BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

UNDOCKETED

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 LILA A. JABER COMMISSIONER RUDOLPH "RUDY" BRADLEY COMMISSIONER CHARLES M. DAVIDSON
DATE:	Monday, September 20, 2004
TIME:	Commenced at 2:00 p.m. Concluded at 2:55 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	JANE FAUROT, RPR Chief, Office of Hearing Reporter Services FPSC Division of Commission Clerk and Administrative Services (850) 413-6732

IN ATTENDANCE:

PAUL ELWING and LEO GREEN, representing the Florida Reliability Coordinating Council.

GARY BRINKWORTH, representing the City of Tallahassee.

COCHRAN KEATING, ESQUIRE, and MICHAEL HAFF, representing the Florida Public Service Commission Staff.

P R O C E E D I N G S

CHAIRMAN BAEZ: Call this workshop to order.

Counsel, can you read the notice.

MR. KEATING: Pursuant to notice issued August 25th, 2004, this time and place have been set for a Commission workshop concerning the undocketed review of ten-year site plans of electric utilities.

CHAIRMAN BAEZ: Thank you, Mr. Keating. I want to welcome you all to the Ten-Year Site Plan workshop. Thank you all for coming. If ever there was a time when the phrase "got better things to do" is more appropriate, I don't think there was one.

You have got an agenda. There was a brief agenda for today, Commissioners, and it has also been attached to the parties and the participants. My understanding, Mr. Haff, is that the companies don't have specific presentations at this point, and they are here to answer questions?

MR. HAFF: That is correct, Chairman.

CHAIRMAN BAEZ: Okay. Thank you, Mr. Haff. And just a note, Commissioners, I believe that Gulf Power doesn't have a representative here today. To the extent that any of us might have questions for Gulf Power on their particular presentations or documents, we can work with the staff to get Gulf the questions and they will have them back to us as soon as possible. I appreciate your flexibility, given the

circumstances.

We are here to ask questions, Commissioners, to the extent that we have one. I know that FRCC is the lone presenter today. **They are going to present their reliability** assessment, and also we can have questions for them, if you so choose.

At this point, before I turn over to staff, if any of the Commissioners have any comments that they want to add at this point, it would be a good time.

COMMISSIONER JABER: Mr. Chairman, I don't have a comment, I have a question for you.

CHAIRMAN BAEZ: Yes.

COMMISSIONER JABER: Do you know if the City of Tallahassee is participating today, if they have a representative?

CHAIRMAN BAEZ: That is a good question. There are two people waving their hands, and I assume that would be them.

COMMISSIONER JABER: I have a question to them whenever it is appropriate.

CHAIRMAN BAEZ: Okay. So you nudge me in the ribs when -- after we get the FRCC presentation out of the way.

COMMISSIONER JABER: Oh, okay.

CHAIRMAN BAEZ: Or worse, who knows. All right.

If there's no comments or questions at this point, Mr. Haff, you go ahead and take over.

MR. HAFF: Okay. Thank you, Chairman. We are going to hear first -- or I guess only from the Florida Reliability Coordinating Council today, and Paul Elwing is here to give their presentation for their load and resource plan and their reliability assessment.

MR. ELWING: Good afternoon, Commissioners.

CHAIRMAN BAEZ: Good afternoon.

MR. ELWING: My name is Paul Elwing with Lakeland Electric, and I'm here representing the FRCC as the chair of the resource working group. This particular group within FRCC is charged each year with reviewing the reliability and adequacy of the individual utilities plans, and that's what we are presenting to you today is that aggregate review.

I'm going to be presenting a review of the 2004 load and resource plan, which you should have received earlier along with the 2004 reliability assessment. Looking at Page 3 of our presentation, firm peak demand, you see the summer and winter projected firm peak demand for the FRCC region for 2004 through the planning horizon of 2014.

Growth is similar to what we have seen in the past. Summer is growing at a forecasted rate of 2.52 percent with winter at 2.59 percent. In comparison, last year's plan, summer was at 2.52 percent and winter was at 2.57 percent. So we are expecting similar growth over the planning horizon.

Page 4 is the FRCC firm peak demand forecast, showing

the comparison between the 2003 and the 2004 projected growth. The 2004 increase over the planning horizon is a little over 8,800 megawatts.

Going on to Page 5. Firm peak demand forecast for the winter season. Again, the comparison there between the 2003 and 2004, so we see that our growth rates are expected to be similar, and the increase over the ten-year planning horizon is a little over 9,500 megawatts.

The table on Page 6 is total available capacity. And we have it broken out. The bottom block, which is sort of a mauve color, I guess, is the existing capacity, and so that gives you an idea of the existing installed capacity over the planning horizon. The cumulative additions, utility additions being added over the ten-year planning horizon in the blue. And then you have got the nonutility generating capacity stacked on that, and then firm interchange is the top block.

Just to give you a little perspective between the beginning of the planning horizon and the end of the planning horizon, we see here the winter total available capacity on the pie charts, and we see in the 2004/2005 season, which is this winter season coming up, we are expecting for a capacity basis the capacity within the State of Florida, or the FRCC region to be 8 percent nuclear, 19 percent coal, 23 percent oil, 35 percent gas, 4 percent other, and 11 percent nonutility generation.

As we go out to the horizon year of the 2013/2014 winter season, we see the percentages nuclear at 6 percent, coal at 15 percent, oil at 16 percent, gas at 58 percent, other 3, and nonutility generation at 2 percent.

MR. HAFF: Mr. Elwing, could you tell us what is included in the other category?

MR. ELWING: Yes. The other is primarily firm interchange, but it also includes -- I believe there was a small piece of biomass being burned in some utility units, and I think there is some petroleum coke included in that amount, as well. There is also a small sliver of hydroelectric.

MR. HAFF: Thank you.

MR. ELWING: Page 8 is the fuel mix on an energy basis, and comparing the 2004 to the 2013 time frame. And so we see the mix go from nuclear at 14 percent, coal at 27 percent, oil at 12 percent, gas at 32 percent, other is 13 percent, and NUG at 2 percent for 2004. And 2013 we see the percentages there; nuclear 11 percent, coal 26, oil at 5, gas at 52 percent, other is 4 percent, and the nonutility generation makes up approximately 2 percent of the forecasted energy.

Dispatchable demand-side management, load management, and interruptible. The interruptible load is the mauve or pink color there on the bottom. You see it stays fairly consistent over the planning horizon. And load management is the top

stack. That stays fairly consistent over the planning horizon, as well. On the horizon year, the two of them add up to approximately 2,750 megawatts of interruptible capacity.

The FRCC planned reserve margin over the planning horizon. We see that in the winter season, all the years are at or above 20 percent reserve margin, aggregated for the FRCC region. And for the summer seasons it is at or above 20 percent in all but two years, 2007 and 2010 is just slightly below 20 percent, aggregated for the FRCC region.

FRCC's reliability assessment. The assessment focused on the following: Reserve margin review, an analysis of availability and forced outage rates for generating units, load forecast evaluation, which Mr. Leo Green is going to report on separately, and review of natural gas pipeline adequacy.

In regards to the reserve margin review, the FRCC has a 15 percent standard, and our review is to ensure that the regional reliability reserve margin meets that 15 percent minimum standard. And as you saw from the graph on Page 10, the state meets that in all years.

The analysis of forced outage rate and availability, the working group compares the trends in forced outage rates between the utilities from their 2000, 2001, 2002, and 2003 planning studies. We also compare trends and availability for the same time periods, to see the relationship, to see the

trends between years looking out into the future.

Those numbers are seen on these next two graphs. On Page 14 is a comparison of megawatt weighted forced outage rate for the FRCC region, and the different colors there represent the different years worth of data being reported by the utilities.

The goldish brown with the diamonds on them is the set of values based on the 2003 planning studies? And we see that they are consistent with previous studies, and the forced outage rates are actually slightly lower than previous years, indicating a good trend.

Megawatt weighted availabilities on Page 15. Again, we see the comparison between the past four years worth of utility data. And the trends, again, are similar. Availability is slightly less this year than in previous years, but it is consistent with the overall trend and what is expected.

MR. HAFF: Mr. Elwing, I have another question.

MR. ELWING: Yes, sir.

MR. HAFF: Did the FRCC come up with a loss of load probability for the peninsular region from these studies?

MR. ELWING: We did not do that this year. That is something that is being reviewed by the working group for possible review in future years. To this point in time it has been felt that the reserve margin analysis is adequate when

combined with looking at forced outage rates and availabilities.

Loss of load probability historically, when it has been looked at, has been an extremely small number and it has been felt that it has just not been a very good measure for Florida based on the current mix of units.

MR. HAFF: Based on your, I guess, megawatt weighted availabilities, you would be pretty sure that the loss of load probability would be far less than .1 days per year?

MR. ELWING: That would be my opinion, yes.

MR. HAFF: Okay.

MR. ELWING: The RWG also reviewed natural gas pipeline adequacy, and the FRCC participated in the NERC gas electricity interdependency task force, and that NERC task force issued a report just recently with seven recommendations approved by the NERC board of trustees.

The FRCC's task force is focussing initially on the NERC recommendations as follows: Recommendation number one from the NERC task force is that NERC regions should include in their regional assessment program a review of the impact of any fuel transportation infrastructure interruption that could adversely impact electric system reliability, i.e., delivery issues.

The second recommendation from the NERC task force was reliability coordinator or their delegates, subject to

appropriate treatment of commercially sensitive information, should develop regular realtime communications with pipeline operators about disturbances that could adversely impact the reliability of either the electric systems or the gas pipelines. Increased or better communications between electric and gas is the thrust of that particular recommendation.

The third recommendation from NERC was, for planning purposes, gas pipeline outages that could have an adverse impact on the reliability of the electric systems must be coordinated with the electric industry so that plans to mitigate any impacts to the electric systems may be developed. Again, communication and planning, better coordination there.

Review of the natural gas pipeline adequacy. The FRCC's GEITF will participate and follow NERC's further development on the other recommendations.

Going on to Page 19. Reliability assessment summary. Planning reserve margins remain at or above 20 percent for all but two years of the ten-year forecast period. Forced outage rates continue at low levels, similar to 2001 and 2002. Generating unit availability continues to be very high. The accuracy of FRCC's load forecast has remained high. Natural gas supply is expected to be adequate based on discussions with the pipelines in the state, FGT and Gulfstream.

And then in conclusion, the results of the review indicate that the Peninsular Florida electric system is

reliable for the next ten years from a planning perspective.

Commissioners, do you have any questions?

CHAIRMAN BAEZ: Commissioners, any questions? Commissioner Deason.

COMMISSIONER DEASON: This question may be too preliminary to make an assessment concerning, but I was just wondering if given the recent history we have had with hurricanes hitting the state, has there been any impact on forced outage rates as it pertains to how that could effect planning for the future, or are we within the planning criteria that we normally use for a peninsula state like Florida?

MR. ELWING: I don't have an exact answer for you on that, Commissioner. I think preliminary would be the proper terminology here. Obviously, next year's data that's submitted by the utilities will reveal whether or not forced outage rates were greatly impacted, but I'm not aware of any instances within the state over the past few weeks where we have been short on capacity, or load has not been served as a result of hurricanes where load can be served.

COMMISSIONER DEASON: Do you anticipate that this is something that the FRCC will be reviewing in the future, the impact of this hurricane season as it pertains to any planning for the future?

MR. ELWING: I would say yes, we will be taking the events of this year into account as we look forward.

COMMISSIONER DEASON: Thank you.

CHAIRMAN BAEZ: Mr. Elwing, I have a question. Regarding the two years that the reserve margin of 20 percent is not being met, at least on the planning documents, do you all decide to represent it as such here on the planning horizon, despite any efforts that may be undertaken in order to meet that reserve margin, or is it pretty much just what it is?

MR. ELWING: Well, we are reporting that as the aggregate number for the region. Now, the FRCC minimum standard is 15 percent, so obviously being just slightly less than 20, we meet the FRCC requirement. We don't view that as any long-term indication or sign of less reliability. It may just be a function of timing of when new units are being brought in in those particular years. But based on our review of utility plans, new capacity is forecasted to be added every year.

CHAIRMAN BAEZ: Thank you.

Commissioners, any other questions?

Thank you, Mr. Elwing.

Mr. Haff, I don't know at what point we are here, but I know that Commissioner Jaber had some questions of the City of Tallahassee. Is now a good time?

MR. HAFF: Yes.

CHAIRMAN BAEZ: Can we get --

COMMISSIONER JABER: Thank you, Mr. Chairman, and it

is only one question.

MR. BRINKWORTH: Commissioners, I'm Gary Brinkworth representing the City of Tallahassee.

CHAIRMAN BAEZ: Thank you.

COMMISSIONER JABER: My question relates back to the summer, July 13th, I think was the day we had the major outage here in Tallahassee. And I made a mental note to see where we were today, since we have got the Ten-Year Site Plan workshop. My recollection of that event was that it related to a problem you all were having with, I think it was Purdom. Was it the Purdom unit?

MR. BRINKWORTH: Yes, ma'am. It was a control system issue at the Purdom station.

COMMISSIONER JABER: Tell me -- take us back to that day. **Tell us what happened that day. And do you feel like you** have solved whatever problem occurred? Do you feel like you have solved it such that we won't have that major outage going forward? And I will tell you why I was concerned that day. My recollection was that it had the potential of creating a problem for the entire state, not just for the City of Tallahassee. And that was something that concerned me a great deal. So could you give us sort of a synopsis of what happened?

MR. BRINKWORTH: Commissioner, I will be glad to do that. We have conducted a couple of investigations, obviously,

of that July 13th event. And based on our analysis, the event was actually caused by a communications failure between two solid-state controllers. Actually a ribbon cable between two controllers at the Purdom Station, actually at Unit Number 8, which is our combined-cycle unit there at Purdom.

These two controllers, one on the generation, on the field of the generator, one in the system that controls the entire plant in terms of the steam turbines and the dispatchable there. They failed to make a handshake. And when they do that, they have a fail-safe system that starts to presume that there is a loss of station service, or there is a loss of connectivity to the grid, and so the unit is isolated to protect it.

That was obviously not the case. What turned out to be the problem was a communications failure in a ribbon cable literally that is not very long at all, a small ribbon cable between these two cards. But that caused the unit to come off-line. When that happened -- of course, we had fairly high loads that day -- the rest of our system began to pick up the load. And it would not have been a problem for us in terms of load level and what we had available generation and available import capability had it not been for the way that our second largest unit, Unit 2 at the Hopkins Plant, was being operated at that time, blended fuel of gas and oil.

And when we do that, we tend to operate that in a

more manual, a combination of manual and automatic dispatch mode. And what happened is that unit began to cycle because the load was picking up, and does not respond smoothly in that control range where we have blended fuels. And so it began to have a problem. And, again, it came off the line because of its protection systems that were looking to protect that generator, again, from damage.

That then caused us to be significantly short of generation, even though we still had our full import capability. And our operations center was able to shed enough load to stabilize the system. We did shed about 250 megawatts of load, 260 megawatts of load. We had all of that load back on within about four-and-a-half or five hours of the event. So we felt like we responded pretty well.

At no time, at least, in our analysis was the grid in jeopardy, because we certainly had the opportunity to open our ties and isolate the system from the rest of Florida if we thought that was necessary. We didn't feel like it was at the time, and as I said, we were able to shed enough load to get the system stabilized.

We have since, in our after action reports, obviously replaced that cable. GE, who is the manufacturer of the equipment at Purdom 8, has replaced those cards. We have some additional inventory now of those particular ribbon cable connecters, so that we don't anticipate having that problem

again. We have also changed our control scheme at Unit 2, so that when it is operating on this blended fuel, we don't get into that control range problem that we had where the unit does not respond quickly enough to load swings. So we feel like that the result of all of those actions that we have taken are going to prevent a similar circumstance from happening in the future.

COMMISSIONER JABER: Just a follow-up, Mr. Chairman. What comes out of this workshop at the end of the day is a report and recommendation from our staff whether facilities should be found suitable for planning purposes. And with the experience you have had this summer, is it your opinion that this Commission should still find that your facilities and growth plan should be deemed suitable?

MR. BRINKWORTH: Yes, ma'am. We believe that we do still have a suitable plan. We have adequate generation reserves; we have operating procedures in place; we have everything that we feel like is necessary to ensure the reliability of the Tallahassee system, and to protect against cascading outages that might impact the rest of the grid.

That particular event on July 13th obviously was a highly unusual circumstance involving some controllers that we would not necessarily have expected to behave in that way. And because we have made changes in our operating procedures, we don't think that that exposure will exist going forward in the

future.

COMMISSIONER JABER: Thank you.

CHAIRMAN BAEZ: Thank you, sir.

Commissioners, any other questions? Mr. Haff, where to from here?

MR. HAFF: Doctor Green is here to present the FRCC's load forecasting analysis.

CHAIRMAN BAEZ: Okay. Thank you.

MR. GREEN: Good afternoon, Commissioners. My name is Leo Green. I'm employed by Florida Power and Light. Today I'm appearing on behalf of FRCC as the coordinator of the load forecasting subgroup.

A reliability plan is good, dependent on -- when it is contrasted with the need that it is trying to serve. We felt at the FRCC that there was a need to ensure that the load forecasts, that is the need that this plan is intended to serve, was suitable. My presentation today will consist of these five points.

And the way we did the forecast for FRCC is we aggregated the forecast of all the utilities. We did that for several reasons. One, we wanted to respect the fact that we thought that each utility had a better knowledge of its service territory. However, at the same time we wanted to ensure that there were no biases built into this forecast.

So we went through this five-step process. And on

the last point, no forecast is absolutely correct. There is always going to be some forecast errors. It is impossible to get a zero percent error or forecast variance. There are risks and uncertainties involved. And the crux of the problem resides in how do you minimize those uncertainities, what steps are taken to ensure that the forecast covers said identified uncertainties.

Why did we do it? As I said before, a reliability assessment depends on accurate forecasts, which begs the question how accurate is FRCC's forecast. Another reason why we did this process where we evaluated all the forecasts is it allows us, if there is something wrong, to have an early identification. A reliability plan is a long-term process, and it should be viewed in that context. If we do an evaluation each year that the plan is prepared, it gives us the opportunity to do this early identification.

And, finally, there are some planning standards that are set by NERC, and Florida is a region of NERC, and we intend to meet those planning standards. The issues when we evaluated each company's forecasting methodology, what we reviewed were historically how well has this utility forecasted? What are the input assumptions? There has to be a degree of consensus across the state. All the utilities do not have to have the same assumptions, but there has to be some similarity. And if there is not that similarity, there should be a reason why it

differs.

The models that are being used today by the utilities in Florida are state of the art forecasting models. The outputs that we generated, I will say some more about this, but we considered them to be suitable for the reliability assessment. And we did some sanity checks once we had the forecasts. How good was this forecasting? **Now, the sanity** checks that we used were load factors, that is the average load compared with the peak load. Historically, they follow a pattern. Was this pattern maintained in this forecast?

The second factor that we looked at was use per customer. **There is a trend of increasing use per customer.** And because things don't change overnight, the current forecast would be, to a certain extent, similar to what was set in prior forecasts.

What we detected for FRCC's forecasts is that there is no bias in these forecasts. And by bias we mean to say there is no consistent trend of over or under forecasts. And, in fact, some years we will overforecast, some years we underforecast. And I will show you an example of that in a second.

There were homogeneous assumptions across utilities, and let me be a little bit more specific here. Some utilities, for example, in the economic assumptions, some utilities use Global Insight (phonetic), which is a consulting firm. Some

utilities use Economy.com, some utilities use the University of Florida. So we had different opinions. It was, like, we are not having all our eggs in one basket.

The forecasts were consistent with historical trends, and they met the criteria, what we consider the sanity check. And, finally, all the forecasts had a self-correcting process, that is, the starting point was the last actual value. So wherever the forecast started off from was the exact last actual value, which is if there was underforecasting, the process would self-correct itself.

It is important that we present to the resource planners a correct picture of the demand of electricity in the state of Florida, so we spent a lot of time examining the assumptions that each one of the utilities brought forward with regard to the economy. This, together with the population growth, is the primary driver of the demand of electricity. And when we look at the economic performance, we looked at it the context of the national economy and the context of the local economy.

Florida's economy, in relative terms, is doing great. I will give you an example. Between 2001 and 2003, if you take the four states that created the most jobs, leaving Florida aside from a second, if you take Arizona, Nevada, New Mexico, and Georgia, and you add the jobs created by these four states, they don't add to the number of jobs that the state of Florida

created in those last two years. So in relative terms, the state of Florida is doing great.

And that has some strong implications on Point Number 3, which is strong consumer growth. **We are getting a lot of** people coming to the state of Florida. **In fact, the University** of Florida, if you compare the forecast for 2005 that was done in 1998 with the forecast that was released this year for 2005 by the University of Florida, it is higher by one million people in just a matter of seven years.

So the amount of people that are coming to Florida is not that group of retirees, necessarily, it is people coming because of the job market that Florida creates. **All of this is** creating a demand for electricity, which is the last point I have on this graph. **High growth and peak loads. We wanted to** make sure that the utilities identified this growth in peaks so that they could plan accordingly.

There is another component there that is very important, which is the construction or housing market. Year after year we are having record growth in construction of new homes. **And the fact that the homes are getting bigger with** more electrification is increasing the demand for electricity. We wanted to ensure that all of these factors were included in the load forecast that was presented to the resource group.

As I said before, a forecast is deemed suitable if it does not over and underforecast persistently. In fact, what we

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difference is getting smaller through time. Over the last five years that has been the history.

I will try and explain this graph, which is a little busy. But what we have here, the second column is the actual summer peaks that we have seen in the state of Florida. Then we have from 1995 to 2003, these were the ten-year site plans that were presented. **The load forecasts for the ten-year site** plans that are were presented. **Below we are comparing the** forecast errors, that is the difference between each forecast and what actually happened in that year.

So if you go below the second bottom of this table, you will see for the year 1995, the forecast that was done for 1995, the forecast error one year out was a negative **1.8** percent, meaning to say that the actual load was not as high as what had been forecasted. **If we move diagonally along to the** right, for example, in 1997, that forecast error was 4.8 percent. **And then in 1998 it was 4.3 percent, and ever** since it has been falling.

In 2002, the forecast error was a negative .06, and last year, because we had an extremely mild summer, the forecast was higher than what actually happened by 3 percent. We overforecasted last year by 3 percent.

But what I would like to call your attention is the

fact that there are positives and there are negatives, so there is an over and there is an underforecasting, which suggests that there is no bias in the forecasts.

The following page suggests the same thing for winter peak. We have a different pattern here because it depends on whether the state of Florida exhibits a cold front or not, or a significant cold temperature. For example, looking in the second column of the top half, in the year 2002/2003 we had a winter peak of 44,000 megawatts. However, in 2003/2004 our peak was only 36,000 megawatts, a drop of 8,000 megawatts. And that was because we did not have a cold winter this year. So, in that case, you will have a high forecast error. However, our suggestion is, and we do that in the resource plan, that we always plan for the fact that we assume there is going be a cold winter.

I would like to spend some time talking about the forecast findings that we arrived at in this evaluation. And on Page 11, Paul showed this graph. Basically, there is no difference between the forecasts that we provided last year and the forecasts that we are providing this year for summer peak. They are similar, very similar in magnitude.

In the box, the inserted box to the bottom on the bottom left, last year we were suggesting that the state of Florida would grow at the rate of 1,216 megawatts per year. This year we are saying it is going to be 1,225 megawatts.

Very similar in megawatts. A difference of only 9 megawatts. So our opinion, our position this year is very similar to what it was last year.

With regard to the winter peak, the forecasts, once again, are very similar. However, I need to explain the inserted box to the bottom left. In this case, history is saying that we only grew by 401 megawatts, but I remind you that this year we did not have a winter peak. I mentioned that it was 8,000 megawatts less. That is why you see that 401 megawatts as an annual growth. And, likewise, because the number is so low, when you are comparing the forecast out in the year 2012 or 2003 with a very low value for 2004, it shows a tremendous growth, but it is just because of what happened this year.

The major uncertainities that we discussed while evaluating each utility's forecast was, number one, customer population. Currently in the state of Florida we are having a tremendous growth in population. Are all utilities accounting for this fact? Yes, they are all accounting for this fact. Most of the utilities are utilizing data that comes from the University of Florida, and in some cases from other consulting firms, and all of them have suggested similar growth. It was suggested that perhaps there is an early wave of baby boom

opportunities that were not available in the rest of the nation.

Weather is an uncertainty from different perspectives. Today the technology for measuring temperature is much better than what the technology was 40 years ago. Sometimes it was suggested that perhaps there might be a global warning, to say something. We don't believe that is the case, we think there is just better technology. And all the utilities have different time frames. For example, Florida Power and Light will use 50 years of weather to arrive at a normal temperature and they use it as a forecast. TECO will use a 20-year average. Progress Energy will use 30 years. They all are using different historical time frames to arrive at the normal and then predict that, use that as a prediction for what weather is going to be. We like that a lot for the fact that, once again, we are not sticking to one value. We are not putting all of our eggs in one basket. We are allowing diversity.

The economy, the Florida economy is changing. We are creating a lot of new industries. For example, the high-tech biomed, generic medicine, the film industries, these are new industries for Florida that are attracting, that are attracting a lot of people to the state. We have to account for all of these factors in the forecast that is presented to the resource group.

I mentioned the primary drivers of the population growth already, but there is just one I would like to mention here, and it is the community redevelopment association. Because we are running out of available land to build new homes on, there is a strong movement to build back into the urban areas. All major metropolitan areas have established what we call CRAs, a community redevelopment associations, and we are seeing a tremendous amount of growth back into the city. There are some facts that could hamper or could slow this growth, and there is a problem with transportation. And the other problem that we have identified is the inability of the local government to provide services, and that is shown on this graph.

There is also, I mentioned before, the strong construction that we are undergoing right now. There is a problem with what is called the adjustable rate mortgage and the speculative investors in real estate. There is a belief out there that this construction bonanza might bust sometime soon. Well, there are arguments against that also because these adjustable rate mortgages, the interest rates are going to go up. Well, this economy goes into a recession every three to five years. In three to five years when these adjustable rate mortgages become due, interest rates should fall again so they can refinance again. So all of these considerations were discussed when reviewing each one of these forecasts.

With regard to weather, it is a short-run impact. We do not see a trend of anything getting hotter or colder. In fact, we think it is a parallel shift into whatever will happen for any given year, and then it will probably drop back and go above. It circles around a medium. However, there are some considerations that we need to work with and that are built into the forecasts. Because there is no more land next to the water, which has a cooling effect, people are moving more inland to areas that are more adverse in climate. It's hotter and it's colder, and this causes that load to go up.

I went over the economy already. And I would like to jump to Page 17. And in summary, after examining all of these factors, and to see that all the utilities had a systematic approach for considering all of these factors, we deem that the forecast is suitable and realistic. Furthermore, we believe that the recent trends and new initiatives have been captured in these forecasts. And there are going to be short-term deviations. Also, they identify that because of the process or the methodology in forecasting, that the forecasts are self-correcting and they incorporate the latest information available into the subsequent forecasts.

If there are any questions, I would gladly try to attempt to answer them.

CHAIRMAN BAEZ: Thank you, Doctor Green.

Commissioners any questions? No questions? Thank

you, Doctor Green.

MR. GREEN: Thank you.

CHAIRMAN BAEZ: Mr. Haff.

MR. HAFF: Commissioners, we are at a point on the genda where if we have questions for utilities, you may have questions for utilities, and if not, we can see if there is somebody that may want to give public input to the planning process.

CHAIRMAN BAEZ: Very well.

Commissioners, any questions regarding the particular utilities?

Showing none, Mr. Haff, can we go ahead and inquire if there is any public input?

MR. HAFF: Yes.

CHAIRMAN BAEZ: Is there anyone from the general public that wishes to address the Commission on these items? I don't see any.

MR. HAFF: We must have set some kind of record today.

CHAIRMAN BAEZ: Well, and that is through the good efforts of the staff, I'm sure. If there is nothing -- or do you have anything else, Mr. Haff?

MR. HAFF: No.

CHAIRMAN BAEZ: All right. Commissioners, that concludes the presentations on the Ten-Year Site plans. Again,

as the representatives from Gulf Power weren't able to be with us here today, if you do have any questions in the future, we can go ahead and run them through staff and they will make sure and forward them for us.

If there is nothing else, we stand adjourned.

Thank you all for coming.

(The workshop concluded at 2:55 p.m.)

STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

COUNTY OF LEON)

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 27th day of September, 2004.

JANE FAUROT, RPR
Chief, Office of Hearing Reporter Services
FPSC Division of Commission Clerk and
Administrative Services
(850) 413-6732