BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In re: Petitioner for approval of early termination amendment to negotiated qualifying facility contract with Orlando Cogen Limited, Ltd., by Florida Power Corporation	:DOCKET NO. 961184-EQ : : : : :

SECOND DAY

VOLUME III

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PROCEEDINGS:	HEARING
BEFORE:	COMMISSIONER SUSAN F. CLARK COMMISSIONER JOE GARCIA
DATE:	Friday, October 31, 1997
TIME:	Commenced at 8:30 a.m. Concluded at 1:15 p.m.
PLACE:	Betty Easley Conference Center Room 148 4075 Esplanade Way Tallahassee, Florida
REPORTED BY:	NANCY S. METZKE, RPR, CCR Court Reporter Post Office Box 3093 Tallahassee, Florida 32315-3093

APPEARANCES:

(As heretofore noted.)

BUREAU OF REPORTING
RECEIVED 11-18-97

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MISCELLANEOUS

PROCEEDINGS

COMMISSIONER CLARK: Let's call the hearing to order. And Mr. Stallcup, are you ready?

Whereupon,

PAUL STALLCUP

was called as a witness on behalf of the FPSC and, after being duly sworn, testified as follows:

EXAMINATION

BY MR. KEATING:

Q Would you please state your name for the record?

A Yes, my name is Paul W. Stallcup. My business address is 2540 Shumard Oak Boulevard, Tallahassee, Florida, 32399.

Q Did you prepare or cause to be prepared prefiled direct testimony in this docket?

A Yes, I did.

MR. KEATING: Commissioner Clark, I believe everybody has a copy of an exhibit that is described as revisions to Mr. Stallcup's direct testimony and Exhibits 4 and 5 to his direct testimony.

COMMISSIONER CLARK: Okay. Let's go ahead and mark it as an exhibit. It will be marked as Exhibit 12.

BY MR. KEATING:

Q Mr. Stallcup, do you have any changes or amendments to your prefiled testimony that are not

reflected in the exhibit?

A No, I don't.

Q Okay.

MR. KEATING: Commissioner Clark, staff requests that Mr. Stallcup's testimony be inserted into the record as though read.

COMMISSIONER CLARK: All right. Let's do this. The prefiled direct testimony of Mr. Stallcup as amended by the first page of Exhibit 12 will be inserted in the record as though read, and then his exhibits, PWS-1 through 5?

MR. KEATING: Yes.

COMMISSIONER CLARK: Will be marked as Exhibit 13 with the understanding that those exhibits are revised according to the last two pages of Exhibit 12.

MR. KEATING: Thank you.

COMMISSIONER CLARK: Thank you.

DIRECT TESTIMONY OF PAUL W. STALLCUP

Q. Would you please state your name and business address?

A. My name is Paul W. Stallcup. My business address is 2540 Shumard Oak Boulevard, Tallahassee, Florida, 32399.

Q. By whom and in what capacity are you employed?

A. I am employed by the Florida Public Service Commission as the Supervisor of the Forecast Section in the Division of Auditing and Financial Analysis.

Q. Would you please summarize your educational and professional experience?

A. Yes. I graduated from Florida State University in 1977 with a Bachelor of Science in Economics with minors in mathematics and statistics. I received my Master of Science in Economics from Florida State University in 1979 and, as a Ph.D. Candidate, completed the course work required for the degree and stood for and passed the doctoral examinations in macroeconomic theory, microeconomic theory, and econometrics in 1980.

In January 1981 I was employed by Florida Power and Light Company as a Load Forecast Analyst in its System Planning Department. In this capacity, I prepared short and long term forecasts of company sales, peak demand, and customer growth. In January 1983, I was employed by the Florida Public Service Commission as an Economic Analyst and in 1991 was promoted to my

present position of Supervisor of the Forecast Section in the Bureau of Revenue Requirements in the Division of Auditing and Financial Analysis.

Q. Would you please summarize your testimony?

A. Yes. My testimony presents the results of a risk analysis I performed on the proposed buy out of the last ten years of the contract between Florida Power Corporation (FPC) and Orlando Cogen Limited (OCL). This risk analysis views the proposed buy out as a potential investment opportunity being offered to FPC ratepayers and is evaluated on the basis of whether or not the investment will provide a reasonable return. I believe that my analysis is more comprehensive than that presented by FPC witness Schuster or by Office of Public Counsel (OPC) witness Larkin, and provides a better assessment of the financial risk the proposed buy out asks FPC ratepayers to assume. I describe how I performed my analysis and how it differs from those performed by Witnesses Schuster and Larkin. I also am sponsoring Exhibits PWS - 1 through PWS - 5 attached to my testimony.

Q. What do the results of your risk analysis show?

A. The results of my risk analysis show that, given current expectations about future fuel prices, inflation, and the financial market's current evaluation of risk, the proposed buy out contains a significant degree of risk which could financially harm ratepayers if the buy out is approved.

Q. Would you please provide an overview of how you performed your risk analysis?

A. Yes. I began my analysis by adopting the overall methodology offered by FPC witness Schuster in Exhibit 7 to his prefiled direct testimony. This methodology lists in columns (1) and (2) the forecasted values of the Capacity and Energy payments that ratepayers are currently obligated to pay under FPC's existing contract with OCL over the period from 1997 to 2023. Collectively, these columns are called the Contract Case since they contain the costs that ratepayers will incur under the existing contract.

Columns (4), (5), and (6) list the forecasted values of the Capacity, Energy, and Buy Out costs that ratepayers would pay if the proposed buy out is approved. Under this scenario, the Capacity and Energy costs from 1997 to 2013 are the same as those listed under the contract since the proposed buy out does not take effect until 2014. However, beginning in 2014 and extending to 2023, the Capacity and Energy costs reflect the forecasted costs associated with operating a gas fired combined cycle unit. This is the type of unit that FPC assumes will replace the power that would have been provided under the contract with OCL. Collectively, these columns are called the Replacement Case since they reflect the costs that ratepayers will be obligated to pay if the proposed buy out is approved and a replacement source of power is required.

Finally, the forecasted costs under the Replacement Case are subtracted from the forecasted costs under the Contract Case and a net present value (NPV) calculation is performed on these differences. If this NPV is positive,

the analysis shows that ratepayers are expected to be better off if the proposed buy out is approved. If the NPV is negative, the analysis shows that ratepayers are expected to be harmed if the proposed buy out is approved.

Q. What changes did you make to this methodology in order to perform your risk analysis?

A. I modified FPC's methodology in three ways. First, I replaced FPC's forecasted escalation rates for fuel prices and construction costs with escalation rates obtained from Data Resources Incorporated (DRI). Second, I changed the discount rate used to perform the NPV calculation in order to better reflect the risk the proposed buy out asks ratepayers to assume. And third, I performed a sensitivity analysis on the NPV calculation using DRI's base case, optimistic, and pessimistic forecasted escalation rates to arrive at a range of NPV values within which I could reasonably expect the ultimate NPV value to fall.

Q. Why do you believe it is appropriate to use DRI's forecasted escalation rates for fuel prices instead of those used by FPC?

A. There are three reasons why I believe it is more appropriate to use DRI's forecasted escalation rates instead of those used by FPC. First, I believe that FPC's long term natural gas price forecast (FPC's 9702 fuel forecast) may substantially underestimate the future market price of natural gas. As shown in my Exhibit 1, FPC's natural gas price forecast is much lower

than those submitted by other Florida utilities in their 1997 Ten Year Site Plans. While this forecast may be appropriate over the near term due to existing natural gas contracts, by the time the proposed buy out occurs in 2014, any existing gas contracts FPC currently has will have expired and they will have to be renegotiated at prevailing market prices. Using the gas price forecasts of the other utilities as a consensus forecast of what these market prices will be indicates that natural gas prices will be higher than those used by FPC. Furthermore, my Exhibit 1 also shows that DRI's 25 year natural gas price forecast released in August 1997 conforms closely to the natural gas price forecasts of the other utilities. From this I conclude that DRI's natural gas forecast provides a reasonable estimate of future gas prices.

Second, I believe that in order to justify the proposed buy out, FPC's analysis should be robust enough to stand up to the inclusion of reasonable forecast assumptions from reputable sources such as DRI. By using DRI's forecast assumptions in my risk analysis, I am able to measure the extent to which the cost effectiveness of the proposed buy out is dependent upon FPC's forecast assumptions.

Third, the fuel price forecasts used by FPC are basically ten year forecasts that have been extrapolated forward an additional 17 years. The DRI forecasts on the other hand are taken from DRI's long term 25 year forecast released in August 1997. These forecasts cover all but the last year of the proposed buy out and, in my opinion, represent a better basis for estimating NPV savings.

The DRI fuel price escalation rates used in my risk analysis are contained in my Exhibit 2.

Q. What is the impact on the NPV if DRI's forecasted fuel prices are used instead of those provided by FPC?

A. The NPV savings are reduced from $32.7 million to $19.9 million.

Q. Why do you believe it is appropriate to change the escalation rate used by FPC to estimate the cost of building a gas fired combined cycle unit in 2014?

A. The escalation rate used by FPC is not the correct price index to use for estimating power plant construction costs. The escalation rate used by FPC is derived from the GDP Fixed Investment. Durable Equipment price index from DRI. This price index is designed to measure price changes of goods that are durable in nature and that are used to equip existing business structures. These goods include office equipment and furnishings, automobiles, personal computers, and light machinery. A more appropriate escalator is the GDP Fixed Investment Public Utilities Structures price index. This price index is designed to measure changes in the cost of building electrical generation facilities, telecommunications facilities, and other types of public utility structures.

Additionally, the construction cost escalation rates used by FPC are taken from DRI's May 1997 ten year forecast and have been extrapolated forward an additional 17 years. The DRI forecasts used in my analysis are takeff from DRI's long term 25 year forecast released in August 1997. These forecasts cover all but the last year of the proposed buy out and, in my opinion,

represent a better basis for estimating NPV savings.

The DRI construction cost escalation rates used in my risk analysis are contained in my Exhibit 3.

Q. What is the impact on the NPV savings resulting from using DRI's escalation rates which you feel are appropriate instead of those provided by FPC?

A. The NPV savings are reduced from $32.7 million to $28.0 million.

Q. What is the impact on NPV Savings when both the fuel forecast assumptions and construction escalation rates are changed?

A. The NPV savings are reduced from $32.7 million to $15.2 million.

Q. Would you please explain why it is appropriate to change the discount rate used by FPC to calculate the NPV savings to ratepayers?

A. Yes. The discount rate used by FPC is the company's current after tax marginal cost of capital of 8.81 percent. This is the appropriate discount rate to use when evaluating projects which are funded through the issuance of FPC debt and equity, and that represent the type of financial risk normally associated with FPC projects.

The proposed buy out, however, is neither being funded by the company nor is it necessarily comparable to normal FPC projects in terms of its

financial risk. Under FPC's proposal, ratepayers are being asked to fund the buy out and are being asked to assume all the financial risk associated with it. Furthermore, some elements of the buy out appear to be much riskier than others. For example, the projected Energy costs under the Replacement Case are determined largely by the future price of natural gas, and are much riskier than the Capacity costs under the Contract Case which are known with certainty. Therefore, a more appropriate discount rate structure to use is one that properly measures the risks ratepayers are being asked to assume and sets the discount rates accordingly.

Q. What type of discount rate structure is appropriate?

A. I believe risk adjusted discount rates (RADR) are the appropriate discount rates to use in evaluating the proposed buy out. This type of discount rate is frequently used in capital budgeting situations where different elements of a project have different levels of risk associated with them. This is very similar to the situation we have here.

Q. How are risk adjusted discount rates calculated?

A. Risk adjusted discount rates are calculated by recognizing that discount rates are composed of two components: a risk free rate and a risk premium. The risk free rate is simply the market's perception of the current time-value of money when there is no risk associated with an investment. This rate is typically measured by the U.S. Treasury Bond rate since it is backed by the

Federal government and is viewed as being virtually risk free. The risk premium is the additional return investors require in order to accept the risk associated with a particular investment. The greater the perceived risk, the greater the risk premium investors will require to accept that risk.

For example, in June 1997, the average 30 year Treasury Bond rate for the month was 6.77 percent and FPC's pre tax marginal cost of capital was 10.20 percent. The risk premium associated with FPC's pre tax marginal cost of capital would be the difference between the risk free rate of 6.77 percent and the pre tax marginal cost of capital rate of 10.20 percent, or 3.43 percent This risk premium represents the investment community's evaluation of the return required to accept the risk associated with projects undertaken by FPC. Furthermore, if another project from another company is viewed as being twice as risky as a project undertaken by FPC, then the risk premium for that other project can be estimated as being twice that of FPC's risk premium, or 6.86 percent. When combined with the risk free rate of 6.77 percent, the estimated risk adjusted discount rate for the other project would be 13.63 percent.

Q. How did you apply the idea of risk adjusted discount rates to the analysis of the proposed buy out?

A. Risk adjusted discount rates can be applied by recognizing that the analysis presented in FPC witness Schuster's Exhibit 7 consists of five separate expenditure flows: the Capacity and Energy costs under the Contract Case (columns 1 and 2), and the Capacity, Energy, and Buy Out costs under the Replacement Case (columns 4, 5, and 6). The values in two of these columns

are known with certainty. These are the Capacity costs under the Contract Case and the Buy Out costs under the Replacement Case. Because there is no risk associated with these expenditure flows, the appropriate discount rate to use is the risk free rate as measured by the 30 year Treasury Bond rate.

Next, the Capacity costs under the Replacement Case (column 4) contain the estimated costs of FPC building and operating an electric generating plant (after including the Variable O&M costs recorded in the Energy cost in column 5). These costs were calculated by FPC by multiplying the estimated cost of building a 79.2 MW plant by a Fixed Charge Rate that incorporates the depreciation expense, taxes, and other expenses associated with operating a plant of this size, as well as a reasonable return on the investment required to build the plant. By assuming that the volatility, or risk, in this expenditure flow is typical of the kind of risk that the investment community associates with all FPC projects, we can then assign FPC's current pre tax marginal cost of capital, 10.2 percent, as the financial market's current assessment of the return required for this level of risk. From this, a risk premium can be associated with the expenditure flow contained in column 4 by subtracting the risk free rate from FPC's pre tax marginal cost of capital. This risk premium is the market's current evaluation of the additional return it requires in addition to the risk free rate to accept the riskiness, or volatility, in this expenditure flow.

Next, risk adjusted discount rates can be estimated for the remaining two columns, the Energy costs under the Contract Case (column 2) and the Energy costs under the Replacement Case (column 5) by comparing the riskiness or volatility in these expenditure flows to the riskiness of column 4, the

costs associated with building and operating a power plant. For example, if the expenditure flow in column 5, the Energy costs under the Replacement Case, are twice as risky as the expenditure flow in column 4, then the risk premium for column 5 would be twice as large as the risk premium measured in column 4. This risk premium, together with the risk free rate, would yield the risk adjusted discount rate for column 5.

As a final step, the risk adjusted discount rates are adjusted for the effect of the ratepayers' income taxes to yield the after tax risk adjusted discount rates. These discount rates reflect the return required to compensate ratepayers on an after tax basis for the risks they are being asked to assume.

With risk adjusted discount rates assigned to each of the five expenditure flows, each expenditure flow can be discounted by its own risk adjusted discount rate to yield its own NPV. The NPVs of columns 1 and 2 are added together to produce the NPV of the Contract Case, and the NPVs of columns 4, 5, and 6 are added together to form the NPV of the Replacement Case. The NPV of the Replacement Case is subtracted from the NPV of the Contract Case to yield the final NPV. If this final NPV is positive, the analysis shows that the buy out proposal more than adequately compensates ratepayers for the risks they are being asked to assume. If the final NPV is negative, the analysis shows that the buy out proposal does not adequately compensate ratepayers for the risk they are being asked to assume.

Q. How did you measure the riskiness, or volatility, in each of the five expenditure flows in order to calculate the risk adjusted discount rates?

A. The risk in each of the five expenditure flows was calculated by inserting DRI's base case, optimistic, and pessimistic 25 year forecast assumptions for fuel prices and construction cost escalation rates in the analysis performed by FPC. The variability in each expenditure flow was compared to its average value to express the variability in percentage terms. For example, if an expenditure flow varied by plus or minus $10, and its average value was $100, its volatility or riskiness would be ten percent. These calculations, along with the derivation of the risk adjusted discount rates for each of the five expenditure flows, are presented in my Exhibit 4.

Q. Would you please describe how you performed your sensitivity analysis?

A. Yes. My sensitivity analysis consisted of calculating three sets of expenditure flows like those shown in FPC witness Schuster's Exhibit 7. One set was based upon DRI's August 1997 base case 25 year forecast assumptions for fuel price and construction cost escalation rates. Another set was calculated using DRI's pessimistic version of the same forecast, and the third used DRI's optimistic version of the same forecast.

These three DRI forecast scenarios represent a reasonable range over which future fuel prices and escalation rates can be expected to vary. Similarly, the expenditure flows derived from these forecast scenarios provide a reasonable measure of the economic risk FPC's proposed buy out presents to its ratepayers attributable to the intrinsic uncertainty of future economic developments.

Q. Would you please explain how you combined the elements you have already described into a final risk analysis of FPC's proposed buy out?

A. Yes. Each of the three sets of expenditure flows calculated in the sensitivity analysis was discounted using the risk adjusted discount rate methodology I have described previously to yield a NPV. Each of these NPVs was then weighted according to the probabilities DRI assigns to each of its three forecast scenarios (base case = 50 percent, pessimistic = 25 percent, and optimistic = 25 percent) and added together to yield a final NPV value called the Expected NPV. From these results, we can obtain an estimate of the likelihood that the NPV of the proposed buy out will be negative.

Q: What do the results of your risk analysis show?

A. My Exhibit 5 presents the results of my risk analysis. This exhibit shows that the NPVs range from a low of negative $38.3 million under DRI's pessimistic forecast scenario, to a base case NPV of $12.5 million, and up to $49.9 million under DRI's optimistic scenario, with an overall Expected NPV of $9.2 million. From these results I conclude that there is approximately a 40 percent chance that ratepayers would be harmed if the proposed buy out is approved, and approximately a 60 percent chance that they would be better off if the proposed buy out is approved.

Q: Did you make any adjustments to this analysis to make it more applicable to the proposed buy out?

A: Yes. Under DRI's pessimistic scenario which gives rise to the negative $38.3 million NPV, natural gas prices are projected to grow much faster than coal prices. It seems reasonable to expect that if this scenario were to occur that FPC would consider generation alternatives to the natural gas fired combined cycle unit used in the analysis. For example, FPC might consider adding a coal gasifier to the combined cycle unit to provide fuel diversity. This would substantially increase the Capacity cost in exchange for the ability to utilize a less expensive fuel. However, it also seems reasonable to expect that if the generation market is deregulated by the year 2014, that FPC might be reluctant to increase its fixed investment in a more expensive plant because of the increased risk exposure such an investment would entail. On balance, it seems reasonable to expect that if natural gas prices escalate as described in DRI's pessimistic scenario, FPC could avoid the higher gas prices by building a more expensive plant, but that course of action is not certain.

To account for this uncertainty, I believe that it is appropriate to reduce the weight assigned to DRI's pessimistic case from a 25 percent probability to a 10 percent probability. This change reflects the likelihood that FPC would react to avoid higher natural gas prices without completely removing the probability that they would choose not to react.

Q: What do the results of your risk analysis show if you make this adjustment to the weight assigned to DRI's pessimistic scenario?

A: As shown in my Exhibit 5, this change increases the Expected NPV from

$9.2 million to $18.7 million, and reduces the chances of the NPV going negative from 40 percent to approximately 33 percent.

Q. How would you compare your risk analysis to that provided by FPC witness Schuster?

A. As I have stated earlier, I believe my risk analysis provides a more comprehensive evaluation of the risk of the proposed buy out. First, it includes the latest available long term forecasts for the key economic assumptions from which the final NPV values are derived. Second, it incorporates a discount rate structure that evaluates the risk that the proposed buy out asks ratepayers to assume at current market rates. Third, it employs a sensitivity analysis to measure the extent to which the final NPV can be influenced by varying economic conditions.

Q. How does your risk analysis differ from that presented by OPC witness Larkin?

A. Mr. Larkin's analysis is similar to mine in the sense that we both believe that the appropriate discount rate to use is the ratepayers' discount rate, not FPC's marginal cost of capital. However, he sets his discount rate within a range of 13 percent to 18 percent by noting that ratepayers typically carry some credit card debt or some other form of unsecured loan. Therefore, he believes the appropriate discount to use in evaluating the proposed buy out is the ratepayers' opportunity cost of using the $49.4 million to pay off

these types of debt.

Q. If both you and Mr. Larkin are measuring the discount rate from the ratepayers' perspective, why are the discount rates different?

A. As I stated previously, Mr. Larkin bases his estimate of the ratepayer discount rate on the ratepayers' opportunity costs, an approach that I believe has merit. The approach I have chosen to take evaluates the proposed buy out as a potential investment opportunity in much the same way that an investor might evaluate the profitability of a long term investment opportunity using capital budgeting evaluation techniques. Stated another way, Mr. Larkin sets his discount rate from the point of view that ratepayers are retail customers of the credit markets while I set mine from the point of view that ratepayers are investors in the credit markets.

Q: Did you perform any other risk analyses on the proposed buy out?

A: Yes. I also performed a risk analysis based upon the same adjusted DRI scenario I described previously but set the discount rate equal to 10.9 percent, mid-way between FPC's rate of 8.81 percent and OPC witness Larkin's rate of 13.0 percent. This discount rate was applied to each of the expenditure flows in the analysis.

Q: What did this analysis show?

A. My Exhibit 5 presents the results of this risk analysis as well. This exhibit shows that the NPVs range from a low of negative $8.1 million under DRI's pessimistic forecast scenario, to a base case NPV of negative $0.9 million, and up to $3.0 million under DRI's optimistic scenario, with an overall expected value of negative $0.5 million. From these results, I estimate that there is a 50 percent chance that proposed buy out would result in negative ratepayer saving, and a 50 percent chance that it would yield positive ratepayer savings.

Q. In your opinion, how should the Commission interpret the results of your risk analyses?

A: I believe my risk analyses demonstrate that the proposed buy out contains a significant degree of risk which could financially harm ratepayers if the proposed buy out is approved. This risk should be balanced, however, against other factors introduced by Mr. Schuster and Mr. Larkin, but which are beyond the scope of my testimony. Their factors include the issue of intergenerational equity, the issue of reducing potentially strandable costs, and the general desire to help Florida's utilities and their ratepayers avoid the very high costs built into the latter years of contracts like this one.

Q. Does this conclude your testimony?

A. Yes, it does.

BY MR. KEATING:

Q Do you have any other changes to make to your testimony or exhibits, Mr. Stallcup?

A No, I don't.

MR. KEATING: The witness is tendered for cross.

COMMISSIONER CLARK: Mr. Howe.

MR. KEATING: Commissioner Clark?

COMMISSIONER CLARK: Yes.

MR. KEATING: I apologize, I did not give Mr. Stallcup the opportunity to summarize his testimony.

COMMISSIONER CLARK: All right. Go ahead, Mr. Stallcup.

A Thank you. The purpose of my testimony is to present the results of a risk analysis I performed on the proposed buyout of the last ten years of the QF contract between Florida Power Corporation and Orlando Cogen Limited. In this analysis I view the proposed buyout as an investment opportunity for ratepayers in which they are asked to invest 49.7 million dollars over the next five years in return for the opportunity to pay lower electric bills in the future.

In conducting this analysis, I modified Mr. Schuster's net-present-value calculation in two ways. First, I reestimated the projected expenditure flows associated with the buyout using economic assumptions

obtained from Data Resources, Incorporated. Second, I applied a discount rate methodology designed to reflect the financial markets current evaluation of the return investors require to accept the risk associated with the buyout.

This discount rate methodology is based upon the following observations: First, the proposed buyout is an option being made available to ratepayers by FPC; therefore, it's appropriate to evaluate the proposal as an investment opportunity.

Second, the buyout is entirely funded by ratepayers and ratepayers are assuming all the risk associated with the projected benefits; therefore, the discount rate should reflect the ratepayers' investment opportunity cost. This rate is not necessarily equal to FPC's marginal cost of capital.

Third, in analyzing components of the buyout proposal, it is clear that some of the elements of the buyout are riskier than others and, therefore, require a different risk premium in order to compensate investors for accepting that risk. This leads to the adoption of risk-adjusted discount rates which allows the discount rate structure used to evaluate the buyout to reflect the varying degrees of risk found within the proposal.

Fourth, because the ratepayer expenditure flows

associated with the existing contract and the proposed buyout case are all cash outflows for ratepayers. I subtracted the risk premiums to correctly reflect the fact that ratepayers as investors in this proposal must be compensated for the risks they are being asked to assume.

Given these modifications, I was able to calculate the probability that the proposed buyout will either succeed or fail in providing an adequate return to ratepayers. Based on this analysis, I conclude that there is approximately a 75% chance that the proposed buyout will succeed in providing an adequate return to ratepayers and approximately a 25% chance that the proposed buyout will fail to provide an adequate return.

Q Does that conclude your summary, Mr. Stallcup?

A Yes, it does.

COMMISSIONER CLARK: Let me just -- Thank you. What is the appropriate order here? Is it you, Mr. McGee, and then Mr. Childs and then Mr. Howe, or does it matter?

MR. McGEE: It may be appropriate to start with Mr. Howe.

COMMISSIONER CLARK: Mr. Howe.

EXAMINATION

BY MR. HOWE:

Q Mr. Stallcup, under the first five years, 1997 through 2001, what is your understanding of the payments

that Florida Power Corporation expects its customers to make?

A In each one of those years, the expectation is that ratepayers would pay under the proposed buyout a little less than 10 million dollars per year.

Q And to be a little more precise, would that be nine million 881 thousand?

A Yes, I believe that's a correct figure.

Q Mr. Stallcup, did you hear Mr. Schuster's testimony yesterday?

A Yes, I did.

Q Did you hear Mr. Schuster testify that the buyout costs would not be currently tax deductible to Florida Power Corporation?

A I believe I heard that, yes.

Q Mr. Stallcup, would you agree that if the buyout costs are not tax deductible to Florida Power Corporation in the year in which it occurred that the receipt from customers of $9,881,000 per year will be treated as taxable income?

A I don't know, Mr. Howe. I'm really not a specialist in taxes. I think I follow the logic of what you're saying, but not being an expert in tax law, I really don't know how to answer your question.

Q Would you know whether, if the receipts from the

customers would be treated as taxable income because the expense to Florida Power Corporation would not be tax deductible, that for Florida Power Corporation to recover $9,881,000 per year from its customers, it would have to charge its customers a larger amount?

A If it were taxable?

Q Yes, sir.

A That would be correct; that logic flows.

MR. HOWE: I have no further questions.

COMMISSIONER CLARK: Mr. McGee.

EXAMINATION

BY MR. McGEE:

Q Good morning, Mr. Stallcup.

A Good morning.

Q I have some questions for you on your risk-adjusted discount rates that you used in calculating the net present value of the ratepayer benefits from the buyout.

A Okay.

Q I think you've covered this in your summary. I just want to make sure we are clear. You've accepted the general framework that Mr. Schuster used in his testimony for calculating the NPV benefits, and you've applied that same framework for your analysis?

A That's correct, yes.

Q Okay. And as I understand it, as a general structure over this approach, you've developed two scenarios, one that deals with the contract case; and in there you developed capacity and energy costs assuming that the OCL contract will be in effect for its full term. And then the other scenario that we have called the replacement case is one where you develop energy and capacity costs as well as treating the buyout costs assuming that the last ten years of the contract would be terminated and it will be replaced by a combined cycle unit?

A Yes, that's correct. That's basically Mr. Schuster's methodology, and I adopted that as well.

Q Now you indicated in your summary that you had two differences, made two changes to the approach that Mr. Schuster used, and one of them you identified as using forecast information that was developed -- or that was provided to you by DRI. Am I correct that that consists of the use of DRI fuel forecasts as opposed to the Florida Power fuel forecast that Mr. Schuster used?

A That's correct.

Q And also, you used a different DRI index than Mr. Schuster used to escalate the cost of the combined cycle unit?

A That's correct.

Q And then the other difference is the use of the

risk-adjusted discount rates?

A That's correct.

Q All right. When you -- the approach, as I understand it, that you've used in developing these risk-adjusted discount rates is that you start out by trying to identify two components, a risk-free rate that you equate to a 30-year Treasury Bill; and then you identify a risk component that is reflective of Florida Power's overall or average risk by subtracting the risk-free rate from Florida Power's marginal cost of capital; is that the approach so far?

A Yes, but I think it could be made clear if we back up just a step and separate things just a little bit.

Q Sure.

A What I do is I recognize that interest rates, discount rates consist of two components. There is a risk-free rate that is generally accepted to be accurately measured by long-term treasury securities, and then there is a risk premium that is considered as well that is combined with the risk-free rate to account for the variability associated with a particular investment that you're looking at. I used that information to calculate the risk premium associated with Florida Power Corporation's debt and equity.

Q All right. And that risk premium that you

derived is representative of Florida Power's overall risk as a corporation?

A That's correct, yes.

Q Then going from that point, as I understand your approach, you take that average risk premium and you adjust it to reflect the relative risk that you associate with each of the cash flows that have been identified for the two scenarios, that being energy and capacity in the contract case and energy, capacity and buyout costs in the replacement case?

A Generally that's correct. Let me just modify that a bit and make sure we are on the same page here.

Q Sure.

A Yes, I took Florida Power Corporation's pre-tax marginal cost of capital, and from that I subtracted the risk-free rate to get the risk premium associated with variability or the risk associated with Florida Power Corporation and used that risk premium as the basis to calculate the risk premiums associated with other components of the proposed buyout. That would include the fuel component of the contract case and the fuel component, energy component of the replacement case.

Q Okay. All right. And then after you've developed these adjusted risk premiums, you apply them and the risk-free rate to each of the cash flows to determine a

net present value. You sum those for the replacement case, you sum those for the contract case, subtract the two and come up with an overall net present value?

A That's correct.

Q Okay. You may need to help me here. I have been looking at your Exhibit PWS-4 that was attached to your testimony, and I understand you've developed and handed out a revised PWS-4?

A Yes, I did.

Q Has that been identified?

COMMISSIONER CLARK: It's part of Exhibit 12?

Q All right. I would like to ask you some questions about PWS-4 to hopefully walk through a couple of these columns to make sure we understand how this approach is actually being applied. In your, in the lower left corner of that exhibit, you have a series of numbers that is captioned "Risk Premium Derivation."

COMMISSIONER GARCIA: Mr. McGee, which one are we working off of?

MR. McGEE: Well, I think for purposes of what I am describing right now, it's the same, essentially the same in both exhibits.

COMMISSIONER GARCIA: Okay.

BY MR. McGEE:

Q Maybe if -- It would be helpful to me,

Mr. Stallcup, if we used your original exhibit, and then you can explain to me how the revised exhibit is modified from that.

A That will be fine.

Q That will be fine? Okay. So if we are looking at your original PWS-4 that was attached to your prefiled testimony, in the bottom left-hand corner we have a risk premium derivation, and that shows what we had just described before. The 6.77 is what you've used as the risk-free rate?

A That's correct.

Q And the sum of the third column shows 3.25%, and that is the risk premium that is reflective of Florida Power's overall risk?

A Actually that is the average of that column.

Q Okay. So it is reflective of Florida -- Then that would be reflective of Florida Power's average risk?

A That's correct.

Q Okay. One point that I had a little difficulty following, in your testimony on pages 9 and I think again on page 10, you refer to Florida Power's average cost of capital as being 10.20; but when I add these two numbers together I get 10.02. Was that just a transposition error, or --

A I think it may be. I think the correct number is

10.02 rather than 20. I believe that's correct, but I'll have to go back and check.

Q Well, but I mean your calculation of the actual risk-adjusted discount rate is based as a starting point on this 10.02; is that correct?

A The calculations of my risk-adjusted discount rates are based upon the 6.77 and the average of the risk premiums of 3.25, and the 3.25 is derived from the numbers you see above that I've labeled column 1 and 2. And it does appear, and I'll have to go back and check and see if this is correct or not, that the June '97 value for Florida Power Corp's composite cost of capital is listed here as 10.02; and that number would be included in the calculation of the average risk premium that I used in my analysis.

Q It would be included, but when you go through the math, you end up with an overall cost of capital, a marginal cost of capital for Florida Power of 10.02, which is the result of adding together your two figures at the bottom?

A I'm really not following you, I'm sorry.

Q Well, in your risk premium derivation, looking at your original PMS-4, you show --

A It's in the exhibit here, okay.

Q You show 6.77 as the risk-free rate, and you show 3.25 as the risk premium?

A Yes.

Q When we add those two together, that comes to 10.02?

A Oh, I see what you're saying. Yes, that's true.

Q Okay. And then if we go up to your column 1, as I understand what you're saying there, that the capacity payments under the contract are known with relative certainty and so you have assigned no risks to them?

A That's correct.

Q And that's reflected on the line that says "Relative risk premium, zero," meaning that there isn't a risk premium, and that shows also on the following line. If we go over to column 2 and we look at the line that is identified as "Relative Risk," there you show a figure of .93. Now I take it that means that you concluded for that column that the risk is less than Florida Power's average?

A Yes, that's correct. To be more appropriate, the risk in that column is less than the risk observed in column 4, which is the basis upon which I derive the remaining columns, the relative risks of the remaining columns.

Q Okay. You haven't determined that the risk for the energy costs in -- the cash flow in column 2 is less than the risk for the capacity cost in column 4. You multiply 9.3 times 3.25, and is that how you derived the

figure of 3.03 on the line entitled "Relative Risk Premium?"

A That's correct.

Q Okay. And if we go by way of example to column 5, you identify there a relative risk of 1.39. I take it that that means that you have determined that the cash flows for energy under the replacement case have a greater than average risk or greater risk than the averages you show in column 4?

A Yes, what that number means is that the risk associated in column 5 is 1.39 times greater than the risk observed in column 4.

Q Okay. Now if we -- well, go back to column 2. We've talked about the relative risk of .93 and how that produced the relative risk premium of 3.03 on the next line. How did you then derive the risk-adjusted discount rate of 3.74 on the line below?

A 3.74, my risk-adjusted discount rate, is calculated by subtracting 3.03, the risk premium, from the risk-free rate of 6.77.

Q And why did you subtract the risk premium from a rate that already includes no risk?

A The appropriate treatment for this, the reason for subtracting the risk premium is because these cash flows being described in the proposed buyout are cash

outflows from the point of view of ratepayers, and the appropriate way to compensate an investor for a risky cash outflow is to subtract the risk premium; that is, to make the rate at which he is having to pay lower. That compensates him for accepting that risk.

Q And do you have any authority for the use of that approach of subtracting a risk premium for a higher risk?

A Yes, I have -- I've relied on several sources. It includes academic sources, experiences from everyday world, and -- well, several others we can go through if you like.

Q In your deposition, didn't you identify as a source a reference to a text authored by Professor Brigham?

A Yes, I did.

Q Okay. And I'm having a copy of that passed out right now. This is an excerpt from your Deposition Exhibit 7, and it contains the relevant portions. I would like to ask you though if you would look through that and make sure that is the portion of your exhibit that deals with relative risk premiums and risky cash outflows?

A Okay.

(WITNESS REVIEWED DOCUMENT)

A Yes, it is.

MR. McGEE: Okay. Madam Chairman, I'd ask that this be marked for identification.

COMMISSIONER CLARK: Yeah, we'll mark it as Exhibit 14.

BY MR. McGEE:

Q I'd like to ask you, Mr. Stallcup, if you would review that and show me in there where Professor Brigham discusses subtracting a risk premium from a risk-free rate.

A Okay. Inside the exhibit here are three pages from the text, and it goes from page 403 to 405. I believe the single most appropriate cite out of this entire discussion would be on the second page, 404, on the sentences which I have underlined and indicated with an arrow. This sentence reads, "In this situation, the decision maker must apply risk adjustments to cash outflows, and the risk adjustment for a risky cash outflow is the exact opposite of that for an inflow or the normal risk adjustment."

Q All right. And that's your basis for making a subtraction, meaning the opposite effect that you would apply in a normal situation where you have risky cash inflows. What I'm asking is not so much the authority for the subtraction that you make but making that subtraction from a risk-free rate. Does Professor Brigham indicate that that's appropriate in this text?

A No, he doesn't. As a matter of fact, in this

article here, the example that he cites is one in which a hypothetical utility -- well, actually it is an actual utility company, Midwest Electric, is selecting between two generation alternatives. One is a nuclear plant, and one is a coal plant; and both of these alternatives would be funded by the debt and equity of that company. And so to account for the risk for an internally funded project such as these two are, the risk adjustment would be made to the company's marginal cost of capital; and that's the example cited in this particular excerpt.

Q So this is not authority for subtracting your risk premium from a risk-free rate; is that correct?

A This example does not cite that, that's correct.

Q And Professor Brigham indicates both in his text and by way of example that the subtraction that he endorses for risky cash outflows would be made to a utility's marginal cost of capital; is that correct?

A In this discussion here it's correct, that he says that for projects being funded by a company's debt and equity the correct adjustment would be to the company's marginal cost of capital, that is correct.

Q Right. And one would presume that the projects that were being evaluated, the coal plant and the nuclear plant by Midwest Electric, the purpose of that evaluation would be to determine the most cost-effective alternative

for putting into rate base and, therefore, in customer rates; would that be a logical assumption?

A Yes. Yes, I agree with that.

Q One other point I wanted to ask you about on this text, when Professor Brigham makes his adjustment, and as illustrated by his example, he makes that adjustment only to the risky cash flows that he determines -- well, let me rephrase it. He makes it to the cash flows that he determines to be of higher than average risk but not to the cash flows that are, that he evaluates as having average risk? In this case he makes the downward adjustment only for the nuclear plant and not for the coal plant; is that correct?

A Yes, I think for the point of illustrating how you treat risk premiums. Under the situation of whether he entitles risky cash outflows, he just made that single adjustment, but I believe that's only appropriate because he wanted to illustrate his point; but here I'm trying to figure out what Mr. Brigham intended as opposed to what is actually said, so it's kind of hard to say.

Q Well, doesn't he indicate when he is explaining his method, this somewhat counterintuitive approach, that the objective is to penalize the cash flows that are associated with higher risk so that you reach a result that seems more appropriate?

A That is correct, that what he is trying to do is adjust the risk premiums and, therefore, the discount rate in such a way that you end up with intuitively consistent results. I'm not sure -- From my point of view anyway, even though -- Well, from my point of view, I'm not sure it's necessarily counterintuitive that you subtract the risk-free rate -- excuse me, you subtract the risk premium. To me it is intuitive that you do that for cash outflows. I would agree, however, that -- and consistent with what Doctor Brigham says here -- it is different from how you normally think about it with respect to investments in which you have cash inflows, such as stocks and bonds and perhaps investment projects that companies might be considering engaging themselves in.

Q But you would agree with me that he explains his rationale for making this subtraction because it's necessary to achieve the right result?

A Correct.

Q And if the objective is to penalize that risky cash outflow, then there would be no need to perform that same operation on a cash flow as he shows here for the coal plant that isn't risky relative to the nuclear plant?

A That's correct, yes.

Q If you'd look back to your PWS-4, isn't it true --

COMMISSIONER CLARK: Let me ask you a question. In order to agree with what you've done, we would have to agree with your conclusion that -- What is the risky cash outflow that you're discounting for or that you are subtracting for?

WITNESS STALLCUP: In the buyout proposal?

COMMISSIONER CLARK: Yes.

WITNESS STALLCUP: Okay. The risk arises from column 2 of the contract case, that's the energy component of the contract, and that has risk associated with it because of the uncertainty associated with coal prices. The variability in the coal prices cause the net present value to change, therefore, there is risk associated with it.

There is also risk associated with --

COMMISSIONER CLARK: Let me ask it a different way.

WITNESS STALLCUP: Okay.

COMMISSIONER CLARK: Why is this a riskier cash outflow than a normal risk adjustment?

WITNESS STALLCUP: Column 2? I'm sorry.

COMMISSIONER CLARK: You've got to tell me like in walking-around words.

WITNESS STALLCUP: Okay.

COMMISSIONER CLARK: I understand or I can buy

into the mechanics of it if I can buy into the philosophy, and I don't understand the subtraction, why it is appropriate to subtract it.

WITNESS STALLCUP: Why is it appropriate to subtract the risk premium?

COMMISSIONER CLARK: Yeah, I'm looking at Mr. Brigham's article.

WITNESS STALLCUP: Okay.

COMMISSIONER CLARK: He specifically links it to the cost to decommission a radioactive plant, and he seems to ascribe to that the fact that that's very risky because I don't know that anyone has done it, at least to the point of being able to completely shut down a plant, and so the risk or the amount of outflow is probably very volatile, or nobody can predict it; but for things known, such as the investment in a coal plant, I guess those are things that are more in line with the natural business of utilities; it's been accomplished before.

WITNESS STALLCUP: Yes.

COMMISSIONER CLARK: That is what I get from his article. Would that be correct?

WITNESS STALLCUP: Okay. Yes. Shall I respond at this point?

COMMISSIONER CLARK: Yes.

WITNESS STALLCUP: Okay. I agree with you that

the risk associated with the coal plant is very typical and what we are used to, and that risk that we are used to is seen in my column 4 of the risk-adjusted discount rates. That's where I make an assumption that the cost associated with building the replacement cases combined cycle plant is basically equivalent to the risk we are used to seeing in utility operations, so that's where I derive my risk premium.

COMMISSIONER CLARK: Okay.

WITNESS STALLCUP: Now the next step is to observe that what we are looking at in the buyout is a proposal in which customers are asked to pay all of the cash flows. Under a typical, normal case as Doctor Brigham calls it, the risk premium is appropriately added because it's -- those are returns investors expect to receive; and because those are cash inflows to investors, the risk associated with regular utility operations is added to the risk-free rate to compensate investors for accepting the risk associated with normal utility operations.

COMMISSIONER CLARK: And the risk is they won't get their money, right?

WITNESS STALLCUP: Yeah, there will be variability in the amount of money that they get.

COMMISSIONER CLARK: Okay.

WITNESS STALLCUP: Where things kind of flip

around, if you will, and maybe this is where I lost you, if you will, is that what we are looking at here are risky cash outflows to the investors such that you don't add the necessary compensation to accept the risk to the risk-free rate. You subtract it from the risk-free rate, and there are examples of this in the real world where this is actually done. There are variable rate mortgages. There are variable rate bonds where the rates paid by people who are paying the return on these instruments are actually paying rates less than the risk-free rate, and those are real-world examples of where the risk premium is subtracted because the person issuing the security or responsible for the investment is assuming the responsibility for, or accepting the risk themselves, and in order to be compensated for accepting that risk, are paying a lower rate.

So there are really two things going on here, Commissioner. One is that the risk premium is set to the capacity column in column 4, and that's based upon normal utility operations; that's an assumption I made. It's a pivotal assumption. The next thing that I did was that I recognized these are cash outflows rather than cash inflows, which requires a subtraction of the risk premium to compensate investors for accepting the risk associated with that investment.

COMMISSIONER CLARK: Go ahead, Mr. McGee.

BY MR. McGEE:

Q Let me follow up a little bit on that. Looking at PWS-4, your column 2 under the contract case, energy payments, just to be clear, you've identified that there is a risk that's associated with those energy costs unlike the capacity cost in column 1, but you've identified the fact that that risk is less than the average risk that you're applying to this; is that correct?

A It's less than the risk observed in column 4, yes. I think calling it an average risk might be misleading. I used it as a benchmark, if you will, a means to implement the methodology. In the literature, there is something called an implementation problem, and that's a problem where you have to figure out a methodology by which to establish a risk premium, and as it happens, this proposal presented a means by which to implement risk-adjusted discount rates, and that's done by identifying column 4 as being the benchmark, if you will, the benchmark risk premium column.

Q And I don't mean to quibble over the labels that we put on this.

A Okay.

Q But I was referring to this as an average risk that you are using in column 4, because you had indicated

earlier that the 3.25 risk premium that you identified from Florida Power overall represented the average risk of Florida Power?

A Yes. Okay.

Q All right. Now we had discussed just a minute ago that in Professor Brigham's example where he is evaluating two cash flows he penalizes only the one that he regards as having a higher than average risk?

A Yes.

Q He makes no such adjustment to the one with an average risk. In your column 2, you have identified a risk that is less than average, the 3.03, but you have nonetheless subtracted it; is that correct?

A That's correct.

Q Let me ask you if you would agree with me that there is another way of applying Professor Brigham's treatment of risky cash outflows that at least could be applied to the development of risk-adjusted discount rates, and that would be, to reduce those cash flows that you have identified as having higher than average risk, you would make the subtraction that Professor Brigham endorses. With that reduced risk premium to reflect riskier cash outflows, you would add that to the risk-free rate. Is that a way that this adjustment could be made?

A Would you repeat that for me, please?

Q Yeah, and I'm basing this approach on your development of risk-adjusted discount rates with a modification. You have already identified the particular columns that you have concluded have higher than average risk. That's the situation that Professor Brigham was dealing with in his example with the nuclear plant, had higher than average risk.

A And which columns are those?

Q Well, those would be columns 5 -- well, let's just look at column 5.

A Okay.

Q Now you've identified that as having a risk of, a relative risk of 1.39?

A Yes.

Q And you have added that additional risk to the average risk, 3.25, to come up with the relative risk premium you show of 4.53; is that correct?

A It's scaled up, yes, by that factor.

Q Now what I'm suggesting is a way to applying of Professor Brigham's treatment of risky cash outflows would be to subtract that increment of higher risk from 3.25 and come up with a reduced risk premium, use that in conjunction -- add to the risk-free rate and use that for purposes of developing net present value. And my question is, is that an approach that could be used consistent with

Professor Brigham's treatment?

A No, I don't believe it would be, and the reason I have trouble accepting that alternative is that I draw the distinction on the treatment of risk premiums as being added or subtracted based upon whether or not they are cash inflows or outflows, particularly with respect to the buyout. I think a risk-free investment rate is a reasonable benchmark around which to evaluate ratepayer investment opportunity costs, so in this particular -- There may be situations where what you're talking about would be appropriate, but I have difficulty with it because it doesn't resolve, in my mind, the proper way to treat risk and cash outflows versus inflows and also the way that it might fit into the proposed buyout that we are looking at here.

Q But you would agree with me that Professor Brigham didn't make a downward adjustment for cash flows of average risk?

A I beg your pardon?

Q I asked if you would agree with me that in Professor Brigham's example he did not make a downward adjustment for cash flows other than those of higher than average risk?

A I believe in his example he had two alternatives, one identified as being average in risk, if you will, which

would correspond to my column 4; and then another project that had higher than average risk, which would correspond to my column 5. I don't believe he had in his example cash flows of less than average risk, if you will, which would correspond to perhaps my column 2.

Q Well, isn't your column 4 representing the capacity cost in the replacement case?

A Yes.

Q Isn't that analogous to the coal plant in Professor Brigham's example because --

A Yes, that's correct.

Q And Professor Brigham made no adjustment for that average risk, but in your column 4, you have subtracted the risk premium from the risk-free rate; is that correct?

A That's correct, yes.

Q Okay. Have you ever proposed the use of a risk-adjusted discount rate in any other proceeding before?

A No, I have not.

Q Do you know of any instance where any member of the staff has proposed the use of a risk-adjusted discount rate in a commission proceeding?

A No, I'm not. I'm not aware of one.

MR. McGEE: Thank you.

COMMISSIONER CLARK: Mr. Childs.

EXAMINATION

BY MR. CHILDS:

Q Good morning.

A Good morning.

Q First I want to ask you to refer to your document that shows -- it's a graph of forecast prices for natural gas, and it's entitled "Comparison of 26 Years Natural Gas Forecast." Do you have that?

A Yes, I do.

COMMISSIONER CLARK: What is it? Is it PWS what?

MR. CHILDS: PWS-1.

COMMISSIONER CLARK: Okay.

BY MR. CHILDS:

Q In your testimony you identified these various forecasts here as being submitted by other Florida utilities in their 1997 ten-year site plans; is that correct?

A I can't remember the exact words I used; but, yes, they are all -- I do attribute these to the ten-year site plans.

Q Okay. And you describe these, I believe in your testimony, as consensus, the consensus forecasts; that is, the ten-year site plan?

A That was my inference, yes. I believe I stated in my testimony that I could look at these projections contained on this graph and conclude that taken together in

a loose judgmental way you could see what a consensus forecast would be.

Q Okay. But would you agree that what your Exhibit PWS-1 actually shows is the ten-year site plan forecast for utilities, most of which conclude in the year 2006 or 2005?

A I'm not sure if it's most; but, oh, say roughly half, yeah.

Q Okay. And then you have escalated those forecasts that terminate at the earlier date throughout the period 2023?

A For those -- Yes, the way I developed this graph is that I took the fuel price projections contained in the ten-year site plans, and for those utilities that only produced fuel forecasts through 2005 or 2006, I took the last year's growth rate observed in their forecast and carried it forward for the remaining 27 years.

Q But it is correct that these, for those forecasts where you made that calculation, that the resulting forecast for the year 2023 is not properly identifiable as being a utility gas forecast?

A It would be correct that it would be based upon the utility company forecast, but I performed the extrapolation, they did not.

Q Do you know whether the utilities that presented these gas forecasts foresaw the same economic conditions?

A I beg your pardon?

Q Do you know whether the electric utilities that presented the forecasts that are included in your Exhibit PWS-1 foresaw the same economic conditions?

A No, I did not.

Q Did you ask them?

A No, I did not.

Q Did you review their ten-year site plan to see if there was a difference in assumptions by the utilities?

A No, I did not.

Q Now as I understand your testimony, you have used or you've referred to these other forecasts as a basis to support the reasonableness of the DRI fuel forecasts that you have used later on in your testimony; is that a correct assumption?

A Yes, it's correct that I compared the DRI forecast to these other forecasts for fuel prices to the other utilities in the state to determine if the DRI forecast somehow looked out of the ordinary with respect to what other utilities in the state were forecasting. I used it as a device to determine the reasonability of DRI's forecast.

Q And then if I look at PWS-1, I will see what you have identified in the second box in the legend on the right as the DRI base-case forecast that you plotted on

this graph?

A That's correct.

Q But you have not shown the pessimistic DRI forecast anywhere on this graph?

A That's correct.

Q Would the pessimistic case for DRI be consistent with what you've characterized to be the consensus?

A If we were to plot the DRI pessimistic gas price forecast, it would lie about two thirds of the way between the DRI forecast -- I'm sorry, the pessimistic or the optimistic?

Q Pessimistic.

A Oh, pessimistic would lie about as far above the base-case forecast as the Power Corp forecast lies below it.

Q Okay.

A And if you would like, I can point you to where the numbers in that gas price forecast are contained.

Q I think those are in your PWS-2.

A I believe they are, yes.

COMMISSIONER CLARK: I'm sorry, Mr. Stallcup, would you say again where the pessimistic case graph would lie approximately?

WITNESS STALLCUP: Okay, give me just a second so I can make sure I can get it right.

(WITNESS REVIEWED DOCUMENTS)

WITNESS STALLCUP: The pessimistic gas price forecast would begin at the same point as the base case but would end in the year 2023. I'm going to point here a little bit. Over on the right-hand access, there at the top index line here, about halfway along that top box is where it would intersect the year 2023, right there (indicates). The actual numerical value in that year is $10.57.

Q So you would plot that $10.57 on this chart at the place where you indicated?

A Yes, that's correct, 10.57.

Q Isn't the $10.57 price exclusive of transportation?

A Yes, I believe it is.

Q So if we added the transportation cost to this, would you agree that it would be off the chart?

A I'll agree subject to check. I can't remember what the value of transportation is in that year.

Q All right. Now is it correct that the basis for the pessimistic and optimistic DRI fuel forecast that you have included in your testimony --

A Excuse me. Excuse me, sir. May I check something?

Q Sure.

A Because I may have answered you incorrectly.

(WITNESS REVIEWED DOCUMENT)

A I'm sorry, I did answer you correctly. The prices plotted for DRI do not include transportation.

Q All right. Therefore, it would be off the chart?

A Yes.

Q Now is it correct that the basis for your data on Exhibit PMS-2 as to DRI fuel forecasts, the pessimistic and the optimistic, is a telecopy from Standard and Poors dated September 17, 1997?

A That's correct.

Q And so this data is not published in generally available data, would you agree?

A Part of it is, part of it is not. What the base-case price escalators labeled here as the trend long, that's DRI vernacular for base case, is published to those people who subscribe to the DRI services; however, the optimistic and pessimistic cases are not published and you can only obtain them if you call and ask.

Q And also, the conditions, the specific conditions related to this fuel forecast, the pessimistic case and the optimistic case are not published either, are they?

A I beg your pardon?

Q The data in which the optimistic and pessimistic forecasts are based, that is, the assumptions on which the

forecasts for DRI are based other than trend long are not published either and then, therefore, not generally available?

A No, that is not exactly correct. The scenarios under which the base case, optimistic and pessimistic cases, are generated are verbally described in the publication; but the specific numbers, calculations and models themselves, if you will, that produce the forecast are not published.

COMMISSIONER CLARK: Pessimistic case means it's going to be higher than predicted, right?

WITNESS STALLCUP: Yes, that's correct, and optimistic is that inflation will not be as high as the base case and, therefore, prices are lower.

COMMISSIONER CLARK: And this is for people who buy gas as opposed to people who sell it; is that right?

WITNESS STALLCUP: The gas price forecast we are looking at here? Yes, this is the price that is a utility natural gas price, is what DRI forecast, and it's the price that utilities pay for natural gas.

COMMISSIONER CLARK: Do they call it the pessimistic case?

WITNESS STALLCUP: Their vernacular is pessilong for pessimistic long-term forecast, and then they add to the end of that the date that the forecast was generated;

but yes, they do call it a pessimistic case. It's pessimistic in the sense that inflation will be higher than anticipated, and that's in their view a pessimistic economic outlook.

COMMISSIONER CLARK: Okay.

Q Would you turn to your Exhibit PWS-2 and look at the column on the, it's three columns on the right. It says PPI natural gas prices, and then trend long, pessilong and optilong.

A I have it.

Q And those really are the forecast prices that you have used in conducting your sensitivity analysis and your computation of the risk-adjusted returns; is that correct?

A That's correct. What's contained here for the 1997 price is Florida Power Corporation's price for natural gas, excluding of transport. Then I took Power Corp's 1997 number and escalated those prices based upon the DRI escalation rates for each one of the economic scenarios.

Q Is the DRI -- are the DRI forecasts, trend long, pessilong and optilong, are those for spot market prices?

A I believe it's a composite of all prices. That's the way it --

Q You believe it's a composite?

A Yes, that's the way it was described to me. What

I did when I obtained my assumptions from DRI is I called them and said, This is the situation that I'm dealing with. What are the appropriate price indices to use? And they pointed me to these particular indices, and so I relied on their judgment as this is the proper price index to use; and so I would presume it is an overall composite cost of what it costs to deliver gas. They don't specifically break it down into firm prices or spot prices.

Q Do you know -- well, no, I'm distinguishing between spot prices -- Well, let's ask the question this way. Do you know whether it includes the price for interruptible gas?

A I would presume that it would, if it's supposed to properly account for all prices.

Q Is it a national average?

A Yes, it is. It is a national average.

Q Do you know whether there are any reporting services that report the price of natural gas on a sector basis?

A I believe that there are.

Q Have you reviewed those?

A No, I have not.

Q Do you consider yourself an expert in the forecasting of natural gas prices?

A No, I would not.

Q Do you consider yourself an expert in the forecasting of any fuel prices?

A Only to the extent that I know where to go to get reputable escalation rates on a national average basis and then apply those escalation rates to existing gas prices within a region and, thereby, presume that I've probably accounted for any regional differences, at least initially during the first years of the analysis, accounted for any regional differences that may exist across the country.

Q I take it that these prices are supposed to be well-head prices?

A I believe they are -- yes, they are commodity prices, yes.

Q Okay. Now would you then suspect that the commodity dealers that were selling natural gas would have, if they paid the fee, would have access to the DRI forecast of prices?

A Oh, yes.

Q And if they were approached by someone to contract on a long-term basis for natural gas, would they rely upon this data as the basis for signing a contract?

A I don't know.

Q Well, that's important in knowing the risk, isn't it?

A They may use these numbers to help assess the

risk, but whether or not they would base their contractual terms on these particular numbers, I have no way of knowing.

Q Well, would you expect, or did you account for in your estimate whether a supplier of gas might be willing to sign a long-term contract for gas at a price that was significantly below the pessilong level that you have shown here?

A No. The only application I used for these prices was to include it in my analysis to measure the sensitivity of the contract buyout to expected variations in gas prices.

Q And I think that's what I'm trying to get to, is that if you have -- You have determined the variation in gas prices by your selection of the DRI forecast, correct?

A Yes, that's correct.

Q And then you have used that variation in forecast prices that you selected in quantifying the risk associated with this project in a later calculation that you performed?

A That's correct.

Q What I'm asking you is did you consider that this risk that you assume exists doesn't exist at all?

A I did not consider that.

Q Are you familiar with this Commission's decision

recently in the Tallahassee, City of Tallahassee determination of need proceeding?

A I'm familiar with that proceeding.

Q Would you agree that in that proceeding the City of Tallahassee submitted several forecasts of gas prices and also maintained to this Commission that bids that it had received were below those forecast gas prices?

A I am aware that in that proceeding the gas price forecast did appear lower than perhaps some expected, but beyond that, I have no further knowledge.

Q I want to pass out a copy of that order, please. It's the order from the Commission, and it is Order Number PSC-97-0659-FOF-EM.

COMMISSIONER CLARK: You want us to take official recognition of that notice?

MR. CHILDS: I ask that you do that, please.

COMMISSIONER CLARK: All right. We will take official recognition of 97-0659-FOF-EM.

BY MR. CHILDS:

Q Mr. Stallcup, there is a section in that order, section IV, Roman numeral IV, headed "Fuel Supply, Transportation and Storage." Would you turn to that? I don't have a page reference because my copy of the order is from the computer instead of the --

A Okay. Of section IV, you say?

Q Heading Roman numeral IV.

MR. KEATING: That's page 16.

Q Okay.

A I see section IV, "Fuel Supply, Transportation and Storage."

Q Okay. Now would you turn to the third full paragraph under that heading?

A I see it.

Q And then would you read from the bottom of that paragraph the sentence starting seven lines from the bottom? It starts with the words, "Although the City's."

A I see it. Shall I read? "Although the City's natural gas price forecast is significantly lower than most external forecasts, the City considered this actual competitive offer to be the best current indicator of future or natural gas prices." Exhibit 2, page 84, "The City also believes that long-term price bids typically include a risk premium in the latter years and, thus, represent a conservative (high) estimate of actual fuel prices."

Q Okay. Would you accept, or do you know -- do you know whether this Commission accepted the rationale of the City of Tallahassee and concluded that the proposed bids that were lower than forecast were reasonable?

A I don't know.

Q Okay.

COMMISSIONER CLARK: Mr. Childs, is it in the order somewhere?

MR. CHILDS: Yes, but he said he wasn't familiar with it, so I was --

Q If you will turn to 1, 2, 3, 4, 5 paragraphs beyond that, the paragraph starts with, "The City's August 1995, RFP."

A Yes.

Q And if you will read in the middle of that paragraph, it says, "Both bidders." Do you have that language?

A Yes, I do.

Q And it reflects that both bidders updated their offers, and the City believes it can purchase natural gas at a lower price than was contained in their original offer, right?

A Yes.

Q And then ultimately, the bottom sentence in that paragraph states, "We believe this decision by the City is reasonable and prudent." And in that context, wouldn't you conclude that this Commission was aware that a bid price was substantially low for natural gas and substantially below the forecast price for natural gas as a first point?

A It appears to be.

Q And that the City maintained to this Commission that the forecast -- excuse me, that the bid price was a reasonable estimate as opposed to the forecast, which the Commission accepted as a principle?

A It appears to be from the excerpts that I have read here, yes.

Q And further, that although the bid was below the forecast, the City elected not to sign a contract based upon that bid but to wait until some future date?

A Yes.

Q Wouldn't that suggest to you -- And the Commission found that to be reasonable?

A Yes.

Q Wouldn't that suggest to you that they didn't expect the natural gas forecast to increase from that point forward?

A Perhaps.

Q Okay. How do you think that Florida Power Corporation could obtain the same kind of a bid for natural gas that the City of Tallahassee could obtain or did obtain?

A I don't know.

Q Okay. Would you agree that the electric utilities have the obligation to provide service to their customers?

A Yes, they do.

Q And that Florida Power Corporation's obligation to serve and its need for power was the basis for the contract that it signed with OCL?

A Yes, I'll accept that.

Q And wasn't the price of the payments under that contract evaluated by this Commission on the basis of a forecast of Florida Power Corporation's cost to build and operate a power plant?

A That's correct.

Q And absent that contract with OCL, wouldn't Florida Power Corporation have had to build and operate a power plant to meet its obligation to serve?

A I presumed that to be correct, yes.

Q When the Commission evaluated the OCL contract, did it evaluate it as an investment opportunity being offered to FPC ratepayers and, thus, assess whether it would provide a reasonable return to the ratepayer?

A I wasn't involved in that particular docket, but I believe it is correct that when the alternatives were being assessed, they were assessed as investments funded by the utility; and I think, and I'm not sure about this, but I think the utility's marginal cost of capital was used to evaluate the avoided unit and, I think, the terms of the contract.

Q I want to -- Would you agree then that when the Commission evaluated the OCL contract with Florida Power Corporation that it evaluated it assuming that ratepayers would pay the cost of that contract?

A Yes, I believe that's correct.

Q And they assumed as an alternative that if the Power Corp had built a coal unit or some other unit that ratepayers would pay the cost associated with that alternative as well?

A Yes.

Q So when we speak of cash inflows and outflows, wouldn't you agree that in that very case there was a cash outflow and a cash inflow that this Commission considered?

A I think in the evaluation, yes, you would look at both cash inflows and cash outflows. I think, but like I said before, I didn't work on the order so I'm not sure, I think the analysis was probably performed on the net income, if you will, of each project and that those are cash inflows.

Q Well, they're cash outflows to the customers, aren't they?

A True.

Q So meaning you couldn't -- in fact, for a utility it doesn't have any inflow unless there is a cash outflow from a customer, isn't that correct, in this context?

A That is true, they are a transaction; and whenever somebody receives a payment, somebody else is paying it.

Q Sure. So, I mean to the extent that we talk about cash outflows in this case, there are cash outflows from the customer in every evaluation of generating alternatives, are there not?

A There are, but if you're evaluating those generation alternatives from the point of view of the utility, payment for those generation alternatives would be cash inflows, especially on a net income basis; and that would be treated with an addition of a risk premium if that is where we are going.

Q Are you familiar with the term "revenue requirements?"

A Yes, I am.

Q Would you agree that "revenue requirements," as that term is used in the electric utility industry, is the result of multiplying the rate of return times investment?

A Yes.

Q And so the revenue requirements may vary?

A Yes.

Q When the investment is fixed, which result in a difference in the earned rate of return?

A Yes.

Q Okay. Do you consider advanced capacity payments to qualifying facilities to be a cash outflow that should be evaluated on the basis of a risk premium?

A I don't know what advanced capacity payments are.

Q Are you familiar with the payment to qualifying facilities under this Commission's rules and approved tariffs of amounts for capacity in advance of the need for that capacity?

A No, I'm not.

Q If there were such a payment, would you consider that payment to be an investment opportunity offered to the utility's customers?

A Before I can answer that, you'll have to explain to me precisely what those payments are.

Q Well, let's make -- I will try.

A Okay.

Q But in doing so let's make an assumption that we have -- Are you familiar with the term of "value of deferral?"

A Yes.

Q And you're familiar with the general shape of the cost stream or revenue stream that result from the application of that method?

A Yes.

Q All right. Now let's assume that seven years in

advance of the in-service date for the facility, the generating facility, that the qualifying facility receives a payment from the electric utility that is equal to -- and let's pick a number and say 20% of the first year capacity payment based upon a value of deferral basis.

A Okay.

Q Do you consider that payment to be an investment opportunity afforded the customers of the utility? Oh, by the way, the advanced payment is recovered from customers as it is paid.

A No, I wouldn't see that in exactly the same framework. I don't see it in the same framework as I see the proposed buyout.

Q Okay. Would you agree that all payments to qualifying facilities by electric utilities are recovered from customers?

A Yes.

Q And that they are recovered through an adjustment clause mechanism?

A Yes.

Q And that they're --

A That is my understanding, yes.

Q And that they're -- Excuse me.

A That is my understanding, yes.

Q And that they are recovered on the basis of

forecasting of costs associated with payments to qualifying facilities so that --

A Yes, I believe so.

Q Okay. Now are you familiar with -- when I asked you about the general shape of the cost to revenue stream based upon a value of deferral basis, are you generally familiar with the shape of the cost or revenue stream based upon a revenue requirements basis?

A Yeah.

Q And would you agree that in general, under revenue requirements, the payment level is higher in the early years and lower in the later?

A Yes.

Q And the opposite occurs for the value of deferral methodology?

A Correct.

Q And what is the standard method for recovery of costs for a power plant by a utility when it builds that power plant, the revenue requirements basis or the value of deferral basis?

A Revenue requirements basis.

Q So if Florida Power Corporation had built a plant that was used as the basis to evaluate the OCL contract, the cost that the customer would have seen would have been based upon the revenue requirement methodology?

A Yes.

Q And would have exceeded the payments that were, in fact, calculated under the value of deferral methodology for the early years of that contract?

A Correct.

Q Do you know at what point in the contract one would expect a crossover to occur of the payment stream?

A I haven't done that calculation, but I believe it's somewhere along halfway.

Q Do you know -- when you answered that question, are you answering that in absolute dollars or on a net-present-value basis?

A I don't know. The basis of my prior answer was having seen a graph of how the numbers intersect, and I don't recall if they are net-present-value basis or not.

Q Okay. Are you aware that this Commission routinely looks at that type of information for alternative types of generation?

A I would think that they would, yes.

Q And they would also look at fuel forecasts and how those forecasts might affect the cost of a generating option, correct?

A Yes.

Q Are you familiar with the acid test?

A I know of the acid test, yes.

Q Would you agree that the acid test has been used by this Commission in connection with the review of generating alternatives, one of which was natural gas?

A I'm not aware of that.

Q Okay. Do you have any evidence on a historic basis in the last five or ten years that the difference between gas and coal that you show in your DRI forecasts has, in fact, occurred in the past?

A The increasing price differentials between the two?

Q Yes.

A No, actually, I think historically it would have gone the other way. Natural gas prices have come down since the deregulation of different sectors of that industry.

Q And hasn't that been the basis of the Commission's decision to apply the acid test in evaluating generating alternatives, to recognize that trend in fuel prices?

A I don't know, since I'm really not familiar with the basis or the application of the acid test, so I don't know.

COMMISSIONER CLARK: You know, I realize that I have been here a while, but I sure don't remember the particulars of the acid test. I know he said he remembered

it.

WITNESS STALLCUP: I remember hearing the term, and I think it presumed some constant differential between fuel prices; but other than that, I mean that is as far as my knowledge goes.

MR. CHILDS: Commissioners, I don't think I'm going to question further, but I will cite it, and it's the Cypress decision of this Commission; and I will get the order number in a moment. And there was a discussion in there that the Commission had applied the acid test and had applied the acid test in another proceeding involving Tampa Electric. The order number to which I refer is PSC-92-1355-FOF-EQ.

COMMISSIONER CLARK: Are you just citing that for my benefit?

MR. CHILDS: Yes, because I'm going to rely on it, and I will ask that you take administrative notice of that order.

COMMISSIONER CLARK: All right. What is it again?

MR. CHILDS: It is Order Number PSC-92-1355-FOF-EQ.

COMMISSIONER CLARK: Do you have a copy of that order?

MR. CHILDS: I do. I have several copies. I

just would like to have --

COMMISSIONER CLARK: Just tell me who is listed on it.

MR. CHILDS: As commissioners?

COMMISSIONER CLARK: Yes.

MR. CHILDS: Terry Deason and Betty Easley.

COMMISSIONER CLARK: Okay. That may be why I don't recall the particulars.

MR. CHILDS: I don't like to think how long ago it was.

COMMISSIONER CLARK: Go ahead.

BY MR. CHILDS:

Q I want to -- as a general question as to your risk-adjusted discount rate methodology, I gather from looking at how you've applied the methodology that when I look to your PWS-4, page 1, that if the Commission were confronted with two alternatives for generation, that those alternatives would fit under the categories that you have outlined on your PWS-4 as well as what you've included here now, would that be correct?

A I'm sorry, I didn't understand your question.

Q Well, let's say the Commission were evaluating, not what it has in this case, but it was evaluating the generation alternative of a natural gas unit on the one hand, which is what you show in Columns 4, 5, 6, and 7,

correct?

A Absent the buyout cost, yes.

Q Yeah. And that on the left it was evaluating a coal unit, correct?

A Yes. We could put in there the projected capacity cost for a coal unit, yes, you could.

Q Capacity cost, energy cost, and we could do a risk-adjusted calculation. What would you get when you got to the end of that in way of a quantification of costs?

A It would depend on how you set up the discount rate, what the presumption there was. And I think in the evaluation of two generating alternatives the discount rate should be directly derived from the company's marginal cost of capital, after-tax cost of capital. And I think the appropriate way to do that would be to -- a very feasible way to do that would be to perhaps adjust the discount rates in accordance to the risk associated with both the projected capacity components and energy components in much the same way that I would suppose that the company would have done when they were laying out their alternatives.

And you would have ended up with a net-present-value number, had you taken that approach, such that if you were to subtract, in this case here, the numbers on the right-hand side from the numbers on the right-hand (sic) side a net-present-value number that would

show whether or not the gas-fired plant was a beneficial alternative or a beneficial option to the coal-fired plant. If that net present value were positive, it would show that the gas-fired plant was the preferable choice as opposed to the coal plant.

Q What would show --

A It would be a decision tool, if you will.

Q I'm sorry?

A It would be a decision tool to choose.

Q A decision tool?

A Yes, to choose which alternative is more favorable.

Q Okay. Would you agree that in the past this Commission in making decisions as to the most effective cost alternatives has used the utility's after-tax cost of capital as the discount rate?

A Yes.

Q And that it has used the after-tax cost of capital in setting the avoided-cost payments for capacity by utilities?

A Yes.

Q If you'd look at your Exhibit PWS-4, column 4.

COMMISSIONER CLARK: Mr. Childs, I'm assuming that you're talking about the one attached to his testimony, not what was revised.

MR. CHILDS: Yes, I am, and any questions that I have -- I'm sorry, Commissioner, I intended to make that clear. Any of the questions I have are going to relate to what is attached to the testimony as originally prefiled.

WITNESS STALLCUP: Yes, that's my understanding.

BY MR. CHILDS:

Q All right. And this is for illustration, but if I look at column 4, that is based upon the estimate of costs for the combined cycle unit for Florida Power Corporation; is that correct?

A Yes, that is correct.

Q And what you did is, as I understand it, is you took DRI factors and adjusted the in-service cost for that plant to reflect the three potential escalations for construction cost; is that correct?

A Basically that's correct, yes.

Q So at the end you had three alternative investments of the DRI, optilong, base case and pessilong?

A Yes, all for the same combined cycle plant. The cost of which differ only because of the different escalation rates used to estimate those construction costs.

Q Okay. And then you used that variation in cost to calculate the risk that you show in column 4 of .104?

A That's correct.

Q Now I asked you earlier about whether you would

agree that revenue requirements equal rate of return times investment.

A Yeah.

Q And you agreed that it did?

A Yes.

Q Would you agree that your measurement of risk here is a self-fulfilling prophesy in that it measures the risk that the investment would vary, it does not reflect the risk that the return would vary?

A Would you say that again for me?

Q I don't know that I can, but I will try. Would you agree that your methodology measures the risk that the investment will vary and does not measure the risk that the return will vary?

A I think I can agree with that, yes, because what I have measured here are variations in cost of building the plant, yes.

Q In fact, the return is a given calculation, it is a set factor, is it not?

A In the calculation to derive construction costs under each of the three economic scenarios, and I'm trying to answer here, and correct me if this is not what you're asking, we have estimates for the cost of constructing a combined cycle plant, and it's on a per kW basis. And that cost is then multiplied by a fixed-rate charge which does

include a return on the investment inside that fixed-rate charge, and that gets you further on down the road to the numbers that I've measured here in column 4 on a cost-per-year basis of what it cost to operate a combined cycle plant.

Q And my point is simply that the return is a fixed number? It is the investment that changes according to your DRI forecast?

A Yes, that's correct. They maintain the same return number as originally contained in Mr. Schuster's methodology.

Q Traditionally in the electric utility area, isn't risk associated with variation in return and not variation in investment?

A Yes, it is.

Q Okay.

A However, in this analysis if the cost of building a plant varies that would be reflected in the return investors would receive; and it's on that basis that I feel it's reasonable to use this variation in cost as a reasonable approximation to measure the risk that investors are asked to assume in investing in Power Corp projects.

Q But we just established that the risk that investors object to is the risk with variation in return, correct?

A Yes, and I believe that the variation that we see in my column 4 is a reasonable proxy for that.

Q Well, isn't it based upon DRI's escalators of what the cost to build a power plant would be?

A Yes, that's --

Q In other words, it's --

A That's a primary driver.

Q I'm sorry.

A Yes, it is.

Q So that divergence in risk for construction is the sole basis for your calculation in this column 4?

A Yes.

Q All right. Another way this Commission in the past has addressed risk is to perform sensitivity analyses of the various alternatives that are under consideration; would you agree?

A Yes.

Q And for instance, it might look at the sensitivity of a high-band fuel forecast and a low-band fuel forecast, correct?

A Yes.

Q Have you performed an analysis of this proposed contract buyout using the pessimistic gas cost forecast and the after-tax cost of capital for Florida Power Corporation as the discount rate?

A I've used all of DRI's scenarios with Florida Power Corp's 8.81 discount rate, yes, I have.

Q Your testimony refers to a calculation where the, using the DRI mid-band forecast, the net present -- and the DRI mid-band cost for constructing a power plant, the resulting net present value using the 8.81% discount rate is approximately 15.2 million dollars; would you agree?

A I'm just checking to make sure we get the number right here.

Q Look at page 7, line 14.

A Yes, I see it. That is the correct number.

Q Now my question really is, have you done that same calculation, that is, using the 8.81% discount rate and the pessilong fuel forecast and the pessilong construction cost estimate?

A I am sure that I have.

MR. CHILDS: Just a moment, please.

(DISCUSSION OFF THE RECORD)

MR. CHILDS: Commissioners, at this time, I wanted to pass out a document. It's three pages. I apologize some of them have the pages in different orders. There is one page that is headed DRI opti values. One page is DRI pess. values, and one page has a long title. Under that title it says, "DRI expected values," and I would like that marked for identification, please.

COMMISSIONER CLARK: We'll mark it as Exhibit 15. It will be titled "DRI values."

BY MR. CHILDS:

Q Now is this your sensitivity analysis that you refer to in your testimony?

(WITNESS REVIEWED DOCUMENT)

A Yes, I believe this is an excerpt out of the spread sheet that I used to calculate the net present values contained in my originally filed testimony. Yes.

Q Okay. And what you have done here, if you would turn to the pessi., DRI pess. values, that shows, as I understand it, the calculation of the net present value for each column of costs using the indicated risk-adjusted discount rate at the bottom?

A That's correct.

Q And I assume the numbers add from left to right?

A Yes, the numbers do add from left to right. For example, column 3 is the sum of column 1 and 2; and column 7 is the sum of columns 4, 5 and 6; and then finally, column 8 is the difference between column 3 and column 7, which is basically the same structure as Mr. Schuster's original analysis.

Q Okay. The negative net present value that you show in the far right-hand column is $38,279,000?

A That's correct.

Q And that's not the result of taking a present value of the numbers in, the total numbers in column 8, is it?

A No, it is not.

Q If one did that using an 8.81% rate of return as a discount rate, what present value would be produced?

A I really don't know. I have probably calculated that, but I don't know. I don't have that number with me, I don't think I do. Let me look just a second.

Q That's what I meant to refer to when I asked you if you had done that calculation earlier. I want to show you another document and ask that it be marked for identification.

A Okay.

Q It is headed "Ratepayer expenditures due to OCL contract buyout using DRI pessimistic case assumptions."

COMMISSIONER CLARK: We'll mark that as Exhibit 16.

While we are doing that, Mr. Childs, how much more do you have for this witness?

MR. CHILDS: Probably about 30, 40 minutes.

COMMISSIONER CLARK: Okay. Go ahead.

BY MR. CHILDS:

Q Do you have that now, Mr. Stallcup?

A Yes, I do.

Q Would you agree that really this document represents really in the format of Mr. Schuster's document 7 the results of the, using the pessimistic assumptions to determine the costs of the proposed buyout?

A I'll agree with that. Yes, I agree with that.

Q And in fact, the numbers here on this document for Exhibit 16 are the same as those that are on the sheet from your sensitivity analysis that has been marked as Exhibit 15, that is, the numbers above the net present value calculation; would you agree with that?

A Yes.

Q Now if you'd look at the bottom of Exhibit 16, we can see a comparison to the numbers at the bottom of Exhibit 15, right?

A I'm sorry, what are you asking me to do?

Q Well, you see net present value under Exhibit 16, that line at the very bottom of the page?

A The $5,763,000 number?

Q Yes.

A Yes, I see it.

Q Would you agree that that is the calculation of the net present value of the proposed buyout using an 8.81% discount rate?

A And DRI's pessimistic scenario, yes.

Q Yes. You would agree with that?

COMMISSIONER GARCIA: I'm sorry, where are you, Mr. Childs? I'm lost.

MR. CHILDS: It is Exhibit 16, the bottom right-hand corner where it calculates under column 8 net present value at 1/1/97.

Q So under the pessimistic scenario, in each year for the years 2014 through 2023 there are significant savings and nominal dollars?

A At 8.81%, yes.

Q Well, these numbers are nominal in 2014 through 2023; we haven't discounted them.

A Oh, okay. Yes, I agree, those savings are there.

Q They are all positive and they are all fairly large?

A Yes.

Q And when we discount them, we find that the net present value is the 5.7 million. Now this is the worst, worst case, is it not, under your assumptions?

A No.

Q It's the worst case for fuel prices?

A Yes.

Q It's the worst case for the construction cost for the replacement capacity?

A Yes, with respect to the DRI scenarios, this is as pessimistic as the scenarios get. What is missing from

this particular number here is what I consider to be an appropriate measure of the risk associated with the buyout.

Q And what my question is as to risk is, if we assume, for instance, the worst case, then we have made that risk a hundred percent. It's a hundred percent that Florida Power Corporation will pay the highest possible price for natural gas in a replacement case, right? There is no risk at all, is there?

A No, there is still uncertainty associated with that in the sense that ratepayers at this point in time are uncertain about exactly what those future expenditures are going to be. It's important to recall that in my analysis the entire evaluation of the buyout is predicated upon the evaluation of the buyout given current economic forecasts, current economic assumptions, and a current assessment of the risk associated with the riskiness in these projected cash flows.

Q Well, don't you make all decisions on the basis of what you know?

A Oh, absolutely.

Q And my question is, based on what you know and, in fact, your assumption that what you know is that the worst case is going to occur, doesn't this show a positive value for the customers?

A With respect to the DRI scenarios, if the economy

actually turned out to be consistent with the pessimistic scenario for gas prices and escalation rates, yes, that would be the outcome.

Q But based on your methodology and the analysis that you conducted, it can't get any worse?

A Ignoring the effect that the discount rate would have, I would agree with that.

COMMISSIONER CLARK: Mr. Stallcup, just so I'm clear, you're even saying even if you assume the worst, there is still a chance that it could be even worse and that's why you apply a discount rate?

WITNESS STALLCUP: Yes, the discount rates are what will cause this to be different. This number here is based upon the company's marginal cost of capital, which may not be an appropriate discount rate to use for evaluating ratepayer exposure.

Q Now by assuming that the two worst cases occur at the same time, aren't we also being conservative in the estimate of the potential negatives from the buyout; that is, both of them, both of the worst cases have to occur at the same time?

A I wouldn't put it that way. I think what we would be doing is treating the DRI scenarios in a consistent manner. Just as background information, DRI has a large forecasting model that turns out forecasts for many

different elements of the economy, and to produce a base-case forecast, they put in what they consider to be base-case assumptions and derive a set of consistent outcomes based on those assumptions. That would be base-case fuel, base-case inflation and so forth.

The same would be true with the pessimistic case, you install -- excuse me, include pessimistic assumptions into that model, and you get a consistent set of pessimistic fuel prices and escalation rates coming out of there. So I view this as being a consistent pessimistic view.

Q Where in any information from DRI is there an explanation that the various variables that they address are consistent so that if we are looking at pessimistic, that every pessimistic forecast would occur at the same time? Where is that in the DRI manual?

A I believe it's in the discussion of the derivation of the different scenarios. My observation also just comes from my general experience as having done this business for almost 20 years now.

Q Beg your pardon?

A Of having been involved in this business, econometric forecasting for almost 20 years.

Q But you haven't been involved in fuel forecasting for 20 years, have you?

A No, I have not.

Q And your responsibilities here and your day-to-day activities at this Commission do not involve fuel forecasting, do they?

A Only to the extent that you see in the evaluation of this kind of a proposal.

Q Okay. Well, would you agree that to the extent that we can't assume that the variables would occur at the same time, that the probability that they would occur would be the result of multiplying the probabilities together so that if we multiply .25 times .25 we get the probability that both elements of this pessimistic case would occur at the same time?

A No, I do not agree.

Q You don't agree with that in this case, or you don't agree with that as a general principle?

A It is a mathematical computation that if you have two independent events and multiply their probabilities together you get the probability that they both occur at the same time. That's a different phenomena than what we are seeing here. What we are seeing here, economic forecasts, that altogether seeing the pessimistic inflation rate and the pessimistic inflation rate occurring at the same time, has the probability of 25%. That's what DRI means when they say that their pessimistic and optimistic

cases have probabilities of occurring of 25%. The economy will look something like this, and then they have the forecast associated with that scenario.

Q Do you know what kind of fuel OCL uses to generate?

A I believe it's natural gas.

Q Would you expect that OCL's cost of gas would be very similar to that which you assume for the analysis that you perform?

A I consider two sets of fuel prices in here. I have Florida Power Corp's, and I also have DRI's. I'm not sure what your question is, I'm sorry.

Q My question is, for instance, look at what is Exhibit 16.

A Yes.

Q Where you have an energy cost in the year 2014 through 2023 in column 5 and column 2.

A Yes.

Q And would you agree that in every year the energy costs are greater under the replacement case than they are under the contract case?

A Yes.

Q And would you agree that to the extent OCL uses the same fuel and saw the same gas prices that you forecast Power Corp would see that the result of this analysis would

mean that they would generate and pay more to generate than they would receive for the energy that they sold to Power Corp?

A I'm not sure that follows, Mr. Childs. I'm not sure I follow at all that question.

Q Okay.

COMMISSIONER GARCIA: I didn't either. Could you repeat it please?

Q Let's try again. Column 5 is your representation of the total energy cost for the replacement unit, correct?

A Yes.

Q And that's a natural-gas fired unit?

A Yes.

Q And the replacement cost is the result of multiplying the assumed cost of gas in dollars per MMBTU times the heat rate, times the assumed capacity factor for the unit?

A Yes.

Q And reflecting the hours in the year?

A Yes.

Q That says that if they operate at this plant, for instance, at a 92% capacity factor all year round -- and that's one of the assumptions, isn't it?

A I believe it is, 92%.

Q If they operated this gas-fired plant at a 92%

capacity factor, the cost would be in the year 2014, 29 million 520 dollars?

A Yes.

Q 20 thousand dollars, excuse me.

A Yes.

Q And if that happened, they would sell their power to Florida Power Corporation and we would look over to column 2 and we would see that the price that they receive for energy is less than their cost to generate that energy?

A Yes.

Q Wouldn't that give them an incentive not to generate quite so much energy?

A Perhaps it might.

Q Are you familiar with the methodology of computing the energy costs that are used by Mr. Schuster and are reflected in your Deposition Exhibit Number 6?

A Can you refer me to that, my Deposition Exhibit 6?

Q Do you have that?

A I probably do. I'm just not sure I can identify it by that reference.

MR. CHILDS: Commissioners, I am circulating a document that was marked as Exhibit 6 to Mr. Stallcup's deposition on 10/10/97, and this is a compilation of various documents. At this point I'm only interested in

the first five pages, okay?

COMMISSIONER CLARK: Well, what do you want me to do?

MR. CHILDS: I'd like you to mark those first five -- actually mark the first five pages for identification, please.

COMMISSIONER CLARK: And then I'm going to throw away the rest?

MR. CHILDS: Correct.

COMMISSIONER CLARK: All right. The five pages of --

MR. CHILDS: I believe that is Exhibit 17.

COMMISSIONER CLARK: Yes, it will be Exhibit 17, and it is the first five pages of Deposition Exhibit 6.

BY MR. CHILDS:

Q Mr. Stallcup, have you had an opportunity to look at that?

A Yes, I have.

Q Would you look to the fifth page and look to input data 34?

A Yes, I see it.

Q And it reflects that off-peak energy payment has a discount factor of .85.

A I see that.

Q And would you also check the footnote, for

instance, on page 2, column 11 and for column 13?
A Just a second, please. That was 11 and 13?
Q Yes, just look at those formulas there.
A I will.
(WITNESS REVIEWS DOCUMENT)
A Okay, I've got it.
Q Incidentally, these columns --
COMMISSIONER GARCIA: I'm sorry, Mr. Childs, where are you?
MR. CHILDS: I'm looking at page 2, the formulas for column 11 and column 13.
Q Now for point of clarification, Mr. Stallcup, when we examined this document at your deposition, we established, did we not, that these, what I call footnotes at the bottom of the page, were intended to and did apply to Mr. Schuster's original calculation?
A That's correct.
Q And that you had added some columns and subtracted some columns so that the column numbers did not necessarily match up with the column numbers in the footnotes?
A That's entirely possible. How I modified the spread sheet that Mr. Schuster provided was to substitute my assumptions into his assumptions.
Q Okay.

A And I don't think I shifted a lot of columns around, but we can go ahead.

Q No, I'm just trying to get to the point that the footnotes don't match up with the column numbers, but would you agree that these footnotes reflect that the variable O&M and the fuel cost associated with the payments under the contract have a discount for off-peak performance of 85%?

A Contract variable O&M in column 11.

Q Right.

A And the energy rate in column 13.

Q Right.

A Both include in their derivation the off-peak energy payment discount factor of .85%, that is correct.

Q So now when we go back to --

A In Mr. Schuster's original analysis.

Q I'm sorry?

A In Mr. Schuster's original analysis that is what the footnote indicates.

Q And this is the basis for your computation of fuel cost in all of your sensitivity analyses, is it not?

A Yes, it is, basically the same structure.

Q Right. So when we look at Exhibit 16 and we see the energy price under the column 2 for contract, that price or cost is a result of a composite rate both on and

off peak, correct?

A I believe that to be true, yes.

Q And truly though, the off-peak payment is at a lower actual rate than is reflected by this composite rate?

A I'll have to accept that subject to check. I think I follow you.

Q So if one were to compare the fuel costs, the energy in column 5 to the energy in column 2, you would conclude that for off-peak performance there is even a greater disparity in costs and payments than is reflected on Exhibit 16?

A I'll accept that subject to check.

Q And would you agree that that would give OCL an incentive not to generate off peak as much as you have assumed?

A I'll accept that subject to check.

Q And were that the case, that would increase the net present value of savings of the buyout?

A I believe that's true, also subject to check.

Q Okay. Now similarly, you believe that an electric utility such as Florida Power Corporation should follow the principles of economic dispatch in running its system, do you not?

A Yes.

Q So that if Florida Power Corporation saw these

same circumstances at some future time and it had other generating resources available, you would not expect them to run their most expensive unit if they could avoid it?

A Correct.

Q So they would be expected to mitigate their costs as well?

A Yes.

Q And if they did that, that would also add to an increase in the net present value of the buyout?

A Yes, if a more efficient generation alternative were out there than a natural-gas-fired unit, yes, that could be in an economic dispatch sense.

MR. CHILDS: If you'd give me a few moments, Commissioner, I'm going to try and move through some.

Q I want to show you a volume here from a book entitled 'Financial Management, Theory and Practice,' Eugene Brigham, Louis Gapenski, Eighth Edition.

A Which edition is that?

Q Eighth.

A Okay.

MR. CHILDS: Commissioners, I have given Mr. Stallcup a copy of the volume to which I have just referred, and I am passing out at this point the cover page of that volume plus pages 495 and 496, and I would like that marked for identification, please.

COMMISSIONER CLARK: The document entitled Financial Management, Theory and Practice, pages 495 and 496 will be marked as Exhibit 18.

BY MR. CHILDS:

Q Okay. Would you look to --

A Just a second, please.

Q Sure.

A Shifting all this stuff around. Okay.

Q This is the same Eugene Brigham that you've previously identified as an individual you recognize as an expert in this area?

A Yes.

Q Okay. Would you turn to page 495 under the heading "Implementing Risk Adjustments in Practice?"

A I see it.

Q And the first paragraph speaks about the adjustment to -- adjustment for risk that Mr. McGee was previously asking you about from the fourth edition, would you agree?

A Yes, it appears to be.

Q And would you agree that the sentence reflects that the adjustment for risk, if made, would be made from the firm's average cost of capital?

A Yes, from a capital budgeting point of view, that would be correct.

Q Well, that's what you'd expect Florida Power Corporation to be doing if they were evaluating a project, would you not?

A Yes, such as generation alternatives --

Q Okay. Now --

A -- yes, I would.

Q I'm sorry, are you finished?

A Yes, such as generation alternatives internally funded by the company, yes, I would.

Q Now I want to focus on the next sentence. Would you look at that please?

A Of the first paragraph?

Q Yes, which starts with the word "Unfortunately."

A Okay.

Q And would you agree that the point here is, the point of this sentence, that all risk adjustments are necessarily judgmental and somewhat arbitrary?

A I think in a general sense as a generally applicable tool to all situations where you can observe varying degrees of risk the technique can be difficult to apply, and that makes it almost, as Doctor Brigham said, necessarily judgmental and somewhat arbitrary; that is, the technique by which you -- or I'm sorry, the -- Yeah, the technique by which you apply risk-adjusted discount rates is not consistent from one situation to another.

In this particular buyout, however -- and what I was just talking about, by the way, is called the implementation problem, I referenced that earlier. In this particular buyout, however, by virtue of the way that Power Corp represented the capacity cost under the replacement case, it was possible to identify the risk with that column, implement the idea of defying what the risk premium is, to Power Corp's cost of capital. And by that implementation device we are able to, or I was able to specifically calculate, based upon the data supplied by DRI, risks for each one of the expenditure flows and, therefore, the risk premiums in those expenditure flows.

It was fortunate that the implementation problem was solved in this case and, thus, allowing the application of risk-adjusted discount rates. I agree with Doctor Brigham, you may not be able to do that all the time, therefore, there is no necessarily set, fast rule or formula for the application of this technique; but as it happened, it fit here.

Q Well, let me ask you the question though in terms of series. The selection of the DRI fuel forecast was your judgment?

A Yes.

Q And the result of that judgment to select a fuel forecast was your method of computing risk which also was a

judgment?

A Consistent with the general definition of what risk is, yes.

Q And your method of subtracting the risk premium from the riskless rate is not what Doctor Brigham talks about, and it was your judgment to do it that way?

A No, I think it is what Doctor Brigham was talking about, and I also think that my definition of risk is defined by Doctor Brigham elsewhere in the book as the accepted means by which you define risk. It is my opinion, indeed my belief, that my entire analysis was performed very conservatively and in no way is properly characterized as being untested or speculative, far from it. I think what I've done is quite conservative. If anything, I think I've underestimated the risk rather than overestimated it.

Q Are you through?

A Yes.

Q I believe you don't hold yourself out as an expert on cost of capital; is that correct?

A No, I would not.

Q You're not?

A Correct. Not in the same sense that someone who specializes in that field would be. I have a pretty good knowledge of it, but I would not call myself a cost of capital witness.

Q The whole point of a risk-adjusted discount rate analysis is to assure that a risky project has a higher net present value than a less risky project, is it not?

A I think the purpose of risk-adjusted discount rates are to reflect the risks associated with different projects, yes, and whether or not it's a higher or lower discount rate depends upon whether or not the project that is being evaluated is a cash inflow or a cash outflow.

Q Now would you agree that the objective of your methodology is to penalize a less risky cash outflow, to have that be the preferred decision in the evaluation before the Commission now?

A No.

Q You're not trying to reflect the impact or what you think the impact of risk should be on the decision this Commission should make?

A What I'm trying to do is set risk-adjusted discount rates such that riskier cash flows reflect the risk associated with them. Ratepayers are being asked to assume these expenditure flows. To the extent these expenditure flows are riskier, I'm asking this Commission to recognize that ratepayers should be compensated for accepting that risk.

Q Did Mr. McGee when he gave you the reference to your deposition exhibit and a cite to -- yes, he did, he

included page 405 of the fourth edition of Brigham's text, did he not?

A This is the exhibit that I handed out at the deposition; is that right?

Q Yes, your Deposition Exhibit 7, and it was the one to which Mr. McGee's questions were directed earlier.

A Yes, I believe so. It was also identified as Exhibit 14?

Q Okay. I'll mark mine, I'm sorry.

A I think it was.

COMMISSIONER CLARK: It is.

Q Now if you would turn to page 405 of that fourth edition, and it's talking about two alternatives, same expected value, et cetera. The sentence then reads, "Therefore, if we want." Would you read that sentence?

A I'm sorry, where is the sentence?

Q It's the first full --

A "Therefore, a stream --"

Q I'm sorry, it's the first full paragraph on that page, 405, second sentence.

A Second sentence?

Q Yes.

A Okay. Would you like me to read that one?

Q Would you agree that it says if we want to penalize for risk then you want to have -- you want to

reflect that in your discount rates so that the higher risk will -- the higher risk project will not be selected all other things being equal?

A Yes.

Q Okay. Isn't that what I just asked you earlier?

A I'm not sure.

Q All right. Now if you'd go back to the document I gave you which was your sensitivity analysis, which I believe is marked as Exhibit 15.

A Yes, I have it.

Q That at the bottom under -- I'm looking, for instance, at the pessi. values. At the bottom it reflects for RADR, right across the page from the left to right, the various discount rates that you used, correct?

A I'm sorry, which page are we on?

Q I'm on the one that's -- well, it's on all the pages, they're the same, the DRI pess. values page.

A Is that the second page in the exhibit?

Q That will do.

MR. CHILDS: Commissioners, what I'm looking at is the document that are the three pages that was marked for identification as Exhibit 15, and I'm looking at the page of that that is headed "DRI Pess Values."

Q Do you have that?

A Yes, I do.

Q Now what my question was, if you look to the entries opposite RADR at the very bottom of the page --

A Yes.

Q -- you will see the risk-adjusted discount rates that you compute in your direct testimony. I can't remember the page. I think it's PMS-4, correct?

A Yes, that's correct.

Q All right. Therefore, if we look at, focusing on column 2 and column 4. Do you have those?

A Yes, 2 and 4.

Q We see that you have given a discount rate of 1.68 to the energy cost for the replacement case?

A Yes, in column 5.

Q And the lower the rate of discount the higher the net present value will be when you --

COMMISSIONER GARCIA: Sorry, let me make sure I'm on the same thing. You mean on column 5?

MR. CHILDS: I do, I'm sorry, column 5.

COMMISSIONER GARCIA: Okay.

BY MR. CHILDS:

Q So the lower the discount rate the higher the resulting net present value when you calculate it?

A Correct.

Q So in effect, you have given -- you have penalized the energy in this column 5 by using a lower

discount rate than you used for energy in column 2?

A I would not characterize necessarily penalizing, that's the way the data works out; but yes, I agree with the mathematical result.

Q Well, isn't that what Doctor Brigham says, "Therefore, if we want to penalize a cash outflow for higher than average risk, then we would want to have a higher absolute present value and not a lower present value?" I mean isn't that exactly what he said?

A He uses the word "penalize." I choose that I --

Q You don't like the word "penalize?"

A I don't. I think what should perhaps be more appropriate is that the discount rate should properly accept the risk associated with cash flows, and whether it's an addition or a subtraction, I'm not sure it's necessary to characterize it as adding a penalty or giving a bonus.

Q How about bias?

A Bias is a legitimate word.

Q Therefore, you have biased -- by your selection, you have biased it in favor of coal, would you agree?

A No.

Q Well, haven't you made it so that if all other things being equal, if we have a column of numbers for natural gas and a column of numbers for coal and they are

the same in each column, that the coal will produce the lowest net present value?

A I would not accept the word "bias" associated with that measure.

Q Would you --

A Bias indicates an incorrect application, and that's not correct.

Q Would you accept the result?

A I accept the result that because there are higher risks associated with natural gas the appropriate discount rate to use would be a lower discount rate resulting in a higher net present value for that column.

Q Now looking at the same sheet here, Exhibit 15, pessi. values, we see that the net present value that you have computed for energy in column 5 is $268,048,000, correct?

A Yes.

Q And that is the value that you get discounted at 1.68%?

A Yes.

Q All right. Now if someone were to contract to pay gas, for gas at this highest value, the pessimistic value, then there wouldn't be any risk, would there?

A If you could get a contract going out that far, I agree.

Q Sure. You could --
A That would be known with certainty.
Q You could contract -- I'm sorry.
A Yes, it would be known with certainty there would be no risk.
Q And, therefore, we'd discount it at 5.06% instead of 1.68?
A That would be consistent with my methodology, yes.
Q All right. And if we did that, would you agree that the result would be a net present value of $129,561,000?
A I'll accept that subject to check. What was the number again, please?
Q 129,561,000.
A Okay.
Q Right?
A I accept that subject to check, yes.
Q So that means if someone contracts to pay the highest price under your scenario, the net present value is substantially lower than if they don't contract to pay the highest price?
A Yes.
Q All right.
A You remove the risk.

Q You remove the risk, but in a net present value analysis, you have improved the financial results in excess of a hundred million dollars?

A If you removed -- This is very important, and we are going to stay on this answer for a minute. What you have just done is that you have given me a hypothetical situation where everything else constant you have removed the risk associated with the energy in the replacement case. If you remove the risk in the replacement case, the buyout should, indeed, look better, correct?

COMMISSIONER GARCIA: I'm sorry, if you remove what?

WITNESS STALLCUP: If you remove the risk under the replacement case, it's somehow less risky. The buyout, other things constant, should appear to be more attractive. And what we are doing here under Mr. Childs scenario is adding and subtracting risk premiums, if you will, under the hypothesis of we can remove the risk of having a contract for natural gas.

What we can do is apply the same thing Mr. Childs is doing to test the common sense of whether or not, with respect to the buyout we are trying to evaluate, addition or subtraction of risk premiums is, indeed, the right thing to do; and it's a very plain straight common sense way of determining what the proper treatment is. And if I can

take just a minute to respond to Mr. Childs' question and explain it this way, I think it would be beneficial.

MR. CHILDS: Can I finish my point, or is he on your question, Commissioner?

COMMISSIONER GARCIA: He is not on my question. He is explaining his answer a little bit more.

WITNESS STALLCUP: Shall I continue?

COMMISSIONER GARCIA: I'd like you to.

WITNESS STALLCUP: Okay.

COMMISSIONER GARCIA: I don't know about Mr. Childs, but I'd like you to.

A If we may, just for the moment, if we take a look at Mr. Schuster's Exhibit 7, that is where he has all the cash flows laid out under the contract case and under the replacement case and then calculates his net present values; that is also labeled as Exhibit 17 right here, the spread sheet that I used. We can see that the first three columns represent the expenditures for the contract, the existing contract; and the next four columns, titled "The Replacement Case," summarize the expenditures of the proposed buyout; and the last column over there is just the difference between the two.

Hypothetically, let's just assume for the time being that we have contracts, just like Mr. Childs presumed, for coal, for natural gas and even for building

the plant such that every cash outflow from columns 1 through 7 are known with absolute certainty. There is no risk. If that's true, and let's just assume to make the numbers simple, that the risk-free rate is 8.1% such that the net present value is 34 million dollars as Power Corp presumes, but we have no risk, so we know that net present value with absolute certainty.

Now let's just suppose and change this scenario slightly such that -- well, let's change column 4 here. Let's say suppose that we no longer have a contract to build the plant and there is going to be some risk associated with building that plant. That means, intuitively speaking, before we go through the numbers, that the replacement case ought to look more risky -- or I'm sorry, ought to look less desirable because now it has an element of risk in it. And if the replacement case now has some risk to it, you would think that the buyout would appear to be less attractive. If there is risk now in the replacement case, it appears less attractive, making the buyout less attractive. And numerically, you would expect that net present value to fall, the NPV to fall because now the buyout is less attractive.

Let's suppose that we add a risk premium to the capacity cost. If we add a risk premium, I think as Mr. Schuster thinks we might ought to do, if we add the

risk premium, with the bigger discount rate, column 5, that net present value goes down. Am I doing this right? That net present value goes down making the NPV -- the net present value under the replacement case goes down such that when you subtract that net present value from the contract case causing the net present value of the overall buyout proposal to go up. You would logically presume, intuitively presume that if you add more risk to capacity costs, the buyout should appear less attractive, but when you add that risk premium, the net present value goes the other way, it goes up; that's logically inconsistent.

MR. CHILDS: I would object. I would also ask -- I want to consider this for a minute, and that's the opportunity to call a witness to rebut this testimony. I think this is way beyond anything that was called for by any question.

COMMISSIONER CLARK: Well, he was explaining something to Commissioner Garcia, and you want to call a rebuttal witness?

MR. CHILDS: I would like to have the opportunity to consider that. I would like to finish my questions -- it won't take very much time -- and then have an opportunity to consider that before we finish today.

COMMISSIONER CLARK: Mr. Stallcup, are you done?

WITNESS STALLCUP: I would just like to add, if I

may, if you subtract the risk premium as I recommend, you get a change in the net present value which is logically consistent with what you would presume, and the net present value would fall. Thank you.

COMMISSIONER CLARK: Go ahead, Mr. Childs.

BY MR. CHILDS:

Q Mr. Stallcup, in your discussion about the risk associated with the coal and the natural gas, one of the things you said was if you can get a contract. I want to show you a document.

(DOCUMENT TENDERED TO THE WITNESS)

Q Do you have that page, Mr. Stallcup?

A Yes, I see page 87.

Q Would you agree that that reflects offer prices to the City of Tallahassee for gas?

A Yes, I do, it appears to be.

Q Would you agree that that document was included within the Commission's order on the determination of need for the Tallahassee plant?

A I'll accept that. I don't know that.

Q Would you accept that that shows an offer to provide gas through the year 2019?

A Appears to be, yes.

Q How do the prices there compare to the DRI prices that you have, pessilong prices that you have sponsored?

A They appear to be lower.
Q Significantly lower?
A Yes.
Q Now your calculation, I'm going back to Exhibit 15, which is your sensitivity analysis, do you have that?
A Excerpts from my sensitivity analysis, yes.
Q I asked you before if you would agree that the numbers added left to right, this is on the -- I'm looking now at the DRI pessi. value page, and you said yes?
A I see the page.
Q And you have on that page computed a negative net present value of $38,279,000?
A Yes.
Q Looking at the numbers in that column, column 8, would you tell me what discount rate produces that net present value?
A A single discount rate to do that? I haven't performed that calculation.
Q Pardon?
A I haven't performed that calculation. My calculation is based on individual discount rates for each column.
Q Would you agree that there is no solution for that negative net present value with those cash flows shown in column 8 on this page of Exhibit 15?

A I'm not sure I can agree with that.
Q Okay. Using these values, we have already established that using the 8.81% return I think we would produce a -- and your pessimistic case, we would produce a net present value of approximately 5.7 million, do you recall that?
A I'm sorry, would you say that again please?
Q We have already established through Exhibit 16 that using these values shown on column 8 of your Exhibit 15 for the page DRI pessimistic values --
A Yes.
Q -- that the net present value computed using a discount rate of 8.81% is 5.7 million dollars positive?
A Yes.
Q Would you tell me what internal rate of return that equates to for customers?
A The five million dollars? I don't know that number.
Q It would be in excess of 8.81%, wouldn't it?
A Yeah, I believe it would.
Q Would you accept 9.2?
A I'll accept that number.
Q Therefore, under the pessimistic case, the return that the customers would receive on a compounded basis using the worst case assumption is 9.2% with your

acceptance of that value, would you agree?

A That is what the number indicates, yes.

MR. CHILDS: That's all I have now.

COMMISSIONER CLARK: Thank you. Staff redirect.

REDIRECT EXAMINATION

BY MR. KEATING:

Q Mr. Stallcup, I would like to go back to a subject addressed by Mr. Childs; and that is, the fuel price forecast addressed in the City of Tallahassee need determination order. Do you have that order in front of you?

A Can you tell me what the exhibit is?

Q I don't believe it was marked for identification.

A Is it the big thick one?

COMMISSIONER CLARK: That's the petition.

Q No, it's the order granting petition for determination of need.

COMMISSIONER CLARK: I think Mr. Childs asked for official recognition of it.

Q Right.

A I have a copy now, thank you.

Q Could you turn to page 11 of that order?

A Yes.

COMMISSIONER CLARK: Hang on a minute and let us get our copy.

COMMISSIONER GARCIA: What exhibit number is it?

COMMISSIONER CLARK: It's not an exhibit; it's an order.

COMMISSIONER GARCIA: An order that --

COMMISSIONER CLARK: Yeah, we just took -- Here it is.

Q In the first full paragraph on page 11, beginning with the third sentence, could you read the third and fourth sentences of that paragraph aloud?

A The sentence that begins with, "The City Commission?"

Q Yes.

A Yes. "The City Commission has recognized this concern, and as a result, has ordered the City's staff to conduct a market test of short-term purchase power opportunities before committing construction funds for Purdom Unit 8."

Q Could you read the following sentence?

A Yes. "If a more cost-effective alternative is identified, the City will delay the construction of Purdom Unit 8." Shall I continue?

Q No, that will be fine. Does that language suggest to you that the Commission expects that the City will conduct additional evaluation of the project's financial viability before breaking ground?

A Yes, it does.

Q Is it, therefore, appropriate to consider the Commission's acceptance of the City's fuel price forecast in conjunction with the fact that there will be additional review before proceeding with the project?

A I think that's a reasonable conclusion, yes.

Q If the Commission approves Florida Power Corporation's petition in this docket, will there be another review before the funds are committed?

A No, there will not.

Q Will there be another review in the City of Tallahassee need determination?

A It appears to be, yes.

Q When do you expect Florida Power Corporation would enter into a gas contract to fuel the combined cycle unit in the replacement case of the proposed buyout?

A Probably, I would expect close to the in-service date, somewhat prior to the in-service date of a hypothetical unit.

Q Would you agree that there is a risk associated with the gas prices predicted in the replacement case until Florida Power Corporation enters a binding gas contract?

A Yes.

Q All right. You were also asked questions by Mr. Childs concerning the method of recovering costs if

Florida Power Corporation had built the unit that the OCL contract was designed to avoid?

A Yes.

Q Did Florida Power Corporation build the avoided unit?

A No, they did not.

Q Given that, is it appropriate to compare the impact with the buyout on Florida Power Corporation's customers to the cost had Florida Power Corporation built the avoided unit for purposes of your risk-adjusted discount rate methodology?

A No, it's not.

Q Is it more appropriate to compare the buyout to the existing contract?

A Yes.

Q If I could get you to refer to two documents, one is your Exhibit PWS-2 to your direct testimony. The other is, I believe it was marked yesterday as Composite Exhibit 4. Do you have a copy of both?

A PWS-2?

Q Yes.

A Yes, I have it.

Q And do you have a copy of the second exhibit?

A Which one was that, again? I'm sorry.

Q It was marked yesterday as Composite Exhibit 4,

previously identified as LGS-24. It contains late-filed deposition exhibits from Mr. Schuster's deposition.

A I think I do, but I don't have a copy in front of me. I'm sorry.

Q We'll get you a copy.

A Okay.

(DOCUMENT TENDERED TO THE WITNESS)

A I have a copy now.

Q Does your Exhibit PWS-2 contain DRI's 25-year forecast of optimistic natural gas prices?

A Yes, it does.

Q Looking at page 21 of Composite Exhibit 4?

A Yes --

Q -- does this documents contain Florida Power Corporation's 25-year forecast of gas transportation rates?

A Of gas transportation rates?

Q Yes.

A Yes.

Q For purposes of comparison with other gas forecasts, is it reasonable to add the DRI optimistic forecast of gas prices as shown in your Exhibit PWS-2 to the gas transportation rate as shown in Composite Exhibit 4 on page 21?

A Yes, I believe it is.

Q Now could you turn to your Exhibit PWS-1?

A Yes.

Q Would the DRI optimistic forecast gas price plus the Florida Power Corporation gas transportation rate exceed the Florida Power Corporation forecast of gas and transportation price depicted on this graph?

A I'm sorry, would you repeat that?

Q Sure. Would the DRI optimistic forecast of gas price plus the Florida Power Corporation gas transportation rate exceed the Florida Power Corporation forecast of gas and transportation price depicted in your Exhibit PWS-1?

A Yes, it would.

Q Is the Florida Power Corporation forecast of natural gas prices that appears in this graph the same forecast that they use to determine net ratepayer savings associated with the proposed buyout?

A Yes, it is.

Q And are these delivered prices?

A In the spread sheet calculation or on the graph?

Q On the graph.

A I believe when I went back and looked, I think these were for Power Corp -- or I'm sorry, you are going to have to repeat the question for me.

Q Yes, are the delivered -- The forecast of natural gas prices on your graph for Florida Power Corporation, are those delivered prices?

A Yes, they are delivered prices.

Q Mr. Stallcup, Mr. Childs referenced circumstances where during the years after 2014 if OCL were to have gas prices similar to DRI's pessimistic scenario that OCL's generation costs would exceed the energy payments received from Florida Power Corporation.

A Yes, I recall that.

Q Could you turn to page 13 of Mr. Schuster's direct testimony, if you have that?

A Yes.

COMMISSIONER GARCIA: What page?

MR. KEATING: Page 13.

A Yes, I have it.

Q Beginning on line 10, it begins, "In the case of OCL," could you read that sentence?

A Yes. "In the case of OCL, the proposed transaction affects 2014 through 2023 after the project loan is retired in 2010."

Q If OCL's loan is retired in 2010, would OCL have both the capacity and energy payment from Florida Power Corporation to offset operation costs?

A Would you repeat that? I'm sorry.

Q Certainly. If OCL's loan is retired in 2010, would OCL have both the capacity and energy payment from Florida Power Corporation to offset operation costs?

A Yes.

Q Under the DRI pessimistic scenario, are the capacity payments plus the energy payments OCL would receive from Florida Power Corporation, if the contract were to continue, higher than the projected energy costs under the replacement case?

A Yes.

Q Thank you.

MR. KEATING: Staff has no more redirect.

COMMISSIONER CLARK: Mr. Childs, what was I supposed to do with this petition for determination of need by the City of Tallahassee?

MR. CHILDS: I wanted to have the witness agree that those were prices that were presented as it related to his comment about if you could get a contract, and I think he agreed that that shows you could. Unless someone else wants it, I don't need it as part of the record.

COMMISSIONER CLARK: Okay. All right. Exhibits. Staff moves 12 and 13. Without objection they'll be admitted in the record.

MR. McGEE: Florida Power moves Exhibit 14.

COMMISSIONER CLARK: Without objection it's admitted in the record.

MR. CHILDS: I think I have 15, 16 and 17.

COMMISSIONER CLARK: And 18.

MR. CHILDS: And 18, and I will move them.

COMMISSIONER CLARK: Without objection those --

MR. HOWE: Commissioner Clark?

COMMISSIONER CLARK: Yes.

MR. HOWE: I would object to the admission of Exhibit 18.

COMMISSIONER CLARK: Okay.

MR. HOWE: And the reason I would object is if you would look at Exhibit 14 which was introduced by Florida Power Corporation, the majority of that excerpt from the Brigham text deals with the subject of risky cash outflows. Exhibit 18, which was apparently authored in comparison, a more recent text, if you'll note just the last page has two paragraphs dealing with risky cash outflows, and it refers to a table that apparently follows in the text; and for example, I noticed that the table that follows in Exhibit 18 is identified as Table 11-4. It apparently deals with a coal and a nuclear plant. In Exhibit 14, the plants compared are, again, coal and nuclear. They are in a Table 10-4. I would suggest that Exhibit 18 is incomplete and invalid as a comparison with Exhibit 14.

MR. CHILDS: Well, that's not the purpose for which it was offered, and with all due respect, I asked the witness the question about his recognition of Doctor

Brigham as an expert and whether the methodology had been used. I actually included page 496 so that I didn't stop the discussion of implementing risk adjustments in practice in midstream. If you prefer we take that off, we can.

COMMISSIONER CLARK: No, I'm going to allow the exhibit. I think it doesn't go to the admission, it probably goes to the weight of it. So Exhibit 18 will be admitted in the record. We'll take a -- Mr. Childs, have you conferred further?

MR. CHILDS: I'm not going to ask for leave to offer additional testimony.

COMMISSIONER CLARK: All right. How much time do you have for Mr. Schuster, his rebuttal?

MR. KEATING: I'm going to estimate about half an hour right now, but I think based on some of the discussion I can eliminate some of the questions.

COMMISSIONER CLARK: Thank you, Mr. Keating.

Mr. Childs, do you have any questions for Mr. Schuster?

MR. CHILDS: None.

COMMISSIONER CLARK: Mr. Howe?

MR. HOWE: Approximately half an hour.

COMMISSIONER CLARK: Okay. All right. We'll take a break until 11:15, and I propose to finish the hearing and we'll adjourn, and you all can have lunch when

it's adjourned.

(BRIEF RECESS TAKEN)

(Transcript Continues in sequence in Volume IV)