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ORIGINAL

DIRECT TESTIMONY OF BILLY R. DICKENS

Q. **Please state your name and address of your employer.**

A. My name is Billy R. Dickens. I work for the Florida Public Service Commission [FPSC] located at 2540 Shumard Oak Boulevard, Tallahassee Florida.

Q. **Please describe your educational background.**

A. My educational training is in the fields of economics, mathematics and history. I received a Certificate in Economics from Northwestern University in August 1978. I was awarded an A.B. in Economics from the University of the District of Columbia in May 1979 with Departmental honors. My graduate course work in economics was completed at American University. I have one chapter remaining on my dissertation.

Q. **Briefly describe your professional experience.**

A. I am currently employed as a Regulatory Analyst for the Bureau of Policy Analysis with the Florida Public Service Commission. I have nearly seventeen years of professional experience in public policy research and university teaching in the field of economics. I am a former W.E.B. Dubois Fellow at Harvard University and visiting Fellow at the Department of Defense. I have

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authored several publications looking at how communities cope with economic uncertainty resulting from military base closures. I am a member of several professional economic societies. I was recently elected Vice-President for the American Association for Blacks in Energy [AABE], Florida Chapter.

Q. **What is the purpose of your testimony?**

A. I am here to address issue 6 of the Issue ID List for the Hines 2 Need Determination Docket. This issue raises an important question: *Is it reasonable to obligate Florida Power Corporation's retail customers for the costs of the Hines 2 Unit for the expected life of the unit?* It is my intention to explain why economic uncertainty, due to the advent of electric generation restructuring, raises potential risks for Florida ratepayers.

Q. **Do long term assets represent a potential economic burden for Florida Power Corporation's [FPC] ratepayers?**

A. Yes. Market conditions are moving from ownership of generation to procurement in generation. Decisions concerning how generation of power is executed are based on entrepreneurial ingenuity and market incentives. The dynamics of electric restructuring suggest long term commitments and/or obligations for ratepayer financing of large scale power construction projects might be incompatible with future technology changes. Captive ratepayers may be subject to economic penalty if they are unable to reap the benefits of positive market change. Technological advance, fuel price escalation and relative price changes collectively imply that ratepayers committed to long-term assets involuntarily forfeit efficient alternatives. Inferior choices typically result in suboptimal outcomes and unnecessary burdens for ratepayers.

Q. **What are the kinds of risk associated with building Hines 2?**

A. There are several kinds of risk associated with FPC's decision to construct Hines 2. First, there is the risk that cost overruns or failure to meet the in-service dates may occur. Quite frankly, I expect given the industry past performance, these are not likely to be major risks. Second, there is the risk that the plant will perform below expectations. This would be reflected in things like high forced outage rates or heat rates. I believe ratepayers can be partially protected from these kinds of risks by the incentives created under the Generation Performance Incentive Factor [GPIF] methodology. Third, there is the risk associated with building a long life asset and having fuel costs exceed the forecast scenarios. In this case, the ratepayers are paying for the capital cost of this asset and are paying the fuel costs through the fuel cost recovery clause.

Q. **Do current FPSC policies regarding long-term generation assets foster cost-effective results for FPC ratepayers?**

A. The orthodox regulatory compact has approached need determination based on a hedging strategy with capital cost recovery guaranteed over a fixed long-term time horizon. However, the orthodox regulatory compact in today's market has undergone significant revision. Long-term assets preclude economic change and disguise the significance of risk. Failure to properly adjust for risk creates market distortions due to inadequate recognition of both current and future events. Generation and fuel risks suggest this Commission may want to look at the feasibility of performance based incentives as a means to ensure ratepayers are not penalized for favorable market shifts. Given the peculiar nature of current market dynamics and long-term contracts, FPC's ratepayers could be held financially liable for an asset which may not be the least cost alternative in the not too distant future.

Q. **Would short-run contracts reduce risk associated with future** changes in technology and fuel cost?

A. Not entirely, but they minimize the risks. What's important in today's economy is that generation planning decisions should use the market as a benchmark for evaluating how well services are being delivered to the end-user. Unlike long-term assets, short-run assets are more flexible and can reflect market changes quicker. It is true that greater reliance on short-run market changes exposes participants to the possibility of greater price volatility. However, under short-term contracts, a power provider would be able to better adjust price and technology decisions induced by market forces. This "speed of adjustment" ensures that production embodies the best available technology and concomitant fuel choice mix. To be sure, sometimes long-term contracts are good for ratepayers and energy providers. However, long-term commitments to assets are "costly" if short-run benefits are forfeited because of contractual obligation. This appears to be the logic that FRCC representative Tom Hernandez articulated in the 1997 Ten Year Site Plan Workshop. As shown in the transcript (Exhibit BRD-1 attached hereto and incorporated by reference), Mr. Hernandez puts forth the case for why a shorter planning period was more efficient than the conventional ten year horizon for capacity planning. In substance, my recommendation parallels the points he raised.

Q. **Are there any experiences in Florida where commitment to long-term assets has resulted in inefficient outcomes for ratepayers?**

A. Yes. The fundamental problem with long-term commitments is that buyers are locked into fixed prices. Once market forces yield equilibrium prices significantly below the lock-in rate, the result is an inefficient outcome. Typically, long-term contracts are beneficial when they have appropriate "out clauses". One need look no further than the counterproductive results of negotiated cogeneration and PURPA contracts executed in this state and others. During the late 1970s, the State of Florida actively implemented features of the National Energy Act mandating that utilities pay for power at avoided cost to Qualifying Facilities [QF's]. Those contracts assumed that QF's could continue to provide power to IOUs at an avoided cost *lower* than *current* market prices. However, the *ex post market price* for wholesale power is now lower than the *ex ante price* reflected in the negotiated QF contract. This unambiguous finding strongly suggests that the avoidance cost doctrine is no longer ratepayer neutral. PURPA mandated avoided costs makes cogeneration contracts uncompetitive in today's market. Utilities were correct to recognize this degree of economic myopia in avoided cost, resulting in the rush to "buy-out" these inefficient arrangements.

This Commission has already approved numerous settlement agreements in recent years which had the effect of terminating the time-line of certain QF contracts. Order No.'s PSC-97-0523-FOF-EQ, PSC-96-1217-FOF-EQ, and PSC-96-0898-AS-EQ recognized the inherent intergenerational inequities in QF contracts and permitted FPC early termination. Similar authority was granted to Florida Power & Light in Order No. PSC-96-0889-FOF-EU. The lessons from recent history are clear: long-term fixed-price contracts retard market efficiency. If QF contracts are counter-intuitive to economic efficiency, a similar argument can be made that the same holds true for situations involving need determinations for retail-serving utility generation. Competitive markets are more likely to result in the best set of mutually beneficial outcomes for all parties.

Q. **How would you propose that the Commission address the risks associated with construction of the Hines 2 unit?**

A. Assuming Hines 2 is constructed on budget and on time, the

Commission should allow the capital and O&M costs of the unit to be included in rate base for surveillance purposes upon its commercial in-service date. However, the Commission should require FPC to periodically, say every five years, review current market conditions to determine whether the continued operation and rate base recovery of Hines 2 is in the best interests of FPC's ratepayers. This market review should explore all alternatives including, but not limited to, conservation, load management, distributed generation technologies, short-term and long-term purchased power options and replacement construction. If a more cost effective alternative becomes apparent, then the Commission could deny future recovery or authorize an accelerated write off a certain portion of the remaining book costs of Hines 2 thereby treating this asset similar to current practice of reviewing cogeneration contract buy-outs.

Q. **Does this conclude your testimony?**

A. Yes.

a peninsular Florida perspective.

MR. HAFF: Well, from a peninsular perspective, most if not all the additions are going to be -- that are in the plan are gas-fired, combined cycled and combustion turbine, and even with the units that are shown in this plan, we're still looking at an eight percent winter reserve margin, and I guess we're just trying to figure out what happens if all of a sudden every utility wants to put these CTs in with 24 months of lead time and there's no gas to serve them. I mean, that's a critical concern we have about the, you know, out years of this plan.

MR. HERNANDEZ: Again, I believe it's more of an economic issue, a cost-effectiveness issue that needs to be addressed by different utilities.

Different utilities are going to have different options in terms of how they secure their gas contracts in order to run these units, but you've got to look at usage of the plant. If someone's looking at a very high load factor for a combustion turbine and combined cycle because that type of capacity is becoming much more efficient, they may be more inclined to firm up gas. If a system is looking at a relatively low utilization of that capacity, then for economic reasons it does not -- it makes less sense to go ahead and firm up the gas because you've got the option to run the unit on an alternative fuel, and to the extent that you do not impact the capacity or the heat rate and it's basically a tradeoff on the cents per million on the fuel choice, it is an economic situation, not a reliability issue.

So to the extent that you've got short construction lead times and relatively shorter permitting times for the 9,000 megawatts or so of existing site that I've mentioned before and the fact that it really gets down to a utility-by-utility analysis, I'm not concerned about showing lower reserve margins in the out years.

Looking at the first five years in both the winter and summer, I believe we are -- we do have adequate supply resources, planned and proposed, for both winter and the summer, and we have the flexibility for each utility to address those issues down the road.

COMMISSIONER DEASON: What I hear you saying is that we don't need a ten-year site plan, we need a five-year site plan?

MR. HERNANDEZ: I'm not suggesting that.

COMMISSIONER DEASON: Well, what you're saying is we've got these projections for ten years, and it's unacceptable in the later years, but you're telling us, don't worry about it because we have enough sited area, locations, and we have short lead times, short construction times, so there's no need to worry about the later years.

As long as we've got things covered for five years, we're okay. That's what I hear you say. Now, if that's not what you're saying, correct me.

MR. HERNANDEZ: Generally that's correct, and the reason I think we're okay in saying that is, looking in years past where other generating plant that had longer lead times -- for example, a fossil fueled, base load coal unit has a much longer, eight to nine year, construction lead time, let alone nuclear. So I think, relative to individual utility planning, you've got to have a much longer look. You've got to look at different options and different alternatives under different scenarios, load growth assumptions, capital cost assumptions.

I guess what I'm saying is, given the fact that looking at the next five years and the expandability that this state has to drop new generating plant that's very efficient, absent of the gas availability issue, which I think is, again, utility specific, that we're okay to show in the long term smaller reserve margins than we have in the past.

To the extent that folks -- the economics turn around and folks are looking at technologies that have much longer lead times, that's why you want to look at a ten-year plan.

COMMISSIONER DEASON: Well, let's look at the fifth year, and I'm looking at the winter reserve margin year 2001 and 2002, that winter. It indicates 11 percent with a minuscule amount of actual generation capacity above the projected winter peak demand. Is that acceptable?

MR. HERNANDEZ: Again, this is an aggregate, and it's difficult to assess what the impact would be on any individual utility, but --

COMMISSIONER DEASON: No. What you need to -- I'm going to be very polite, but what you need to realize -- you're sitting there saying, "Well, this is an aggregate and each individual utility needs to make economic decisions" and all that. That's fine and dandy, but this commission has the responsibility to make sure that there is adequate capacity for the entire state, not each individual utility, and it's not going to do a lot of good if one utility has adequate capacity and another doesn't and there's no way for there to be sharing of that capacity, and when there are brownouts and blackouts and things of that nature, that's where the rubber meets the road and that's where we have failed in our responsibility. Do you agree with that?

MR. HERNANDEZ: I agree that that is your responsibility.

COMMISSIONER DEASON: All right. Now, perhaps I interrupted, and I apologize. Is what is shown there at 11 percent acceptable in the year -- in the winter for 2001 and 2002?

MR. HERNANDEZ: I would say yes, and the reason why I would say yes are two-fold. Again, it reflects back that we have the potential -- in looking at what's happening with the market in Florida -- and, again, we're focusing on the winter peak. If you go back over the past -- let my divert just a second. If you go back over the past five years, we've had relatively mild winters. Except for the '95-'96 winter, we were pretty much 1,000 megawatts or so below forecasted peak, and again, just to reiterate what I've said before, this does not account for load diversity. This is a compilation, just a simple adding up of all the loads in the state. So you've got load diversity across the state that could account for a further reduction of four percent -- four to five percent, if you look at time of use and time of system peak. So that's another piece that --

COMMISSIONER DEASON: Now, let's talk about the load diversity. You're saying this is a compilation and that this is each individual's forecasted winter peak, and then when all added to -- actually when the winter peak occurs, it's probably not going to be as high as each individual utility's forecasted peak because there's going to be some diversity in that?

MR. HERNANDEZ: That's correct.

COMMISSIONER DEASON: Now, it seems to me that when we have a really severe crunch on energy demands in Florida is when a cold front comes through Florida and goes all the way down to Miami, and that's just about the entire state, and it's not going to be a situation where it's going to be warm in Fort Myers and cold in Miami. It's going to be cold in Fort Myers and cold in Miami, at least in the winter situation.

Now, I can understand in summer peaks, when you have a really hot spell, you're probably going to have some areas of the state that are going to have some thunder showers. They're going to be cooler and there's going to be less demand, but you don't have that in winter, unless there's something I'm missing. So please educate me.

MR. HERNANDEZ: Again, it's directly attributed to the weather, and if we have a cold snap that comes across the whole state, then I agree with you, but often that's not the case. It has happened in the past. Christmas '89, you know, that did happen. We had a cold snap over several days, and what happens is you do exactly what we're showing: You implement load control. You go to your non-firm load resources, and that's what we're showing, again, in that fifth year, that you're at that point where you're down to just -- well, it's less than one percent of

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for determination of need for Hines Unit 2 Power Plant by Florida Power Corporation.	DOCKET NO. 001064-EI SEPTEMBER 18, 2000

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the testimony of Billy R. Dickens has been furnished to the following by U. S. Mail this 18th day of September, 2000:

Gary L. Sasso, Esquire
Carlton, Fields, Ward, Emmanuel, Smith & Cutler, P.A.
Post Office Box 2861
St. Petersburg, Florida, 33731

Florida Power Corporation
James A. McGee, Esquire
Post Office Box 14042
St. Petersburg, Florida 33733-4042

Deborah D. Hart

Deborah D. Hart
Florida Bar No. 305022
Staff Counsel
FLORIDA PUBLIC SERVICE COUNSEL
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850
(850) 413-6199