unit along with the  
22 Kissimmee Utility Authority and FMPA as joint owners in it.  
23 The Southern Company is wanting to maintain a lot of stuff that  
24 is confidential, and I also don't have a lot of details on the  
25 project.

1           A one-on-one class combined cycle is the power block  
2 portion of it, about 300 megawatts, scheduled for -- the  
3 gasifier portion is scheduled for commercial operation in 2011.  
4 The combined cycle will probably go in in the summer of 2010 to  
5 meet OUC's load requirements. The site is good in that it was  
6 originally certified and permitted for 2000 megawatts of  
7 coal-fired capacity, so it has a lot of existing infrastructure  
8 in place.

9           I scrounged the press reports to try to get something  
10 that was public for the overall cost of the project. It's  
11 about \$557 million in project cost in the DOE proposal of which  
12 235 million is the clean coal grant. That also includes some  
13 cost sharing in the first four years of operation of the  
14 project.

15           CHAIRMAN BAEZ: You mentioned the site. Is it the  
16 Stanton -- the Stanton site was already sited for coal  
17 generation, so this is sort of -- at least this proposed  
18 project sort of falls somewhere under that?

19           MR. ROLLINS: Yes, sir. You know, under the Florida  
20 Power Plant Siting Act you can do an ultimate site  
21 certification which allows you an easier process to certify the  
22 next generating units. And so there is still capacity left in  
23 the original 2000 megawatts of coal-fired ultimate  
24 certification at the site.

25           CHAIRMAN BAEZ: And is it fair to say that whatever

1 difficulties -- whatever difficulties might exist or might have  
2 existed with siting coal generation, that battle was -- or  
3 those issues or concerns were addressed in an overall sense  
4 once the ultimate siting was done?

5 MR. ROLLINS: Well, I think it might be a stretch to  
6 say all the concerns have already been addressed.

7 CHAIRMAN BAEZ: Fair enough.

8 MR. ROLLINS: Certainly it minimizes concerns. It's  
9 certainly easier to site another unit at an existing coal-fired  
10 site. The emission profile of the integrated coal gasification  
11 project is certainly very favorable, even compared to the  
12 existing units.

13 CHAIRMAN BAEZ: Right.

14 MR. ROLLINS: There are certain things that you don't  
15 have to do in the Power Plant Siting Act -- under the Power  
16 Plant Siting Act under ultimate certification, such as you  
17 don't have to have another land use and zoning hearing. And it  
18 is a shorter schedule. With respect to the need for power  
19 portion of it, it's no different, though.

20 CHAIRMAN BAEZ: Right.

21 Commissioners, questions?

22 Commissioner Deason.

23 COMMISSIONER DEASON: I have a question. Is there a  
24 specific type of coal that has to be used at this plant because  
25 of the grant and the technology being used? Can you explain

1 that?

2 MR. ROLLINS: I don't know to the exact extent that  
3 they are being confidential with their coal selection and so  
4 forth, but --

5 COMMISSIONER DEASON: You can just speak in general  
6 terms as to the type of coal.

7 MR. ROLLINS: Yeah. In general -- well, let see if I  
8 get my head chopped off here. In general, I think they are  
9 planning on using Powder River Basin coal, and this particular  
10 gasifier design is very good to use Powder River Basin coal.  
11 And if you think about Southern Company's objectives probably  
12 is to -- this is a scale up of their Wilsonville four-megawatt  
13 demonstration plant. It is a big scale up from four megawatts  
14 to 300 megawatts. But, certainly, earlier discussions about  
15 all the coal in Powder River Basin, there may be issues about  
16 rail transportation, but, certainly, it is our largest  
17 available resource of energy other than nuclear.

18 CHAIRMAN BAEZ: Other questions?

19 Commissioner Edgar.

20 COMMISSIONER EDGAR: Sir, what is the time frame or  
21 what are the milestones ahead, if you could lay those out  
22 briefly.

23 MR. ROLLINS: The only specific milestones that I can  
24 really talk about are the commercial operation date. They are  
25 following the DOE process and the NEFA process (phonetic). It

1 is a little more involved, but, you know, it is going to be in  
2 the neighborhood of a three-year construction schedule, I  
3 believe. And the combined cycle portion is in the neighborhood  
4 of a two-year construction schedule. So to get it on-line in  
5 2010, they are going to need to start construction around 2008  
6 for both pieces.

7 CHAIRMAN BAEZ: Any other questions?

8 Mr. Haff.

9 MR. HAFF: I had a question. With that time frame,  
10 when do you expect we will have a petition for need in front of  
11 the Commission?

12 CHAIRMAN BAEZ: That's a secret.

13 MR. ROLLINS: If it was up to me, it would be as soon  
14 as possible.

15 MR. HAFF: End of the year?

16 MR. ROLLINS: I would doubt quite by the end of the  
17 year. The current status is OUC and Southern have been  
18 negotiating the final elements of their business arrangement.  
19 And once that gets finalized, they will, I'm sure, start  
20 executing the project in earnest. And the DOE clean coal grant  
21 is a little bit, even though I'm sure it's a foregone  
22 conclusion, but it is really the opportunity to make a final  
23 business presentation to them and secure the grant, so that is  
24 probably not even 100 percent tied down even.

25 CHAIRMAN BAEZ: Any other questions?

1 Thank you.

2 COMMISSIONER DEASON: Wait. The grant, as you just  
3 indicated, is not a sure thing, I take it?

4 MR. ROLLINS: Well, I think it is a sure thing, but I  
5 think part of the process is that you have been awarded the  
6 opportunity to negotiate the grant, and I don't know -- I just  
7 plainly don't know the exact time frame of when it's final.

8 COMMISSIONER DEASON: Well, if for some reason the  
9 grant is not granted, the project then would not go forward?

10 MR. ROLLINS: I can't say that specifically, but I  
11 think the grant is important to make the project  
12 cost-effective.

13 CHAIRMAN BAEZ: Other questions?

14 Thank you, sir.

15 MR. REGAN: Gainesville's proposal is the outcome of  
16 an extensive integrated resource planning effort that really  
17 started in 2002 when we were with a group that started looking  
18 at the joint projects. As time went on, for a variety of  
19 reasons, our commission decided not to continue to participate  
20 in that project, and I will hit on some of those reasons.

21 Once we had some of our technical information in  
22 hand, we went to our community in an extensive public outreach.  
23 We started off with a series of six community forums where we  
24 actually bought dinner for anybody that would come out, and a  
25 lot of people did. And what we said is we have three problems.

1 The first problem is we are growing, some of our units are  
2 getting old. We are going to need additional capacity, and in  
3 particular, our generation mix is such that we need base load  
4 capacity.

5 Our second problem was that the price of fuels was  
6 causing us very strong concerns. I personally am on our fuel  
7 acquisition committee. We manage our hedging programs, and  
8 everybody here knows what has been going on with the price of  
9 gas and what the prospect is for coal.

10 And, finally, we communicated our very strong  
11 concerns about the reliability of the various fuel types. The  
12 information we assembled from public sources is such that there  
13 is maybe 20 years worth of -- at our current rate of  
14 consumption, proven reserves of fuel in our country are only  
15 about 20 years worth of oil, about 50 years worth of gas. And  
16 depending on the source, 250 or 400 years worth of coal. I  
17 have been at conferences where people from other parts of the  
18 planet have called us the Saudi Arabia of coal.

19 In talking to our community, we have a very strong  
20 community interest in energy conservation. Is there any way we  
21 could conserve our way out of this? And a very strong interest  
22 in renewable energy. And a very strong interest in preserving  
23 air quality. And what we have learned, and it is going to be a  
24 major problem for the state, is that there is a lot of public  
25 mistrust and public fear related to solid fuels of any type.



1 We have had commission meetings. We've probably had 20  
2 commission meetings on this so far with people coming up to the  
3 mike and talking about, you know, dead babies, and, you know,  
4 mercury poisoning. I mean, there is just an amazing amount of  
5 fear and misunderstanding out there, especially given the new  
6 technologies.

7           Based on all of this input, we put together a plan  
8 that has really five parts to it. And you may not know this,  
9 but Gainesville has the lowest electrical use per residential  
10 customer of any utility in Florida by a substantial margin. We  
11 have a very aggressive energy conservation program, including  
12 we give natural gas rebates, which is a little unusual. We  
13 have solar rebates. So the DSM continues to be a strong part  
14 of our plan and -- although there are many who say it is not  
15 strong enough. One of the biggest arguments in our community  
16 is should we be using the REM test, which is the test you use,  
17 or should we be using the total resource test. So that is an  
18 ongoing debate.

19           In terms of renewable energy, what North Central  
20 Florida has is a lot of biomass in the form of waste wood  
21 products. We are staying away from any kind of energy crop.  
22 We are looking at using biomass as a resource, and our  
23 community wants to use renewable resources. It's good for the  
24 local economy, it creates jobs. There has been a downturn in  
25 the paper pulp industry, which has been very bad for Florida.

1 So we kept that in mind.

2 And, also, our community is very interested in  
3 pollution control. If you are familiar with Gainesville, you  
4 know that it's -- the University of Florida has a strong  
5 influence. There is a lot of idealistic environmental people  
6 there. And I am one of them, by the way.

7 So we came up with a proposal for a -- our plan has  
8 strong energy conservation. It is a very powerful commitment  
9 to renewable energy. We are talking about another 10 percent  
10 reduction in our electrical needs by 2012 with renewable  
11 energy, and a solid fuel plant, which is actually a major part  
12 of meeting our renewable energy goal. And that solid fuel  
13 plant is nominally a circulating fluidized bed plant that could  
14 accommodate biomass, coal, and petroleum coke.

15 There are trade-offs on a relatively small unit. We  
16 are talking about maybe 240 megawatts compared to some of the  
17 bigger units that you're going to hear about in a few minutes.  
18 Frankly, a large super critical steam pulverized coal plant is  
19 the most efficient way to go. But if you are going for optimal  
20 fuel diversity for the most number of choices of fuel types,  
21 including biomass, any unit that a city like Gainesville could  
22 afford, a CFB is a good fit. So that is one of the reasons why  
23 our proposal is a little bit out of sync with what you are  
24 hearing from around the state.

25 Another important part of our plan is to use

1 reclaimed water. We operate a water and wastewater system, so  
2 we have ample reclaimed water available for the project.

3 For better or for worse, we have always been very up  
4 front with our community. We've discussed quite candidly  
5 climate change and global warming. It is an argument that --  
6 Gainesville is trying to struggle with an issue that our  
7 country has yet to come to grips with, which is, well, what  
8 about carbon, you know. And Gainesville firmly believes in  
9 environmental justice. If we don't want carbon, we don't want  
10 it here.

11 And so we have -- part of our plan is, first of all,  
12 the renewable energy portion, the biomass part of it is -- we  
13 consider it to be carbon neutral. Many people in our community  
14 agree. It's consistent with the Kyoto protocol. Not everybody  
15 does agree with that, but for the time being our position is  
16 that biomass is carbon neutral.

17 A part of our plan is a very healthy fund that we  
18 call the greenhouse gas fund. And what we did is we are  
19 setting aside a sum of money that would be sufficient to buy  
20 enough carbon credits to make our solid fuel proposal, given  
21 how much pet coke and coal we are projecting to use on the  
22 average, to make it carbon neutral compared to a new gas unit.

23 And the way we monetize that quantity is we went to  
24 the Chicago Climate Exchange and came up with a present value  
25 of if we were to buy those carbon credits on the market, what

1 would it take to make it gas neutral. And currently carbon  
2 credits are running about a buck seventy-five a ton for CO2  
3 equivalents.

4           One of the conditions that our commission imposed on  
5 that is that the money would not be spent for allowances or  
6 carbon credits off of some hypothetical market, but that the  
7 funds would be used for local projects that would either  
8 sequester carbon or reduce carbon emissions. And, therefore,  
9 you know, we get our carbon gains locally.

10           So, those are the kind of the elements of our plan.  
11 That is how we got to a CFB, which is a little bit different  
12 than what you are hearing.

13           One of the killers or potential poison pills in the  
14 whole thinking is what we have learned about the infrastructure  
15 for rail in our country. It is kind of a tragedy, but the  
16 major railroads have been heavily incentivized to rationalize  
17 their system and reduce the number of lines. And as a  
18 consequence, for any major shipper to start changing their  
19 supplies from maybe Appalachian coal to Powder River Basin  
20 creates huge logistic problems for the railroads. And so,  
21 whereas, currently we have a 25-year coal contract with CSX  
22 that gives us points of origin almost anywhere on their system,  
23 in fact, anywhere on their system, those kinds of contracts are  
24 going to be scarce as hen's teeth in the future. And so I  
25 think that is a very strong concern on our part.

1           On the other hand, coal does have the advantage, in  
2 Florida at least, of -- there are lots of ways to get coal to  
3 Gainesville besides just on railroads. There's barges, there  
4 are multiple modes of getting it to us. One of our reliability  
5 concerns, and I am personally the guy in charge of our homeland  
6 security activities, and that is a real eye opening endeavor to  
7 engage in, is just how vulnerable the state of Florida is to  
8 any disruption of the gas pipelines. And, in fact, because of  
9 the lack of effective interconnection, most of Florida is  
10 really just on one pipeline. And it would be devastating if  
11 somebody figured that out and took some kind of action. I only  
12 mention it here because I think everybody in this room knows  
13 what I'm talking about. I don't like to talk about that in  
14 public generally.

15           So, currently, we have hit the policy wall in  
16 Gainesville where on the one hand we are looking at what looks  
17 like a very robust plan. We have had independent reviews by  
18 engineering firms. On the other hand, it is a \$500 million  
19 investment for the City of Gainesville. And there are still  
20 those strong naysayers that say we should not be doing coal  
21 because of the carbon burden that comes with coal. We should  
22 be doing gas. Gas, no matter how you cut it, no matter how  
23 good your controls are, you are not going to have mercury in  
24 your gas, so it is going to be cleaner, slightly cleaner. In  
25 my opinion, the technologies today are just as clean or just

1 effectively as clean.

2           And so where we are is our city commission has, in  
3 fact, launched an RFP last week to have another independent  
4 review done. This time somebody not selected by Gainesville  
5 Regional Utilities. We selected the last independent review.  
6 And the independent reviewers have been given a list of all of  
7 our assumptions. And the assumptions include things like our  
8 renewable energy goal; our planning philosophy, which, is by  
9 and large a least-cost planning philosophy; our reliability  
10 criteria; the assumption that we need to have a stand-alone  
11 unit that would be in Gainesville, so that we would not be as  
12 reliant on a transmission grid. All of the assumptions. And  
13 the independent reviewers will be required to pick some of  
14 those assumptions, and modify those assumptions, and come back  
15 with an alternate plan and compare it to our base case plan.

16           The reason for that is our commissioners among  
17 themselves could not agree on which assumptions to change. And  
18 so the idea was, well, we will let some other experts with some  
19 other opinions change the assumptions, and let's see what the  
20 plan looks like, and see if we like it. And it is kind of like  
21 going shopping. You don't know really what you want until you  
22 see it kind of a thing, or they may -- more and more we are  
23 hearing a strong feeling that our plan is robust.

24           We have kind of been in a little bit of an  
25 uncomfortable position over the years, and I want to share that

1 with you. First of all, last year when we compared our gas  
2 forecast to everybody else's gas forecast, we had the highest  
3 gas forecast in the state, price-wise. And, boy, did we get  
4 beat up for that, because there are people in Gainesville who  
5 know how to come to the PSC and get everybody's gas forecasts,  
6 and we explained our methodology and how we got it. And as it  
7 turns out, we were the rightist in the state, the most correct.

8           So we feel like Gainesville is probably a microcosm  
9 of the policy issues that remain to be resolved. There is a  
10 lot of fear about climate change. I was very pleased to hear  
11 Dr. Green talk about their view on that. Whether or not you  
12 believe in climate change, it's very real. It's a very real  
13 public perception, and that is why you'll see Gainesville's  
14 utility managing carbon as an issue.

15           Speaking unanimously for myself, I would implore the  
16 Public Service Commission to realize the educational burdens  
17 that are imposed upon utilities, particularly local utilities,  
18 because I think diversifying the fuel supply, reducing our  
19 reliance on natural gas, which right now America is importing  
20 close to 20 percent of its natural gas, and it is getting worse  
21 every year. There is incredible pressure to mine for gas off  
22 the coast of Florida, as you all know. All the projections we  
23 see say that America has peaked in natural gas. No matter the  
24 reserve you get, we are not increasing production past the 2001  
25 levels. Natural gas is just going to be a problem.

1           So it is hard to envision a future that does not  
2 include solid fuels. IGCC has a lot of cache with the  
3 environmental community because of the belief of carbon  
4 sequestration, that you can take the carbon out of the gas and  
5 put it in the ground. Well, we talked to the DOE people about  
6 locating such a facility in Florida. They are very concerned  
7 about what happens when you put carbon dioxide into the aqueous  
8 environment of Florida's aquifers with this limestone. We  
9 probably all remember in high school that you took chicken  
10 bones and put them in Coca-Cola or vinegar and see how they get  
11 rubbery and soft. Well, you put CO2 down in the water in  
12 Florida's aquifers, and you are going to create sink holes.

13           So we don't have a lot of alternatives, but there are  
14 ways to manage carbon. And coal has a lot of good things going  
15 for it. The economics are very compelling, as I'm sure you  
16 know. It has the burden, though, of having more carbon per  
17 megawatt hour than other fuel types. So that's why we came up  
18 with the plan we came up with, and how we are trying to balance  
19 those interests.

20           CHAIRMAN BAEZ: Questions, Commissioners?

21           COMMISSIONER DEASON: I have one.

22           CHAIRMAN BAEZ: Commissioner Deason.

23           And, I'm sorry, I didn't get your name.

24           MR. REGAN: My name is Ed Regan.

25           CHAIRMAN BAEZ: Regan.



1 MR. REGAN: R-E-G-A-N.

2 CHAIRMAN BAEZ: Okay. Thank you.

3 COMMISSIONER DEASON: Thank you for that  
4 presentation. It was very helpful. Just a few questions. You  
5 mentioned that it is the goal of the county to sequester carbon  
6 locally.

7 MR. REGAN: Yes.

8 COMMISSIONER DEASON: And you are going to be setting  
9 up a fund to do that?

10 MR. REGAN: Yes.

11 COMMISSIONER DEASON: How do you go about  
12 sequestering carbon locally?

13 MR. REGAN: There are actually two aspects. One is  
14 sequestering and reducing carbon. One way to sequester carbon  
15 is by purchasing development rights and managing forestry  
16 lands. And the carbon gets fixed in the biomass of the wood,  
17 and that is a recognized way of -- in fact, that is how a lot  
18 of the carbon credits on the Chicago Exchange are developed, is  
19 companies are buying forest lands and jungles down in South  
20 America and bringing the carbon credits to America.

21 Another way to do it is to --

22 COMMISSIONER DEASON: Let me see if I understand.  
23 There is a market developing where people actually buy forests?

24 MR. REGAN: Buy and sell carbon credits.

25 COMMISSIONER DEASON: And the obligation is to

1 maintain -- not cut those forests, maintain those forests so  
2 that there is a neutralizing effect upon the carbon that is  
3 emitted, or -- explain.

4 MR. REGAN: Okay.

5 COMMISSIONER DEASON: I haven't heard of this before,  
6 so it is interesting.

7 MR. REGAN: If we start off with a blank piece of  
8 land, as ecosystems develop on land, the rate of carbon  
9 fixation is very high initially and then tapers off. So you  
10 can manage lands in such a way that the rate of carbon fixation  
11 is higher than it would be maybe under a natural steady state.  
12 And that's the theory behind using forestry as a way of  
13 sequestering carbon.

14 Some of the other kinds of projects that you could  
15 fund would be avoiding carbon emissions. For example,  
16 investing in bio-fuels for diesel. Perhaps investing in energy  
17 conservation programs that don't meet the REM test, but meet  
18 other social objectives, and so this fund would be eligible for  
19 that.

20 In terms of actually directly removing the carbon  
21 from the gas flow, it can be done. They do it in spacecraft  
22 and submarines all the time, but you have to have a place to  
23 put the carbon. Oddly enough, we have -- I have spent a lot of  
24 time looking at this thing, you can imagine. The most  
25 effective way of sequestering carbon that I know of is making

1 swamps, letting biomass grow and fall under water and building  
2 peat. The Everglades was a huge bed of carbon.

3 And so those are the kind of projects the city  
4 commission is interested in developing. They feel that it will  
5 also spur research and development in our community that would  
6 be beneficial to the university. It could be a source of  
7 matching grant funds and all those sorts of things.

8 COMMISSIONER DEASON: You've put a lot of thought  
9 into that. You mentioned rail transportation, potential  
10 problems there. You also mentioned, though, that there are  
11 other ways to get coal. And you mentioned barges. And the  
12 last time I looked Gainesville didn't have a deep water port.  
13 So, obviously, you have got to -- once you use barges, you have  
14 to transload it either to rail or to trucks. What are your  
15 plans in that regard?

16 MR. REGAN: Well, our preferred alternative is we do  
17 have a long-term contract that has very favorable pricing in  
18 interchange terms, where we have access to Norfolk Southern as  
19 well CSX, but that is only through 2017. After that we are not  
20 really sure. There is a lot of initiatives at a federal and a  
21 state level to work with the railroads to provide more  
22 interexchange transfers and some backhauls. For instance, we  
23 would be very interested in the rail line that goes to Tampa  
24 that comes through Gainesville, and getting a backhaul through  
25 Tampa.

1           Again, that is an area where the Public Service -- we  
2 would think the Public Service Commission should have a strong  
3 interest in what is going on. And, you know, a little known,  
4 but let me say it here so everybody will help remember. The  
5 reason why Florida has a Rails to Trails Program, and  
6 Gainesville has participated in that, is to preserve rail  
7 corridor for the future, knowing that railroads are rolling up  
8 the tracks. And that was the original source of the intent of  
9 the Legislature for creating that program. And that was so  
10 long ago that many people don't remember that. And so now  
11 these trails that are being put into place may someday become  
12 necessary as a source of -- a way to create long corridors for  
13 rail transportation at some point. So that is an option.

14           We have corridors all the way up to Union County that  
15 we are banking and have, in fact, put into use as trails. So  
16 those are the kinds of things that are being kicked around.  
17 But at the end of the day, trucking is not -- is still a  
18 feasible option for a limited haul distance.

19           COMMISSIONER DEASON: And, you mentioned the  
20 fluidized bed technology?

21           MR. REGAN: Yes.

22           COMMISSIONER DEASON: Is that technology in and of  
23 itself conducive to using biomass, or does the basic technology  
24 have to be somehow altered to use -- because you are looking at  
25 using biomass as part of --

1 MR. REGAN: Our fuel.

2 COMMISSIONER DEASON: -- your fuel portfolio.

3 MR. REGAN: It is conducive to that, because it can  
4 handle irregular and large-sized particles, compared to  
5 pulverized coal where it has to be like a dust that you can  
6 blow in there. So it is suited to that. There are concerns  
7 related to the metallurgy, depending on what kind of biomass  
8 you are using. If it has got a lot of green stuff, it has more  
9 chlorides. And really the only, in my mind, and Myron knows  
10 more about it than I do, is the biomass has a lower fuel or  
11 heat density than petroleum coke or coal. So if you are going  
12 to be using it, and as we are planning, if you are going to be  
13 using biomass, you tend to have to oversize the boiler to get  
14 the same number of megawatts. So that is a consideration in  
15 its use.

16 And, finally, what we think is a constraint is we  
17 have done an inventory, because of the kind of conflicting  
18 environmental things that I mentioned, we've decided that we  
19 want to focus on using wood waste from silviculture activities,  
20 from land clearing activities. And within a 25-mile radius  
21 there is a limit as to how much we think the sustainable yield  
22 will be. And until we actually develop the market, and our  
23 idea is to have the material prepared and delivered to us ready  
24 to burn, develop the market and get some competition going out  
25 there, we really don't know what the pricing of that will be or

1 what the volumes will be. Plus, there is competition for those  
2 resources, as well. There is a number of smaller biomass using  
3 plants in North Central Florida that currently use that fuel.  
4 So that was a big consideration, as well.

5 COMMISSIONER DEASON: Thank you.

6 CHAIRMAN BAEZ: Commissioners, any other questions?

7 Thank you, Mr. Regan.

8 MR. LAWSON: Commissioners and staff, good morning.  
9 As I said earlier, I'm Mike Lawson, and I work for JEA, but I  
10 represent today the four participants in the North Florida  
11 power project. The North Florida power project is an 800  
12 megawatt pulverized coal super critical unit. The project  
13 participants are FMPA, JEA, Reedy Creek Improvement District,  
14 and now the City of Tallahassee. The current commercial  
15 operation date is scheduled for spring of 2012.

16 Why a solid fuel plant? Reliability. Solid fuel  
17 units and combined cycle and combustion turbines are all  
18 reliable from an operation standpoint. But from a fueling  
19 standpoint, should one fuel supply be restricted, then the  
20 utility's ability to generate reliable, cost-effective electric  
21 power should not be adversely affected. Continued heavy  
22 reliance on natural gas will inhibit the ability to prevent  
23 that adverse effect. Natural gas cannot be economically stored  
24 on-site. A typical solid fuel plant will have 90 to 120 days  
25 of solid fuel on-site, so that stabilizes that effect.

1           The current forecast -- well, additionally, the solid  
2 fuel, as the gentleman said, is the most abundant fuel source  
3 the United States has. And our projections are that it will  
4 remain fairly stable as far as supply. Even earlier mentioned  
5 from the Powder River Basin, our forecast for the Powder River  
6 Basin will be readily available, also. The current forecast  
7 indicated a shortage, however, for competitive gas in the near  
8 future.

9           Economies. Our duty to the ratepayer is to deliver  
10 the lowest cost energy to their house and businesses. This  
11 compels exploring low-cost generation options. Solid fuel is  
12 the lowest-cost alternative. Not only is it the lowest-cost  
13 alternative, it is the least volatile of the current fuels used  
14 in Florida today.

15           I think we can have our cake and eat it too. A  
16 low-cost generation can be accomplished in an environmentally  
17 sound way. The North Florida power project will incorporate  
18 the latest, best available control technology for controlling  
19 emissions, and it will be a super critical design, which is the  
20 most efficient pulverized coal designed boiler today.

21           We have a community outreach plan to inform the  
22 community of the project's benefits, impacts, characteristics.  
23 We will have shareholder meetings, extensive project outreach  
24 initiatives. And the current status of the project, we are  
25 trying to acquire land and that should be accomplished within

1 the next few weeks.

2 The challenges, environmental, getting the permits.  
3 There is a strong stigma with coal generation. We have that to  
4 combat and to deal with, and we are prepared to do that. It is  
5 not going to be easy. Reliable, stable, environmentally sound  
6 electric power generation is a common goal of the participants  
7 of the project, and I believe of the Commission. Support from  
8 any source or any group would be much appreciated because we  
9 are going to need it.

10 CHAIRMAN BAEZ: Questions?

11 COMMISSIONER DEASON: You mentioned that the land  
12 acquisition is well underway and that you anticipate closing  
13 within weeks, is that correct?

14 MR. LAWSON: We'll have that locked up within three  
15 to four weeks.

16 COMMISSIONER DEASON: Okay. How big of a -- in terms  
17 of land, how big of an area is needed for this type project?

18 MR. LAWSON: Minimum site requirements is 23 to 2,500  
19 acres, and that would include all future solid waste disposal  
20 on-site.

21 CHAIRMAN BAEZ: One of the other presenters mentioned  
22 the use of reclaimed water, is that part of your -- is that  
23 available to your project?

24 MR. LAWSON: The reclaimed water, is that the gray  
25 water?



1 CHAIRMAN BAEZ: Yeah.

2 MR. LAWSON: That is not available at the site. If  
3 it becomes available, we would be able to use that.

4 CHAIRMAN BAEZ: Okay.

5 MR. LAWSON: There are some -- we will be zero  
6 discharge.

7 CHAIRMAN BAEZ: It is zero discharge?

8 MR. LAWSON: Yes.

9 CHAIRMAN BAEZ: Okay. Questions?

10 COMMISSIONER EDGAR: The same question I had on one  
11 of the earlier projects, which is after the site acquisition,  
12 what are the future milestones necessary to be met for the  
13 success and implementation of the project?

14 MR. LAWSON: After site acquisition, that will  
15 release us to go ahead and do a thorough site analysis, start  
16 preparing the SCA and the need petition, our need petition. We  
17 anticipate going in approximately April of '06. If everything  
18 goes well, we will hopefully have the permits to start  
19 construction in the fall of '07, and then it's about a 48 to  
20 52-month construction cycle to be commercial in the spring of  
21 '12.

22 CHAIRMAN BAEZ: Other questions?

23 Thank you, sir.

24 Mr. Mahaffey.

25 MR. MAHAFFEY: My name is Lane Mahaffey with

1 Seminole Electric Cooperative.

2           First, I am going to talk a little bit about why  
3 Seminole is pursuing coal. We have, by the winter of 2013, a  
4 need, a total need for new capacity of approximately 1,800  
5 megawatts. 1,800 megawatts is a lot of capacity for a company  
6 of our size, but the reason for that is because our portfolio  
7 is made up of about 50/50 with owned generation and purchased  
8 power contracts. And between now and then, the large portion  
9 of those purchased power contracts that exist right now as a  
10 result of competitive bids in the past are expiring. And so we  
11 have the compound effect of purchased power contracts playing  
12 out and then one of the fastest growth rates of consumers  
13 underneath that compounding that growth.

14           And of that 1,800 megawatts, approximately 700 to 800  
15 megawatts are what we consider base load. Base load being the  
16 portion of generating capacity that needs to run essentially  
17 around the clock. We talk in terms of capacity factors  
18 exceeding 70 percent. Our coal units, for instance, run in the  
19 neighborhood of 80 to 90 percent capacity factor year round.  
20 So we need about 750 megawatts that would run in that pattern,  
21 and so there is a huge amount of energy that would be generated  
22 by these generators. And so the cost of energy is critical for  
23 that portion of your load curve. And Seminole believes that  
24 coal is the best choice for the base load portion of that  
25 larger 1,800-megawatt need.

1           The reasons, pure economics is primary. Recent years  
2 and essentially everyone's projections for the future show that  
3 there is enough of a gap between coal and gas prices that the  
4 economic choice is robust for coal for a base load requirement.  
5 And that is fairly -- as I said, that is fairly robust. Even  
6 though the coal plant costs a lot more in capital cost, capital  
7 dollars to build than a gas-fired plant, it is overcome by the  
8 difference in energy cost.

9           We also have -- other than economics, we have what we  
10 believe is one of the best sites for coal expansion in Florida,  
11 that is the Seminole generating station in Palatka. That gives  
12 you the advantages of sharing the -- the economic advantages of  
13 sharing existing infrastructure, coal facilities, coal  
14 handling, rail facilities, water, roads, all the common  
15 facilities on the site. You may have to improve those  
16 facilities, but you don't have to build them anew.

17           We believe we have strong local community support  
18 throughout the life of the project and looking forward. And  
19 those local community involvement activities are, of course,  
20 gearing up again, but they have been strong all along.

21           One thing unique about the site is that to build  
22 this, add 60 percent to the generation output of the site with  
23 the addition of a 750-megawatt unit, there is about 1,300  
24 megawatts there now, doesn't require any substantial additions  
25 in bulk transmission; in other words, no new power lines.

1 Improvements to the substations, improvements to the relay  
2 protection systems, but no new corridors, no new wires.

3           And, also, this site gives us the opportunity to  
4 maximize the reuse of the plant by-products, the combustion  
5 ash; the gypsum that we make into wallboard, Lafarge Gypsum  
6 (phonetic) makes it into wallboard on the site as an earlier  
7 partnership; reuse of on-site water.

8           Seminole also has experience with coal having  
9 operated these existing units since 1984. And so we have the  
10 confidence of being able to embrace that technology, it being  
11 the economic choice technology. And this project will allow us  
12 to utilize that accumulated knowledge and experience in coal.

13           And, lastly, as far as the reason for coal, fuel  
14 diversity. People don't think of Seminole as a company that is  
15 starved for coal. We have a lot of coal. But with our robust  
16 growth rate, 4 to 5 percent a year historical and projected,  
17 does is that if we don't add to our coal resources by 2012,  
18 which is when this unit would come in, our reliance on natural  
19 gas would exceed 50 percent of our total energy requirements.  
20 And that is a level we haven't seen yet, and it is a level that  
21 is of a concern to Seminole and its member cooperatives from  
22 the standpoint of the uncertainty that places on our wholesale  
23 price of power and the retail price of power that our members  
24 sell to their consumers.

25           That is really the rationale for us going to coal and

1 pursuing coal. Please interrupt me if you have questions on  
2 the fly here. I was going to move into the status of the  
3 project and talk a little bit about that.

4 Technology, we have picked a 750-megawatt pulverized  
5 coal unit. As I said, that's approximately the amount, in our  
6 studies and in our forecasts, of that portion of that 1,800  
7 megawatts of capacity we are going to have to put in place that  
8 will run around the clock. And so coal fits for that.

9 We have chosen a super critical boiler design. I  
10 think it has been said earlier, essentially the difference  
11 between that and the technology that is on the site now is it's  
12 higher pressures, higher temperatures, and with that, higher  
13 efficiencies. And with that higher efficiencies you burn less  
14 fuel and you have lower emissions for any standard emissions  
15 control systems. So it is an economic choice. It is the  
16 cleanest choice in a proven coal technology.

17 The other attributes of the plan, at least on the  
18 emission side, we are employing selective catalytic reduction,  
19 or SCRs for NOx or nitrogen oxide control, a dry electrostatic  
20 precipitator for particulate control, a wet precipitator for  
21 sulfur trioxide, SO3 control, and a wet flue gas  
22 desulfurization unit, FGD, for sulfur dioxide control.

23 And mercury emissions will be minimized and  
24 controlled through the combined effect of all of those systems.  
25 We are going to zero discharge on the site, this unit and the

1 site. And then to maximize the reuse of the by-products of  
2 combustion. As you know, we have the -- we are seeking to  
3 utilize the scrubber, what we call the scrubber by-product from  
4 the SO2 removal as we do now for Units 1 and 2, but also Unit 3  
5 to make more gypsum in the operation that is on the site.

6 Schedule-wise, we are targeting March of next year  
7 for a need application and site certification. That would be  
8 associated with a construction start in 2008 and a target  
9 commercial operation date of the summer peak of 2012.

10 Lastly, the challenges that we see in front of us,  
11 this is a major construction program for Seminole. The plant  
12 itself will have us constructing that plant from 2008 to 2012,  
13 but now we are engaged in construction or at least beginning  
14 construction soon of a peaking -- 300 megawatts of peaking  
15 capacity on our existing Hardee site. Then following that we  
16 have committed to the installation of SCRs for NOx control at  
17 our existing Units 1 and 2. And those would go in in the  
18 2008/2009 time frame. Major construction, you know, kind of  
19 progression from here until then. And it is something we have  
20 done before and something we are prepared to do, but it is a  
21 significant challenge.

22 Anybody that is building coal, as said before, you  
23 have to be worried about -- even though you put in state of the  
24 art emission controls on existing proven technologies to meet  
25 existing current standards, just like we've experienced in the

1 past, there may be, there will likely be changes in the rules  
2 that require you to invest more in the unit. We are interested  
3 in that. We are concerned about that. And in our studies,  
4 basically, we handle that by looking at our base assumptions,  
5 and then we do various sensitivities for different types of  
6 rules, and what we would do as a result, and what the  
7 associated cost would be to make sure that the plan we are  
8 going forward with is robust enough economically to still be  
9 the case in the long-term.

10 One other thing I would mention, there haven't been a  
11 lot of coal plants built in the last 20 years in the country,  
12 or nuclear plants for that matter. Basically, there is a  
13 challenge to develop the range of skill craftspeople to operate  
14 and maintain these plants from the work force, as all of us  
15 around the country are tapping the same market for people,  
16 skilled craftspeople to do this. Obviously, we think it will  
17 be done, but it will be a challenge that our whole industry has  
18 to deal with is bringing those people out and training them.

19 And, lastly, and not least, of course, competitive  
20 fuel supply and transportation. We are engaged, as you would  
21 expect, in an extensive study of the alternatives for supply  
22 and transportation, not for just Unit 3, but for our existing  
23 Units 1 and 2, who had long-term arrangements that have their  
24 expiring terms for supply and transportation. So we are out  
25 there looking at those alternatives. We have confidence that

1 we can bring those in with competitive terms. We have in the  
2 past, and we trust that we will in the future. But we are also  
3 engaged at the national level with other industry and our  
4 national association to try to make -- to lobby for legislation  
5 which basically ensures the captive shippers that would, their  
6 only distinction is they don't have two railroads on their  
7 site, they've only got one, don't end up paying a huge premium  
8 for delivered coal in the future. And so we are actively  
9 engaged in that.

10 Subject to your questions, that is really the extent  
11 of my overview here.

12 CHAIRMAN BAEZ: Question of Mr. Mahaffey?

13 COMMISSIONER DEASON: I have a question.

14 CHAIRMAN BAEZ: Commissioner Deason.

15 COMMISSIONER DEASON: You mentioned the gypsum  
16 recovery operations that you have, and that that would be  
17 expanded with the addition of the new coal generation.

18 MR. MAHAFFEY: We need to negotiate that expansion.  
19 You know, we have, I think -- and I'm not totally familiar with  
20 the existing contract, but the facilities on-site that were  
21 built have greater capability that can take more than the  
22 output of our existing facilities. We have always known that.  
23 And so negotiating those arrangements is underway, but we are  
24 confident that that -- that has always been an interest of the  
25 on-site wallboard provider, and it has always been an interest



1 of Seminole if we ultimately pursued coal.

2 COMMISSIONER DEASON: Obviously, Seminole gets  
3 revenue from that operation. Is that used to minimize the cost  
4 that is ultimately passed on to your member cooperatives, or  
5 how does that work?

6 MR. MAHAFFEY: Right. I mean, in our, you know,  
7 form of doing business that is the result of any savings that  
8 we get. And the savings of that take two forms. One is that  
9 we call it scrubber sludge, but -- bad terminology. But the  
10 waste product from the flue gas desulfurization units or  
11 scrubbers, as we call them. In the absence of that use of  
12 by-product, we go to landfill. And in the early years Seminole  
13 did. And so what the effect is of this being able to use that  
14 there and being able to sell the ash from combustion is you  
15 just minimize use of that landfill in the future you would have  
16 to have and also for Unit 3, as well. So, hopefully, if this  
17 is all successful, our need to expand that landfill would be  
18 minimal.

19 COMMISSIONER DEASON: Thank you.

20 CHAIRMAN BAEZ: Other questions, Commissioners?

21 Thank you.

22 Mr. Scroggs.

23 MR. SCROGGS: Good morning, Mr. Chairman,  
24 Commissioners, staff. I have some prepared remarks, but feel  
25 free to interject and ask questions as we move on through.

1 I wanted to cover three areas: Why advanced coal  
2 generation makes sense for FPL customers, give you an update on  
3 the status of our proposed Southwest St. Lucie Power Project,  
4 and discuss some of the factors affecting the future of coal  
5 generation in our system.

6 Florida Power and Light believes that the  
7 incorporation of advanced coal generation technology in the FPL  
8 system would be beneficial to our customers. This conclusion  
9 was reached after a significant study of the technical,  
10 economic, and environmental implications such an addition would  
11 have to our system.

12 Based on this work, FPL proposed in its 2005 Ten-Year  
13 Site Plan to meet the growing energy and capacity needs of our  
14 customers with a balance of efficient natural gas generation  
15 and state of the art super critical coal-based generation.  
16 Many factors have combined to lead us to this conclusion, and  
17 these factors include natural gas has shown a significant and  
18 sustained rise in overall price and price volatility in the  
19 past several years, while coal prices have remained lower and  
20 more stable. So these trends are projected to continue.

21 Coal generation combustion technology and emission  
22 control technology have progressed rapidly, resulting in a  
23 combination of generation technology and emission control  
24 systems that are very efficient and emit significantly less  
25 pollutants than prior generations of coal-based technologies.

1 Between the years 1994 and 2007, FPL will have added 7,700  
2 megawatts of clean, efficient, natural gas-based generation to  
3 meet our system growth requirements. These additions have  
4 provided significant economic and environmental benefits, but a  
5 continuation of a single fuel strategy would shift the energy  
6 mix in FPL's system to one that would depend on natural gas for  
7 almost two-thirds of our total energy requirements by the year  
8 2013.

9           The addition of coal-based generation makes sense for  
10 our customers because it diversifies the fuel supply that we  
11 rely on to deliver cost-effective and reliable service.

12 Diversification has several tangible benefits for the  
13 customers. First off, fuel cost predictability. Increasing  
14 the proportion of dependably priced coal in our fuel mix will  
15 decrease the variations seen in the customer's bill due to  
16 natural gas price swings.

17           Coal also provides a fuel cost hedge.

18 Diversification provides the economic hedge against high  
19 natural gas prices and increasing the proportion of relatively  
20 low priced coal limits the increase in system generation costs  
21 that would be the result from rising natural gas prices. On  
22 the other hand, maintaining the generation capacity of natural  
23 gas within our system ensures that we can capture benefits of  
24 decreasing natural gas prices, should that occur.

25           In terms of fuel supply reliability, diversifying the

1 fuel supply increases system reliability by increasing the  
2 types of fuels and technologies used to generate power, and it  
3 enhances the system reliability through diverse fuel  
4 transportation and delivery systems. Coal inventories at the  
5 site provide us also a buffer against delays in the fuel  
6 deliveries.

7           We have explored other alternatives to enhance fuel  
8 diversity and determined that coal-based generation using  
9 advanced technology is the most credible alternative to add  
10 fuel diversity to our system in the next ten years. Our review  
11 of other alternatives had led us to the following conclusions:  
12 Liquefied natural gas, FPL undertook an LNG RFP effort in the  
13 year 2004/2005, to identify means to deliver LNG to Florida.  
14 None of the proposals received presented a compelling reason  
15 for FPL's customers to sign onto a long-term take or pay  
16 agreement for LNG. While LNG is not currently an economically  
17 competitive option, it may become so in the future. FPL will  
18 continue to monitor developments in this area.

19           Integrated gasification combined cycle is a promising  
20 technology that remains in a developmental stage. The market  
21 has not yet attained the maturity to deliver the level of  
22 reliability and cost-effectiveness necessary for FPL to make a  
23 commitment on behalf of our customers, and nor is the market  
24 able to provide the necessary performance guarantees at this  
25 point.

1           The recent experience of Sierra Pacific Power at the  
2 Piñon Pine demonstration project is an example of the risks  
3 that FPL and its customers would face if FPL were to implement  
4 such a technology before it is economically and technically  
5 proven. However, because of its promise, FPL remains involved  
6 in evaluating developments in an effort to bring this  
7 technology into the FPL system once it is proven.

8           As others have mentioned, renewable resources,  
9 Florida has a relatively low level of renewable sources of  
10 energy. This limitation prevents a significant development of  
11 in-state renewable generation projects. However, renewable  
12 resources may provide complimentary energy resource  
13 capabilities in the future, but are not going to be available  
14 in significant quantity, and at current, are not at  
15 cost-effective levels.

16           Nuclear. Considering nuclear, significant progress  
17 has been made recently at the federal government level towards  
18 making new nuclear generation projects a realistic option in  
19 the long-term. However, much work, including satisfying the  
20 concerns of the financial community, must still be accomplished  
21 before this alternative can be actively pursued.

22           Now, an update on the St. Lucie project. In March of  
23 this year, as you will remember, I had the pleasure of  
24 discussing with you the results of our comprehensive study on  
25 clean coal generation. And in that study and later in FPL's

1 2005 Ten-Year Site Plan, FPL concluded that a coal-based  
2 project in FPL's service territory utilizing advanced super  
3 critical combustion technology and state of the art emission  
4 control equipment would not only provide FPL's customers with  
5 cost-effective, environmentally sound, and reliable generation,  
6 but would provide the necessary fuel diversification needed to  
7 maintain a healthy balance of fuel sources in the generation  
8 portfolio. That project is now known as the Southwest St.  
9 Lucie Power Project, and it is currently our plan for our next  
10 planned generating unit in the period 2012 through 2014.

11 FPL has been conducting community and local  
12 government outreach efforts necessary to inform stakeholders  
13 and obtain the required approvals to proceed with the project.  
14 Here are some significant milestones that we have accomplished  
15 to date. Preliminary engineering and performance estimates  
16 have been completed. FPL has conducted a request for proposal  
17 for detailed engineering services and is conducting  
18 negotiations with a short list of bidders. FPL intends to  
19 execute a contract with the winning bidder by the end of this  
20 summer. In the next 12 months FPL will work with this selected  
21 engineer to develop a cost estimate that would be suitable for  
22 use in a generation capacity request for proposal.

23 A rezoning and conditional use application was  
24 submitted to St. Lucie County on April 15th of this year, and a  
25 vote on that application by the board of county commissioners

1 is expected in the near future. FPL is presently preparing the  
2 site certification application required under the Power Plant  
3 Siting Act, and we anticipate filing that application with the  
4 siting office in the fall of this year.

5 These steps are consistent with the projected  
6 in-service date of the first of two 850-megawatt units of the  
7 project in June of 2012. To date over 80 outreach meetings  
8 have been held with a wide range of local residents,  
9 representatives of environmental groups, and local governments  
10 and agencies. Additional meetings are scheduled. These  
11 meetings have provided a productive format for exchange of  
12 information and an opportunity for all stakeholders to voice  
13 concerns that will be addressed as the development proceeds.

14 Field trips are being organized for local government  
15 officials to visit similar coal facilities and existing FPL  
16 generation facilities to gain an appreciation of how modern  
17 generation facilities can successfully co-exist in proximity to  
18 sensitive natural habitats.

19 With respect to the solid fuel procurement plan, we  
20 have also undertaken a process to help define and develop that  
21 plan. We have issued a request for information to over thirty  
22 domestic and South American coal suppliers. FPL has also  
23 issued a request for proposals to all railroads who can serve  
24 FPL's proposed sites. Response to these requests are due by  
25 mid-August, this month in this year.

1           Specifically, the objectives of the fuel  
2 transportation development plan are to, one, ensure that  
3 multiple rail providers have or can develop cost-effective  
4 delivery capability to our St. Lucie County site that we have  
5 selected. Establishing multiple port options for delivery of  
6 South American coal and petroleum coke, this would include  
7 options on the Atlantic and/or the Gulf Coast, preferably in  
8 Florida. And implement a fuel procurement strategy that would  
9 develop a portfolio spot, medium-term, and long-term fuel  
10 supply arrangements, allowing for flexibility and reacting to  
11 changing market conditions.

12           I should add at present our design is assuming about  
13 40 percent Central Appalachian coal, 40 percent foreign coal,  
14 an anomaly from Columbia, and 20 percent petroleum coke. We  
15 are not targeting Powder River Basin as a source for the  
16 design.

17           Later this year, FPL will release a generation  
18 capacity request for proposal. The RFP will solicit proposals  
19 consistent with fulfilling the generation plan identified by  
20 our integrated resource planning process, and subsequently  
21 described in our 2005 ten-year site plan. The RFP document  
22 will describe how FPL will proceed to meet near term and longer  
23 term capacity needs.

24           In terms of the factors that affect the success and  
25 future of coal, there are several areas that contain levels of



1 uncertainty that can affect the cost-effectiveness. And these  
2 are the actual price differential that materializes between  
3 natural gas and coal over the life of the new coal plants.  
4 While this spread has grown in recent years and is forecasted  
5 to continue to grow, if that spread were to narrow, the cost  
6 benefit offered by coal would be reduced.

7           A robust and competitive transportation  
8 infrastructure for the delivery of coal to facilities must be  
9 established in FPL's territory. This will require significant  
10 investment as well as the involvement and support of government  
11 and regulatory agencies at many levels. Failure to achieve  
12 cost competitive delivery will significantly affect the  
13 economic viability of coal generation.

14           There are efforts underway to establish new  
15 government-imposed control levels on various emissions. The  
16 implementation of emission controls with tight or low limits  
17 could significantly erode the cost-effectiveness of coal  
18 generation, even at the very low emission levels that are  
19 projected for FPL's current design.

20           The process to obtain necessary permits and  
21 authorizations to construct and operate a coal-fired facility  
22 will result in requirements or conditions being imposed on the  
23 coal generation. The cost of meeting these requirements or  
24 conditions could affect the cost-effectiveness of the project  
25 as a whole.

1           Finally, because of the longer lead time necessary to  
2 plan and construct a coal-fired generation plant, there is  
3 necessarily a greater level of uncertainty in the capital cost  
4 estimates for building the facility. Consequently, the  
5 actually costs could be higher than estimated, and that would  
6 have an effect on the cost-effectiveness of the project.

7           In summary, FPL has concluded that adding advanced  
8 coal generation as one of the components of its generation plan  
9 has great opportunity for FPL's customers. We recognize the  
10 uncertainties associated with the costs and will continue to  
11 examine all key assumptions and areas of uncertainty.

12           CHAIRMAN BAEZ: Questions of Mr. Scroggs? No  
13 questions?

14           Thank you, sir.

15           MR. HAFF: I would just like to know when we are  
16 going to see your need filing?

17           MR. SCROGGS: I'm sorry, Mike?

18           MR. HAFF: When do you expect your need filing for  
19 the first unit will be filed with the Commission?

20           MR. SCROGGS: For the coal unit?

21           CHAIRMAN BAEZ: Mr. Haff is trying to plan his --

22           MR. HAFF: We've got two of them coming in within a  
23 month of each other next year. I want to see if we have a  
24 trifecta or not.

25           I hate to disappoint you, but I think we are going to

1 be into 2007, the summer of 2007 before you see a need filing  
2 from us on coal.

3 CHAIRMAN BAEZ: Any other questions?

4 Thank you, Mr. Scroggs.

5 Mr. Haff, are there any other issues?

6 MR. HAFF: None that I am aware of. I guess we may  
7 want to see if there is anyone that wants to give public input.

8 CHAIRMAN BAEZ: And I was leading up to that. This  
9 is obviously a public workshop, and if there is anyone else in  
10 the audience or in attendance today that wishes to address the  
11 Commission on any of the issues, anything that you have heard  
12 today or any of the materials that have been provided, now is  
13 your opportunity.

14 All right. We've got a quiet crowd today.

15 I want to thank you all. I personally, and I hope I  
16 can speak for the rest of my colleagues, we really do  
17 appreciate certainly you gentlemen being put on the spot today  
18 to kind of give us an update and a feeling for what all is out  
19 there, and we also appreciate FRCC for their presentation, as  
20 well, and to those in attendance.

21 Thank you, again. Have a good afternoon, everyone.  
22 We're adjourned.

23 (The hearing concluded at 12:30 p.m.)  
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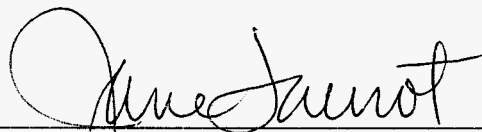
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I, JANE FAUROT, RPR, Chief, Office of Hearing Reporter Services, FPSC Division of Commission Clerk and Administrative Services, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 18th day of August, 2005.



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